

The Report consists of 2 Volumes

Volume-I	Land Use Development and Control Plan (LUDCP), 2035 of JDA, Jaigaon
Volume-II	Mouza-wise Land Use Register of Jaigaon

<u>This Land Use Development and Control Plan-2035,</u> <u>Jaigaon of the Planning Area is being prepared for the</u> <u>purpose of amendment to LUDCP, 2004 of Jaigaon</u>

ABBREVIATIONS USED			
ADB	Asian Development Bank		
AMRUT	Atal Mission for Rejuvenation and Urban Transformation		
APDJ	Alipurduar Junction		
APL	Above Poverty Line		
BADP	Border Area Development Programme		
BDO	Block Development Office		
BPL	Below Poverty Line		
BSNL	Bharat Sanchar Nigam Limited		
CBSE	Central Board of Secondary Education		
CC Limit	Cash Credit Limit		
CPHEEO Guidelines	Central Public Health and Environmental Engineering Organization		
DM	District Magistrate		
DRM	Divisional Railway Manager		
ECC ROAD	Engineered Cementations Composite Road		
EWS	Economically Weaker Section		
FAR	Floor Area Ratio		
Gol	Government of India		
GP	Gram Panchayat		
GPS	Global Positioning System		
НА	Hectre		
HFL	High Flood Level		
HIG	Higher Income Group		
HUPA	Housing and Urban Poverty Alleviation		
ICSE	Indian Certificate of Secondary Education		
IPD	Inpatient Department		
JDA	Jaigaon Development Authority		
LCS	Land Custom Station		
LCV	Light Commercial Vehicle		
LIG	Lower Income Group		
LOI	Letter of Intent		
LPCD	Litre Per Capita Per Day		
LPD	Litre Per Day		
LPG	Liquid Petroleum Gas		
LTL	Long Term Lease		
LUDCP	Land Use Development and Control Plan		

ABBREVIATIONS USED		
MIG	Middle Income Group	
MLD	Million Litre Per Day	
MPLAD Scheme	Member of Parliament Local Area Development Scheme	
MSME	Micro Small and Medium Enterprises	
NBSTC	North Bengal State Transport Corporation	
NFR	North East Frontier Railway	
NH	National Highway	
NOFC	Neutral Optical Fiber Cable	
NOQ	New Alipurduar	
NUSP	National Urban Sanitation Policy	
OFC	Optical Fiber Cable	
РНС	Primary Health Centre	
PHED	Public Health Engineering Department	
RAPDRP	Restructured Accelerated Power Development & Reforms Programme	
RCC	Reinforced Cement Concrete	
RITES	Rail India Technical and Economic Services	
RWH	Rain Water Harvesting	
SAARC	South Asian Association for Regional Co-operation	
SASEC	South Asia Sub-Regional Economic Co-operation	
SQM	Square Meter	
ULB	Urban Local Body	
URDPFI	Urban and Regional Development Plan Formulation & Implementation	
USAID	United States Agency for International Development	
VAT	Value Added Tax	
WBCZMA	West Bengal Coastal Zone Management Authority	
WBPCB	West Bengal Pollution Control Board	
WBPDCL	West Bengal Power Development Corporation Ltd.	
WBSEDCL	West Bengal State Electricity Distribution Company Ltd.	
WFPR	Work Force Participation Rate	

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Chapter 1: Introduction:

This chapter includes the background, urbanization in India and West Bengal, need for a Land Use Development and Control Plan, Approach & Methodology and the stages of study.

1.1 Background:

It is widely acknowledged that the 21st Century will emerge as the era of urbanization. Cities will emerge as important nodes in a network of flowing investments, information, goods, services and people, as well as centers of culture, innovation and knowledge management.

The emergence of the "urban space" as a vanguard of evolution and progress in socioeconomic development has largely been an organic process. The 'urban space' is typified through a complex and multi-dimensional interaction between various characteristics, including the followings:

- **Social and demographic character** size, composition and socio-economic make-up of the urban residents.
- Historical character the temporal changes experienced by the city.
- **Geographical character** largely driven by location, topography and climatic environment.
- Economic character economic activities that enables sustenance & growth.
- Cultural character the artistic, intellectual and literary milieu.
- **Physical character** the physical spaces, infrastructure & built environment.
- Institutional character the urban governance mechanism.

1.2 Urbanization in India and West Bengal

Cities in India have not been immune to the rapid changes taking place globally. The urban population has increased from 21% in 1975 to 31.16% in 2011 and it is expected that in 2015, around one third of India's population is residing in the urban centers which will be confirmed in our next census 2021.

Indian cities have been experiencing rapid change characterized by burgeoning population growth, pressure on urban services and infrastructure, competitive forces driving inward investment into cities and the need to create a socio-economically and environmentally conducive living space.

Agencies engaged in planning and regulating the urban environment, creating and managing infrastructure services and economic (stake-holders) actors need to constantly recognize and adapt to the changing characteristics of the city, as outlined in the earlier section. From an institutional perspective too in the Indian context, agencies that focused on planning and infrastructure creation were typically different from agencies that operated and managed cities on a day-today basis (usually urban local bodies). Multiplicity of urban agencies, especially in large cities, while having helped to build a level of technical specialization has also been the cause of some of the ills in urban management in India, viz. duplication of activities, or gaps in mandates and of responsibilities, incongruent investment and operational plans between different agencies, and poor levels of accountability to one another and to the citizens.

The pace of urbanization has also been slower in India as compared to other countries in the world. As per the UN estimates, the degree of urbanization in the world in 1950 was around 30 percent which increased to 47 percent in the year 2000. In India, it has increased from 17.3% in 1951 to 31.16% in 2011.

Comparing with other states and union territories, **West Bengal** occupies nineteenth position from the bottom with respect to the level of urbanization which is only 31.89% compared to the national average of 31.16%. Some of the indicators of urbanization are shown in **Table No. 1**.

21		Percentage of		
SI. No.	States	Level of Urbanization	Growth Rate	
1	India	31.16	3.38	
2	West Bengal	31.89	3.86	

Source: Census 2011

The urban population in West Bengal grew to 291.34 lakhs in 2001-2011 period. West Bengal, the 4th largest state in terms of total population size, occupies the 19th position in terms of urban population. The level of urbanization in West Bengal (31.89%) is clearly in pace with the National average of about 31.16%.

Trend of Urbanization in West Bengal :

Economic development is generally associated with the growth of urbanization. Some economists observe that the acid test of development of a country lies in the shift of population from the rural areas to the urban areas. The extent of urbanization was very much limited in West Bengal in-between 1901 to 1931. The percentage of people living in urban areas increased only by three percentage from 12.20% to 15.32%. However, in-between 1931 to 1941, there was a quick improvement in urbanization in the state as during the inter census period there was more than five percentage increase in the rate of urbanization.

Census Year	Percentage of u to total p		Percentage of rural population to total population				
	West Bengal	India	West Bengal	India			
1971	24.75	19.90	75.75	80.10			
1981	26.47	23.34	73.53	76.66			
1991	27.48	25.71	72.52	74.29			
2001	28.03	27.81	71.97	72.19			
2011	31.89	31.16	68.11	68.84			

Table No. 2 : Population Distribution - Urban and Rural - West Bengal (1971 – 2011)

Source: Census of India

The first independent census taking place in 1951 which reveals that about 24 percent of total population of West Bengal lived in urban areas. This percentage improved nominally in the subsequent two census and became 26.47 percent and 27.48 percent respectively in the censuses of 1981 and 1991. According to 2001 census data, in the state of West Bengal more than 28 percent of total population lived in urban areas. In 2011 census, the level of urbanization in West Bengal was well ahead then that of India and it had reached upto 31.89 percent.

Land Use Development and Control Plan:

LUDCP 2001-2021 was prepared in the past for Jaigaon Development Authority and was approved and notified by the State Govt on 2nd January, 2004. The Report highlighted demographic features, socio-economic base, approach to planning, management of environment, control on development, tourist potentiality and the building bye-laws. The report also highlighted the major requirements in 2021 for the area as below:

- Expected population of 1,25,000 at the end of the plan period
- Requirements of 15 Secondary level school and 2 integrated school with hostel facility
- 50 bedded hospital with provision for extension to 100 beds
- 1 recreational centre with an auditorium, 2 community halls with library facility
- Requirement of a stadium, amusement park, botanical garden, resorts and river front
- 1 petrol pump, 1 police out post at Dalsinghpara, 1 fire station, burial ground and crematorium
- Truck terminal, taxi and jeep stand, telephone exchange and 2 further post offices
- Five 11 KV power stations
- Supply of drinking water for 1,50,000 population, introducing ground sewerage systems and site for disposal of solid waste, site for creation of sewerage treatment plant.

Many of the infrastructure proposed in the last LUDCP has still not been implemented in the area.

1.3 Need for Land Use Development and Control Plan 2035

Jaigaon Town has been witnessing major problems related to the encroachment of large chunk of government land here & there which is detrimental to the development of future proposals and infrastructure. The problem has been aggravated with the poor infrastructure provisions multiplied by rapid urbanization and population growth including presence of floating population.

The road condition is dismal and the condition of traffic & transportation has aggravated with mushrooming of roadside shops, parking problems etc. The utility infrastructure, such as, water supply, drainage and solid waste management needs immediate attention not only to scatter to the present need but also to accommodate the future population.

There is a huge potential for tourism because of the presence of natural elements, such as, Himalayan foothills, Torsa River, lush tea gardens etc. The Asian Highway-48 passing through the periphery of Jaigaon Town provides huge potential for future economic growth. The socio-economic condition of Jaigaon Town needs adequate attention for upliftment of the basic amenities.

The holistic development can only be possible through a coordinated approach through development, preparation and implementation of proper Land Use Development and Control Plan of the region. For this purpose, Jaigaon Development Authority (JDA) under the administrative control of Urban Development and Municipal Affairs Department, Govt. of West Bengal has come forward to prepare a revised Land Use Development and Control Plan through HUDCO.

1.4 Approach and Methodology:

Approach:

Land Use Development and Control Plan is a comprehensive plan to guide the long-term physical development of a particular area. Urban planning process needs to be anticipated and based on an integrated approach to address the various dimensions of urban development. The integrated planning process ensures sensitization of all stakeholders to the enormity of the urban problems, to garner the additional resources to augment civic amenities, and finally to ensure growth of the urban areas in a systematic and sustainable manner. In light of this, the purpose of the present assignment is to prepare a Land Use Development Plan for Jaigaon Development Authority area.

Methodology:

The study methodology will comprise of following components

- (i) Preliminary / Background Studies;
- (ii) Assessment of Existing Situation;
- (iii) Review of Town Profile, various Policies, Rules and Regulations;
- (iv) Primary and Secondary Survey Analysis;
- (v) Finalize vision plan and the goals
- (vi) Identify the project proposals based on the analysis
- (vii) Identify the Abstract Cost and resource mobilization options
- (viii) Phasing of the projects and monitoring mechanism

1.5 Stages/ Components of study

The tasks involved in preparation of Land use Development and Control Plan is given below.

a. Preliminary/ Background Studies

The project start up process includes identification and collection of existing data, maps, reports and information towards resources planning. HUDCO carried out the initial reconnaissance survey of the town to get a feel of the site, understand the situation & the problems in the ground.

To understand the planning setup of the area relevant baseline data on existing area, social and economic profile and other relevant data were collected and reviewed. HUDCO carried out household sample survey to verify the relevant information collected from the census and held discussions to obtain the problems faced by the local inhabitants of the area.

b. Assessment of Existing Situation

The existing situation analysis was carried out under the following heads:

i) Demographic Profile covering population growth rate, population density, literacy rate, gender ratio, mouza wise population profile, below poverty line.
ii) The study of Economic Base provided status of work force participation rate (WFPR), sector wise worker profile, commercial activity, industrial activity, and tourism resources.

iii) Infrastructure Profile was assessed on study of water demand, sanitation facilities / sewerage network, power availability, storm water drainage, health & educational infrastructure, slum cluster profile, sewerage treatment plant capacity, solid waste management services, basic health services, cost of service delivery.

iv) Housing condition was assessed to understand the present status of the houses and population was forecasted for future requirement of household require to meet the future Plan.

v) Financial Profile covered analysis of revenue and expenditure, sources of revenue and debt servicing of JDA.

vi) The Physical and Social aspects covered topography, natural drainage system, land availability, air and noise pollution, access to housing, social safety etc.

vii) The study of Institutional Aspects covered constitutional framework, present organization structure, future projection, jurisdiction and coverage etc.
 Adequate Stakeholders' Consultation was conducted at various stages of

project planning and preparation and incorporate their views in preparation of the Development Plan.

Viii) Tourism Development aspects and its potential was assessed at micro level i.e. within Jaigaon Town area and also integrated with the macro level i.e. North Bengal and Bhutan particularly the town of Phuntsholing.

ix) Economic impact of Bhutan & adjoining areas of North Bengal from Jaigaon Development Area was also taken into account in order to assess the aspects of self-sustainability.

c. Review of Town Profile, Policies, Rules and Regulations

To understand the socio-cultural context and to address the required aspects for preparation of Land use Development and Control Plan, relevant baseline data on social, economic and existing infrastructure profile was collected and reviewed.

HUDCO had undertaken a sample survey of households, traffic and transportation survey to determine the basic existing scenario. Population projection, projection for various infrastructure facilities formed a basis of rationalization to prepare the Development Plan.

d. Primary and Secondary Surveys and Analysis of Sect oral Profile

Infrastructure services in a city include those services, which are essential to run the city life. These services include water supply, sewerage, drainage, solid waste management, streetlight, roads and transportation, open spaces and fire fighting etc. During preparation of Land Use Development and Control Plan, all these parameters was analyzed and assessed to find out their detailed assessment of existing status, potential for upgradation, accessibility to population and their optimum utilization. A detailed assessment of all these infrastructure facilities was incorporated in the Land Use Development and Control Plan.

e. Finalize the Vision Plan and the Goals

The Land Use Development and Control Plan will finalize the vision plan of the area and set the goals for achieving the vision within the plan period. This will also include the change in the land use pattern, monitoring, revision and preparation of sect oral and zonal plans.

f. Identify the Project locations based on the analysis

Based on the survey, analysis and the vision plan, project locations are to be indentified and presented in the proposal map for making development in the area.

g. Identify the Abstract Cost and resource mobilization options

The abstract cost has been prepared based on the project location, identified in the proposal map and resource mobilization options has been indicated for financing the major proposals which are to be carried out at the earliest.

h. Phasing of the projects and monitoring mechanism

Since the plan period is of 20 years, the project proposal identified needs to be phased out every 5 years, because of the administrative constraint of the state in allotment of land at the earliest and financial burden for the Development Authority and the State Govt. The monitoring mechanism should be formulated on a definite time frame so that project proposals are accordingly implemented at the ground and monitored on a regular basis towards development of the area.

CHAPTER 2: Existing Scenario of Development

2.1 Regional Setting, Location and Connectivity:

This chapter comprises of Regional Setting, Location, and Connectivity of the State, District and the Area Profile:

2.1.1 State Profile:

The state of West Bengal is located between 85 degree 50 minutes and 89degree 50 minutes east longitude and 21 degree 38 minutes and 27-degree 10 minutes north latitude with 3 (three) International boundaries i.e., Bangladesh, Nepal and Bhutan. It occupies a geographical area of about 88,752 sq. km. (2.70 % of India's total geographical area) and extending from the Himalayas in the north to the Bay of Bengal in the south. It is surrounded by Sikkim and Bhutan in the north, Assam and Bangladesh in the east, the Bay of Bengal in the south and Orissa, Jharkhand, Bihar and Nepal in the west. The state borders 5 Indian states and 3 nations. The climate varies from tropical in the southern portion to humid sub-tropical in the North. The Ganges is the main river in South Bengal which flows from north to south in the name of Hooghly. There are other rivers in the northern part of Bengal, namely, Teesta, Torsa, Jaldhaka and Mahananda. It is the 4th most populated state with a density of 1029 persons per sq km. The total population of the state is 91.34 crores (as on 2011 census). Out of the total population, 68% constitutes the rural population. The state has the lowest fertility rate compared to all the states in the country.

The State of West Bengal is well connected by road, rail and air with the other parts of the country. The surface road length of the state is 92023 kms and the railway route length covers 4481 kms. Kolkata is the HQ for 3 Railway zones. Kolkata being the capital of the State, is also connected with all the metros of the country.

The governance of the entire state is carried out from the new secretariat "NABANNA", located in the city of Howrah. The state is in the 5th position for contributing to the GDP of the nation. There are 239 census towns and 29 Urban Agglomerations and cities in West Bengal. The state exports tea, leather goods, flowers, shrimps and agricultural products. The major economy contribution to the state is 65% from the service sector, 13% from agriculture and 19% from industry. The state is 7th in the country for receipt of foreign direct investment. They are in the areas of manufacturing and telecommunication sectors.

2.1.2 District Profile :

Alipurduar District

Alipurduar District was bifurcated from the Jalpaiguri district after the 2011 census, i.e., on 25th June, 2014 with its HQ at Alipurduar. It is the 20th district in the state of West Bengal. It consists of Alipurduar Municipality, Falakata Municipality and 6 Community Development Blocks: Madarihat-Birpara, Alipurduar-I, Alipurduar-II, Falakata, Kalchini & Kumargram. These six blocks contains 66 gram panchayats & 9 census town. Alipurduar shares the western part of the Jalpaiguri district & eastern part of Assam state & has long northern international borders of 104.94 kms with Bhutan.

Alipurduar railway division has at least 710 km of railway track. It is the largest division of the NFR zone. In Alipurduar district, there are two major stations, Alipurduar Junction (APDJ) and New Alipurduar (NOQ). The Alipurduar district consists of 6 blocks, namely:

SI. No.	Block Name	Gram Panchayat Name	No. of GPs	No. of Urban Area
1	Madarihat –Birpara block	Bandapani, Hantapara, Madarihat, Totopara Ballalguri, Birpara–I, Khayarbari, Rangalibajna, Birpara–II, Lankapara and Shishujhumra	10	Nil
2	Alipurduar-I block	Banchukamari, Parorpar, Shalkumar–I, Vivekananda–I, Chakowakheti, Patlakhawa, Shalkumar–II, Vivekananda–II, Mathura, Purba Kanthalbari and Tapsikhata	11	4 census towns: Paschim Jitpur, Chechakhata, Alipur duar Railway Junction and Bholar Dabri
3	Alipurduar- II block	Banchukamari, Parorpar, Shalkumar–I, Vivekananda–I, Chakowakheti, Patlakhawa, Shalkumar–II, Vivekananda–II, Mathura, Purba Kanthalbari and Tapsikhata.	11	1 census town: Sobhaganj
4	Falakata block	Dalgaon, Dhanirampur–II, Guabarnagar, Mairadanga, Deogaon, Falakata–I, Jateswar–I, Parangerpar, Dhanirampur–I, Falakata–II, Jateswar–II and Shalkumar	12	1 Municipality : Falakata
5	Kalchini block	Jaigaon-I, Jaigaon-II, Dalshing Para, Malangi, Satali, Mendabari, Latabari, Chuapara, Kalchini, Garopara and Rajabhatkawa	11	2 Census towns : Jaigaon & <u>Uttar</u> <u>Latabari</u>
6	Kumargram block	Chengamari, Khoardanga–I, Newland Kumargram Sankos, Turturikhanda, Kamakhyaguri–I, Khoardanga–II, Valka Barabisa– I, Kamakhyaguri–II, Kumargram, Raidak, Valka Barabisa–II	11	1 census town : Uttar Kamakhyaguri

Barobisha or Barabisa is a fast-developing business and cultural hub which is located on the National Highway 31C, towards Assam and is 8 km away from Bengal-Assam border.

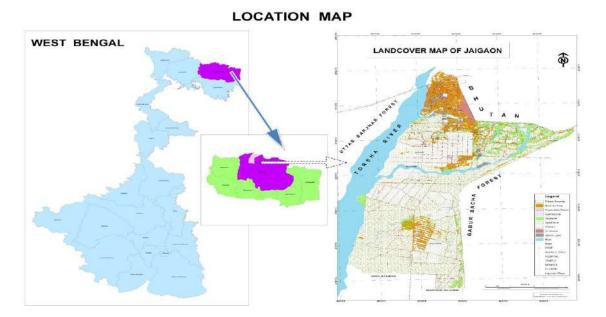
2.1.3 Area Profile:

Jaigaon Development Authority Area:

Jaigaon Development Authority Area is located at the foot of Bhutan hills on a plain, which lies just south of the Indo-Bhutan border in the eastern part of the Jalpaiguri District of West Bengal. This Planning area is bounded by the town Phuentsholing of Bhutan in the north, river Torsa in the west, Gabur Basra Forest in the east and Beech & Bharnobari Tea Garden in the south. The planning area extends between 26°45'N and 26°52'N of Latitude and in between 89°20'E and 89°25'E of Longitude and covers a little more than 41 sq km comprising six revenue mouzas of Jaigaon Police Station. Jaigaon has only a single access Asian Highway), which connects it to the other parts of West Bengal via Hasimara, which is around 20 km away. From Jaigaon to Kalchini, the block headquarter, is about 30 km away and Alipurduar, the sub-divisional cum District headquarter is 65 km away and the road distance between Jaigaon and previous District headquarter of Jalpaiguri is nearly 125 km.

Hasimara is the nearest railway station. India offers a free flow of goods from Kolkata port to Bhutan. The main overland entrance to Bhutan is through Jaigaon and Bhutan Gate separates the two countries. Bhutan does not have domestic internal roads linking to all its towns, so Bhutan uses Indian roads passing through Jaigaon to reach such destinations as Samtse, Gomtu and Samdrup Jongkhar. Bagdogra Airport (Siliguri) is the nearest airport and Kolkata its nearest port, where goods to Bhutan are brought from.

It is basically in a small valley located near the low lying hills of the Himalayan Mountains and lies on the banks of the Torsa River. It is a census town of Alipurduar Civil sub-division. However, the Sub-Divisional Police headquarter office is also located at Jaigaon. The location and land cover of Jaigaon is placed below :



Location & Land Cover Map

2.2 Physical Settings:

This chapter includes details of topography, climate, soil and micro-seismic zones.

2.2.1 Topography:

Jaigaon Development Authority area falls under Kalchini Development block.

The territory of Kalchini Block lies between 26°16' & 27°0' north latitude and 84°4' & 89°53' east longitude Covering an area of 892.57 Sq. Km. and population of 2,79,652 persons, as per Census-2011. The name Kalchini is emblematic with different



LAND USE DEVELOPMENT AND CONTROL PLAI

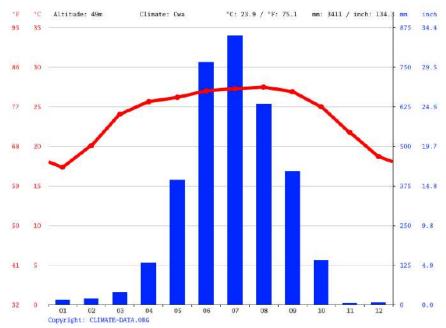
hearsay stories & significances, the name Kalchini is derived from the river Kal-Jani, which is tagged after the rare herbal plant.

Kalchini ranged from Tarai of Dooars, foothills at Raimatang & Buxa Fort and beneath the hills, ridges & deep valleys of the lower Himalayan belt along the Lepchakha, Chunabhatti & Adma. The Terai portion of Kalchini is lowlying belt, traversed by numerous river & streams rushing down from the hills of Bhutan and by the upland ridges which mark its courses. Kalchini Block bordered by Bhutan in the North, Alipurduar–II & Kumargram Block bordering the East, Southern portion is bordered by Alipurduar Municipality & Alipurduar–I Block in the West, Madarihat Block & Torsa River. There is a diverse ethnic culture of different communities like Mech, Garo, Rava, Dukpas, Adivasi, Bengali and Nepalies. Kalchini is north-east part of Jalpaiguri District with landscape of luxuriant green tea gardens, beautiful hills, ridges, valleys, foot hills, subterranean forest.

2.2.2 Climate:

In absence of any information from the Alipurduar district, the temperature and rainfall has been collected from the Jalpaiguri district. The temperature varies from max 38 degree Celsius in the summer to min of 7 degree Celsius in the winter. The increase of temperature starts from the second week of March and continues till May. During these months, the humidity level is also high. The monsoon season commences from the month of June onwards and continues till September. There is widespread rainfall during this period on account of depression originating in the Bay of Bengal. Because of the active south-west monsoon, the total rainfall received in the district in 2015 is 3741mm which is higher than the previous year rainfall. The winter season commences from the month of November onwards and it continues till mid-February.

CLIMATE GRAPH/ WEATHER BY MONTH ALIPUR DUAR



The driest month is November. There is 5 mm : 0.2 inch of precipitation in November with an average of 848 mm : 33.4 inch, the most precipitation falls in July.

2.2.3 Soil:

This littoral tract consists of deep, poorly drained, coarse loamy occurring on level lower piedmont plain with loamy surface. In general, the soil is having a superficial cover of alluvium over the sub soil containing gravels. The soils of this planning area are predominantly sandy loam and the land is having a general slop from northeast to southeast towards the river Torsa.

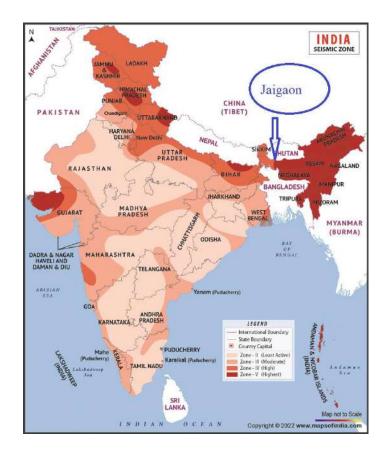
The soil is suitable for tea plantation and with proper conservation measures could be also utilized for basic agriculture practice.

Soil of this area is sandy loamy and has loose textural class. This soil is prone to soil erosion and is characterized by less water holding capacity. Soil has less organic matter and devoid of loamy clay. Soil is permeable to water and nutrient leaches down quickly. The characteristics of soil coupled with heavy rainfall increases the vulnerability of the agriculture land and other land into

erosion. There are problems of sand deposition along with debris & stone due to occasional change of river courses and occurrence of flood in each year.

2.2.4 Micro-Seismic Zone:

West Bengal experiences earthquake at a relatively lower frequency of the Seismic Hazard Zonation Map. According to the IMD catalogue, the State of West Bengal is divided in the seismic zones-II to V, i.e., low damage to very high damage. Jaigaon Development Authority area falls under Seismic zone-V and is prone to very high damage in case of occurrence of any earthquake in that area.



Source: Vulnerability Atlas of India, BMPTC.

2.3 Demographic Profile:

The demography includes population of the State, District and the Town:

2.3.1 State Profile:

West Bengal is the fourth most populous state in India after Uttar Pradesh, Maharashtra and Bihar. According to the census of 2011, West Bengal had a total population of 91347736 with a density of 1029 persons per square kilometer against the national average density of 382 persons per sq. km. The growth of the population is 13.93%. The state constitutes 7.54% population of India. The literacy rate of West Bengal is 77%, higher than the national rate of 74%.

Туре	Population	Male	Female	Average Literacy Rate (%)
West Bengal Urban	29134060 (31.89%)	14964082	14128920	84.78
West Bengal Rural	62213678 (68.11%)	31844945	30338168	72.13
West Bengal Total	91347736 (100%)	46927389	44420347	77.00

Table No. 3 : Population of West Bengal State and Average Literacy Rate :

Source: Census of India, 2011

Table No. 4 : Population Decadal Growth, Sex-Ratio, Population Density & Literacy Rate.

SI	India/ State	Decadal		Sex F	Ratio	Density (per		Literacy Rate (%)			
		Growt	Growth rate		(Females sq km)		2011				
		(%	76)	per	1000						
				ma	lles)						
		2001	2011	2001	2011	2001	2011	Persons	Males	Females	
1	2	3	4	5	6	7	8	9	10	11	
1	India	21.54	17.64	933	940	325	382	74.04	82.14	65.46	
2	West Bengal	17.77	13.93	934	946	903	1029	77.08	82.67	71.16	

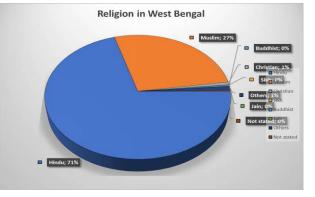
Source: Census of India, 2011

Religion:

Hinduism is majority religion in the state of West Bengal with 70.54% followers; Islam is second most populous religion in the state with approximately 27.01%. There are other religions namely Buddhist, Sikh, Jain etc. whose percentage is comparatively low and not stated in the table below:

SI	Description	Percentage	Percentage		
		(WB)	(India)		
1	Hindu	70.54 %	79.80%		
2	Muslim	27.01 %	14.23%		
3	Christian	0.72 %	2.3%		
4	Sikh	0.07%	1.72%		
5	Buddhist	0.31%	0.70%		
6	Jain	0.07%	0.37%		
7	Others	1.03%	0.66%		
8	Not stated	0.25%	0.24%		

Source : Census of India ,2011



2.3.2 District Profile:

The Population of Jalpaiguri and other adjoining districts are placed below:

Table No. 6: Comparison	of District Population
-------------------------	------------------------

SI	District	istrict Area Population 2001 Population 2011 (sq (in lacs) (in Lacs)				Growt	ennial h rate %)	Pop. Density per sq km				
		Р	Р	М	F	Р	М	F	1991-	2001-	2001	2011
									2001	2011		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	W. Bengal	88752	801.76	414.66	387.10	913.48	468.27	444.20	17.77	13.93	903	1029
2	Jalpaiguri	6227	34.01	17.51	16.50	38.70	19.80	18.90	21.45	13.77	546	621
3	Cooch-	3387	24.79	12.72	12.07	28.23	14.54	13.69	14.19	13.86	732	833

	behar											
4	Uttar	3140	24.42	12.60	11.82	30.01	15.50	14.51	28.72	22.90	778	956
	Dinajpur											

Source : Census of India, 2011

The comparison has been made based on the districts adjoining Alipurduar district in North Bengal. As there is no information available for the Alipurduar District from the last census, i.e., 2011, the information has been compared with the population available as per census 2011 of Jalpaiguri District. The growth rate of Jalpaiguri district is near about same for the state but the population density is low compared to the state.

2.3.3 Development Area Profile:

The development area profile consists of existing population and distribution, population growth, age-sex composition and literacy rate, workforce participation, population density etc.

2.3.3.1 Existing Population and Distribution

The JDA area consist of six mouzas namely Jaigaon, Gopimohan T.G, Mechia Basti, Choto Jaigaon, Torsa T.G. and Dalsingpara T.G. The same is represented in **Map-1**.

SL.	Μουza	2011
1	Jaigaon	42254
2	Gopimohan T.G	8290
3	Mechia Basti	9592
4	Choto Jaigaon	3083
5	Torsa T.G.	6258
6	Dalsingpara T.G	17167
	TOTAL	86644

Table No. 7: Mouza-wise Population

Source : Census 2011

Jaigaon mouza has the highest concentration of population accommodating almost 50% of the total population and Chota Jaigaon has

the least population. The chota Jaigaon mouza is small in area near the khokla bustee and close to the border of Bhutan where number of kutcha and pucca houses

are located. This mouza lacks

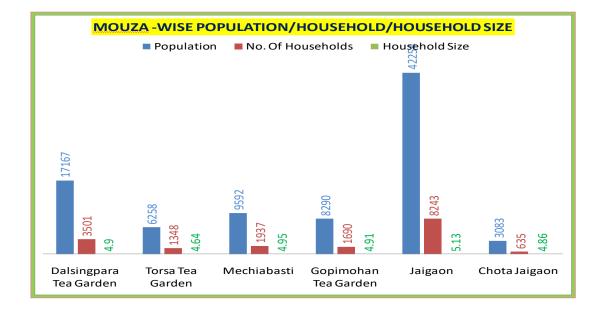
infrastructure like road, drainage and sewerage facilities. The people in that area avails cycles and share autos for commuting to the Jaigaon town. As it is in close proximity to the border area

no development is **envisaged**. There is a school and a church in the area which are depicted in the picture above. The Jaigaon, Gopimohan and the Mechia basty moujas are close to the Bhutan border and is densely populated .There is existence of slums in these area as it close to the border. There is very little existence of agricultural area in these mouzas. The two big mouzas are the Dalsingh para and the Torsha which is dominated by the existence of tea gardens and agricultural land suitable for irrigation. Population in these mouzas are comparatively low compared to the other mouzas as the area is away from the border and the Bhutan gate. People in these mouzas are engaged as tea garden labourers.





The Mouza-wise Population/Household/Household size of JDA area is placed below based on the table below:



2.3.3.2 Population Growth Trend

Table No. 8: Population Growth

Year	Population	Absolute Decadal Growth	Decadal Growth Percent (%)
1981	24314	7157	
1991	43864	19550	80.41
2001	67795	23931	54.56
2011	86644	18849	27.80

Source: Census Data

From the above census data, it is observed that there has been a decrease in the decadal growth rate of the population from 80.41% in 1991 to only 27.80 % in 2011.

	Mouza wise Population Growth within Jaigaon Development Authority Area							
SI	Mouza	1991	2001	2011	Decadal Growth Rate (1991-2001) (%)	Decadal Growth Rate (2001-11) (%)		
1	Jaigaon	20008	38689	42254	93.37	9.21		
2	Gopimohan TG	95	118	8290	24.21	6925.42		
3	Mechia Basti	3607	5046	9592	39.89	90.09		
4	Choota Jaigaon	1418	3149	3083	122.07	-2.10		
5	Torsa TG	6510	5142	6258	-21.01	21.70		
6	Dalsingpara TG	12226	15651	17167	28.01	9.69		
	Total	43864	67795	86644	54.56	27.80		

Table No. 9: Population Growth – Mouza-wise

Source: Census Data

From the above, it is observed that there is wide variation in the decadal growth of population mouza-wise. In 1991-2001, Chota Jaigaon showed the highest growth rate whereas it showed negative growth in the next decade 2001-11. On the other hand, Gopimohan Tea Garden mouza showed a growth of 6900% indicating huge migration of population to the area from outside and within the planning area.

Population below 6 years age group:

The percentage of child population in Jaigaon Development Authority Area was 12.87% as per Census 2011 and the average ratio for all the mouzas almost the same.

Village / Town Name	Total Population	Child Population	% share of Child population
Dalsingpara Tea Garden	17167	2152	12.54
Jaigaon (CT)	42254	5506	13.03
Mechia Basti (CT)	9592	1315	13.71
Gopimohan Tea Garden	8290	1045	12.61
Torsa Tea Garden	6258	789	12.61
Chhota Jaigaon	3083	345	11.19
Total	86644	11152	12.87

Table No. 10 : Percentage of Population in age group 0 - 6.

Source: Census of India 2011

2.3.3.3 Sex Ratio and Literacy Rate:

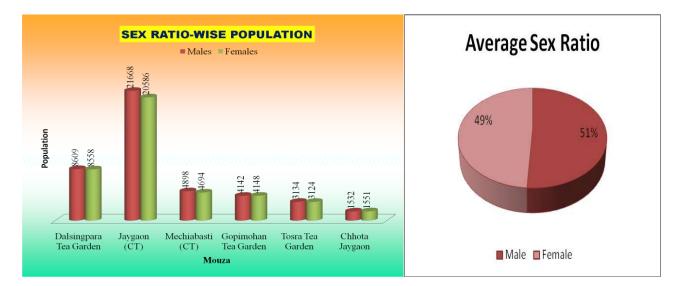
The sex ratio was 993 females per 1000 males for Jaigaon Development Authority Area as per Census 2011. The mouza wise breakup indicates some variations in the sex ratio as shown below:

Village / Town name	Population	No. of males	No. of females	Sex Ratio
Dalsingpara Tea Garden	17167	8609	8558	994
Jaigaon (CT)	42254	21668	20586	950
Mechia Basti (CT)	9592	4898	4694	958
Gopimohan Tea Garden	8290	4142	4148	1001
Tosra Tea Garden	6258	3134	3124	997
Chhota Jaigaon	3083	1532	1551	1012
Total	86644	43983	42661	993

Table No. 11: Sex Ratio

Source: Census of India 2011

The Sex Ratio of the different mouzas /average is depicted in the bar/pie Chart below:



Literacy Rate:

The literacy rates for the males and the females of the area reflects the overall percentage population who can read and write and can perform normal daily works.

SI	Village / Town Name	Males	Females	Persons	Literacy rate (%)
1	Dalsingpara Tea Garden	5465	3996	9461	63.01 %
2	Jaigaon (CT)	13900	11674	25574	69.59 %
3	Mechia Basti (CT)	3075	2332	5407	65.33 %
4	Gopimohan Tea Garden	2689	2174	4863	67.12 %
5	Tosra Tea Garden	1995	1489	3484	63.70 %
6	Chota Jaigaon	1146	972	2118	77.36 %
	Total	28270	22637	50907	69.80 %

Table No. 12 : Number of Literates

Source : Census of India 2011

The average literacy rate {**total literate persons/(total population-child population**)} of JDA area as in 2011 was around 69.80% which is less in comparison to the overall state literacy rate of 77.08%. This indicates that the area is lagging behind in literacy rate. The data when compared with the workers' participation ratio indicates that there are large numbers of illiterate people in the workers group involved in informal sector. The presence of large tea gardens workers has also supplemented to the illiteracy rate.

2.3.3.4 Work Force Participation:

The present workforce of Jaigaon Development Area as per Census 2011 is 30458 persons. Thus, the work participation rate of Jaigaon area works out to 35.15% which gives roughly a dependency ratio of just more than 3:1, i.e., every 3 members of the society are dependent on 1 working member. The work participation rate of Jaigaon DA area is comparatively same when compared to the national urban average participation rate of 35%.

SI No	Village / Town Name	Total Population	Total Workers	Male Workers	Female Workers
1	Dalsingpara Tea Garden	17167	6587	4247	2340
2	Jaigaon (CT)	42254	14240	11334	2906
3	Mechia Basti (CT)	9592	3353	2597	756
4	Gopimohan Tea Garden	8290	2996	2245	751
5	Tosra Tea Garden	6258	2262	1514	748
6	Chota Jaigaon	3083	1020	794	226
	Total	86644	30458	22731	7727

Table	No.	13:	Workers	Population
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Source : Census of India 2011

The workers strength compared to the population in that area is only 35%. Of the total workforce of 30458 persons, 75% are the male workers and 25% are the female workers.

Village/ CT	Total Population	Total Workers	Main Workers	Marginal Workers	Work Participation Rate (Total Workers/ Total Population)
Jaigaon	42254	14240	12141	2099	33.70%
Mechia Basti	9592	3353	2541	812	34.96%
Gopimohan TG	8290	2996	1957	1039	36.14%
Choota Jaigaon	3083	1020	732	288	33.08%
Torsa TG	6258	2262	1804	458	36.15%
Dalsingpara TG	17167	6587	4827	1760	38.37%
Total	86644	30458	24002	6456	35.15%

Table No. 14 : Distribution of Workers

Source : Census 2011

The break-up of the total working population comprises of 24002 persons are main workers and 6456 persons are marginal workers. Thus, 27.70 % of the total population is the main workers and 7.45% are the marginal workers. Out of the total main workers, a fairly large chunk is the marginal & other workers.

Distribution of Workers by Profession:

The total workers are distributed between cultivators, agricultural laborers, household industries & other workers and the marginal workers.

SI No	Village/ CT	Total Workers	Cultiv ators	Agri. Labourers	HH Industries	Other Workers	Marginal Workers
1	Jaigaon	14240	30	141	102	11868	2099
2	Mechia Basti	3353	40	22	11	2468	812
3	Gopimohan TG	2996	301	116	94	1446	1039
4	Choota Jaigaon	1020	56	10	5	661	288
5	Torsa TG	2262	37	16	16	1735	458
6	Dalsingpara TG	6587	1183	21	26	3597	1760
	Total	30458	1647	326	254	21775	6456
	Percentage	100	5.40	0.01	0.83	91.64	2.12

Table No. 15: Distribution of Workers by Profession

Source : Census of India 2011

Out of the total workers around 6% are engaged in cultivation and remaining 94% is engaged in other activities.

2.3.3.5 Population Density:

Table No. 16: Mouza-wise Population Density

SI.	Name of the Mouza	J. L. No.	Area	Population	Density
No			(Sq. km.)		
1	Dalsingpara Tea Garden	JI.No. 23	19.823	17167	5236
2	Torsa Tea Garden	JI.No. 24	13.474	6258	464
3	Mechia Basti	JI.No. 25	3.823	9592	2509
4	Gopimohan Tea Garden	Jl. No.26	0.74	8290	11202
5	Jaigaon	JI.No. 27	2.764	42254	15287
6	Chota Jaigaon	JI.No. 28	0.402	3083	7669
	Total :		41.03	86644	2111(AVG)

Source : Census 2011

The population density varies between the different mouzas. Jaigaon Mouza has the highest population density as it is abutting the Town of Phuntsholing, Bhutan (adjacent to the Bhutan Gate) located on the other side of the border, almost functioning as twin towns. Torsa Tea Garden mouza has the least population density as it is away from the international borders of Bhutan. The average density of population of JDA area as per Census 2011 is 2111 persons per sq km. The density of population at JDA is comparatively high then that of the state.

2.4 Land Profile:

2.4.1 Existing Land Area and Land Use :

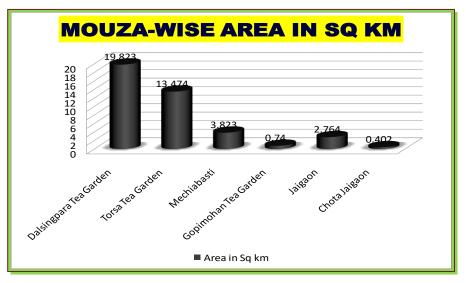
The Jaigaon Development Authority Area consists of 6 mouzas spreading over 1 police station (Jaigaon P. S.) of Alipurduar district.

SI. No	Gram Panchayat	Name of the Mouza	J. L. No.	Area in Sq km	Area in Hectares
1	Dalsingpara	Dalsingpara Tea Garden	JI No. 23	19.823	1983
2	Jaigaon-I	Torsa Tea Garden	Jl. No. 24	13.474	1348
3	Jaigaon-I	Mechia Basti	Jl. No. 25	3.823	382
4	Jaigaon-I	Gopimohan Tea Garden	Jl. No. 26	0.74	74
5	Jaigaon-I & II	Jaigaon	Jl. No. 27	2.764	276
6	Jaigaon-I	Chota Jaigaon	Jl. No. 28	0.402	40
				41.03	4103

Table No. 17: Mouza-wise Area

Jaigaon-II Gram Panchayat (GP) has predominately commercial activities reflecting the urban characteristics whereas Jaigaon-I Gram Panchayat (GP) is still maintaining agro economy. The economy surrounding Dalsinghpara GP is dependent on tea gardens. Around 48% of the JDA area is under Dalsinghpara GP and 47% of the JDA area is under Jaigaon-I GP, the remaining 5% of the JDA area is under Jaigaon-I GP. Chota Jaigaon mouza is close to the Bhutan borders and is dependent on agriculture.

The Mouza-wise area as per the above table in Sq. Km is depicted in the Bar Chart below :



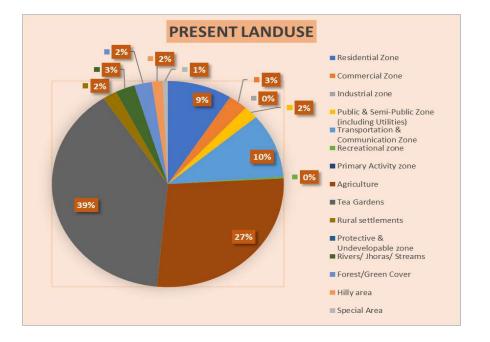
Existing Land Use :

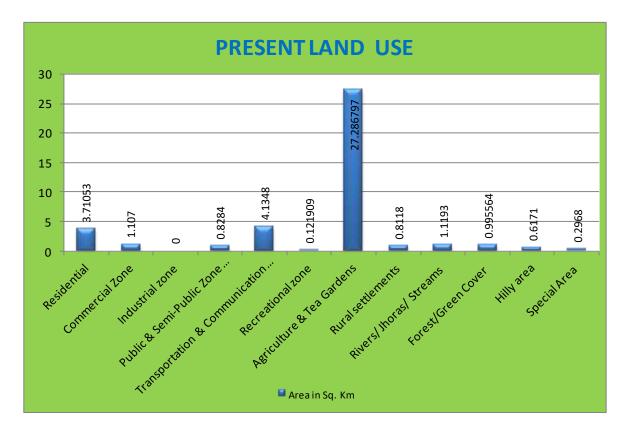
The Land use within the existing JDA area is depicted in the table below and in **Map-2**:

Table No. 18 : JDA Existing Land Use

SI.	Land Use Category	ry Existing Land use - 2015		
		Total Area (Sq.km.)	Area in %	
1	Residential Zone			
a)	Only Residential	3.4561	8.42	
b)	Mixed residential	0.25443	0.62	
2	Commercial Zone	1.107	2.70	
3	Industrial zone	0.00	0.00	
4	Public & Semi-Public Zone (including Utilities)	0.8284	2.02	
5	Transportation & Communication Zone	4.1348	10.08	
6	Recreational zone	0.121909	0.30	
7	Primary Activity zone			
a)	Agriculture	11.235287	27.38	
b)	Tea Gardens	16.05151	39.12	
c)	Rural settlements	0.8118	1.98	
8	Protective & Undevelopable zone			
a)	Rivers/ Jhoras/ Streams	1.1193	2.73	
b)	Forest/Green Cover	0.995564	2.43	
c)	Hilly area	0.6171	1.5	
9	Special Area	0.2968	0.72	
	Total	41.03	100	

Agriculture including tea gardens occupies the dominant land use category in the JDA area. The recreational area occupies the least percentage of the land use. Industries hardly have any existence within the land use area other than some household industries at a very small scale. The physical development is not possible in areas having existence of rivers and jhoras, forest, special area at JDA.





The Present Land use pattern is depicted in the Bar Chart stated below:

2.4.2 Peri-Urban Areas and Urban Villages:

This is an area circumferencing the JDA area commencing from Hasimara Town to JDA area. The extended area may include mouzas consisting of Malangi, Satali and Mendabari Gram Panchayats adjoining the present JDA area. This area consists of Tea Gardens and village population. The right side of the propose extended area is the Gabur Bachara forest which cannot be considered as periurban areas/urban villages as no neighborhood settlement is visible since development is restricted being a forest area. The demographic profile of the mouzas in the extended area are similar to the ones which are presently with JDA having the same type of neighborhood settlement and occupation. These adjoining areas are the peri-urban areas and the livelihood is based on agriculture and working as Tea Garden laborers.

2.5 Economic Profile:

The economic profile of an area includes primary, secondary and tertiary sectors. In this case, the primary sector is the agriculture sector and the existence of tea gardens in the area. The secondary sector is the existence of industry and tourism. The tertiary sector includes service sector, namely, the existence of central and state government offices, commercial establishments, defence establishments and banks.

2.5.1 Primary:

a) Agriculture:

In the Jaigaon Development Area basically paddy (Aman), mustard, maize, ginger, turmeric and areca nut cultivation are carried out. In the Jaigaon GP-II area, there is no agricultural activity. The agricultural cultivation is concentrated at Mechia Basti, Dalsingpara and Chota Jaigaon area which is part of GP-I and Dalsinghpara. There is no data available on the volume of crops cultivated in the area. The existence of large tea gardens and extensive of betel nut cultivation in Dalsinghpara mouza and torsha tea garden mouza of JDA area is noticeable.

b) Tea Gardens:

The Jaigaon Planning area consists of 3 (three) Tea gardens within its jurisdiction namely – Torsa Tea garden, Dalsingpara Tea Garden and Mohua Tea Garden.

The Torsa Tea Garden has a total area of 691 Ha. out of which 482.83 Ha. land is under tea cultivation. The remaining land is presently barren and without any cultivation. The age of the garden is 130 years having a balance lease tenure of 30 years with an annual rent of Rs. 92/- per ha. per annum.

The Dalsingpara Tea Garden has a total area of 1504 Ha, out of which 873 Ha. is under cultivation. The remaining land is presently barren and without any cultivation. The age of the garden is 117 years having a balance lease tenure of 30 years with an annual rent of Rs.92.87 per ha. per annum.

The Mohua Tea Garden area of cultivation is around 65.50 ha. and around 147 persons are employed in this garden and the age of the garden is only 35 years. The average age of the tea bushes is 25 years. The garden is owned by West Bengal Tea Development Corporation Ltd.

As per the West Bengal Estates Acquisition Act 1953, the land used for cultivation of tea in the State technically belongs to the state government which is leased out to companies for a certain period. The tea industry is governed under Plantation Labour Act, 1951.

Presently, the Tea Gardens are in financial loss on account of barren lands, low yield, price being realized below production cost, ageing bushes, high debts, low labour productivity and working capital constraints.

Cultivation of tea is no more profitable venture in the area as the yield of the tea garden is comparatively low. The promoters of the Tea Garden are not focused in tea cultivation as they are not in a position to fetch lucrative prices from the tea auction held at Siliguri and Jalpaiguri towns. The promoters of the Tea Garden are looking for alternative sources to make good the losses incurred in cultivation of tea.

Reasons for ill health of Tea Industry in Jaigaon Development Area:

The major reasons for ill health of Tea Industry are as follows:

- a. In the liberalized world market, there has been stiff competition in different brands of tea especially from countries like, Sri Lanka, Kenya and also Nepal. These countries are selling tea in the world market at a lower sale price compared to Indian Brands in the world market.
- b. Majority of tea bushes have passed their prime period, and accordingly, the yield is comparatively lower than the normal standards. The Tea Garden has turned a deaf ear to the plea for fear of losing profits on systematical re-planting old bushes. Re-plantation is a tedious job and it takes at least five years to reach the stage when leaves can be plucked. It is this gap of five years that tea gardens fear most because they have to pay workers and invest huge amount in re-plantation venture without getting any money in return.
- c. Multiplication or increasing population in Tea Garden has become a major cause for worry. Most plantation workers are migrants from Nepal, who were initially encouraged by the British to cross over to India in order to bring to terms the physically challenging virgin forested lands. Certain push and pull factors have caused the population to grow exponentially. Moreover, there is no provision of sending back retired laborers and those persons not working in the garden. About 60% of population is in no way involved with working in the garden and this has inflicted tremendous pressure on the region's economy and ecology.
- d. Mono-culture and the subsequent extortion of soil literates have severely affected the health and yield of the Tea Gardens. Expert's belief that the soils in plantation area do not have enough nutrients and healthy tea bushes cannot grow on sick soil.

The re-mineralization is not very expensive but requires a scientific approach which has to be applied by the promoters of the tea gardens.

- e. The Plantation Labour Act, 1955 was formulated with a view to improve the levy and working conditions of the workers and associate persons of the garden. Evidences show that management violates most of the provisions of the Act. Moreover, there is no room for punishing the culprits. Tea Estates have very poor or no provisions for drinking water facilities, housing, latrines, health care, electricity and education for the permanent workers. Further, the Act needs revision in the context of changing social, economic and political scenario.
- f. The Tea Estates still operate in the colonial master-slaves mode. The goal is to control the market and as much as possible squeeze the primary producer. The equation with the passage of time developed a mind set of dependency in the psyche of the garden laborers, workers began to increasingly depend on the management for everything. With gradual on set of globalization and liberalization and market challenges, the garden laborers were the major suffers while the company owners and top officials secretly by passed the negative impacts through manipulations. Tea gardens closed down or abandoned and the socio-economic conditions of the workers which turned from bad to worse but the owners and top-level officials never suffered.
- g. The tea garden jobs are no more lucrative as the workers are more attracted to other jobs in Bhutan as migrant laborers.

Recent announcement of reforms by the state government:

In order to revive a sagging economy of the tea industry in North Bengal, the Hon'ble Chief Minister, Govt. of West Bengal has announced on 29.06.2016 major reforms to revive the industry. The outline of the reforms is placed below:

- a) Formation of a Directorate to meet the crisis that the tea industry is passing through.
- b) Tea gardens can use 15% idle tea state land for vegetable farming, dairy and poultry related business. This would be a welcome relief to the owners of the ailing Tea Estate.
- c) The State Govt. will appoint a transaction advisor for auctioning abundant tea gardens.

The Bengal Government is considering the proposal to allow 25% of the tea land for alternative use to help the ailing industry. The alternative use could be in the area of tea tourism, horticulture, dairy farming etc. This decision if taken by the state government will go a long way in improving the health of the tea sector. (Telegraph 17th may 2017)

2.5.2 Secondary:

a) Industry:

There is no major, medium or minor industry located at Jaigaon Development Area, and in particular, in the District of Alipurduar except for few auto workshops, steel wire go down and a saw mill. Stone quarrying has been a source of employment for some of the local people. This is carried out in the river bed of Torsha. The stones are used for construction works. There is a floating population engaged as migrant laborers working in Bhutan on a daily basis. The migrant laborers are engaged on a daily basis by the intermediaries who hover at the morning hours of every day near the junction of the MG road and the NS road. The existing two major tea gardens, namely, Torsa Tea Garden and Dalsinghpara Tea Garden may be considered as a semblance of industry in that area where employers engage workers for plucking of tea leaves from the garden and working in the tea factory. There are some household industries located as per the census data employing few workers the area. These household industries produce items from the agricultural products produced in that area.

The location of Jaigaon Development Area falls between the Town of Phuentsholing, Bhutan and the District of Jalpaiguri in North Bengal. In both these places, medium and small scale industries exist.

Industries located at Phuentsholing:

Phuentsholing is the border town of Bhutan and is located besides the town of Jaigaon.It is having number of small and medium scale industries which are as follows:

➢ Bhutan Battery	> Jigma Sawmill & Furniture	Local Bakery
Scrap Dealers	House	Sawmill Industries
JP Hydel Power Limited	RSA Pvt. Ltd. (Cardamom	Bhutan Milk & Agro
Damchang Industries (Talcom	Godown)	Private Limited
Powder)	Tasha Engineering	Yarab Private
Natshok Fabrication	Workshop	Limited
(Engineering & Fabrication)	Maintenance Garage	(Manufacturing
Automobile Workshops	Drook Beer	cables)
Rook Tyre Service	Pepsi Cola Factory	Nambgay Wood
Karten Oil Mill (Soyabean Oil)	Phuentsholing Timber	Industry
Chowden Engineering Workshop	Industry	
Source : Primary Survey, HUDCO		

From the above, it is clear that the majority of the industries are related to wood-based, automobile engineering cum vehicle repair & maintenance garages and food processing.

The List of medium & small scale enterprises at Jalpaiguri & nearby areas are as follows:

1.	HSB Agro Industries Pvt. Ltd.	11. Perfect Air Products.
2.	Medow Diary Products Pvt. Ltd.	12. Haldia Precision Engineering Co.
3.	Mansoravar Tea Pvt.Ltd.	13. Changia Food Processing Co.
4.	Raichanga Agro Food Processing	14. Sunderban Fertilizer Ltd.
	Industries Pvt. Ltd. (2 units)	15. Siliguri Flour Mills Ltd.
5.	Kalabari Food Products Pvt. Ltd	16. Northern Flour Mills Ltd.
6.	Maa Nandev Papers Pvt. Ltd.	17. Falakata Industries Ltd.
7.	Mahakal Agro Storage 7 Processing	18. Tista Fruit & Vegetable
	Unit Pvt. Ltd	Processing.
8.	Sarat Tubes Ltd.	19. Phyto Chemical Complex
9.	Satyadeep Polypipes Ltd.	
10.	Kabsons Industries Ltd.	

Source : MSME Report

The maximum industries relates to food processing industries, chemicals, paper & dairy products at Jalpaiguri MSMEs cluster.

b) Tourism:

Jaigaon is a part of the ecological landscape of Bhutan foothills and it is also the Gateway to Bhutan. This terrain has a lot of scope to attract tourists by exploring its natural beauty and its proximity to Bhutan (**being the gateway to the Himalayan Kingdom**). It is the only entry point for a journey by road to the capital of Bhutan, Thimpu, which is popular to the tourists both Indian and foreign. Tourists on their way to Thimpu, prefer to halt at Phuntsholing rather than staying at Jaigaon as this area is yet to attract the tourists due to lack of infrastructure facilities. Though a few hotels and lodges have already come up at Jaigaon town but they in no way can compete with the infrastructure facilities offered to the tourist at Phuntsholing.

Tourist visit Bhutan throughout the year and they stay for a small time at Jaigaon for issuance of necessary permit to Bhutan. The tourist normally does not visit in the surrounding areas of Jaigaon because of lack of tourist attractions available in that area. There is potential for making the area a tourist destination as it has river Torsa, lush green tea gardens, adjoining villages and the mountain for attracting tourist personals.

There are 8 to 10 private hotels in GP-II area near the Bhutan Gate which

has around 400 rooms to accommodates tourist in-flow in that area. The Room Tariff ranges between Rs.1,000/- to Rs.3,000/-. Presently there is no Govt. accommodation available in that area. Tourists stay at Jaigaon only to obtain permission for going to Bhutan. Jaigaon is presently not linked to



the North Bengal tourist circuit of the state Govt. Tourism Department.

Tourist inflow in the district of Jalpaiguri:

The tourist inflow in the district of Jalpaiguri is placed below:

	Madarihat		Malbazar		Chalsa		Total
Year	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign	
2012	124113	19735	87954	11818	47543	8118	299281
2013	109795	19167	71255	11071	51942	7083	270313
2014	167785	14151	75010	7294	131865	5300	401405
2015	177310	19475	72900	8915	289125*	8170*	575895

Table No. 19 : Tourists Inflow in various spots of undivided Jalpaiguri Dist.

(Source: Tourism Dept, GoWB's letter no.646-DT/1T-08/2009, dt.14.07.2016)

* Includes the tourist inflow figures of Gorumara and Champramari.



The above tourist inflow data is depicted below in a line chart :

The distance and the time taken to travel from Jaigaon to the different tourists' destinations in the Jalpaiguri District are as follows:

Destination	Distance (in kilometers)	Time Taken
Jaigaon to Madarihat	29	40 minutes
Jaigaon to Malbazar	100	2 hours
Jaigaon to Chalsa	91	1.50 hours
Jaigaon to Gorumara	104	2 hours
Jaigaon to Champramari	85	1.45 hours

Table No. 20 : Tourist Destination from Jaigaon

From the tables, it is clear that there is a steady increase in the tourist flow every year in Jalpaiguri District of North Bengal. The district of Alipurduar is adjacent to the Jalpaiguri district which needs to be fully exploited. Jaigaon town in the district is the gateway to the Himalayan kingdom of Bhutan and would attract Indian and foreign tourists. The district is blessed with dense forest, tea gardens, torsa river, ethnic tribes, adding to the greenery of the area.

The tourists coming to Jalpaiguri district needs to be diverted to the Alipurduar district and accordingly the JDA area needs infrastructure development for attracting tourist flow. The JDA area is in between the state of Bhutan and the district of Jalpaiguri in North Bengal.

Tourists coming to the district of Jalpaiguri could be attracted to visit Bhutan. In the present situation any tourist visiting Thimpu & Paro has to make a night halt at Jaigaon for completing the required formalities in entering Bhutan. The North Bengal tourist circuit under West Bengal Tourist Development Corporation could include the Jaigaon town and accordingly, the tourist department can set-up cottages/ service apartment for accommodating various tourists coming from India & abroad.

Places of Tourist Interest:

(Source:www.north-bengal.com/dooars.php)

Jaldapara National Park

Jaldapara is one of the most popular forests of Dooars. The Holong bungalow inside the forest is probably one of the most sought-after tourist accommodations anywhere in India. Today Jaldapara has grown much beyond the Holong Bungalow and has a large number of options for tourists visiting the National Park.

Jaldapara was declared a Wildlife Sanctuary back in 1943 for the



protection of wild life, particularly single-horned Rhinos. Recently in 2012, the forests of Jaldapara have been upgraded to the status of a National Park.

Jaldapara is situated at the foothills of Eastern Himalayas in Alipurduar district in West Bengal. River Torsa runs through this riverine forest sanctuary which is mostly covered with tall grasses. The Western side of River Torsa is called the Jaldapara and the Eastern side is known as Chilapata forests.

Jaldapara is best known for its population of one horned Asiatic Rhinos, which is the second largest in the world after Kaziranga forests of Assam. The population of Rhino in Jaldapara is said to be around 160 and is increasing at a steady pace. The problem of wildlife poaching that is present in Assam, is not there at Jaldapara leading to their soaring numbers.

Other major wildlife includes Asiatic Elephants, Swamp deer, Hog deer, wild pigs, Gaur (Indian Bison) and a number of birds, reptiles and others.

Jaldapara is a paradise for bird watchers. It is one of the very few places in India, where the Bengal Florican was sighted. Set out with a binocular and see the majestic flight of hornbill, racket-tailed drongo and paradise flycatcher.

A thrilling elephant safari is organized in the early morning from Hollong forest bungalow to offer the exquisite beauty of the vast grassland of Jaldapara. The elephant ride is the best possible way to explore the sanctuary with the rare sight of Indian rhinos and Asiatic elephants. However please note that elephant rides are always in high demand and they cannot be booked in advance. Tourists have to book the Elephant ride on the spot and a ride cannot be guaranteed.

The jeep safari inside the sanctuary is another major attraction. There are multiple Jeep safari being organized both in the morning and in the evening. The number of watchtowers where the Jeep safari takes tourists has increased during recent year. Tourists must travel in the forest department approved Jeep accompanied by a tourist guide.

Local excursions may be arranged to visit tea gardens to see the manufacturing of tea in the nearby tea gardens by prior arrangement. Anthropological excursion in nearby Tribal village, Totopara, can also be arranged.

Places to visit around Jaldapara:

Totopara: 30 km from Jaldapara, a small village on the banks of River Torsha bordering Bhutan is the only habitation of Toto, a primitive tribe in Dooars. Their number has dwindled to less than 1000. The aboriginal lifestyle of the Totos attracts tourists from many parts of the world to visit here.

Chilapata: Forests on the eastern part of river Torsha is known as Chilapata forests. Hidden deep inside Chilapata is the ruin of a thousand year old fort of Nal King. It has tremendous historical and archaeological importance. Built in the 5th century during the Gupta Empire the ruins still recall the memories of the Golden Age of India. There are a number of forest safaris available in Chilapata as well which can easily be accessed from Jaldapara.



Khayerbari Tiger Rescue Centre: When the show of Tigers in Indian Circus

was banned in 1998, many tigers were rescued and brought to this rescue centre.

Leopards captured from the whole of Dooars area also find shelter here. The Tiger Rescue Centre has a watchtower from where you can see the animals.

There is also a battery operated small car which takes tourists on a ride inside the leopard area of the park. The rescue centre is about 15 kms from Jaldapara town.

Gorumara National Park:

Gorumara National Park is located in the Dooars region of Jalpaiguri district. Situated on the bank of Murti River, the National Park has a large variety of flora and fauna. The grassland of Garumara is famous for Asiatic one-horned rhino. The watchtower beside the Forest Rest House gives a panoramic view of the entire park and the Murti Valley. The tower is the best place to observe wild animals especially rhino, elephant, bison and deer, as they regularly come to the salt reservoir just below the tower. In the year 1949, Gorumara Forest was declared as wildlife sanctuary when it was a small forest. Later in the year 1992, it was declared as a National Park, comprising of 80 km of diverse forest.



Activities:

Gorumara being the most popular tourist destination of Dooars, there is no dearth of tourist activity here. The most popular tourist activity is the forest safari. These are organized during early morning and late afternoon on Jeeps which are specifically marked for this purpose.

There are several safari routes inside the forest that will take you to some of the core areas of Gorumara National Park.

In the evening cultural programs including tribal dances and folk music performances are organized at a number of places around the forest which can be enjoyed by all.

Day activity includes visit to nearby picturesque tourist destinations including Samsing area, Jhalong, Bindu, Jaldhaka area etc.

Together Gorumara has enough activities to keep you engaged for several days.



BUXA TIGER RESERVE



Buxa National Park, in the Alipurduar district, was set up in the year 1982-83 at the north eastern corner of West Bengal bordering Bhutan and Assam. It is

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declared a National Park in January 1992. The name "Buxa" has been derived from Buxa Fort - a fort at an altitude of 867 meters on the Sinchula Range guarding the most important of the eleven routes into Bhutan, which once was used for detainees during freedom movement of India. With an area of 759 sq km this picturesque reserve with its prodigious Terai, Bhabar as well as Hilly landscape, crisscrossed by numerous rivers and their tributaries, presents a breathtaking landscape. Buxa National Park is the largest forest in Dooars.

The Phipsu Wildlife Sanctuary of Bhutan is contiguous to North of BTR. Manas Tiger Reserve lies on east. Thus, Buxa Tiger Reserve serves as international corridor for elephant migration between India and Bhutan. The reserve encompasses as many as eight forest types.



Buxa is rich with bio-diversity and has a great collection of rare orchids and medicinal plants. Because of inaccessible terrain some parts of Buxa hills in the Sinchula range are still unexplored. The veritable flora and fauna of these wet forests attracts tourists and nature lovers every year. The generic diversity of mammals is second highest among all the tiger reserves of India.

Astonishing bio-diversity of animals comprise of a reach avifauna of more than 230 identified species, 67 mammals and 36 species of reptiles.

Mammal: Apart from Bengal Tiger, the flagship species, there are plenty of

Leopard, Fishing Cat, Leopard Cat, Jungle Cat, Indian Civet, Palm Civet, Wild Dogs, Malayan Gaint



Squirrels, Mangooses, Asian Elephant, Gaur, Small Clawless Otter, Chital, Sambar, Barking Deer, Hog Deer, Wild Buffalo, 3 varieties of Pythons, Monitor Lizard and a host of land tortoises. A number of animals like Chinese Pangolin. Regal Python (reticulate) Clouded Leopard is endemic to the region.

Birds: The Avifauna is rich in both endemic as well as migratory species. The swift rivers of Rydak and Jainti are visited by Trans Himalayan Migratory Goosanders, the beautiful Ibis Bill, resident Fork-tails, varieties of Red-stars, Wagtails, the Narathali Lake is visited by migratory Common Teal, Gargani Teal, Large Whistling Teal, White Eyed Poachared etc. The Hornbills including greater Pied Hornbill abound the area. One of the rarest birds of India the Black-necked Crane has been sighted in the Reserve during the early winter. The migratory beautiful Black Stork is a visitor of the area. The monsoon ends and beautiful Minivets, Sultan tits arrive, during summer rare Ashyminivet is also sighted.

Flora: More than 300 species of trees, 250 species of shrubs, 400 species of herbs, 9 species of cane, 10 species of bamboo, 150 species of orchids, 100 species of grass and 130 species of aquatic flora including more than 70 sedges (Cyperaceae) have been identified so far. There are more than 160 species of other monocotyledons and ferns. Main species include Sal, Champ, Gamar, Simul, Chikrasi etc.

Attractions:

Buxa Fort: Several trek routes originate from Buxa. Most popular trek starts from Santrabari (914ft) to Buxaduar. A 5 kms trek through the dense forested hills leads to Buxaduar Forest Bungalow. Accommodation is available here for the trekkers. Another 4 kms trek through the forest track leads to the Rover's Point-the land of unknown birds (4500ft). It is difficult to ignore the lure of Rupam Valley in Bhutan, another 12 kms from there. The journey through the entire region is full of unknown adventure and excitements and gives some breathtaking views of Jayanti River Valley far below, ever green forest canopy and glimpse of rare animals, flight of birds and colorful orchids.

Jayanti: A picturesque spot along the meandering Jayanti River forming a natural border with beautiful Bhutan hills. Jayanti is a place to stretch your weary legs as the cool breeze brushes away all the exhaustions. Buxaduar to Jayanti is another popular trek in the region. This 13 kms trek passes through the dense forest of Buxa Tiger Reserve. The music of wilderness, the chirping of unknown birds, the song of wild streams, fragrance of nature will never allow you to feel the least stress of a long journey. The journey ends with a warm reception of an old staggering priest at the stalactite cave of Jayanti, popularly known as the Mahakal cave. It is difficult to enter into the narrow, dark, damp cave but trying the same may be another precious adventure. The downhill trek from here leads to Jayanti Forest Bungalow.

Rajabhatkhawa: Rajabhatkhawa is only 12 kms from Jayanti and approachable by both road and rail form Siliguri (153kms) and Alipurduar (17 kms). Surrounded by dense forests of Buxa tiger reserve Rajabhatkhawa is an ideal place for the wild life lovers. A watchtower deep inside the forest gives the best opportunity to view elephant, bison and even tiger. The Nature Interpretation Center at Rajabhatkhawa is another attraction. There is a small bazaar and a beautiful small rail station. Accommodation is available in forest rest house and also in a private rest house named **Gracilips**.

2.5.3 Tertiary:

a) Service Sector:

This sector includes service institutions like offices of Jaigaon Development Authority, Sales Tax and Excise in GP-I Area. The Land Custom Office is also located in the same GP. The commercial banks are concentrated more at GP-II area near the Bhutan Gate. The details of these offices have been spelt out in the **'Town Level Institutional Set-Up'**.

b) Trade and Commerce:

Jaigaon being a border town to Bhutan has some existence of trade and commerce between the two countries as goods from Jaigaon are transported to different parts of Bhutan for sale. Officially there is no record for trade & commerce being carried out between Jaigaon & towns of Bhutan but it has been observed that the Indian goods from Jaigaon are transported to Bhutan on a regular basis like electronic and clothing items, fruits and vegetables, grocery and handicrafts for selling at different locations of Bhutan.

2.6 Physical Infrastructure:

2.6.1 Traffic & Transportation:

2.6.1.1 Airway:

Nearest airport to Jaigaon is the Cooch Behar Airport located at a distance of 72 km and another air base is at Hasimara which is having a distance of 22.1 Km. The distance between Bagdogra Airport to Jaigaon is (154 km) and the traveling time is 2 hour 45 mins (approx.).The tourist visiting



Jaigaon and Bhutan uses the Bagdogra airport. There is a helipad at Jaigaon which is close to Bulan turning. Hon'ble Chief Minister of West Bengal and other dignitaries use this helipad for reaching the town in an aerial route.

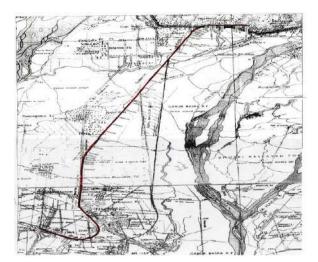
2.6.1.2 Waterway:

The Torsa is the only perennial river flowing from Bhutan and passing through JDA from north to south direction touching all the 3 (three) GPs. However, considering the volume and depth of water level, navigation is not possible. The water from the river can be tapped for drinking water and other purposes. The river is dry in the summer season but in the monsoon season it creates a flood like situation along the adjoining areas. The bank of the river especially at the Jaigaon end is densely occupied with population leaving in the slums. This creates an un-hygienic situation leading to garbage and sanitation problems in the area. These population leaving in the slums need to be accommodated in an area close to the existing location for proper utilization of the existing land resources by creating additional infrastructure facilities towards development.

2.6.1.3 Railway:

The nearest railway station to Jaigaon Town is Hasimara, which is under North East Frontier Railway, is at a distance of 17 Km from Jaigaon Town. It takes around 20 minutes by road to reach Jaigaon Town from Hasimara Railway Station. Eight Express Trains halt at Hasimara Railway Station which is connected to Kamakhya / Guwahati in Assam and Jalpaiguri / New Jalpaiguri in West Bengal.

An attempt was made in the past to connect Jaigaon to Bhutan through railways but it ended without any result. Survey was carried out by RITES, Indian Railway in the year 2008-2009 for connecting railway linkage from Hasimara to Jaigaon/Toribari (Bhutan border)). Three alternative proposals were tried in the past. The first proposal was rejected by the Bhutan Govt. for linking it to Phuentsholing town, the second proposal was opposed by Torsa Tea Garden and the last proposal was rejected by The Dept. of Forests. As on date, there is no such proposal pending with DRM, Alipurduar of North East Frontier Railway for connecting Hasimara to Jaigaon. There was an existence of meter gauge railway line between Hasimara to Dalsingpara during the British period which is depicted below:





2.6.1.4 Roads:

In JDA there are four categories of roads according to the hierarchy which is stated below:

Hierarchy of roads	Name of the Roads	Length of the Roads (around)	Width of the Roads (around)
Urban Expressway	Asian Highway-48	6.54 km.	30 meters
National Highway	National Highway- 317A/NS Road	14.09 km.	15-20 meters
State Highway	MG Road, Link Road	1.11 km.	15 meters
Local Roads	Intermediary Roads connecting different locality	207 km.	10-15 meters

Table No. 21 : Hierarchy of Roads

Source: Survey, 2015

The details of these roads are stated below:

Express Highway: Asian Highway-48

The Asian Highway-48 running 90.58 km from Phuentsholing, Bhutan via Jaigaon, India across the Border through the Dooars region of WB and ending at Changrabandha, near Bangladesh Border. The road passes through Jaigaon-Hasimara-Madarihat-Birpara-Gairkata- Dhubguri-Indiramore - Changrabandha.

AH-48 and AH-2 is part of SASEC Road Connectivity Investment Programme (SRCIP). The corridor component of Asian Highway-48 in West Bengal involves part of NH-717, NH-31, NH-31C, NH-317A. The project is being funded by the Asian Development Bank. ADB has approved €500 million for the project which includes both AH-48 and section of AH-2.

Road Name	Category	Length (Km)	
Asian Highway Proposed	Urban Expressway	6.54	

Source : Physical Survey, HUDCO' 2015

The contract for construction of the above project was secured by Punj Lloyd and the project is to be completed within a period of 30 months. The scope of work includes rehabilitation and upgrading of Bhutan border at Pasakha to Bangladesh border at Changrabandha comprising



Jaigaon, Hasimara, Dhupguri Section and Mainaguri – Changrabandha Section. This highway to Pasakha, an Industrial area in Bhutan will encourage Trade & Tourism between the countries, like India, Bhutan, Nepal & Bangladesh.

This road will decrease the congestion in the city of Jaigaon as heavy transport vehicles will be routed through this highway without entering the town of Jaigaon.



This Highway will be passing through Torsa Tea Garden and it will be linking upper Khokla Bustee crossing the existing helipad. The length of the road cutting across Torsa Tea Garden would be around 500 mtrs & the width will be around 15 mtrs. Work has already commenced at the torsha tea garden and near the

helipad linked to upper Khokla Bustee. The work at the Bhutan end has also commenced.

A Land Custom Station of 12 acres of land has already been allocated on the said route of the Asian Highway-48 at Torsa Mouza. The station will undertake the job related to land customs towards movement of vehicles carrying goods and materials from India to Bhutan and vice versa.

National Highway: NH-317A

Jaigaon also has the privilege of having NH-317A passing through the town to Bhutan. NH-31A connects NH-317A at Hasimara just near the Hasimara Railway station. It is two – lane road maintained by BRTF. It is fully blacktopped road covering a distance of about 21km from NH-31A junction upto Bhutan gate in Jaigaon. The National Highway passing through Jaigaon is also called NS Road from Bulan turning.

State Highways:

The following are the major roads leading to Jaigaon town at the Bhutan gate:

Road Name	Category	Length (Km)	
MG Road	Bituminous	0.77	
Link Road	Bituminous	0.34	

Source: Physical Survey, HUDCO.

There are two major roads passing through Jaigaon-I & Jaigaon-II, namely, MG Road & NS Road. The NS Road is the longest road running from Bulan turning to Bhutan Gate. These roads have been encroached from both the sides by the shops located beside the road. There are also transformers & electrical polls located at the side of the road thereby reducing the width of the road. Because of this encroachment, some parts of the roads have become narrow creating traffic jam during office hours. The narrowed portion is more towards GP-I office, JDA office, Sales Tax Office & also the MG Road connecting the Bhutan Gate through the link road.

Local Roads:

The local roads are the ones connecting different locality and habitable areas of all the mouzas of JDA area including the tea gardens covering around 207 Km. As per the survey 15% is bituminous, 10% is concrete, 69% is kutcha and 6% is laid on stone metals. There is a serious requirement for the development authority to emphasize on the roads so that all the internal roads are converted to pucca/bituminous at the earliest. Roads play an important role in bringing development in an area.

Status of Roads:

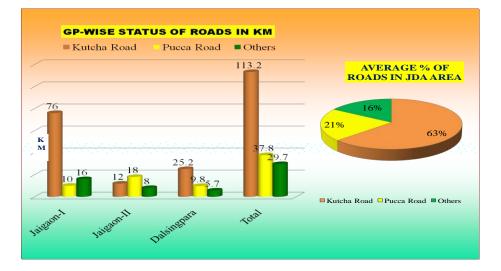
There is huge scope of improvement of roads as 63% of the Gram panchayat roads in the three GPs need to be made pucca/bituminous. The status of the GP roads as per BDO report is placed below :

Gram Panchayat	Kutcha Road	Pucca Road	Others	Total
Jaigaon-I	76 Kms	10 Kms	16 Kms	102 Kms
Jaigaon-II	12 Kms	18 Kms	8 Kms	38 Kms
Dalsingpara	25.20 Kms	9.80 Kms	5.70 Kms	40.70 Kms
Total	113.20 kms	37.80 Kms	29.70 Kms	180.70 Kms
Percentage	63%	21%	16%	

Table No. 22 : Status of Roads

Source: BDO Kalchini report'2015

The Gram Panchayat-wise status of Road alongwith the overall scenario is depicted in the Bar & Pie Chart below:



As per the survey, the total length of all the roads taken together is around 229.92 km. The difference in KM may be on account of the proposed Asian Highway being constructed and *kutcha* roads located within the tea gardens.

The adequacy of Road Length Availability per 1000 Population is placed below:

SI. No.	ltem	Road km/1000 population
1	India	0.069 *
2	West Bengal	0.032 *
3	JDA (present population i.e. 86644)	2.09
4	JDA(projected population 2035 i.e. 160000)	1.13

* Basic Road Statistics of India. 2015-16, morth report

Assumption: For projected population, road length considered is 181 Km.

There is sufficient road length available per 1000 population in the JDA area. However, there is a need for proper utilization of the existing road length available by converting the *kutcha* roads into *pucca* roads in all the gram panchayats and widening the existing roads like NS Road, MG Road, Link Road and Aside Road.

The present status of roads in JDA like pucca/bituminous, kutcha, stone metal and concrete are indicated in the map under **Map-3**.

Intersections: Most of the intersections are Y or T or X shaped with poor geometrics. None of the intersections are channelized due to which the traffic gets less turning radius at intersections.

Footpath: Footpaths are present only at NS road and MG road close to the Bhutan gate. Even there exists no footpath on the National Highway portion within the city limits. The National Highway within the city limits should adhere to the specifications set by National Highway while adding to other features. Guard rails on footpaths are non-existent. Pedestrian facilities are absent in intersections.

Parking:

The parking demand is high at the Commercial centre in Jaigaon and in other pockets of NS Road. Allocated parking spaces for around 80 – 100 numbers exist on MG Road and NS Road and parking fee is levied by JDA. However, the parking spaces are occupied by commercial vehicle and intercity taxis, due to which less parking space is available for shoppers forcing them to park on the road, leading to reduction in the carriageways. Proper parking areas are required to be identified for both the commercial & private vehicles near the Bhutan gate as the traffic movement gets choked during the peak hours of the day.

Traffic Congestion:

It is observed that the various road junctions and important locations are regularly witnessing traffic jam and congestion particularly during the pick hours of the day. The reasons for such congestion are the absence of traffic police stationed at important locations, absence of traffic signals, roadside encroachment, illegal parking etc. The locations which are witnessing such traffic congestions are at Bhutan Gate, MG Road/NS Road crossing, Link Road, Mongla Bari, Dora Gaon and near the present Bus terminus.

Road to India Gate:



The road to India Gate at Jaigaon near the existing vegetable market is constructed and is operational now. The vegetable market shifted to new location near GP-II office which has already been constructed and is ready for occupation. The construction of India Gate was

awarded to M/s. Macintosh Burn Ltd which has since been completed.

The existing route to the India Gate is through MG Road which is congested during the office hours. As this is the only route to the India Gate, an alternative route needs to be indentified to have easy access for light vehicles to the proposed India Gate.

Construction of New Roads:

The Jaigaon Development Authority has been taking up various road construction works like PCC road with drains, repairing of black topped road, construction of bituminous road, construction of road divider, footpath, road embankments, etc under the various State Plan grant and BADP periodically. This work should be continued on a regular basis so that all the roads at JDA get converted into blacktop within a definite time frame.

Truck Terminal:

There is a single Truck Terminal available at Jaigaon consisting of an area of 22,000 sq.ft having capacity to park 50-60 nos. of trucks at a time. It is located at GP-I in the name of "Balaji Truck Parking" near Bulan Turning, The features of the existing truck terminal are as follows:



- i. Operated by a private agency on a land taken on lease from Torsa tea garden
- ii. Schedule of Fee for parking:

Type of vehicle	Rate per day (24 Hours)
Small Truck	Rs.100/-
Big Truck (10-12 wheels)	Rs.150/-
Trailer	Rs.200/-

- iii. Average occupancy is 20-30 nos. of trucks.
- iv. Other facilities like makeshift restaurant, service garage, transit accommodation and toilets are available at the Truck Terminal.
- v. Trucks plying from India to Bhutan and vice versa are parked in this truck terminal.
- vi. The lease amount paid by the operator is Rs. 50,000/- per month to the land owner.

Land Custom Station at Jaigaon:

Jaigaon being an international border town has the unique distinction of having a Land Custom Station located within the town having widespread ramifications in the international Trade & Commerce. A Land Custom Station is a facility providing transit custom and immigration, cargo handling services for goods and passengers travelling between Bhutan and India. Land Custom Station is a gateway for entering or leaving Indian Territory. The station is located presently at NS Road in GP-I. The station carries out inspection of the documents submitted by the commercial transport vehicles entering Bhutan. The checking procedure includes the invoice, packing list, consignment note of the transporter etc. The documents and the goods are checked before affixing the stamp in the consignment note. The vehicles can leave for Bhutan only after completion of all the formalities.

There are 2 supervisors, 3 inspectors, 4 Havildars manning the existing Land custom station. There is a provision of a rest room within the office premises.

Descriptions of goods exported to Bhutan from India through Jaigaon LCS:

The exports of the goods from India to Bhutan through Jaigaon LCS are stated below: Vehicles, black pipes, pole line hardware fittings, ACSR conductor cable, solar power generating system, Vanaspati, HDPE pipe & machinery

equipments, milking machinery, electrical switching system, Hatchie equipment, fodder equipment, field equipment, Volvo crawler excavator, surgical equipment, fresh India white eggs, switching concretive pump, Drum Mix Plant etc.

Descriptions of goods imported into Bhutan under Letter of Guarantee from Third Country through Jaigaon LCS:

The goods imported from Third countries to Bhutan through Jaigaon LCS are stated below:

- Motor vehicle, electrical goods, garments, machinery goods, consumer/confectionery goods, computer and accessories, industries raw materials, crude Palme Oil, polyester yarn, copper rod, marble slab, poly grains construction machinery equipment etc.
- Goods imported into Bhutan under Letter of Guarantee from Nepal and Bangladesh, namely, machinery equipment, food items, household's goods, melamine and medicine etc.
- 3) Bhutan exported the following items to Third Country via Kolkata/ Bangladesh via Changrabandha / Nepal via Panitanki;
 - a) Third Country via Kolkata: Household goods, handicraft, red rice, Lemon Grass Oil, silicon, machinery equipment, TMT Bar, Ferro Silicon, Wheat Flour.
 - b) Bangladesh via Changrabandha: Fruits, stone chips, dolomite, powder, limestone powder, cardamom, Lemon Grass Oil and others.
 - c) Nepal via Panitanki: Cold drinks, pet perform, used machineries & equipments, M. S. Billets, industrial raw materials, Portland Cement etc.
 - d) Export through Jaigaon: Calcium Carbide, Ferro Silicon, marble slabs, stones of different sizes, juices.

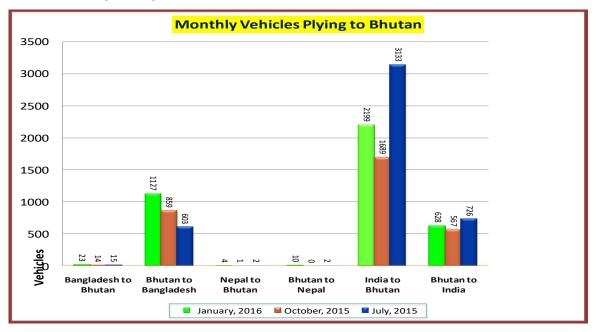
Monthly vehicles plying to Bhutan:

The monthly vehicles plying to Bhutan and back carrying materials have been assessed based on the information available for the last three months of FY 2015-16. The statistics of vehicles plying in the month of July, 2015, October, 2015 & January, 2016 is placed below:

January,2016		October,2015	5	July,2015		
Bangladesh to Bhutan Bhutan to Bangladesh		Bangladesh to Bhutan		Bangladesh to Bhut		
Nepal to Bhutan	- 0004	Bhutan to Bangladesh Nepal to Bhutan	- 0859 - 0001	Bhutan to Banglade Nepal to Bhutan	esh-0603 -0002	
Bhutan to Nepal	- 0010	Bhutan to Nepal	- 0000	Bhutan to Nepal	-0002	
India to Bhutan	- 2199	India to Bhutan	- 1689	India to Bhutan	-3133	
Bhutan to India	- 0628	Bhutan to India	- 0567	Bhutan to India	-0726	

From the above table, it is clear that the vehicles plying from Bhutan to India and back are more in numbers, because of higher exports made by India to Bhutan.

The Monthly Vehicle (January, 2016, October, 2015 & July, 2015) plying to Bhutan through Jaigaon is reflected in the bar chart below :



Origin Destination Study of buses plying from Jaigaon & Back:

Jaigaon Bus Terminus is located on the rear side of the building of Jaigaon

Development Authority. terminus The provide facilities like toilets, shops and sitting facilities for the passengers and a pollution control office(PCO). This PCO issues pollution control emission test certificates vehicles. for А newly constructed shelter facility has been



constructed within the terminus. This location is not ideally suitable for maintaining the bus terminus as because the buses plying in the town of Jaigaon creates pollution in the area and leads to overcrowding and traffic jam during pick hours of the day. The following bus routes ply from this terminus.

Route	Avg. Number of Buses	Time Schedule
Jaigaon to Alipurduar	20	06.00 AM to 06.00 PM
Jaigaon to Siliguri	8	06.00 AM to 08.30 AM /12.30 PM to 03.00 PM
Jaigaon to Coochbehar	14	06.40 AM to 06.00 PM
Jaigaon to Kalimpong (Except Thursday)	1	07.30 AM
Jaigaon to Jalpaiguri	3	12.15 PM/ 02.35 PM / 07.00 PM
Jaigaon to Panitanki	1	03.30 PM
Jaigaon to Birpara (Minibus)	8	08.00 AM to 05.00 PM
Jaigaon to Falakata (Minibus)	10	08.00 AM to 07.00 PM

Table No. 23 : Buses Plying from Jaigaon Bus Terminus:

The buses carry workers, laborers coming to Jaigaon searching for jobs in Bhutan and also Bhutanese Nationals who wants to reach places adjacent to Jaigaon in North Bengal. Private buses only ply on the above routes and no government buses ply except for one NBSTC bus plying for Jaigaon to Muzaffarpur in Bihar which is stationed close to Bhutan gate.

There is a Jaigaon United Motors Owners' Association which looks after the welfare of the bus owners. The North Bengal Motor Karmi Sangha is a body which protects the welfare of drivers and conductors of the buses plying from Jaigaon.

Traffic Volume Survey:

Traffic Volume Survey was carried out on Friday & Sunday from 7 AM to 7 PM in 3 different locations of GP-I & GP-II of the JDA area to understand the number of vehicles plying at the selected locations. The cordon points were at Torsa factory site, Mongla Bari & near the Bhutan Gate.

Torsa Factory Site (Friday) – 7:00 AM to 7:00 PM

Torsa Factory Site(Sunday)- 7:00 AM to 7:00 PM

	Up	Down		Up	Down
Buses	338	313	Buses	160	154
Minibus	4	0	Minibus	0	0
Car	2721	2426	Car	2497	2270
Auto			Auto		
Rickshaw	2835	2716	Rickshaw	2557	2436
Two Wheeler	2905	2590	Two Wheeler	2773	2229
Cycle	179	215	Cycle	141	96
Truck	641	626	Truck	706	557
LCV	447	380	LCV	527	456
Total	10070	9266	Total	9361	8198

8349

	Up	Down
Buses	338	313
Minibus	4	0
Car	2626	2426
Auto		
Rickshaw	2770	2716
Two Wheeler	2755	2590
Cycle	265	215
Truck	639	422
LCV	455	339
Total	9852	9021

Monglabari (Friday) -7:00 AM to 7:00 PM

Up Down 154 Buses 160 Minibus 0 0 Car 2301 2288 Auto Rickshaw 2484 2413 2589 2441 **Two Wheeler** Cycle 169 121 Truck 721 501 LCV 509 431

Monglabari (Sunday) -7:00 AM to 7:00 PM

Bhutangate (Friday) -7:00 AM to 7:00 PM

	Up	Down
Buses	0	0
Minibus	4	0
Car	3457	3607
Auto		
Rickshaw	2551	2551
Two		
Wheeler	2759	2756
Cycle	0	0
Truck	530	517
LCV	640	613
Total	9941	10044

Bhutangate (Sunday) -7:00 AM to 7:00 PM

8933

	Up	Down
Buses	0	0
Minibus	0	0
Car	2945	2915
Auto		
Rickshaw	2373	2369
Two		
Wheeler	2391	2377
Cycle	0	0
Truck	380	305
LCV	296	221
Total	8385	8187

The analysis made from the traffic volume survey clearly indicates that all types of vehicles either light or heavy ply in NS Road and MG Road of JDA area. There is an absence of any proper regional transport systems in the area as the mode of transport for general masses are through shared autos/Buses/ two wheelers and for the tourist it is the tourist vehicles. Two wheelers/Cycles are one of the most common/ best modes of transport for the people moving in the inner locations of JDA.

Total

From the above table, it is clear that the vehicle plying on week days are higher than on Sundays. The auto rickshaws only move within the JDA area. More than 50% of the traffic volume at NS Road and MG Road pertains to Bhutan.

Local Conveyance:

Intra city conveyance for general public is the autos plying at the following routes on shared basis from 06:00 AM to 08:00 PM. The routes are as follows:

- 1) Bhutan Gate to Mangla Bari
- 2) Bhutan Gate to Dalsingpara
- 3) Bhutan Gate to Hasimara

The autos plying at the above routes are normally overcrowded during the office hours. There are no authorized auto stands except for the one which is located adjacent to the Bhutan gate.

There is no Diesel/Petrol filling station located in the JDA area. The vehicles plying within JDA area fuel their vehicles at Phuntsholing, Bhutan because, the cost of fuel is lower than that of India on account of VAT charges levied by the Indian government.

Trekker/Taxi Stand:

A trekker stand is located opposite to JDA building which accommodates around 10 trekkers going to Falakata on share basis. A taxi stand is located adjacent to Bhutan Gate for carrying tourists to Phuntsholing and other nearby areas of Bhutan.

2.6.2 Water Supply:

The existing water supply situation is extremely inadequate to cater to the present population of JDA and particularly the Jaigaon census town. During survey it was informed that PHED of Govt. of West Bengal had implemented a rural pipe water supply scheme based on ground water. However, due to increase in the population, the water supply as designed has reached its limitations. In some areas Jhoras, tube wells, hand pumps and wells form an important source for providing water to the inhabitants of the area.

PHED has been supplying drinking water in Jaigaon and its adjoining Mechia Basti, Khokla basti & Chotta Jaigaon area. Besides PHE, the management of tea gardens also has their own infrastructure to supply drinking water within their estates. At present PHED is maintaining the service through authorized contractors who withdraw ground water through 4 tube wells & supply the water directly or via 1 (one) overhead reservoir having a capacity of 180000 ltrs.

Illegal taping has become a regular practice and the number of cases may have exceeded 6000 nos. Power cuts & fluctuation in voltage add to problems in supplying water to the households. There is no supply of drinking water system in the Dalsingpara GP. The existing system caters to GP-I and GP-II only.

Further, JDA has executed 44 numbers of mini water supply projects (Rig Bore Water Supply Schemes) in different locations of Jaigaon Development Area till 2015-16. One such Pump-House is depicted in the Picture.

The work on all the sites has been



completed & functional. Each mini water supply project consists of 60 outlets for connection to the consumers.

However, it was observed that not all 60 outlet connections were fully utilized, i.e., connections availed by Consumers. Each consumer is charged Rs. 180/- per month for O&M of each project out of which Rs. 70/- is given to the watchman cum caretaker. It was also observed that these rig water supply system supplies untreated water to the consumers, which is very dangerous to their health.

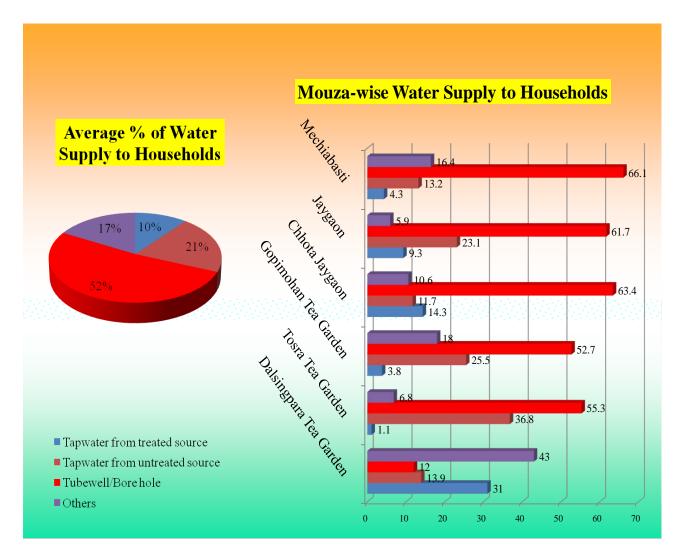
There is hardly any treated water available at Jaigaon-I & Jaigaon-II Mouzas. The same has been depicted in the table below:

					Main So	ource of	Drinking	Water (%)		
SI. No.	Mouza	Tap- water from treated source	Tap- water from un- treated source	Cov ered well	Un- cov ered well	Hand- pump	Tube well/ Bore- hole	Spring	River/ Canal	Tank/ Pond/ Lake	Other sources
1	2	3	4	5	6	7	8	9	10	11	12
1	Dalsingp ara Tea Garden	31	13.9	0.1	1.1	41.7	12	0	0	0	0.2
2	Tosra Tea Garden	1.1	36.8	0.7	0.2	1	55.3	0	0.1	0	4.8
3	Gopimoh an Tea Garden	3.8	25.5	0.2	0	1	52.7	14.8	0.5	1.3	0.2
4	Chota Jaygaon	14.3	11.7	0.1	0	0.9	63.4	0	8.4	1	0.1
5	Jaygaon	9.3	23.1	0.5	3	1.2	61.7	0.7	0.1	0	0.4
6	Mechia Basti	4.3	13.2	0.1	1.5	14.3	66.1	0.1	0	0	0.3
	Total Average	10.64	20.71	0.28	0.97	10.02	51.88	2.60	1.52	0.38	1.00

Table No. 24: Accessibility of Water Supply to Households

Source: Census 2011

Mouza-wise Water Supply to Household in Percentage and the overall scenario in the JDA is depicted in Bar & Pie Chart below:



From the above, it is observed that only about 10% of the total population is getting treated drinking water facilities. Another 21% although are having the facilities of tap water but it is not treated. Maximum 52% of the population is dependent on tube well/ bore well water.

The mouza-wise location of drinking water sources at households is indicated below:

	Location of Drinking Water Source (%)				
SI.	Mouza	Within	Near	Away	
No.		premises	premises		
1	Dalsingpara Tea	16.6	34.3	49.1	
	Garden				
2	Tosra Tea Garden	27	22.6	50.4	
3	Gopimohan Tea	35.5	32	32.5	
	Garden				
4	Chhota Jaigaon	61.4	30.5	8.1	
5	Jaigaon	20.1	58.1	21.7	
6	Mechia Basti	22.6	25.1	52.3	
7	Total Average	30.53	33.78	35.69	

Table No. 25: Location of Drinking Water Source

Source: Census 2011

2.6.3 Power Supply:

JDA gets its power mainly from the WBSEDCL. All the hotels, lodges, offices and residences are connected through power supply. The road illumination and lighting are at unsatisfactory level. The main source of lighting in JDA is reflected below :

			Main	Source of	lighting (%	76)	
SI. No.	Mouza	Electricity	Kerosene	Solar energy	Other oil	Any other	No lighting
1	Dalsingpara Tea Garden	37.7	61.5	0.5	0.3	0	0.1
2	Tosra Tea Garden	55	42.5	1.6	0	0.1	0.8
3	Gopimohan Tea Garden	53.4	46.3	0.1	0	0.1	0.1
4	Chhota Jaygaon	84.9	14.3	0.3	0	0	0.4
5	Jaygaon	83.6	13.4	2.5	0.1	0	0.3
6	Mechiabasti	68	30.1	0.2	0.4	0.2	1
7	Total Average	63.8	34.68	0.87	0.13	0.07	0.45
	0 2044						

Table No. 26 : Main Source of Lighting

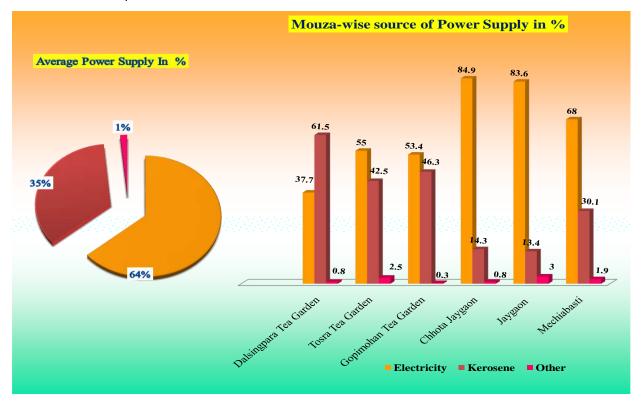
Source: Census 2011

The present status of Electricity Consumers within JDA area as per the data received from WBPDCL at Jaigaon is stated below:

1	Domestic	1643 nos.
2	Commercial	2811 nos.
3	Industrial	77 nos.
4	Others	4 nos.

From the above data as received from physical survey, it is observed that there is wide variation between the Census data & the survey i.e., the actual records in office. The instance case of domestic connections as per census 2011 indicates 63.8% households (11072 nos) have electricity connections whereas as per WBPDCL record only 1643 households have domestic connections. This indicates that majority of the household electricity connections are unauthorized.

The Mouza-wise source of Power Supply and the average scenario of the JDA area is depicted in the Bar & Pie Chart below :



Birpara is the main transmitting station that receive power from Jaldhaka and Chukka generating stations at 132 KV and stepped down to 66 KV and then transmitted to the other sub-stations falling in its grid. In April, 2001, another 66/11 KV power sub-station has come up at Hasimara and at present electricity in the planning area is supplied from this sub-station via three 11 KV feeders, one to Jaigaon, another to Dalsingpara and the third to Bharnobari TG. Presently, 60% distribution line is covered with Aerial Bunched cable through over head system with transformers located at various locations. Some parts, particularly, in rural area underground cable (XLP) are installed. Further, cabling work of overhead line under RAPDRP is in progress. The new domestic connections are given to the consumers after verification of documents, like Voter's ID Card etc.

There is one customer Care centre located at GP-1 opposite Post Office for payment of bills and maintenance. The office occupies an area of 1700 sq.ft. on rent and manned by 6 officials. The maintenance is outsourced by the Department. The following are the electrical load distribution at JDA area:

a.	Hasimara Feeder – 160 Amp.
b.	Jaigaon Feeder – 223 Amp.

The number of transformers with capacity located in the JDA area are stated below :

1	100 KV transformers	56 Nos.
2	63 KV transformers	43 Nos.
3	25 KV transformers	53 Nos.
4	16 KV transformers	1 No.

Frequent power cuts and voltage fluctuations were a regular feature in the past but the situation has improved after installation of the new power substation at Hasimara. The electricity network map of the area depicts the electrical post, location of the transformers, double post carrying HT and LT line in **Map-4**.

2.6.4 Sewerage & Sanitation:

During the survey it was found out that there are Households with no toilet facilities and some of the population resort to open defecations. This leads to un-healthy atmosphere & pollution in the area. In the main town most of the houses are having septic tanks. However, in some households, the septic tanks are over-flowing & sometimes choking the nearby drains. There are leakages from the walls of some septic tanks thus leading to pollution of nearby water source.

No sewerage system exists in the town at present which can carry the night soil and toilet waste water, kitchen & household waste water alongwith storm water drainage. At present the drainage system comprises of open drain which is also not covering the full town area and they are having problems of free flow due to deposit of garbage, silt and building material wastes, etc.

Sewerage & Sanitation are the backbone of the 'Swachh Bharat Mission', recently launched by the Government of India and NIRMAL BANGLA launched by the West Bengal government. Absence of proper sanitization facilities helps in breeding mosquitoes, flies and other insects in the area thereby causing health hazards and outbreak of diseases.

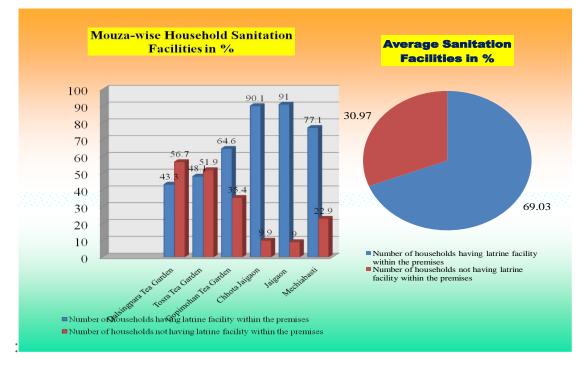
Household Toilets:

The access to latrines in Jaigaon Development Area is placed below :

	Household Sanitation Facilities (%)				
SI	Mouza	Number of households having latrine facility within the premises	Number of households not having latrine facility within the premises		
1	Dalsingpara Tea Garden	43.3	56.7		
2	Tosra Tea Garden	48.1	51.9		
3	Gopimohan Tea Garden	64.6	35.4		
4	Chhota Jaigaon	90.1	9.9		
5	Jaigaon	91	9		
6	Mechia Basti	77.1	22.9		
7	Total Average	69.03	30.97		

Source: Census of India, 2011

The Mouza-wise Household Sanitation facilities alongwith the average scenario in the JDA is depicted in the Bar & Pie Chart below



From the above, it is observed that only 69% of the total households are having latrine facility within their premises and the remaining 31% are devoid of such facilities. There is urgent need of the intervention in construction of toilets under **Swachh Bharat Mission/Nirmal Bangla** for converting the area into a 100% toilet facility.

Public Toilet:

JDA is constructing a Sulabh Souchalay at link road Jaigaon. The funds are being sourced from MP LAD fund. JDA is also constructing Sulabh Souchalay near Primary Health Centre, Jaigaon, which was under construction during the last survey.

Other than the ones stated above no other public toilets are available in the JDA area.

2.6.5 Drainage

It is observed that the existing drainage system is grossly inadequate on account of no drainage or open drainage and not having proper networking and out fall systems in many areas.

River Torsa, also known as Machua and Amo Chhu forms the major drainage line. It has a total length of 358 Km out of which 113 km is in China and 145 km in Bhutan before flowing into the northern part of West Bengal in India through Jaigaon. This river flows from north to south on the western periphery of Jaigaon Development Area up to Hasimara road Bridge and from there the main course of this river falls into river Brahmaputra in Bangladesh.

Hasimara and Gabur Jyoti are two other drainage channels both of which are non-perennial. They originate from the hills of Bhutan and flows through the planning area carrying the run-off from north-east to South-West and discharging into river Torsa. River Basra which passes through Gabur basra

forest on the eastern side of the planning area, is another important tributary of river Torsa that acts as the main drainage channel of this micro region. Gopi Khola (Yogikhola) is another drainage channel, which passes through Khokla Bustee under Torsa Tea Garden Mouza. As per survey carried out in the five mouzas (excluding the Tea Garden), the status of drainage is placed below:

Mouza	Kutcha (Km)	Pucca (Km)
Dalsingpara	18.57	3.18
Gopimohan	0.36	0.41
Jaigaon	2.78	12.89
Mechia Basti	0.73	3.30
Torsa Tea Garden	14.17	1.84
Total :	36.61	21.62

During survey at Chota Jaigaon mouza, it was found that there is no drainage system in existence in that area though it formed a part in the census town of Jaigaon. The drainage channels might have got choked in the recent past on account of mud and silt flowing from the hills of Bhutan during the rainy season.

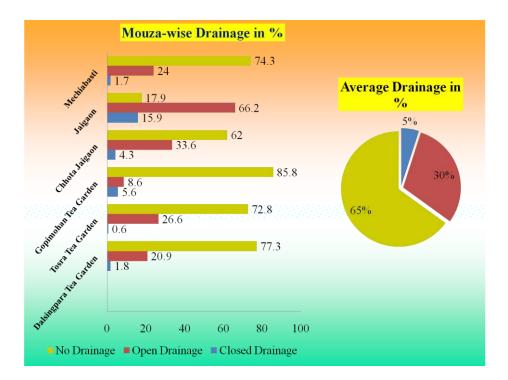
The status of drainage facilities within JDA as per Census 2011 is as follows:

Table No. 28	: Coverage	of Drains in	JDA Area
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		Waste water outlet connected to (%)		cted to (%)
SI	Mouza	Closed Drainage	Open Drainage	No Drainage
1	Dalsingpara Tea Garden	1.8	20.9	77.3
2	Tosra Tea Garden	0.6	26.6	72.8
3	Gopimohan Tea Garden	5.6	8.6	85.8
4	Chhota Jaigaon	4.3	33.6	62
5	Jaigaon	15.9	66.2	17.9
6	Mechia Basti	1.7	24	74.3
	Total Average	4.98	29.98	65.04

Source: Census, 2011

The Mouza-wise Drainage in Percentage & the overall drainage status is depicted in Bar & Pie Chart below:



From the table, it is clear that 65% of the JDA area does not have any drainage network and 30% of the JDA area is having open drains. There is an immediate requirement for creation of complete drainage network within the JDA area so that the citizens living in that area can avail better hygienic and sanitation facilities. The drainage network of the area earmarking the *kutcha*, *pucca* drains / *nullas* and the direction of the slope based on physical survey is replicated in **Map-5**.

The reasons for blockage in drainage facility available in JDA area are as follows:

- Blockage of drainage channels with garbage and solid waste
- Siltation and due to land slides
- Lack of proper maintenance

- Slaughter houses discharges waste into drains
- Over spilling building and construction materials
- Lack of proper networking and integration

These problems need to be attended to on an urgent basis for effective and efficient drainage systems in the area.

2.6.6 Solid Waste Management:



There is no data available on solid waste collection & disposal system within the JDA area. However, during the primary survey carried out, it was observed that certain portion of Jaigaon GP-II, especially the commercial area located

on MG Road and N S Road near Bhutan gate, solid waste garbage is being collected daily by an NGO, named, 'Green Revolution' and paid by the Merchants/Trade & Commerce Association of Jaigaon.

Solid Waste Management System is non-existent in JDA area. The practice followed by the locals is to throw the garbage/solid waste to the nearby Jhoras/rivers or dump near the roads and vacant plots. Sometimes the waste is burnt creating smoke and pollution in the area. The picture depicted above reflects the poor situation in the area.

2.6.7 Tele Communication:

Telephones: BSNL has its telephone exchange at Dalsingpara area. The number of connections in that area is stated below:

1.	Landline	: 1500 Nos.
2.	Broadband	: 280 Nos.
3.	Mobile	: 1500 Nos.
4.	Lease-lines	: 13 Nos.
5.	CDMA	: 12 Nos.

Presently, BSNL Telephone Exchange is located at Hasimara and a small exchange is located at Jaigaon. The communication system is made through Optical Fiber Cable (OFC) either through underground or by overhead system. BSNL is gradually converting the exchange into a microwave exchange.

The BSNL Telephone exchange at Jaigaon is having the following capacity and details:

Capacity	Area of the	Approx. Rev.	Towers
	building	Generation	(BTS)
2 kVA	1,600 St.Ft.	Rs. 7-8 Lacs per month	2*

*At Dalsingpara and Jaigaon Bazar site.

BSNL is upgrading its services through Neutral Optical Fiber Cable network (NOFN) which is an advance version of OFC. There are other private telephone operators which shares bandwidth with BSNL. The office and the staff quarters are located within the building of the office premises.

Private Telecom Operators:

There are private telecom operators having their offices in GP-II located at NS Road. The operators are, namely, Vodafone, Airtel, Reliance and Idea. The operators at Jaigaon provide only pre-paid connections to its customers. There are 10-12 outlets available in that area for providing services to the consumers. The offices for these private telecom operators for providing postpaid connections/services are located at Hasimara Town.

Post Offices:

Dalsingpara was the only Sub-Post Office in the planning area till 1993, when another Sub-Post Office came into operation at Jaigaon. Before that the E.D (Extra Department) Post Office at Manglabari was serving Jaigaon. At that time people of Jaigaon used to utilize the postal service of Bhutan, readily available at Phuntsholing. In JDA every gram Panchayat, at present, is getting the service of the postal department.

The location of the post offices in the Jaigaon Development Area are at Manglabari, Jaigaon and Dalsingpara.

2.7 Social Infrastructure:

The social infrastructure consists of education, health care, recreation facilities. It also includes religious, commercial centers, local markets and the banking facilities.

2.7.1 Education:

The Govt. pre-primary and primary schools are located at different areas of JDA. The schools lack proper planning, adequate infrastructural facilities like toilets, proper table & chair for students & teachers, play ground etc. Even in some schools, the teacher to student ratio is far below the norms.

The detail of educational institutes available within the Jaigaon Development Authority area is as below:

SI	Schools	Govt. Schools (Nos)	Private Schools (Nos)
1	Pre-Primary	13	2
2	Primary	12	11
3	Upper Primary	6	4
4	Secondary	1	8
5	Senior Secondary	3	5
6	Colleges	1	Nil
7	Technical Institute	Nil	Nil
8	Vocational Institutes	Nil	Nil

Table No. 29 : Educational Institutions

There is only one Govt. Secondary school within the development area. Students in large numbers attend to private schools upto higher secondary level on account of inadequate number of Govt Higher Secondary Schools. There is also requirement of a Bengali Medium School upto Higher Secondary Level in the JDA area.

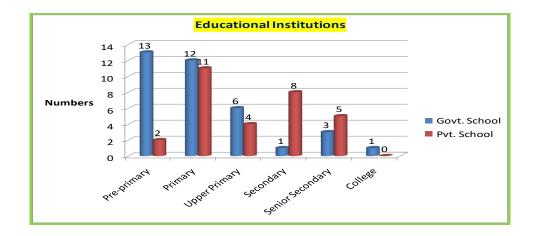
Some of the important private schools upto higher secondary level functional are St. Anthony (GP-I), SHMD School, BD School, Sun Rise English Medium and St. Johns School. All the above-named private schools are located in GP-II area. The maximum number of high secondary schools are at Jaigaon mouza where the students come to school by the school buses during the pick hours of the day. This is one of the reasons for creation of traffic congestion near the commercial area.

There is only one college at Jaigaon in the name of NBS Mahavidyalay which is affiliated to North Bengal University catering to the students of Arts stream only. The college has a big campus and can



accommodate students of other streams of that area, if the authorities introduce Science and Commerce streams in the college.

The status of existing Educational Institutions are depicted in a bar chart below :



2.7.2 Health Care:

In the Jaigaon Development Authority (JDA) area, there is a 10-bedded 24 X 7 PHC, which is presently functioning with an Out-Patient Department (OPD) and has a Maternity Delivery facility. There are 2 (Two) Medical Officers, 4 (Four) Staff Nurses, a Pharmacist and support staff. Presently In-Patient Department (IPD) facilities are being extended to only pregnant women. Apart from the JDA area, this PHC caters to 3 GPs and 11 Health Sub-Centre areas of the region. An estimated population of 80 thousand people is catered by this PHC.



The photo of Health Centre at Jaigaon is placed below:

The nearest 30 bedded Rural Hospital, at Uttar Latabari is around 30 kilometers from this PHC and provides OPD and IPD services. Apart from the pregnant women, it also admits other cases. No specialist services are available here.

The nearest State General Hospital is the Birpara, which is around 50 kilometers form Jaigaon and which provides specialist services in the discipline of Medicine, Pediatrics, Gynecology & Obstetrics, Eye and ENT. Apart from the specialist clinical services, it has OT facilities and investigation facilities including blood tests (bio-chemistry, general pathology and serology), X-ray and USG services. A Sick New Born Care unit and a Blood Bank are expected to commence shortly.

The nearest District Hospital is the Alipurduar, which is around 70 kilometers from Jaigaon and provides specialist services in the discipline of Medicine, Pediatrics, Gynecology & Obstetrics, Eye, General Surgery, Skin, Psychiatry, Orthopedics and ENT. Apart from the specialist clinical services, it has OT facilities, Blood Bank and investigation facilities including blood tests (biochemistry, general pathology and serology), Digital X-ray, CT scan and USG services. It has a fully functional Critical Care Unit and a Dialysis Unit. A Sick Newborn Care Unit is expected to commence shortly.

There are no private hospitals available in the area except for some diagnostic centers located at Jaigaon Mouza near the junction of N.S. Road and M.G. Road. Some private doctors make weekly visits from Jalpaiguri and Alipurduar district to the nearby medical shops located near the Bhutan Gate for providing health services.

2.7.3 Recreation/ Sports Facilities:

Normally playgrounds are provided to facilitate recreation and sports activities for the children in the towns and villages.

Playgrounds

The status of existing playgrounds within the JDA area is stated below:

Play Ground	Area (in Acres)
Jaigaon Play Ground (Murda Stadium) at GP-II near Burning Ghat	3.587
Torsa Football Ground at GP-I	5.688
Play Ground at Dalsinghpara Tea Factory	6.499
Play Ground at Dalsinghpara near MES Slaughter House	0.405
Play Ground at Dalsinghpara Gopalbahadur Basti	2.3819
Total	18.5609

Table No. 30 : Playgrounds

Source: Primary Survey,

These playgrounds are not at all maintained and needs to be properly maintained by the local authority so that the children of the area can play all types of games an can conduct sports during occasions.

Parks/Organized Green spaces:

At present there is no formal children's park/organized green spaces in existence for public use within the Jaigaon Development Authority Area.

2.7.4 Religious Spaces:

There are 2 Kali temples at GP-II near Commercial area close to Bhutan



gate. There are 2 hanuman temples, 1 located at NS-MG road crossing and the other at Bhutan

gate junction. There are mosques located near the GP-II office and near the present

cremation ground. The pictures of a kali temple and a mosque at Jaigaon mouza is placed on both the sides. There are Churches located in all the 3 Gram panchayats. Pictures of a kali temple and a mosque are depicted.



2.7.5 Socio-Cultural Facilities:

Community Centres:

A Community hall is under construction by JDA at Jaigaon besides GP-II office. This community hall is expected to cater to all kinds of social, cultural & religious occasion of the people in that area. There are also some private community halls- namely Agrasen Bhawan at GP-II(capacity for 1000 persons), Tulsi Bhawan at GP-II (near star cinema), Gulabi Devi Bhawan and Terapati Bhawan in GP-I. There is a Hanuman Mandir Dharmasala (in GP-II) besides link road and Gorkha Bhawan in GP-II area. These community halls are rented out to the individuals and groups for organizing social functions.

There is a Private Cinema Hall (Star Cinema) which is operational in GP-II area adjacent to MG Road and close to the commercial area.

2.7.6 Commercial Centre:

The commercial centre is located beside the Bhutan gate. It accommodates the following shops like Medicine, Hardware, Garments, Grocery & Stationary, Electrical & Electronics, Furniture, Garage & Repairing, Tea Stall & Eating House, Jewelry, Cigarette/Kiosks, Saloon & Beauty Parlor, Shoe, building materials, etc.

The existence of branded shops is presently abundant in the area.



These shops are like Allen Solly, Puma, Bombay Dyeing, Nokia, Bata, Nikkon, VIP Luggage, Khadim, Kurlon, Sony, Samsung, Reliance Trend, Symphony, Dominoes etc. There is a "Big bazaar" located near the

Bhutan gate close to the police station. There are a number of four wheeler distributors located in GP-II area at Netaji Subhas Road close to Bhutan gate. All the important transport companies like Hyundai, Maruti, Tata has set up their shops for sale of vehicles in the area.

Most of the shops at Jaigaon cater to regular customers of Bhutan who purchases household/electronic items, fruits and vegetables/clothing items and get back to Phuntsholing and the nearby areas of Bhutan on a regular basis.

Local Markets:

Vendors markets are located on the road side in many areas of GP-I, GP-II and Dalsingpara. The shops have been encroaching upon the footpaths, roads, parking spaces, etc. However, JDA has already constructed a



market adjacent to Jaigaon GP-I office which is already under occupation. This market is open for 2 days in a week, namely, Tuesday & Saturday. The local people including customers from Bhutan visit in large numbers for purchasing vegetables, fish, meat, clothing & house hold items from the market.

JDA has also constructed a market at GP-II near Panchayat office for rehabilitating the displaced persons located near the proposed India Gate. The market has still not been fully occupied. Picture of the JDA market showing occupied and unoccupied shopping spaces is depicted.



2.7.7 Police and Fire Protection

Police Station:

The Jaigaon Police Station is located besides Kasturi Hotel which is in GP-II close to Bhutan Gate.

There is a police barrack within the Jaigaon Police Station premises which has been recently completed. This police barrack is on the 1st floor of the police station consisting of 5 rooms. There are 17 quarters (G+1 storied) on the rear side of the police station which is in a dilapidated condition.

There was a camp office at Jharna Basti under the said police station consisting of 1 officer and 5 constables which has been recently shifted to the premises of Jaigaon Police station. The total strength of the police station excluding the camp office shifted from Jharna Basti is 12 male constables, 5 lady constables, 5 ASI's and 5 SI's. The traffic police strength consists of 2 ASI's and 8 Civic Police Volunteers. There is 1 lock-up in the Police Station. The miscreants are kept only for a day in the lock-up and on exceeding a day are transferred to the Alipurduar jail.

This Police station is headed by Officer-in-Charge who reports to SDPO stationed at JDA office complex, Jaigaon. The SDPO looks after 3 other police stations namely Birpara, Falakata and Madarihat. There are 3 vehicles attached to the police station out of which 2 are working and 1 is condemned. Being a border town law and order plays an important role in the area.

The cases reported at Jaigaon Police Station for the last four year indicates that the majority cases reported are theft, crime against women and other cases like (drug addiction, illegal ownership of liquor, cheating, accidents, and fighting with neighbors) etc.

Fire Station:

There is no fire fighting & emergency services station available in the Jaigaon Development Area. In case of outbreak of fire, fire tenders' rushes from Phuntsholing, Bhutan. However, land has been earmarked for establishment of a fire-station at Gopimohan mouza having an area of one acre for which the proposal has been sent to Govt. of West Bengal for obtaining the necessary approval.

2.7.8 Crematorium and Graveyard:

There is a privately owned Hindu Burning Ghat (owner Sri S. D. Agarwal) on the Torsa River bank close to Bhutan border under Jaigaon mouza, GP-II. Fire woods are used for the cremation. The graveyard for Muslims is just beside the burning ghat. The approach road to the burning ghat and graveyard is having an uneven gradient/sloppy terrain which needs renovation and widening. The area is not suitable for such infrastructure as it is close to the Bhutan border.

Further, separate burial grounds are also in existence for Christians (Jaigaon mouza, GP-I), Buddhists (Mechia Basti mouza) & Muslims (Gopimohan mouza) near the bank of river Torsa. These areas also required to be properly demarcated and fenced. Approach road connecting these burial grounds needs to be constructed.

Further, one new electric crematorium has been constructed on the bank of river Torsha by PWD during the interim period.

2.7.9 Banking Facilities:

As per the Census of india, 2011 data, the banking facilities (%) availed by the local population at JDA area are as follows:

SI	Mouza	Total number of households availing banking services (%)
1	Dalsingpara Tea Garden	86.10
2	Torsa Tea Garden	34.30
3	Gopimohan Tea Garden	29.00
4	Chhota Jaigaon	54.70
5	Jaigaon	56.60
6	Mechia Basti	50.60
7	Total Average	51.88

Table No. 31 : Banking Services

The coverage of banking services in JDA as per census 2011 was 52%. However, there is a wide variation in the banking coverage between the different mouzas. It is worthwhile to mention that under "**Jan Dhan Yojana**" launched by the Central Govt, the coverage for availing banking facility has increased considerably. The current scenario of banking services is indicated in the table below.

Table No	. 32: Credit	Flow from	Banks in	GP-II Area
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Particulars	SBI	AXIS Bank	Indus-Ind Bank	HDFC Bank	IOB	Union Bank	ICICI
Nature of Business	Veh. Loan 1 Cr. CC limit 10 Cr. Express Credit 60 lac.	Veh. Loan 1 Cr. CC limit 50 lac. Defense Credit 50 lac.	Veh. Loan 3 Cr. CC limit nil. Express Credit nil.	Veh. Loan; 3.5 Crs, CC Limit: Nil, Business Ioan: 1 Cr	Veh. Loan 30 lac. CC limit 2 Lac. Business Loan 15 lac.	Veh. Loan 1 Cr. CC limit 10 Cr. Express Credit 60 lac.	Veh. Loan: 6 Lacs, CC Limit: Nil, Business Ioan: Nil
Current A/c. (No)	440	950	600	400	48	233	350
Savings A/c.	25000	6000	3000	6000	600	4500	1900
No. of ATM	2	2	1	1	0	1	2
No. of Employees	11	12	8	9	4	4	5
Withdrawal per day	30 lac	50 lac	30 Lac	75 Lacs	1 Lac	20 lac	6 lacs
Deposits (Rs. In cr)	88	150	32	35	1.5	10	11

Source: Branch Manager, respective Banks, Jaigaon-2015

There are altogether 14 banks (public and private) operating at Jaigaon Development Area. Their existence is more towards GP-II near the Bhutan Gate. This location is the commercial area of JDA. There is hardly any credit given by the banks to individuals or the corporate because of availability of proper mortgage able documents. There is no small or medium scale industries located in that area for availing term loan/CC limit from the banks. The deposits collected by the bankers in that area are deployed to the other part of the country and the state.

Creation of an Urban Local Body (Municipality) and regularizing the existing construction works in the area will help in boosting credit limit of that area. This would also generate economic activities & lead to creation of employment in the region.

2.8 Environment:

2.8.1 Rivers and Jhoras:

The Jaigaon area consists of the following rivers namely Torsa (perennial), Hasimara (seasonal), Gobarjyoti (seasonal). The seasonal rivers are active only during the monsoon season. During the other seasons of the year, it is totally dry and is used for communication purposes. One



such picture of a Jhora at Dalsingpara mouza is affixed at the side.

There are Jhoras in the JDA area namely Jogi khola, Bamni jhora and Gabur Basra in the areas of Manglabari, Khokla basti and Dalsingpara area. The jhoras are mostly dry during the other seasons except for the monsoon season wherein these jhoras are being used as drainage outlets for both waste water

and sanitation and also for throwing garbages & solid wastes by the public at large.

2.8.2 Erosion of Torsa River:

The river Torsa originates from Chumby Valley in Southern Tibet. After

traversing a distance of 113 Km in Tibet & 145 Km in Bhutan, it enters in India near Jaigaon in the district of Alipurduar, West Bengal. Finally, the river Torsa joins the river Brahmaputra in Bangladesh.

The river traverses mountainous gorges

in Bhutan having steep slope and thereafter it enters India in the plains having much flatter slope than the hilly area. Due to this sudden change in bed slope,

a huge amount of silt and debris are brought down by the river and gets deposited in its course causing rise in river bed levels. Upper catchment of river Torsa is hilly and mountainous. The rainfall in that area is also very high. The rocky structure in the catchment area exhibits

a young geology containing weak and fragile landscape. Weak geological formation combined with high rate of rainfall, steep slope and high velocity of the streams cause frequent landslides during the monsoon season.

As a consequence, the existing foothill channel becomes filled up causing reduction in waterway and avulsion of the river course occurs on a frequent basis. The river tries to open up new courses by eroding its banks and diverting through the existing low depressions. In Jaigaon Development Authority area, the river mainly receives discharge from its tributaries viz.





Jogikhola, Gaburjyoti jhora, Hasimara Jhora, Malongi Jhora, Howri and river Sisamara. The Gaburjyoti Jhora, Jogikhola and Hasimara Jhora cause problem during monsoon as they deposit huge sediment load inside and outside the Jaigaon township area and create flooding which have become a regular phenomenon.

The accumulation of huge quantity of sediments on the river bed of Torsa and other Jhoras during the rainy season and also to the different drains and roads leads to rise in the level of the river bed & drains ultimately choking the outlets of drains. There is an urgent need of checking the soil erosion of the hills and construction of silt dams on up streams of the river Torsa & other Jhoras. Further, proper permanent alignment and strengthening of the river banks has to be carried out on urgent basis through construction of embankments.

Source : Report on Prevention of erosion in Torsa River by the expert committee

2.8.3 Disaster Prone Areas

As indicated above, the non-perennial rivers and Jhoras basically act as

drainage channels and are vulnerable, leading to disaster during the monsoon season, creating floods in the adjoining areas. The disaster-prone areas are stated below:



SI	Name of Jhora/ Channel	Vulnerable/Disaster prone areas						
1	Hasimara Jhora	Jharna Busti, Mechia Basti & Guabari						
2	Jogi Khola & Gopikhola Toribari & Upper Khokla Busti							
3	Gabur Jyoti	Khokla Busti, Mohua Tea garden,						
		Ranbhadur Busti & Guhelu Busti						
4	Dalsingh para	Dalsingpara Tea Garden						
5	Torsa River	Monglabari, Torsa Tea Garden, Subhas						
		Pally, Hanuman Mandir						

Table No. 33 : Disaster Prone Areas

Source : BDO, Kalchini Report

The disaster-prone areas are depicted in **Map-6** and one such area is depicted above.

2.8.4 Environmentally Sensitive Areas:

The area bordering Bhutan i.e., partly on the northern side and partly on the eastern side of the Jaigaon Development Area are the environmentally sensitive areas on account of existence of steep hills prone to heavy landslides and soil erosion during the monsoon season. Further, with the increase in population, encroachment at the hills are rampant leading to earth cutting, deforestation and thus causing heavy deposition of silts in the river /jhora bed.

2.8.5 Water Logging:

Water logging during the monsoon seasons creates chaos and inconvenience to the general public in that area. There are areas which are prone to water logging on account of heavy rains, land slide and flash floods coming from the foot-hills of Bhutan.

Recently there was an occurrence of a flood-like situation at North Bengal in the month of August, 2016 on account of heavy rainfall during the monsoon season in the whole district and especially at the Jaigaon town. The pictures depicted below replicate the situation prevailed at Jaigaon and largely at the commercial area of GP-II, i.e., N.S. Road/ M.G. Road leading to the Bhutan Gate:



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The water logging receded after a few days as the slope is towards Torsa River and it took some time to drain out the water from the area. However it created a disaster like situation for the people of Jaigaon during that period since the traffic and the daily life of the people came to a halt.

2.8.6 Pollution:

The area does not have a proper system for disposing garbage and solid wastes. This creates pollution in the area and lead to unhygienic conditions for living in the area. The garbage and solid waste are thrown on river bed, Jhoras, roads and streets creating accumulation of waste. The air and the dust pollution is comparatively higher, because of unhygienic condition of the area and also on account of movement of heavy vehicles and autos run on diesel eliminating poisonous smoke and dust while passing through the town to Phuntsholing, Bhutan. This kind of air and dust pollutions discourages flow of tourists to Jaigaon. The town doesn't have any devise to record the level of pollution prevailing in that area. But on the other side of Jaigaon i.e. Phuntsholing, Bhutan, the picture is just the opposite as it is a planned and beautifully laid down reflecting a proper hygienic condition for living and attracting tourist to Bhutan.

2.9 Housing:

Housing includes the household size, condition, type of use, type of residential structure, ownership status, no. of dwelling rooms, use of materials for construction, type of materials used in wall and roof. It also includes slum settlements, housing needs and the typology.

2.9.1 Household Size:

The household size of the different mouzas in JDA area as per latest census is placed below:

SL	Mouza.	Population	No. of Households	Household Size
1	Dalsingpara Tea Garden	17167	3501	4.90
2	Torsa Tea Garden	6258	1348	4.64
3	Mechia Basti	9592	1937	4.95
4	Gopimohan Tea Garden	8290	1690	4.91
5	Jaigaon	42254	8243	5.13
6	Chota Jaigaon	3083	635	4.86
	Total	86644	17354	4.99

Table No. 34 : Mouza-wise Household size

Source: Census of India 2011

The total population of Jaigaon Development Authority area was 86644 persons as per census 2011. The number of Households was around 17354 with average household size of 4.99 persons per household. However, there are variations observed in the household size within the different Mouzas, namely, Jaigaon mouza having a household size of 5.13 members and Torsa Tea Garden mouza having a household size of 4.64 members.

2.9.2 Condition of Houses:

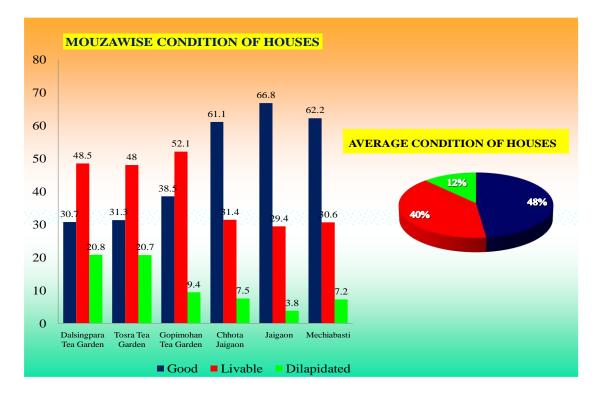
The distribution of household condition occupied is stated in the Table below.

SI	Area Name	Houses with condition as (in $\%$)						
		Total	Good	Livable	Dilapidated			
1	Dalsingpara Tea Garden	100	30.7	48.5	20.8			
2	Tosra Tea Garden	100	31.3	48	20.7			
3	Gopimohan Tea Garden	100	38.5	52.1	9.4			
4	Chhota Jaigaon	100	61.1	31.4	7.5			
5	Jaigaon	100	66.8	29.4	3.8			
6	Mechia Basti	100	62.2	30.6	7.2			
	Total Average	100	48.43	40	11.57			

Table No. 35: Condition of Houses

Source: Census of India 2011

The Mouza-wise condition of Houses alongwith the overall scenario in JDA is depicted in the Bar & Pie Chart below:



The overall analysis of the data reflects a little less than half of the housing stock, i.e., 48.43%, is in good condition. A large share i.e., 40% is just in livable condition and 11.57% of the houses are in dilapidated condition. This indicates there is immediate need of the replacement of 12% dilapidated houses with new ones. Even the livable houses (40%) shall require replacement in next 10 years or so. Thus almost 51% of the houses shall require to be replaced within the next 20 years plan period.

2.9.3 Type of Residential Use:

The distribution of occupied houses under residential and residential cum other use (in %) in Jaigaon Development Authority Area in 2011 is stated in Table:

SI	Mouza Name	Residence (in %)	Residence cum other use (in %)	Total (in %)
1	Dalsingpara Tea Garden	98.9	1.1	100
2	Tosra Tea Garden	97.4	2.6	100
3	Gopimohan Tea Garden	98.4	1.6	100
4	Chhota Jaygaon	96.9	3.1	100
5	Jaygaon	96.8	3.2	100
6	Mechia Basti	96.8	3.2	100
	Total Average	97.53	2.47	100

Table No. 36: Type of Residential Use

Source : Census of India 2011

From the above, it can be seen that 97.50% of the houses are of residential use and only 2.50% are of residence-cum-other use. As a small percentage, i.e., 2.5% of the houses are in use for residence cum other use, it can be implied that mainly the houses located on the main roads fall into this category in terms of use.

2.9.4 Type of Residential Structures:

The type of residential structures as per 2011 census is indicated in the Table below:

SI	Area Name	Househo	olds by Type	of Structure of	Census Houses	(in %)
No		Permanent	Semi-	Total Te	mporary	Uncla-
			Permanent	Serviceable	Non- Serviceable	ssifiable
1	2	3	4	5	6	7
1	Dalsingpara Tea Garden	42	52.9	0.6	4.4	0.1
2	Tosra Tea Garden	45.7	50.4	0.2	3.4	0.3
3	Gopimohan Tea Garden	58.1	37.1	0.2	4.5	0.1
4	Chhota Jaigaon	84	13.8	0.1	1.9	0.2
5	Jaigaon	81.9	16.6	0.1	1.3	0.1
6	Mechia Basti	73.7	24.2	0	2	0.1
	Total Average	64.23	32.5	0.2	2.92	0.15

Source: Census of India 2011

On an average 64% of the houses in the JDA have permanent residential structure & the remaining 36% are semi permanent/temporary residential structure.

However, it is to indicate that there is an urgent/immediate need for replacement of the temporary and unclassified houses accounting for 3.5% of the total houses. Further, the balance 32.5% of the semi-permanent houses shall require replacement in another 15-20 years time period. The situation is acute especially at Dalsinghpara, Torsa & Gopimohan Tea Garden Mouzas.

In the absence of any municipality in that area, building by-laws are not followed for construction of residential / commercial units. The buildings are constructed without proper approval from any Authority. The building plans are being passed by the respective Gram Panchayats without adhering to the building by laws.

2.9.5 Ownership Status:

The distribution of households is based on the ownership status (%) is given in Table.

SI	Village / Town	Owned	Rented	Any others
1	2	3	4	5
1	Dalsingpara Tea Garden	81	1.3	17.7
2	Torsa Tea Garden	81	3.4	15.7
3	Gopimohan Tea Garden	87.4	11	1.6
4	Chhota Jaigaon	82.5	15.8	1.6
5	Jaigaon (CT)	74.1	25	1
6	Mechia Basti (CT)	84.2	14.4	1.4
	Total Average	81.7	11.8	6.5

Table No. 38: Ownership Status

Source: Census of India 2011

Out of total households, 81.70% are owned, 11.80% are rented and 6.50% are under any other category. Thus, the majority of the households are owned with only a moderate percentage belonging to rental population. This indicates that there is shortage of houses of around 18% in the area.

2.9.6 Number of Dwelling Rooms:

The houses having number of dwelling rooms in Jaigaon Development Area (in percentages) is indicated below:

SI	Mouza	No exclusive room	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six rooms and above
1	Dalsingpara Tea Garden	1.3	30.7	39.9	22.1	4.4	1	0.5
2	Torsa Tea Garden	2.3	20.9	45.5	22.7	6.5	1.5	0.6
3	Gopimohan Tea Garden	3.7	22.3	41.6	21.4	7.5	2.5	1
4	Chhota Jaigaon	1.6	23.3	33	19.1	16.1	4.2	2.5
5	Jaigaon	0.6	36.6	32.6	15.5	9.6	2.3	2.8
6	Mechia Basti	11.1	34.3	33.8	13.4	4.7	1	1.6
	Total Average	3.43	28.02	37.74	19.05	8.15	2.08	1.53

Table No. 39: Dwelling Rooms (In %)

Source : Census of India 2011

Chapter 2

From the above, it is observed that majority of the houses are of 2 rooms (38%), 1 room (28%) or 3 room houses (19%). Only 1.50% houses are with 6 rooms or above. It is also observed that around 3.50% of houses are without any exclusive rooms. This more or less indicates that maximum of the households (69%) falls under EWS & LIG category, another 27% under MIG and the remaining (4%) is HIG category.

2.9.7 Use of Materials for Construction:

a) Type of material used in Floor:

The type of material used for construction of floors are indicated below:

SI	Mouza Name				Mate	rial of Floor		
	Nume	Mud	Wood/ bamboo	Burnt Brick	Stone	Cement	Mosaic/ Floor tiles	Any other material
1	Dalsingpara Tea Garden	47.2	5.4	0.5	0.3	46.6	0	0
2	Torsa Tea Garden	37.9	3.4	0.3	0.3	58	0.1	0
3	Gopimohan Tea Garden	19.3	5.7	0.3	1.7	72.5	0.4	0.2
4	Chhota Jaygaon	7.9	1.3	0	0.6	89.5	0.6	0
5	Jaygaon (CT)	12.3	1.2	1.5	1.3	81.8	1.9	0.1
6	Mechia Basti (CT)	17.7	1	0	0.3	80.8	0.1	0
	Total Average	23.7	3	0.43	0.75	71.5	0.52	0.05

Table No. 40: Type of Material used in Floor (In %)

Source: Census of India 2011

From the above, it is observed that maximum houses constructed (71.5%) are of cement floors. Another 24% are of mud floors. The remaining are constructed on other materials.

b) Type of Material used in Wall:

The material for construction of walls used in houses are indicated below:

SI	Area Name					Material	erial of Wall					
		Grass/ Thatch/ Bamboo etc.	Plastic/ Polythene	Mud/ Unburnt brick	Wood	Stone not packed with mortar	Stone packed with mortar	G.I./ Metal/ Asbestos sheets	Burnt brick	Concrete	Any other material	
1	2	3	4	5	6	7	8	9	10	11	12	
1	Dalsingpara Tea Garden	30.1	2	5.5	20.1	0.6	0.2	0.8	36.6	3.7	0.2	
2	Tosra Tea Garden	25.1	1.7	13.8	13.5	1.8	4	1	35.6	3.3	0.2	
3	Gopimohan Tea Garden	20.3	0.6	6.4	14.3	1.1	0.4	1.1	51.2	4.5	0.1	
4	Chhota Jaigaon	7.6	2.5	1.5	4.2	1.5	0.6	1	64.1	16.7	0.1	
5	Jaigaon (CT) - Ward No.1	11.6	2.2	1.5	2.6	4.3	6.4	1.1	65.3	5.1	0	
6	Mechia Basti (CT)	19.3	0.3	4.5	1.8	0.3	0	1	57.5	15	0.1	
	Total Average	19	1.55	5.53	9.42	1.6	1.93	1	51.7	8.05	0.12	

Table No. 41: Type of Material used in Wall (In %)

Source: Census of India 2011

From the above, it is observed that almost 52% of the houses are using burnt brick for construction of walls in houses. Another 8% use concrete for walls. Another major group of people (19%) has used thatch/grass or bamboo and 9.5% wood for wall construction.

c) Type of Material used in Roof:

The material used for construction of roof are indicated below:

SI	Area Name				Materia	l of Roo	f (In %)			
		Grass/ Thatch/ Bamboo/ Wood/Mud etc.	Plastic/ Polythene	Hand made Tiles	Machine made Tiles	Burnt Brick	Stone/ Slate	G.I./Metal/ Asbestos sheets	Concrete	Any other material
1	2	3	4	5	6	7	8	9	10	11
1	Dalsingpara Tea Garden	1.7	3.3	1	0.3	0.3	0.5	91.2	1.7	0
2	Tosra Tea Garden	1.6	2	1.9	0.6	0.2	2	90.9	0.5	0.2
3	Gopimohan Tea Garden	2.2	2.7	1.3	0.1	0.2	2.8	81.9	8.8	0
4	Chhota Jaigaon	0.6	1.5	0	0.1	0.3	20.9	61.7	14.8	0
5	Jaigaon (CT) - Ward No.1	0.7	0.8	0.3	0.1	1.4	3.9	73.1	19.7	0.1
6	Mechia Basti (CT)	1.3	0.9	1	0	0	0.4	92.8	3.5	0
	Total Average	1.35	1.87	0.92	0.2	0.4	5.08	81.93	8.17	0.05

Table No. 42: Type of Material used in Roof

Source: Census of India 2011

From the above, it is observed that majority of the houses (82%) has used GI/ Metal/ Asbestos sheets for roofing of the house. Next 8% has used Concrete and 6.6% of stone/ slate, tiles or burnt bricks. The balance 3% is of degradable materials like thatch/ grass/ plastics and thus falls under the temporary houses category as indicated above.

2.9.8 Housing Stock and Supply:

As indicated above, it is observed that 82% of the households stay in their self owned house and only 12% stay in rented and balance 6% in others. The housing stock indicates that only 48% houses are in good condition, 40% houses are livable and the balance 12% are in dilapidated condition.

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Thus, the 12% dilapidated houses require immediate replacement in terms of housing stock. Also, the livable houses shall also require either strengthening within a period of 5 years or total replacement by next 10-15 years time period.

Further, it is also worthwhile to indicate that as per the census 2011 data, 64% of the Housing stock is of permanent structure, 32.5% are semi-permanent structure and balance 3.5% are temporary or unclassified. Considering the above, it is seen that the balance 36% of the house structure shall require strengthening and replacement, if not carried out immediately.

There is no identified Public Agency/Builder in operation in the area for supply of housing stock. The only intervention is through public/individual construction of houses in their self owned land or unauthorized construction at encroached Govt. land.

2.9.9 Slums

A Slum is a compact settlement of atleast 20 households with a collection of poorly built tenements, mostly of temporary nature, crowded together usually with inadequate sanitary and drinking water facilities in unhygienic conditions" (definition as per NSSO).

The West Bengal Slum Area (Improvement and Clearance) Act 1972, Sec 3 defines a slum as "..... that the condition of land, huts or other structures in any area is such that the continued existence of such conditions would be injurious to public health or safety or to the health, hygiene or morals of the inhabitants of such area".

There is no available data on the number of slums/squatter settlement in Jaigaon area. However, the survey reveals that slums/neighborhoods slum like condition are in existence in pockets within JDA area. As per the survey, the major slum areas within JDA are as follows:

Table No. 43: Location of Slums

SI	Mouza	Location	Area in acre (around)	No. of households (around)
1	Gopimohan	Molla Basti	45.83	100
2	Jaigaon	Jharna Basti	22.48	250
3	Gopimohan	Nayaline Basti	11.92	80
4	Jaigaon	Tola Basti	35.39	200
	Total		115.62	630

Source: Primary Survey,

Gopimohan and the Jaigaon mouza has the maximum number of



and Torsha tea garden mouza. Pictures of a slum at Gopimohan mouza and at Jaigaon mouza is placed.

urban slums at JDA. There are a lot of rural slums available at Dalsinghpara



2.9.10 Housing need Assessment:

URDPFI Guidelines, Vol I, 2014 states: 'Need' refers to inadequacy of existing provisions when compared with socially acceptable norms, while 'demand' is an economic concept wherein standard and amount of housing demand is related to household's income and ability to pay. Both housing

need and demand are affected by factors such as housing shortage and rate of obsolescence, whereas demand would be additionally affected by affo rdability and future housing needs.

Here, the housing needs assessment is based on the shortage of houses and the others in a dilapidated state as indicated below:

SI	Years	Total Pop. (Nos)	Ave. HH size	No of HHs	Current Absolute Shortage (rented + others)	Existing Dilapidated Stock	Total Housing shortage
1	2011	86644	4.99	17354	3176	2008	5184
				Total	3176	2008	5184

Table No. 44: Housing need Assessment

Source: Census 2011

From above, it is observed that there was a shortage of 5184 houses in 2011 which has definitely increased thereafter with ageing of the existing housing stock and the projected number of additional households in the town as per projected population. Another 40% (6942) of the houses need replacement by next 10-15 years i.e., by 2025. So, the requirement shall be 12126 houses without considering the additional increase in population/households.

2.9.11 Housing Typology:

There are no formal housing typologies identified in the JDA area. However, during the primary survey, following typology was noticed.

- a. Individual RCC private residential houses (Houses constructed on individual plots)
- b. Govt. Quarters (Police staff Quarters, BSNL staff Quarters)
- c. Individual Mud, brick, tin roof village type houses.
- d. Un-authorized squatters (temporary houses made up of timber/ tins constructed on basically Govt. lands)

2.10 Institutional Set-up:

2.10.1 District Level:

The District of Alipurduar was created in 2014. However, there are no Sub-Divisional/Circle/Block level offices in existence within Jaigaon except the newly established SDPO office. Presently, the district headquarter is located at Alipurduar. The DM is the administrative head of the district and is functioning from Alipurduar town. There are other district level offices which are still functioning from the Town of Jalpaiguri. There is urgent need for shifting the other district level offices to Alipurduar town and the adjoining areas within the district for easy communication and functioning of the district offices. The shifting/establishment of the district level offices from Jalpaiguri to the new district headquarter at Alipurduar would help in inter-departmental coordination and provide minimum facilities to the citizens of the district. Further, there is also an urgent need for up-gradation of Jaigaon as a Sub-Divisional headquarter under Alipurduar District, it being a border town and the SDPO office already functioning there to facilitate easy reach of governance to the people.

2.10.2 Block Level:

Jaigaon falls under the administrative control of Kalchini Block as it has not been declared as an urban area. The Block Office is located at a distance of about 25 km from Jaigaon town. The block office accommodates BDO Office, BLR&RD, Statistical data dept of the area and other related offices required for running a block.

2.10.3 Town Level:

Although Jaigaon has been declared as a Census town by the Govt. of India, it has not been identified as an urban area by the Govt. of West Bengal. The Govt. offices (Central & state) functioning within the JDA area are Sales tax, Excise, Land Customs, BSNL, JDA, Police station, Distribution office of the WB Power Development Corp., & banks.



Jaigaon Development Authority is functioning as a local Authority for the all-round Development of the area in conjunction with the three Gram Panchayats namely Dalsinghpara, Jaigaon-I, Jaigaon-II.

Jaigaon Development Authority:

The present authority was constituted by the State Government as per G.O.No.420-T&CP/C-2/1C-9/2000 dtd. 09-03-2007 and 2194-T&CP/C-2/1C-9 dtd. 28-12-2007. The location of the Development Authority is on the N.S.



Road which is in GP-1. It is a 2storey building located in front of Jaigaon bus terminus. One more storied is under construction. There are around 8 numbers of employees working in the development authority. The

Development Authority has a Board which meets on a regular basis for taking decision on all development matters in the JDA.

The Development Authority exercises the powers and functions under West Bengal Town and Country (Planning & Development) Act, 1979. The Additional district magistrate of Alipurduar looks after the administrative functioning of JDA.

Revenue Collection/ Expenditure/ Development Work carried out by JDA for the last 5 years (Receipts & Payments A/c.) :

			(Rs. In lakhs)
Year	Revenue Collection	Revenue Expenditure	Development Work
2010-11	8.73	18.00	126.97
2011-12	9.78	46.37	62.45
2012-13	12.75	51.98	281.94
2013-14	1.27	4.90	260.86
2014-15	12.14	187.41	223.02

Table No. 45: Revenue Collection/ Expenditure

Source: JDA reports

The development work is towards expenditure incurred on water supply & other construction works carried out by JDA. JDA is also receiving an assured allotment of funds from Urban Development and Municipal Affairs Department, Govt. of West Bengal every year. The revenue collection is from stall rent, water collection & parking fee etc. The total expenditure is made from the accumulated general funds lying in the Govt. Treasury and grants received from other sources. There are no loans taken by JDA from any banks or financial institutions for carrying out development works in that area.

2.11 Protected Zone:

The protected zone within the JDA area are the defense establishments located at Torsa tea garden, Jaigaon and Dalsingpara mouza. The landslide/soil erosion zone at the foothills of Bhutan located at Gopimohan and Torsa tea garden mouza. The forest area is located at Dalsinghpara mouza. This is depicted in **Map-7**. In these areas development is restricted.

2.12 Household Survey:

A random household survey was carried out for 1000 households on February, 2016 covering all the three Gram Panchayats which is around 5% of the total households within the JDA area. The survey was carried out for a period of 4 days. The questionnaires included number of family members, their age, education, occupation, distance to work, average monthly income, household type, land ownership, number of rooms, House built up area, source/quality of water, presence of toilet, sewerage and garbage disposal system, drainage availability, access to electricity, fuel used for cooking, Educational & health care facilities, neighborhood shopping, postal/banking services etc.

The findings from the survey carried out were that there is an absence of proper sewerage and drainage facility in the area. There is no collection of garbage from the households in the area. There is an absence of proper medical service from the primary health centre located at Jaigaon town. The patients have to be taken to nearby hospitals which are far away from the area. Absence of pure drinking water was reflected in the reply given by the people in GP-I and GP-II. In Dalsinghpara GP the availability of drinking water is managed through private sources. There has been a requirement for a science and commerce stream college in the area.

The roads at the inner locations of JDA are kutcha requires immediate conversion to pucca with necessary widening at some areas. The concentration of banks and their ATMs are more towards the commercial area of GP-II near the Bhutan Gate. The banks need to spread all over JDA and provide ATM facilities. There is a lack of employment generating options available in that area.

However, the findings of the household survey confirm the census 2011 data which has duly been incorporated in the development plan report.

2.13 Legislative Framework:

Implementation of a developmental plan needs to abide by the legislative framework of the state which includes guideline/ notification/ amendments issued by the State Govt from time to time. Some of these guidelines are mentioned below:

- a) The West Bengal Town & Country (Planning and Development) Act 1979
- b) The West Bengal Municipality Act 1993

- c) Land Allotment Policy issued by the State Government through Order dt. 26.12.2012
- d) Tea Tourism Policy dated 17.07.2013
- e) West Bengal Incentive Scheme 2013 dated 03.02.2014 for Micro, Small and Medium Enterprises
- Formation of Township Policy vide Guidelines dt.22.12.2014 issued by Urban Development and Municipal Affairs Department, Govt. WB
- g) Land Policy issued by the State Government through Gazette Notification dt. 25.02.2016
- h) Compensation for Tea bushes in connection with acquisition of Tea Garden Land vide Govt. Order dated 20.06.2016
- i) Green City Mission Guidelines dated 20.02.2017

CHAPTER 3: SWOT ANALYSIS

Introduction:

SWOT analysis is carried out to evaluate the strength, weakness, opportunities and threats of that area. This analysis helps in analyzing the ground reality of the area for making necessary plans and programmes in improving the area and its surroundings to make it livable and attractive.

After carrying out the survey, obtaining information's from census and government offices and held meetings with the Govt. officials and the general public a SWOT Analysis of JDA is prepared and placed below:

Strengths:

- 1. Jaigaon is a census town as per Govt. of India.
- 2. The JDA area is well connected by road and rail.
- 3. The area has a moderate climate with high percentage of rainfall. The climate is ideally suited for tea cultivation.
- 4. The area has its own scenic beauty as to the North is the foothills of Bhutan, the river Torsa in the West, forest in the East and Tea Gardens in the South.
- 5. Jaigaon is the gateway to the Himalayan Kingdom of Bhutan. Tourists use Jaigaon as a transit point for entering Bhutan. Entry passes for entering Bhutan is easily obtained from Jaigaon.
- 6. Jaigaon is a source for unskilled labour market for the various Industries located at Phuentsholing and its adjoining areas.
- 7. There is abundant fertile land available in that area for Agricultural cultivation.
- 8. Jaigaon is the major land corridor for movement of goods and raw materials to Bhutan from India, Nepal and Bangladesh.

Weakness:

- 1. Lack of industries and services sector in the area has lead to unemployment and absence of any economic activity in that area.
- 2. The area is having no urban local body for providing basic civic amenities to the local residents.
- 3. The area is poor in providing basic infrastructure facilities like supply of drinking water, sewerage, sanitation, drainage, solid waste management, health etc to the people of that area.
- 4. Being close to the foothills of Bhutan, the area is prone to floods and landslides during the monsoon season leading to natural disasters. The existing Jhoras acts as a drainage channel and gets filled up with garbage, silt and dirt creating flood-like situation and flooding the main roads and the adjoining areas.
- 5. The area lacks adequate social infrastructure facilities like education, recreation and entertainment facilities for the people residing at the area.
- 6. The residential buildings in that area are constructed without proper sanction of building plans. The buildings are constructed based on the approvals obtained from the respective Gram Panchayats. These gram panchayats do not adhere to Building Bye-laws & building control regulations.
- 7. Jaigaon Development Authority has 3 (three) Tea Gardens located within its jurisdictional area which act as a hindrance in proper Urban development activities.
- 8. Being a border town there is absence of any trading and Wholesale activity at Jaigaon.
- 9. There is abundant educated un-employed youth in the area.

Opportunities:

- There is a scope for creation of industrial land bank for attracting investment for MSME industries. It may be stated that the district of Alipurduar do not have any industrial cluster as on date. There is huge scope for agro based industries in that area.
- Tourism could be made a reality as tourist from all over the country and abroad come to North Bengal for enjoying the scenic beauty of the area. Jaigaon being a town located in North Bengal also can attract tourist for the district and also for entry to Bhutan.
- The newly constructed Asian Highway-48 passing through the town of Jaigaon connecting Pasakha Industrial Estate of Bhutan will lead to growth of trade and commerce between the two countries.
- 4. Revival of railway connectivity from Hasimara to Toribari at Bhutan will add to flow of tourists, exchange of trade and commerce between Bhutan, India and Bangladesh. The connectivity to Bangladesh will be from Hasimara Railway Station to Changrabandha (Bangladesh) via Coochbehar through North East Frontier Railway.
- 5. There is a shortage of housing in that area and the concept of "Theme Township" could be the right prescription. An area close to the town of Jaigaon can be earmarked for creation of Theme Township for accommodating people of all categories namely EWS, LIG, MIG etc.

- 6. The river Torsa flowing through Jaigaon can be better utilized for agriculture purposes and for tapping drinking water for the area.
- 7. Implementation of Infrastructure schemes under "AMRUT" and Housing facilities under "Housing for All- PMAY" scheme of Govt. of India for the EWS, LIG & MIG can be explored on creation of Urban Local Body. Further, the NULM schemes can also be implemented within JDA area.
- 8. The area has a physical proximity to the SAARC nations as the connectivity is through the proposed Asian Highway (under construction).
- 9. A sizable chunk of land parcels is encroached at JDA. Removal of encroached areas will lead to economic development in the area.

Threats:

- 1. Jaigaon falls under Zone-V of Micro-seismic Zone which is prone to very high damage in case of occurrence of any earthquake.
- 2. Being adjacent to International Border there is always a threat of security.
- 3. Shifting & rehabilitating the inhabitants staying in the encroached locations can lead to political unrest and agitation vitiating the peace of that area.
- 4. In absence of any economic activity in the area, the employed youths are working on daily basis as migrant laborers in Bhutan.

CHAPTER 4: POPULATION PROJECTION

Introduction:

Preparation of Land Use Development and Control Plan for any city requires forecasting of population for the horizon year which is the most critical planning input for calculations of other sectoral demand like housing, infrastructure, trade and commerce, Socio-cultural facilities, etc.

4.1 Population Projections: Various Methods

There are various methods available to project population of cities. However, the most often used methods for medium range time period and small geographical areas (cities) are growth rate approach and trend line methods. The population of Jaigaon Development Area has been projected using three different methods which are explained below:

Linear Method $P(t+n) = Pt \{1+(n*a)\}$ Where, Pt - is population at time 't' - is population at time (t+n) P(t+n) - is number of time periods n - is the average change in the past time periods a **Geometric Growth Method** P(t+n) = Pt(1+r)2Where, Pt - is population at time 't' - is population at time (t+n) P(t+n) - is number of time periods n - is the average percentage of change in population r over the past time periods **Exponential Curve Method** P(t+n) = Pt * ertWhere, Pt - is population at time 't' P(t+n) - is population at time (t+n) n - is number of time periods - is the average percentage of change in population r over the past time periods Note: Often the rate 'r' is not calculated, but estimated based on historical patterns and

judgement for the future. CAGR (compounded average growth rate) of population for the period 1991-2011 is taken as 'r'

for the above calculations

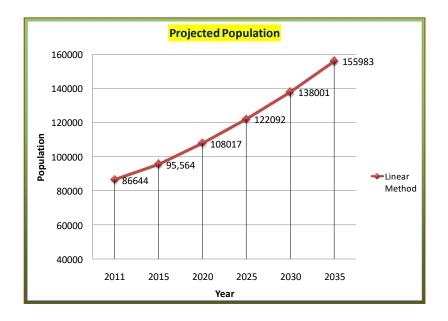
4.2 **Projected Population**:

The projected population of Jaigaon Development Area, using the above methods is presented in table below:

Year	Census	Projected Population				
		Exponential Curve Method	Geometric Growth method	Linear Method		
1991	43864					
2001	67795					
2011	86644					
2012		92,743	89,694	88,793		
2013		99,272	92,851	90,995		
2014		1,06,261	96,120	93,252		
2015		1,13,741	99,504	95,564		
2016		1,21,748	1,03,006	97,934		
2017		1,30,319	1,06,632	1,00,363		
2018		1,39,493	1,10,386	1,02,852		
2019		1,49,313	1,14,272	1,05,403		
2020		1,59,824	1,18,294	1,08,017		
2021		1,71,076	1,22,458	1,10,695		
2022		1,83,119	1,26,769	1,13,441		
2023		1,96,010	1,31,232	1,16,254		
2024		2,09,808	1,35,851	1,19,137		
2025		2,24,578	1,40,634	1,22,092		
2026		2,40,388	1,45,584	1,25,120		
2027		2,57,311	1,50,709	1,28,223		
2028		2,75,425	1,56,014	1,31,402		
2029		2,94,814	1,61,506	1,34,661		
2030		3,15,568	1,67,191	1,38,001		
2031		3,37,783	1,73,077	1,41,423		
2032		3,61,562	1,79,170	1,44,931		
2033		3,87,015	1,85,477	1,48,525		
2034		4,14,259	1,92,006	1,52,208		
2035		4,43,422	1,98,765	1,55,983		

Source: HUDCO's Projections

There is very wide variation in projected population using Exponential and Geometric Growth method. In comparison, population is little less when estimated using the Linear Method. Accordingly, the linear method projection is being adopted here. The Projected Population as per the linear method is depicted in the graph below:



CHAPTER 5: PLAN - 2035

5.1 Development Control Plan:

The Land Use Development and Control Plan for the area has been prepared for the period 2015-2035, considering the growth trends of the Planning area and the anticipated requirements for the existing JDA area.

	Plannin	Area (in Ha)	
А	Existing Jaig	4103.61	
SI No.	Gram Panchayat Name of Mouza		Area (in Ha)
1	Jaigaon – I	Torsha Tea Garden	1347.40
2	Jaigaon – I	Mechia Basti	198.30
3	Jaigaon - II	Gopimohan Tea garden	367.61
4	Jaigaon - II	Jaigaon	167.89
5	Jaigaon - II	Chota Jaigaon	40.20
6	Dalsingpara	Dalsingpara Tea garden	1982.30
		Total	4103.61

Table No. 47: Existing JDA Area

5.2 The Structure of the Plan:

The plan sets a vision for the development of Jaigaon Planning area, gives plans and policies for guided development aimed at achieving the vision, and identifies measures to be undertaken for implementing the proposals. It also sets out guidelines and development controls that will guide the development coming within the proposed zones. The plan has been phased as per the requirements of the URDPFI guidelines into five years period. This has been done in order to ensure ease of amalgamation of the development plan proposals into the state/ centre's five years plans.

A development plan is given for the town including the proposed landuse plan and proposals for the town. It also contains sectoral proposal on housing, infra services, tourism, employment, socio economic and cultural activities. Others policies for regulated and planned development of the town are also given in the master plan.

The plan is accompanied by proposed development control rules & guidelines and zoning regulations for the Planning area.

5.3 Vision:

Vision 2035 is aimed to make Jaigaon a "**Hub of Economic Activity**" where the people at large would be engaged in productive work with a better quality of living in a sustainable environment. The hub will have adequate infrastructural facilities to create expansion of various economic activities in the area.



The vision will address the following challenges :

- Future population growth
- Housing by creating a theme township, particularly for all the sections of the society
- Up-gradation of slum and old dilapidated houses in the area

- Provide adequate infrastructure facilities
- Create an integrated transport system
- Create tourism facilities
- Addressing the problems of un-employment by creating MSME
- Create employment for the unorganized sectors
- Community participation and inculcate sense of belongingness among the people
- Creation of local body for providing civic amenities

5.4 Goals:

A set of fundamental and interrelated goals have been identified for the town of Jaigaon and the planning area based on the vision 2035. The goals contain strategic aims that inspire all the proposals and policies contained in the plan.

Goal: To promote and provide for sustainable development of Jaigaon enabling it to accommodate the needs of existing and future and also to strengthen the relationship with the neighboring state of Bhutan :

- Promote social and economic development of the area in a balanced and sustainable manner.
- Attain low-rise medium density character of the town and propose urban character in future as well.
- Have a cordial relationship with Bhutan by encouraging social and economic activities.

Goal: To promote social inclusion and to facilitate equality of access to health, education, social activities and public safety services.

- Provide access to a range of social and community facilities for the people of Jaigaon
- Ensure that adequate health, education is provided to all residents and businesses.
- Provide and maintain adequate public safety services for the town, like fire, flood and any emergencies related to natural disasters.
- **Goal**: To provide for equitable infrastructure development for improved quality of life.
 - Ensure a high quality built and natural environment in the town.
 - To protect and enhance the natural environment and provide adequate recreational facilities
 - To ensure efficient drainage, sewerage and solid waste management facilities to improve the quality of life.
 - Provide safe and portable water supply to 100% of population
 - Protect and improve the riverfront and the existing Jhoras and to integrate them in an overall landscape plan of the town.
- **Goal:** To promote sustainable economic development and employment within the town, ensuring that a diverse range of economic sectors are developed and supported.
 - Adequate use of the local resources for gainful employment
 - Promote a range of commercial, industrial and service sector that generates gainful employment for its people and triggers development in the region.
 - Provide appropriate locations and incentives for industries and other economic sectors to develop.
 - Create tourism infrastructure facilities for generating employments.

Goal: To develop an integrated transport system.

To provide an integrated transport network

- To provide for pedestrian facilities.
- To provide pollution free public transport system.
- To provide new as well as up-graded roads for better access and reduce congestion.

Goal: To meet the needs for housings for all sections by 2035

- Access to housing to suit households of all categories.
- Provide quality living environment by ensuring provision of support services and community facilities.
- To promote accommodation for slum dwellers under housing for all.

Goal: To plan for a Green City

- Provide a green environment by planting trees, providing gardens and open spaces.
- Make the area free from pollution.

5.5 Proposed Land Use Plan

The proposed land use plan for Jaigaon indicates broad zoning and allocation of land under various uses. It has been worked out on the basis of the projections/demand assessment done earlier. During the process of formulation of the Development plan, various physical constraints and the future needs of the city in terms of various activities have been taken into account. The plan is based on meeting the requirements of approx. 1,56,000 persons for the horizon year 2035.

The proposed land use structure is expected to bring a balance in the character of the area by developing dispersed activity nodes away from the dense areas, which will act as counter magnets taking growth away from the

central areas. The spatial structure of the town will be harmonious with coherent interrelationships between various activities and uses proposed. An efficient transport system is to be provided for the town. The land use is tied up intrinsically with an efficient transport system, which is also proposed to cope with the future demand. The proposed land use is depicted in **Map-8**.

SI.	Land Use Category	Proposed	Land use
		Total Area (Sq.km.)	Area in %
1	Residential Zone		
а	Only Residential	11.88514	28.97
b	Mixed residential	0.23521	0.57
2	Commercial Zone	1.157	2.82
3	Industrial/Manufacturing zone	0.29352	0.72
4	Public & Semi-Public Zone (including Utilities)	1.13111	2.76
5	Transportation & Communication Zone	5.0362	12.27
6	Recreational zone	0.6213	1.51
7	Primary Activity zone		
а	Agriculture	16.00852	39.02
b	Tea Gardens		
С	Rural settlements	1.5236	3.71
8	Protective & Undevelopable zone		
а	Rivers/ Jhoras/ Streams	1.1193	2.73
b	Forest/Green Cover	1.1052	2.69
С	Hilly area	0.6171	1.5
9	Special Area	0.2968	0.72
	Total	41.03	100

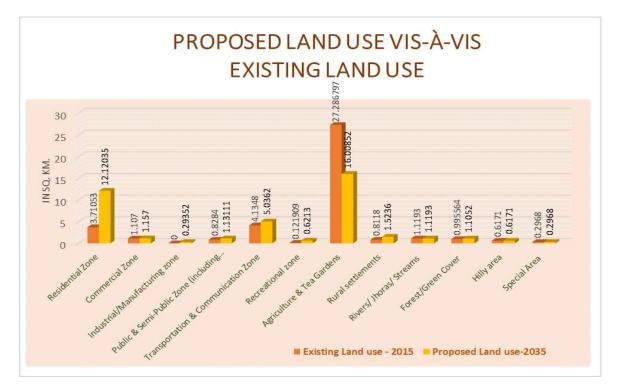
Table No. 48: Proposed Land Use

Comparison of Proposed Land use with Existing Land use and URDPFI Guidelines:

SI.		Land Use Category	Existing Land	use - 2015	Proposed Land use-2035	
			Total Area (Sq.km.)	Area in %	Total Area (Sq.km.)	Area in %
1		Residential Zone				
	a)	Only Residential	3.4561	8.42	11.88514	28.97
	b)	Mixed residential	0.25443	0.62	0.23521	0.57
2		Commercial Zone	1.107	2.70	1.157	2.82
3		Industrial/Manufacturing zone	0.00	0.00	0.29352	0.72
4		Public & Semi-Public Zone (including Utilities)	0.8284	2.02	1.13111	2.76
5		Transportation & Communication Zone	4.1348	10.08	5.0362	12.27
6		Recreational zone	0.121909	0.30	0.6213	1.51
7		Primary Activity zone				
	a)	Agriculture	11.235287	27.38	16.00852	39.02
	b)	Tea Gardens	16.05151	39.12		
	c)	Rural settlements	0.8118	1.98	1.5236	3.71
8		Protective & Undevelopable zone				
	a)	Rivers/ Jhoras/ Streams	1.1193	2.73	1.1193	2.73
	b)	Forest/Green Cover	0.995564	2.43	1.1052	2.69
	c)	Hilly area	0.6171	1.5	0.6171	1.5
9		Special Area	0.2968	0.72	0.2968	0.72
		Total	41.03	100	41.03	100

 Table No. 49: Comparison of Proposed Land use with Existing Land use





A comparison between the land use as per the existing and proposed development plan shows that the residential use has been increased in the proposed development plan. The increase in the residential area will boost the growth of housing within the JDA area to accommodate the increase in population during the plan period.

The land use areas of the JDA have also been earmarked for setting up of MSME and also increasing public and semipublic category. The projection of the area into a tourist destination in the district and creation of state Govt. offices having a divisional set up will lead to increase in the land use area. The increase in both the categories will lead to creation of economic activity and generating gainful employment in the area.

5.6 Monitoring of the Plan:

The local authority may constitute a committee as per the provision of Section 17 of WB Town and Country (Planning and Development) Act. 1979, if deemed necessary, to monitor the implementation of the plan.

5.7 Review of the Plan:

The concerned authority may review the plan at least once in every ten years after carrying out fresh surveys as may be considered necessary, prepare and submit to the State Government a LUDCP for any alterations or additions considered necessary. Any revisions incorporated in the plan should be approved by the local administration and by the State Town & Country Planning Department. The provisions of sections 36, 37 and 38 of WB Town and Country (Planning and Development) Act.1979 shall, mutatis mutandis, apply to such LUDCP. Arbitrary and wide-ranging changes to the development plan should be avoided.

5.8 Preparation of Zonal Plan:

This is a perspective sectoral plan. Based on this plan, further zonal plans for five years duration and action plans of one year duration are to be prepared to detail out the proposals in this plan. After acceptance of the development plan, the zonal plans need to be prepared by the local authority for each planning zone. Each zonal plan document will provide the information with regard to existing land use including population, proposed land use with complete area details and projected population, facilities and utility areas, density and other planning parameters. Each zonal plan will have a written document explaining the proposals in detail. It is necessary to therefore, develop the database immediately once the plan is approved by the State Government.

5.9 Green City Mission:

The State Govt has decided to develop selected cities along the lines of its own "Green City Projects". Accordingly, the West Bengal Govt has announced 10 cities in the State to be developed as "Green City Projects" which includes the town of **Jaigaon**. The state Govt. has created a corpus of Rs. 400 crores for the entire project (Indian express 21st Dec 2016). The state government has issued necessary guidelines to that effect on 20.02.2017. The Urban Development and the Municipal Affairs Department are the nodal departments for implementing the schemes. The scheme highlights on conservation of water bodies, installation of led lights, development of parks and green spaces, IT enabled services, intelligent transport system, creation of cycle tracks, rainwater harvesting etc.

CHAPTER 6: ANALYSIS AND PROPOSALS

6.1 Employment and Enterprise:

Goal: To promote balanced and sustainable economic development and employment within the city, ensuring that a diverse range of economic activities are developed and supported.

6.1.1 Industries:

An economic base is created only on creation of jobs which ultimately leads to increase in the purchasing power of the people of that area and its surrounding areas. Creation of industries in the local area would increase the economic activities of the region / district. The entrepreneurs would like to invest capital for setting-up of medium & small-scale industries based on the local requirements. In the case of JDA, the economic development could get a boost in bringing medium and small-scale industries applicable to that area and also combine it with the tourism activity since these are the two interrelated activities where maximum employment could be generated. This would bring macro-level development in the District of Alipurduar. The economy of JDA is presently based on agriculture. Promoting MSME and tourism in the area will lead to increase in various activities in near future. This will boost the economy and create employment and provide opportunity for alternative source of employment for the educated youths.

West Bengal MSME Policy, 2013:

Under Micro, Small & Medium Enterprises Policy, Govt. of West Bengal 2013 – 2018, Jaigaon will fall under Zone-C and get the following incentives and concessions for creation of MSME industries, like waiver of land

Conversion fee, exemption of Stamp Duty, subsidy on patent registration, Capital Investment subsidy, additional incentive on generation of employment, waiver of electricity duty, interest subsidy on term loan, Tax Holiday on VAT return etc.

Creation of Land Bank for MSME Cluster at Jaigaon:

Presently there is no industry in existence within JDA except for Tea Estates which occupies a major percentage of agricultural land available in that area.

Keeping in view the importance of industries for generating employment in Jaigaon and the state policy to develop more and more MSME hubs for creation of industrial activity, a proposal for creation of land bank has been earmarked besides the Asian Highway.

The district of Alipurduar does not have a MSME cluster at present and the location of the same at Jaigaon could be ideally suited for the first MSME cluster in the district. The discussion with Alipurduar Chamber of Commerce & Industry, Jaigaon Merchants Association and Bhutan Chamber of Commerce & Industry and the Dept. of Industry Officials and considering the potentiality of the area, the following industry base units are proposed for inclusion in the proposed industrial Belt in Jaigaon under MSME sector:

- 1. Furniture-based units
- 2. Food processing units (potato, tomato, chilli, pineapple, water melon, betel nut, etc.)
- 3. Moulded Plastic units
- 4. Processing of medicinal plants,
- 5. Sericulture.
- 6. Automobile Ancillary units

An area of around 66 acres of land has been earmarked on the left side of Asian Highway-48 leading to Pasaka Industrial Estate of Bhutan for setting a MSME cluster at JDA area. The land for proposed MSME cluster is earmarked in JL No.24 and Plot Nos.854, 909, 907, 678, 846 of Torsa Tea Garden Mouza, which is duly indicated in the proposed Land-Use Map of JDA. The location of this plot is beside Gobarjyoti River. This river is generally found dry throughout the year except for the monsoon season. A green buffer zone is already earmarked under SI. No. 38 of the proposal map which can be extended till the allocation of the plot for creation of the municipality office. A separate road may be constructed from the national highway connecting the plot beside the river so that the area gets separate access to these plots. The reason for having a separate access to these plots is that the proposed land port beside the Asian highway will create obstruction for a direct access of vehicles to the plots earmarked for MSME cluster. The heavy vehicles carrying industrial items may not be permitted to travel at Asian Highway beyond the land port for security reasons. A bridge has to be constructed to link the plots earmarked for MSME hubs over the Gobarjyoti River.

The extent of land proposed to be earmarked for the food processing cluster may be on the higher side compared to other clusters because Alipurduar district is based on production of agricultural / fruit products. These industries create less pollution. Normally these industries do not require highly skilled manpower having technical know-how. The workers in these industries could be employed from the nearby areas of JDA and its periphery. The other clusters which may be proposed are the automobile ancillary and the molded plastic units. The proposed land could be developed on providing basic infrastructure facilities like road, power and water supply, drainage & sewerage facilities so that the investors are attracted to set up industries in the area. The

land may be leased out to the proposed industries on a medium and long-term basis and renewed on the basis of performance of the industries. This area could be used as a land bank for making investment by the prospective investors in the private sector in near future.

The State Govt. has identified 13.31 Acre of land at Gopimohan Tea Garden mouza under JL No.-26 and Plot No. 34, 38, 39, 41. The land will be utilized for creation of MSME for providing employment to the population living in that area. However, it is to state that the proposed allotment/location for establishment of MSME units is not suitable for the area as this falls within the area of the proposed Theme Township, i.e., Residential zone. This may be reviewed by the competent Authority and the proposed MSME units may be established in the identified Industrial zone as per the proposed LUDCP.

Recently Hon'ble Chief Minister, Govt. of West Bengal in the State Assembly has announced to invest Rs. 26,000 Crores in the MSME Sector either through JV or through PPP Model for creating Employment opportunities in this sector. The state government's recent focus on small and medium scale industries will help the JDA area to flourish in the industrial map of Alipurduar district in the state.

6.1.2 Tourism:

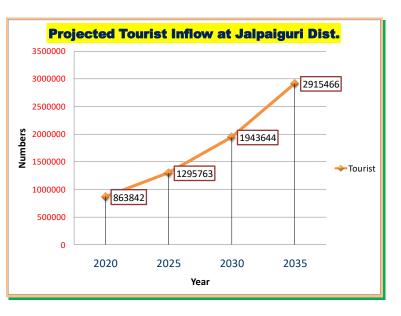
Tourism is an industry required to be developed, nurtured and publicized so that Indian and the foreign tourists visiting North Bengal and especially the Alipurduar and Jalpaiguri District could be attracted to Jaigaon on inclusion of Jaigaon in the "Dooars foothills" of the Primary Tourist Circuit as per the "West Bengal Tourism Policy – 2016". As North Bengal is a hub of tourist flow in the State of West Bengal, the tourists' inflow on a yearly basis to the District of Jalpaiguri could be attracted to the Alipurduar District and the JDA area, since Jaigaon is the

gateway to the Himalayan Kingdom of Bhutan. Bhutan, being the friendly country to India, has regular social and cultural exchanges between the people of the two countries on a daily basis. This would help in boosting the tourism growth in the Town of Jaigaon and JDA in particular.

According to the Economic and Social Commission for Asia and Pacific (ESCAP) in their report "Economic Impact of Tourism in India" 1.2 International tourists provide employment to one person while 17 domestic tourists generate employment to one person.

Going by this estimation, the scope for employment generation through tourism is significant in Jaigaon, especially since it has scope to give jobs to both educated and semi-skilled workers.

The projected tourist inflow at undivided Jalpaiguri District depicted here in the line diagram with an assumption of 10% tourist growth every year is based on the growth of tourist inflow in the recent past and proposal to augment tourism activities in the region.



The district of Alipurduar is adjacent to the district of Jalpaiguri and will attract adequate number of tourist as it is adjacent to the Himalayan Kingdom of Bhutan and also the district of Alipurduar is rich in wildlife sanctuary, tea gardens and River Torsa flowing besides the planning area.

The following policies are suggested in the development plan for enhancing tourism potential at Jaigaon. This includes:

- Development of Regional Tourist Circuit: In view of the strategic location available adjacent to the town as already outlined, there is a need to identify a tourist circuit linking Bhutan as well as other sites of tourist importance in the vicinity and promote Jaigaon as the base for stay. Local tourist circuits may be developed for attracting tourists from India and abroad by keeping Jaigaon Town as a nodal point for visiting Buxa Forest Reserve, Buxa Fort, Jayanti and other forests of Alipurduar and Jalpaiguri Districts.
- Promotion of Shopping and Cultural Tourism: The existing tourism industry to be linked to shopping tourism with the development of an exclusive Handloom Haat proposed at Jaigaon on the lines of Delhi Haat. This shall be an exclusive Handloom market showcasing the local culture and artifacts. Regular fairs and other promotional events can also be held to boost shopping and cultural tourism. State handloom and Biswa Bangla show rooms may be created near the India Gate for attracting tourists shopping.
- Riverfront Development: The stretch of riverfront at feasible locations should be beautified by strengthening the embankment, development of walking paths along riverfront, greening and development of picnic spots at key locations. Detailed riverfront development plan could also help to enhance the local intra-regional tourism potential as there are no similar destinations of this type in the region.
- Development of Accommodation: Under the tourism development plan, it is proposed for construction of hotels at Jaigaon which is deficient in the town, to meet the projected demand of hotels, resorts, youth Hostels,

guest houses etc. Private sector participation may be allowed/ encouraged in this regard. Government can play a facilitating role in promoting private investments for the same. Good accommodation should be backed by adequate water, power supply and other services and facilities.

- **Development of Tourist Destinations:** Development of eco-park, waterpark, Technology parks, Mela grounds, Amphitheater along the Torsa river front and echo park at Gangom hill will add to the tourist attraction.
- Connectivity & Transportation: Jaigaon has good connectivity with the other towns in North Bengal, and added to its proximity, is the Asian Highway which is under construction leading to Bhutan. Hasimara is the nearby station located just 17 kilometers from Jaigaon can definitely be developed with proper infrastructure as it is one of the main Railway lines connecting New Jalpaiguri & and other parts of the country. However, if the railway track is further extended till Jaigaon by NF Railway, that will be an added advantage considering the strategic location of Jaigaon as a border town to Bhutan. It has to its credit a helipad other than the airport at Siliguri. However, functional efficiency of transportation needs to be improved at various levels, especially for the tourists.
 - **Convenience**: It is extremely important that the city possesses a clean and healthy look for attracting tourists. Therefore, it is important to have every possible infrastructure for tourist attraction:
 - Efficient system of solid waste management so that there is no piles of garbage
 - Public toilets
 - Drinking water facilities
 - Other public utilities that would help in attracting tourists especially foreign tourists, tourist information centre, etc

- Refreshment Centres
- Cyber Cafes
- Easy STD / ISD facilities
- Help line
- Safe packaged drinking water
- Make the place disabled friendly.
- Tourist information Center: Services which are intrinsic to tourism promotion is grossly inadequate with total absence of information center, good travel agencies and tour operators in Jaigaon. There is a need to open information centre to facilitate tourists by providing information on all aspects of tourism. A good and professional tour operator can work out a tour itinerary that would provide best deals in terms of sightseeing for the tourists.
- To develop a web portal to promote tourism.
- To incorporate **ICT activities** in improving the quality of services and also create a credible database of tourism information.
- A detailed tourism development plan: There is a need to immediately work out detail requirements for tourism sector, which can explore possibilities for development of packages especially weekend packages for locals and tourists from adjoining states like Assam, Bihar and Jharkhand and explore the feasibility of providing other recreational facilities (e.g., Amusement Park & Jungle Safari etc.) to offer a combination of jungle and leisure tourism. Proposals of the detailed tourism plan can be integrated in the development plan.

• **Private Sector Participation**: The private parties may be involved to promote tourism and develop a marketing strategy to create a positive image and promote Jaigaon as a preferred tourist destination.

The role of private sector may vary from creation tourism infrastructure facilities including construction hotel, lodges, youth hostel, operation and maintenance of the same to various support services like providing transport, arranging for fairs & annual cultural festivals, shopping etc.

 Social and Environmental Impact Assessment: Care must be taken by the local administration to develop and manage tourism to the extent that it positively impacts the socio-economic base of the town without degrading the environment. Social and environmental impact assessment for tourism development may be carried out in phased manner to minimize adverse impacts.

Keeping in line with the State Tourism Policy, the following proposals have been included in the Plan:

a) Tourist Cottages:

i) On Hill Top:



Considering the tourism potential and in consonance with JDA's proposal it is proposed to set up "Eco Tourism Resort" at Gannjaon hill top (Foothills of Bhutan) which is located on the rear side of the office premises of Jaigaon Development Authority. The project includes construction of 8 nos. of cottages with Kitchen and Dining Hall and a Dormitory for State Govt. officials.

The entry to the foothills of Eco-tourism Resort will be from Samsebazar (Daragaon) – (length 383 mtr. & width 6.0 mtr.) to the junction and the exit from

back side of JDA office (length 120 mtr. Width 5.00 mtr.). This is depicted in **Map-9**. The proposed work for construction of road to the ecotourism site has commenced. The work at sight is reflected in the picture.



The resorts could be beautified by creation of landscape design having a mixture of Indian, Bhutanese religious architectural features for attracting the public. This may be further supported with other tourism facilities, such as, creation of entertainment zone, eateries, view points, public toilets and adequate seating arrangement for the tourists viewing from the hilltop.

A proposed "Aerial Ropeway" could be constructed from the existing Public

bus stand corner located behind JDA Office to Eco-tourism park having a length of 400 mts aerial distance open for the tourists visiting the place.



The proposed plot for the ropeway may be under JL No. 27 and plot no 152 of Jaigaon mouza. This ropeway could be extended further to the Buddhist Monastery at Phuntsholing after obtaining necessary approval from Govt. of Bhutan.

ii) On the Plains:

Keeping in mind the future potential of tourism in that area, two separate sites have been earmarked for establishment of "Tourist Resorts" either through

Private or Public Private Partnership (PPP) mode, one having an area of 3.66 acres of land under J. L. No.26 under Jaigaon Mouza, Plot No.8 and the other being an area of 2.80 acres of land under J. L. No.23 in Dalsingpara Mouza in Plot No.1 (opposite to the plot is a small forest). The proposed land could be leased out on a medium and long-term basis to the private parties for creation of touristic facilities like construction of cottages, dining hall, recreational facilities for the families and other requirement keeping the ambience in view. This location of these plots is close to River Torsa.

b) Tea Tourism:

The concept of Tea Tourism is to provide the tourists the opportunity to have information and experience related to the cultivation of tea. The tourists can spend a leisure time amidst the natural beauty of tea gardens. This concept will allow the tea gardens to diversify, generate local employment and augment income. There are two major tea gardens in existence within JDA area namely the Torsa Tea Garden and the Dalsingpara Tea Garden. Both the gardens could be motivated to sell the concept of Tea Tourism among the tourists visiting North Bengal at Jaigaon as per the "Tea Tourism Policy – 2013" and "West Bengal Tourism Policy – 2016".

The "Tea Tourism" shall broadly include the following:

i) Staying in heritage bungalows -

The tourists instead of staying in hotels can spend some days in the existing heritage bungalows located in the tea gardens. These bungalows will be having its own signature style with raised wooden platform, spacious verandas, a fire place with a visible chimney, high ceilings, spacious rooms & back yard with plants and trees located in the midst of natural surroundings. The food served will be of local flavor having a personalized service to the tourists staying in these bungalows.

ii) Home-stay feeling in a tea-village –

The tourist can experience the life-style of tea workers and their local cultures & traditions by having indigenous food buy local handicrafts and

participate at the local festivals while visiting the tea villages at the tea gardens and the villages located at the adjacent areas.

iii) Plucking of tea leaves

The tourists will be interested to enjoy the ambience of tea gardens while walking in the morning and evening for getting the feel of the garden. The tourists shall be given a first hand information in the art of plucking tea leaves with the help of experienced staff of the tea garden, and can experience plucking tea leaves from the garden.

iv) Visit to Tea Factory

A visit to the tea factory located just outside the garden will help in getting the first hand information on processing of tea leaves, drying of tea leaves, blending of tea leaves in the tea factory for packaging in different flavors to be sold in the market.

v) Tea Testing

The tourists visiting the tea gardens can get the taste of different flavors of tea cultivated in the tea garden. Different tastes are available based on the requirement of market consumptions. This kind of tea testing by the tourists and the family members will ultimately help in selecting the brand of tea which they intend to purchase directly from the tea garden.

vi) Witnessing local culture and patronizing local artisans

The tea garden will organize trips to nearby villages to feel the different social and cultural traditions & heritage of villagers staying in the district of Alipurduar for patronizing local artisans in buying their products produced by them and also generating incomes.

vii) Visit to tea Museum

It is proposed that a "<u>**Tea Museum**</u>" be established by the local authority of the district focusing on life of tea plant, different flavors of tea, production of tea by the neighboring countries, lifestyle of tea workers, and history of tea cultivation in North

Bengal etc. The tourists visiting the museum can get a firsthand knowledge of tea cultivation at North Bengal and in other parts of the World.

Land area of 22.16 acres of land has been earmarked for establishment of "Tea Museum" under JL No.24, plot no.78 at Torsa Tea garden mouza.

viii) Purchase of Tea

The tourists while tasting different kinds of tea produced in the garden may select the flavor which suits their pallet. The tourist will have the privilege of purchasing tea leaves from the garden factory outlets at a discounted price to encourage sale of tea leaves from the respective gardens.

c) Establishment of Hotels/service apartments:

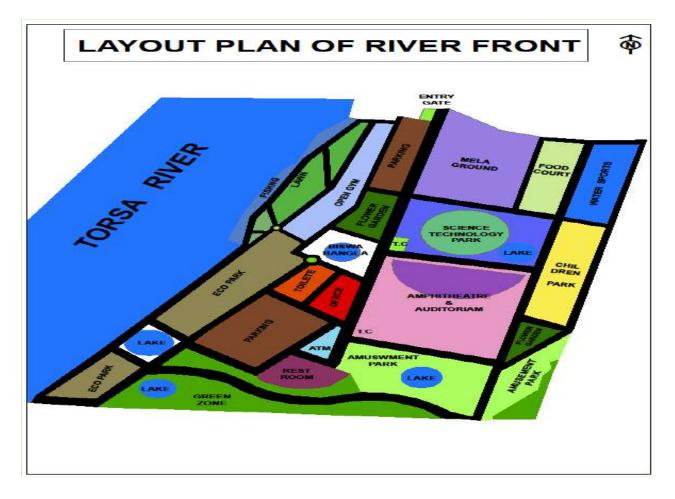
Keeping in view the requirement of Indian and foreign tourists flow in the area leading to Bhutan, it is proposed to encourage establishment of Budget Hotels/Hotels graded by State Government, Service Apartments for accommodating tourists. Accordingly, an area of 10.09 acres has been earmarked in the Commercial Zone within the Theme Township area at Gopimohan tea garden mouza in J.L.no. 26 under plot no. 8,9,10.

A food park and rest room having an area 1.725 acres (0.70 ha.) in Torsa Tea Garden Mouza under J. L. No.24, Plot No.852 has been earmarked for accommodating tourist flow to Bhutan through the Asian Highway-48 in the near future.

d) River-Front Development:

An area of 39 acres has been earmarked under J. L. No.25 in Mechia Basti and plot no.524(p)525 -528 for creation of river front development besides the Torsa river for accommodating amusement park, Science and technology park, exhibition area, amphitheater and an echo park for attracting tourists flow at Jaigaon. This is the location where the volume of water flow of river torsa is more compared to other parts of the JDA. The water flows close to the land bank which is an ideal location for river front development. The riverfront project will

also consists of pedestrian track, greeneries, Children Park, water sports, rest room and car parking facilities. The area may be beautified with a proper landscape and lit up with LED lamps for attracting tourists. This area is well connected with the town of Jaigaon. A toy train circling the plot can be created to attract tourist in the area.



<u>The Implementation of the River Front Development shall be in line with</u> <u>the River centric Urban Planning Guidelines, published by TCPO, Ministry of</u> <u>MoHUA.</u>

DESCRIPTION	AREA	DESCRIPTION	AREA
	(In Acres)		(In Acres)
MELA GROUND	1.82	OPEN GYM	0.5
FOOD COURT	0.95	REST ROOM	0.52
WATER SPORTS	1.56	LOWN	1.72
CHILDREN PARK	2.1	BISWA BANGLA	1.06
AMUSMENT PARK	5.12	LAKE	0.98
GREENZONE	5.59	PARKING LOT	1.25
ECO PARK	1.98	PADESTRIAN & BLAKTOP ROAD	1.96
AMPHITHEATRE	6.98	OFFICE	0.5
SCIENCE & TECHNOLOGY PARK	2.48	TOILET & WASHROOM	1.19
FLOWER GARDEN	0.75	TOTAL AREA	39.01

Table No. 50: AREA CALCULATION OF RIVER FRONT

e. Annual Tourism Festival :

Under the backdrop of healthy relation between India and Bhutan backed by treaty executed by both the countries, it is proposed to conduct annual tourism festival of Alipurduar district at Jaigaon every year depicting Indo-Bhutanese culture, Tea tourism, jungle safari, river Torsa and other cultural activities between the two countries. This festival can invite dignitaries from both the countries towards mutual co-operation and friendship. This festival can attract tourism in the area and Jaigaon in particular. This festival could be conducted in the area earmarked as Mela area at river front development project in the proposal map.

f. Picnic spots:

Picnic spots need to be identified near the area adjoining the river Torsa for fun and frolic during the winter season. People from nearby areas can come

to these spots for leisure & entertainment. Proper infrastructure facilities need to be provided and adequately maintained for attracting tourists with a fee.

6.1.3 Transportation:

The transport sector is vital and needs careful planned expansion to meet the demands of the growing town and its population. A study of the existing transportation scenario of the town reveals that major traffic problems in the town are traffic bottlenecks and congestion mainly due to the encroachments on roads, mix of slow and fast moving vehicles, narrow road widths, inadequate and roadside parking, poor road conditions, poorly designed roads and junctions, no signaling system, poor traffic management in front of the schools, lack of proper efficient public transport system and absence of adequate pedestrian walkway/ footpath.

A) AIRWAYS:

Recent incentive issued by the Central Government:

Recently Union Government has announced- **"UDAN"** an aviation policy for boosting regional connectivity with different cities through smaller aircrafts. The important features for boosting regional air connectivity are as follows:

- Smaller airports/airstrips could be linked for air connectivity.
- Max. Rs. 2500/per passenger for a flight of less than an hour.
- Reduced excise duty on ATF.
- Reduce taxes on passenger tickets.

In addition to the above, the Union Govt. has relaxed the FDI norms allowing 100% foreign investment in the aviation sector. This will help entry of new airlines in the aviation section of the country especially on the tourist routes. The state Govt. is also making serious efforts in connecting other towns in West

Bengal within the aviation radar which includes development of Coochbehar Airport for tourism purposes. Recently the union cabinet has approved a plan to revive 50 unserved and underserved airports and air strips at an estimated cost of Rs 4500 crores (Telegraph 7th march 2017). Around 15 airports /airstrips would be revived in 2017-2018 and 20 airports/ airstrips in the year 2019-2020. The Coochbehar airport falls under the approved plan.

Proposal:

The Bagdogra airport could be further utilized by infrastructure upgradation, expansion of terminal building to accommodate more passengers, adding direct flights from different Metros of the country as this will promote tourism in north Bengal. It is also proposed that Coochbehar Airport could be utilized for the purpose of transporting tourist from the nearby airports/ airfields in East & north eastern India through smaller aircrafts so that tourist flow increases in the districts of North Bengal. The helipad at Jaigaon could be better utilized for transporting tourists directly in helicopters on a daily basis from Bagdogra/Coochbehar Airport. As there is no airstrip or airport at the lower end of Bhutan the Jaigaon helipad could facilitate in bringing tourists to JDA area in the towns and cities of Bhutan including that of Phuntsholing. Necessary Infrastructure facilities require to be created at the Jaigaon Helipad like the passenger amenities facilities, proper access road for safe & smooth flow of tourist to Jaigaon.

B) RAILWAYS:

As per the Economic Times dated 24.02.2017, the Hon'ble Railway Minister while delivering a key note speech at Nepal Infrastructure Summit 2017 at Kathmandu has expressed interest to link

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Kathmandu with Delhi and Kolkata, by direct railway lines in a bid to strengthen cross boarder connectivity and facilitate people movement between the two countries. The Hon'ble Minister has also asked the State Owned Container Corporation (CONCOR) to explore ways to run a cargo train to Bangladesh with an aim to enhance bilateral trade.

It is proposed that the Government of West Bengal may take up with the Indian Railways to revive the proposal for having railway connectivity to Bhutan (at Toribari) after discussion with the Bhutan government. The location of Toribari is close to chotajaigaon mouza. Toribari is close to khokla bustee and the border of Bhutan. The railway connectivity has to run parallel and cross the Asian highway 48 through an underground tunnel to reach the desired location. This railway linkage to Bhutan could connect the three neighboring SAARC countries, namely, India, Bangladesh and Bhutan. Bangladesh is about to be connected at Changrabandha, a Border town at Bangladesh with Coochbehar in North Bengal through North Eastern Frontier Railway. The Proposed railway linkage can be extended from Hasimara Railway Station to Toribari, Bhutan as land already exists with NFR till Dalsinghpara mouza which is close to the town of Jaigaon. Hasimara Railway Station is already connected to Alipurduar/Coochbehar and New Jalpaiguri Railway Station under NEFR.

It is proposed that this railway linkage connecting Bhutan may run parallel at the right hand side of the Asian Highway-48 facing Bhutan which is under construction (Torsa Tea Garden end) at Jaigaon. There could be a single broad gauge line connecting Toribari from Hasimara Railway Station.

There is railway land available post-Hasimara Station upto Dalshinghpara mouza which is presently encroached and may be used for extension of railway connection To Torabari Bhutan subject to the consent from Bhutan.

It is also proposed that additional passenger trains from Kolkata/Sealdah station via Hasimara be introduced for carrying tourists to the Alipurduar District/Bhutan from the rest of the country. Trains from nearby State Capitals of Assam, Bihar, Orissa, Jharkhand and Utter Pradesh can be connected to Hasimara Station via New Jalpaiguri junction for carrying tourist traffic to North Bengal.

C) ROADS:

Transport Strategy/ Proposals

Various measures are needed to improve and strengthen the traffic and transportation in the town of Jaigaon and the JDA area.

- i. Augmentation of the carrying capacity of the major roads in the town needs to be carried in a phased manner to cope with the increasing travel demand in the next twenty years time frame. However, feasibility of road widening on the stretches where the density of development is high, needs to be studied in detail, considering that it should cause minimum disturbance to the adjoining properties. Acquisition of any property for road widening would also need to be adequately compensated.
- ii. Strengthening and expanding the present road network by construction of new roads connecting the proposed development and creating new growth areas at the periphery of the town.
- iii. Provision of hierarchical road system based on traffic and predominant traffic function.
- iv. Diversion of inter-city through traffic along the periphery of the urban areas. Although the traffic volume will be much less within the town as the proposed Asian Highway linking Bhutan shall act as a new route for the direct traffic to Thimpu, Paro etc. in Bhutan.

- v. Improvement of existing transport terminals Bus depots, helipad in the town, feasibility for developing rail linkages and utilizing the existing helipad for direct air linkages of the town with rest of the country. Development of new terminals for bus station with adequate and well distributed system of passenger amenities to facilitate the proposed development of the town and to meet the future travel demand.
- vi. Provision of adequate and well distributed system of parking for all categories of vehicles, particularly Buses, trucks, cars, taxis, Autos, and rickshaws.
- vii. Improvement of poorly designed roads and junctions which not only slow down traffic but often cause traffic congestions and accidents. The MG Road-N S Road, Link Road- M G Road and N S Road – Link Road are few of the major intersections in the town which need immediate attention and improvement taking into account the volume and the nature of traffic they handle along with their importance in terms of the location in the town.
- viii. Provision of proper and adequate road lighting and road sign-ages, especially at major crossings and intersections in the town.
- ix. Maintenance of cleanliness of the existing roads.
- x. Resurfacing, repairing, shouldering and conversion of un-metalled roads for better and smoother traffic flow in the town.
- xi. Introduction of an efficient and environment friendly public transport system running on clean fuel, especially along the major roads.

Accordingly, the detail plan proposals are stated below:

a) Expressway:

The Asian Highway-48 is under construction will be an important road

linkage to Bhutan and other parts of North Bengal. This expressway will increase the economic activity of Alipurduar district and in particular the JDA area. This road passes through the Torsa Tea garden to Pasakha Industrial Estate at Bhutan.



This highway will promote Industrial and tourism related activities in the area. The earmarking of other important infrastructure plots namely land customs station, land port, land bank for MSME, petrol pump, truck terminal, food court and a whole sale market will help in creation of economic activities leading to employment opportunities in the present JDA area and Alipurduar district in particular.

b) National Highway:

The existing carriageway ie NH-317A is proposed to be further widened making provision for storm water drains, road dividers, pedestrian footpaths, etc for smooth flow of traffic to Jaigaon. The widening has to be carried out from Bulan turning to the Bhutan gate/India gate and wherever possible encroachment has to be removed. The widening of the National Highway has to be carried out and encroachments need to be removed near NS Road and MG Road crossing, JDA office, Doragaon and GP-I panchayat office.

c) Major Roads:

MG road, Link road are the major roads connecting the Bhutan Gate and the proposed India gate. The aside road is starting from Torsa Tea factory connecting the MG road internally. The Aside Road needs to be matalled and widened through removal encroachments and covering of drains alongside the road.

As per the Traffic Volume Survey carried out, it was observed that cars, trucks and LCVs moving in MG Road/NS Road of JDA area are all directed to Bhutan. Out of the total vehicles moving in the JDA 60% caters to Bhutan. The two important arterial roads to Bhutan passing through Jaigaon are NS Road and MG Road.

The detail beautification and improvement proposals with regards to the major roads are indicated below:

i) MG Road:

- Widening and construction of footpaths on both the sides of the road.
- Shifting of transformers and electric polls located on the road/footpath.
- An automobile maintenance shop beside hotel Hill View needs to be re-located.
- Rickshaw/Cart stand on the turning to the link road has to be shifted.
- Construction of a foot over bridge at the intersection of NS Road and MG Road for pedestrian crossing.
- Creation of "No parking zone" from 8.00 am. To 8.00 pm for all vehicles. Rickshaws and hand-pull carts should be bared to ply during that period.
- Heavy vehicle movement would be allowed through this road to Bhutan gate/India gate till the completion of the Asian Highway 48.
- Garbage bin to be located every 500 meters.

- Wi-Fi system and CC cameras to be installed at important locations alongwith adequate signaling and signage system.
- Installation of water ATM machine and LED street lights.
- Tourist vehicles to be fitted with GPS devises for easy tracking.
- Plantation along the median of the road.

ii) Link Road:

- Widening and construction of footpaths on both the sides of the road.
- Creation of "No parking zone" from 8.00 am. to 8.00 pm for all vehicles. Rickshaws and hand-pull carts should be bared to ply during that period.
- Heavy and light vehicle movement would be allowed through this road to Bhutan gate.
- Wi-Fi system and CC cameras to be installed alongwith adequate signaling and signage system.
- Garbage bin to be located every 500 meters.
- Installation of water ATM machine and LED street lights.
- Tourist vehicles to be fitted with GPS devises for easy tracking.
- Plantation along the median of the road.

iii) NS Road:

- Widening and construction of footpaths on both the sides of the road.
- Shifting transformers and electric polls located on the side of the road.
- It is proposed for establishment of a Multi-level Car parking at the backside of the police station opposite to the police quarters. The entry will be demarcated from the campus of Jaigaon police station. An



area of 0.775 acre of land under Jaigaon mouza under JL No.27, Plot No.165 has been earmarked. The entry shall be from NS Road by the side of the Jaigaon Police station and the exit will be from the backside of the plot leading to MG road ahead of the police station near MG Road and NS road crossing. This is the only area where the car parking can be located beside the commercial area leading to the Bhutan gate. The existing police quarters can be demolished to provide space for the parking area. The quarters are in a vulnerable state and can be located in some other area.

- It is proposed that the lane abutting the Police Station be made into one way thoroughfare for light vehicles coming from Bhutan gate.
- The other side of the divider be closed for vehicular traffic and may be developed as pedestrian plaza which may accommodate various activities for local public and tourists, such as, informal shopping, plantation / landscaping, seating arrangement, entertainment zone etc.
- Creation of "No Parking Zone" from 8.00 am. to 8.00 pm for all vehicles. Rickshaws and hand-pull carts should be bared to ply during that period.
- It is proposed that parking on the lane abutting police station may be reserved for the different business establishments like, shops, hotels, etc. located at NS Road only.
- Taxi stand to Phuntsholing to be shifted at the existing bus terminus.
- Wi-Fi system and CC cameras have to be installed in important locations alongwith adequate signaling and signage system.
- Auto stand/Hawkers to be shifted or relocated.
- Greenery patch to be created at the road divider of the NS road linking the Bhutan gate.
- Biswa Bangla rotating Globe alongwith lit up fountains to be installed on the intersection of MG Road and NS Road beside the Hanuman Temple.

- Setting up of Biswa Bangla outletnear the Bhutangate.
- Garbage bin to be located every 500 mtrs.
- Installation of water ATM machine and LED street lights.
- Setting up more Foreign Exchange Dealers outlets.
- Tourist vehicles to be fitted with GPS for easy tracking.
- Plantation along the median of the road.

d) Internal Roads:

The kutcha roads in the JDA covering all the gram panchayats needs to be made pucca and the existing pucca roads needs to be re-surfaced, strengthened, re-constructed depending upon the existing condition, volume of traffic, proximity to the neighborhoods areas, vulnerability to the flood prone areas. The alignment of road intersections should follow proper geometrics (avoiding acute angle and cress-cross intersections) as far as possible.

Two new roads are proposed in the development plan, the one may start from Holong Dak bunglow and pass beside the Torsa river and get connected to the Aside Road (Tribeni toll) which will be further linked to NS Road/MG Road. This road could be the new bypass roadaround 13-14 km) for entry of light vehicles to Jaigaon Town at Bhutan Gate and the India Gate. A bicycle track may also be constructed beside the Bypass Road as per the Green city norms adopted by the state government. Driving on this proposed road will be a pleasure as it would add to the scenic beauty of the area for the tourist entering Jaigaon town as in one side would be the river and other side would be the forest and the village neighborhood areas. The other new road proposed is the one connecting the national highway to the proposed industrial plots (around 1.50km) at the Torsa tea garden mouza to avoid the land port which is proposed beside the Asian highway. The proposed roads are depicted in **Map-10**.

e) Alternative Road to the India Gate:

The construction of India Gate has since been completed. The gate has been inaugurated on 27th April, 2017 by Hon chief minister of West Bengal. The picture of the recent construction of the gate is placed.



The present route to the India Gate to Bhutan is through MG Road which is normally congested during the office hours because of existence of commercial area. An alternative route for entry of light vehicles has been proposed for reducing the traffic congestion at NS Road and MG Road which is passing through Jaigaon Town.

- Two alternative one-way routes have been proposed for entry/exit of light vehicles linking the MG Road.
- Entry will be from Torsa Tea Factory end to Hasimara River.
- A bridge is proposed across the Hasimara River.
- Hasimara River to PHE pump house NS Road (Vedvayas Nepali Junior High School) – First single way alternative route.
- The next route proposed is from PHE pump house Ebenzer Academy
 Hotel Anand Link road Second alternative single way route.
- All the above roads have to be widened to the maximum extent possible for smooth flow of light vehicles towards India gate.

This road would be an alternative route for entry to Bhutan. The map stating the above proposal linking the India Gate is placed in **Map-11**.

Comprehensive Transport System:

A comprehensive transport development plan needs to be implemented keeping in view the projected population at the end of the plan period. As the area is being projected as the probable tourist destination the transport system should be made efficient and modern for attracting tourists from all parts of the country and outside. The existing transport system is outdated and creating dust and smoke pollution in the area and especially at the town of Jaigaon. The age old transport system needs to be transformed and reorganized so that the area and the town in particular gets improved and look at par with the well-planned city with modern transport system.

It is proposed to have a 3 layer transport system at Jaigaon town. The 1st layer would cover the regional transport like the local buses from the districts of North Bengal. The 1st layer may be terminated at the proposed Bus terminus near Bulan turning. All the buses presently operational under private operators may be replaced with Govt. buses run by West Bengal Transport Corporation for bringing identity to the area and also for attracting tourist. The new bus terminus should provide real time information of the busses. The green autos should originate from the propose bus terminus. The local people coming in the busses can avail green autos for coming to the town. The green autos will be restricted to the JDA area.

The 2nd layer shall be the transport for the town of Jaigaon and its periphery consisting of autos having fixed route alongwith local taxis for the general public. The present bus terminus within JDA Complex may be converted as a local taxi stand. The taxis may go up to the Bhutan gate or beyond that and for parking avail the proposed parking plaza on the rear side of the police station. The 2nd layer shall be the town transport for the town of Jaigaon consisting of green autos, and taxis run on petrol, fitted with GPS devices. The trekkers presently plying in 2nd layer should be eliminated from the public

transport system as it emits lot of pollution in the area. They are to be replaced by e-Rickshaw as a 3rd layer of transport. The trekkers' stand may be replaced by e- rickshaw stand. These rickshaws may move all over the JDA area.

The 3rd layer may cover the vehicles plying in the Jaigaon town proper and adjoining area by the local taxis and e-Richshaw. The Taxis will carry the tourist to the desired destination.

The tourist vehicles carrying tourists directly to Bhutan and Bhutan nationals coming to Jaigaon for work can have direct access through the Bhutan gate and the proposed India gate through 3rd layer of transport. The car parking space proposed to be constructed on the rear side of the police station may be utilized for car parking of taxis and private cars. The green autos/ e-Rickshaws can move around the commercial area before commencing to the desired destination. Passenger shelters are to be created all through the N.S. Road for the safety of the passengers in availing public transport.

As both the gates are half a kilometer away from the present bus terminus the area needs to be provided with a foot path for pedestrian traffic moving towards the commercial area of Jaigaon terminating at both the gates.

a) Local and tourist Taxi Terminus:

It is proposed that the existing bus terminus be revamped by converting it into a terminus for local taxis, tourist vehicles, plying to and from Jaigaon. The present Bus terminal is proposed to be shifted to the outskirts of the town area to restrict the entry of buses and originating the green auto service within the town limits for reduction of traffic congestion during peak hours of the day. Provision for a tourism helpdesk/ permanent shed/ sitting arrangement for the passengers/ proper lighting/ food counters/toilets to be made available with posting of traffic police personnel near the entry/ exit point of the existing terminus for reducing traffic congestion at NS Road.

b) Bus Terminus:

An area of 1.43 acres (0.58 Ha.) under J.L. No.24 in Torsa Tea Garden Mouza under Plot No. 639 has been earmarked for establishment of a modern new bus terminus and an green auto stand in the near future so that the entry and exit of local people to Jaigaon could be from this bus terminus to other parts of North Bengal and the region. The green autos will not move beyond the JDA area. The bus terminus will be provided with modern infrastructural facilities like waiting lounges, ticket counters, Wi-Fi facilities, surveillance cameras, food courts, ATM, medical shop etc. Presently this plot is being used by Balaji truck terminal for accommodating trucks moving to Bhutan and back.

c) Proposal for an E -Rickshaw Stand:

The existing trekker stand opposite JDA office is proposed to be increased for accommodating E -rickshaws. The land of 0.1140 acres (0.04 Ha.) under JL no.27, plot no.94 at Jaigaon mouza shall be used for accommodating e-Rickshaws for movement in the commercial area and Jaigaon proper.

d) Petrol Pump:

As no petrol pump is located in the JDA area, there is an immediate requirement for earmarking a plot for construction of petrol pump beside Asian Highway-48. Accordingly, an area of 1.80 acres (0.72 ha.) of land in JL no.24 plot no.852 has been earmarked towards construction of petrol pump and related facilities like ATM and medical shop at Torsa Tea Garden Mouza.

e) Land Custom Station and Land Port:

A land custom station is a facility providing transit custom and immigration, cargo handling services for goods and passengers travelling between Bhutan and India.

Land has already been allocated by DM, Alipurduar, Torsa Tea Garden Mouza besides Asian Highway-48 in JL No.24 and Plot No.852 for an area of 12 acres (4.85 Ha.) of land for creation of land custom station.

Land port is an area on the international border of India including portion of national Highway, State Highway and other roads notified as Land Custom Station or immigration check post under the custom Act 1962 or Foreigners Act 1946 and includes Railways, with facilities for clearance and transport of passengers and goods across the borders of India.

An area of 75.76 acres (30.67 ha.) has been earmarked for creation of Land Port under JL no. 24 under plots no 851 and 852 of the Torsa tea garden Mouza. Both these locations are on the left side of Asian highway 48. These two locations would be developed by the Central Govt while entering the neighboring state of Bhutan.

f) Truck Terminal:

A truck terminal having an area of 7.81 acres (3.16 ha.) under J. L. No.24, Plot No. 852 has been earmarked at the Torsa Tea Garden Mouza to accommodate trucks going to Bhutan from Jaigaon and vice versa. The truck terminal can accommodate a rest room, canteen, toilet and a medical outlet for refreshment of persons accompanying these vehicles while carrying goods and materials from one country to the other.

6.2 Physical Infrastructure

Goal: To provide for equitable infrastructure development for improved quality of life

6.2.1 Water Supply:

As per the CPHEEO/URDPFI guidelines, recommended maximum water supply levels (LPCD) for cities provided with piped water supply where sewerage system is existing / contemplated is 135 LPCD. As per the HUDCO analysis, the

projected population for the year 2035 is 155983. Thus, the projected water supply demand unto 2035 would be 21057705 LPD or 21.06 MLD. However, there are many other provisions which are required to be considered, such as, water supply loss / leakage, additional demand for fire fighting, institutional & commercial building, industries etc.

Generally, 15% of total demand of water supply for new proposed systems is added towards Unaccounted-for Water (UFW) which is a measure as a difference between the quantity of water supplied to a city's network and the metered quantity of water used by the customers. UFW has two components: (a) physical losses due to leakage from pipes, and (b) administrative losses due to illegal connections etc. Thus, the approximate demand to the UFW is 3158656 LPD or 3.16 MLD. The demand for water supply towards institutional building such as bus / taxi terminus, Hotels, Schools/colleges, Restaurants, Hospital, entertainment / recreational area and other commercial / institutional etc. would be about 10% additional which works to 2105771 LPD or 2.10 MLD.

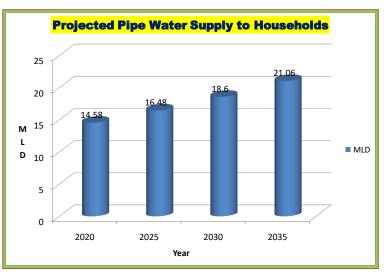
There is a potential for setting up various small & medium scale industrial units which has been considered in the proposed Development Plan. The additional demand for the industrial unit may be considered as 10% of 2105771 LPD or 2.10 MLD. In view of the above, the total water supply demand in JDA area would be around 28427903 LPD or 28.43 MLD. However, this does not include water supply demand for emergency and fire fighting purpose. As per the CPHEEO Manual, it recommends firefighting water demand as a function of population, i.e. water demand for firefighting purpose = $100\sqrt{P}$, where P stands for forecasted population may be adopted for communities larger than 50,000. Thus, the demand for water supply for firefighting purpose works out to 0.04 MLD.

It is assumed that in any particular period of the day, there will not be any instance of fire fighting water requirement when the water supply demand is maximum.

It is desirable that one-third of firefighting requirements form part of the service storage. The balance requirement may be distributed in several static tanks at strategic points. These static tanks may be filled up from nearby streams, rivers/jhoras or other sources.

As per the above evaluation, the proposed capacity for water supply system may be considered as 30 MLD for the designed period of 30 years i.e. upto 2045. The design period includes for the viz. Infiltration works, Pumping, Water treatment units, Raw water and clear water conveying mains, Distribution system, Clear water reservoirs (overhead or ground level) etc.

The projected piped water Supply to household is depicted in the bar chart which is stated below:



Land requirement for Water Supply System:

As per CPHEEO guidelines requirement of land for a 50 MLD water supply system would be 0.93 ha. Considering the requirement of ancillary activities,

staff housing etc. and future demand of water supply as 40 MLD, the total requirement of land for water treatment plant may be considered as 1.00 ha. PHED in their DPR for proposed Water Supply Scheme for JDA has earmarked the land for proposed site of water treatment plant at GP-2 admeasuring an area of 1.34 ha which is more than adequate.

Billing and Collection:

Revenue management system is an important aspect of any Water supply System as it covers the maintenance aspect of the existing /proposed system. This includes fixing a tariff structure, billing and collection of revenue from the customers.

The water charges are to be *fixed* after taking into account the ability of the system to meet the expenditure on the following heads.

- Operating Cost (excluding establishment cost)
- Establishment Cost.
- Depreciation.
- Debt Services & Doubtful Charges.
- Asset replacement fund.

JDA/proposed Municipality may suitably explore the revenue management system in charging water tariff from consumers and the gap, if any, may be borne from the other receivables of Local Body.

Considering the future growth of Jaigaon, PHED, GoWB has prepared a DPR for providing water supply through surface water from river Torsa for the entire JDA area. The salient features of the proposed scheme are as follows:

Location	Stretches from Torsa river in the east, Bhutan in the West and North and Dalsingh para tea garden in the south.	
Population – 2045	145561	
No. of household – 2045	29112	
Total water demand - 2045	19.65 mld.	
Source of water	Sub-surface water of river Torsa.	
Location of intake	Gopimohan tea garden mouza on the bank of river Torsa.	
Capacity of water treatment plant	21.80 mld.	
Storage reservoirs	5 in numbers.	
Hours of supply	8 hours, may be operated 24x7 supply system.	
Total estimated cost	Rs. 93.72 crores	
Executing agency	PHED, Govt. of West Bengal.	

Source: PHED, West Bengal.

The above scheme proposed to cater to all the 3 GPs of the JDA area. The scheme has been submitted by the PHED Department to Urban Development and Municipal Affairs Department, Govt. of WB for obtaining the necessary approval. The proposed water treatment plant and existing location of tube well is depicted in **Map-12**.

However, the population projection as on 2035 as indicated above shall be 1,56,000, whereas the PHE Dept, GoWB projection is only 1,46,000 as on 2032. In view of the above, it is opined that the water demand as on 2032 for 16.61 MLD may be reviewed/augmented to reach to the desired level of population as per the population projected for the JDA. This population projection does not include the floating population which is available at JDA area and the future proposal towards creation of MSME cluster and other future development in that area.

6.2.2 Sewerage & Sanitation:

i) Individual Toilets:

As per the survey and census 2011, 31% of households at JDA area have no latrine facility within their premises. The Swach Bharat Mission launched by the Central Government and the Nirmal Bangle Mission of the state government has been launched for providing adequate sanitation facility to every household under BPL /APL category. The households having no latrine facility shall have to be sensitized to avail such incentives from the government for construction of permanent toilets within their premises. JDA/proposed municipality shall facilitate the process of identifying the households in that area and route the subsidy amount to these categories of people for constructing permanent toilets within their premises. Further, open defecation prevalent on the river banks especially at the Torsa river bank area should be totally eliminated. JDA should take all possible measures in converting the area into an open defecation–free region.

ii) Community/Public Toilets:

It is proposed that provision of Community Toilets near slum areas, public toilets near market, main commercial areas, Bus terminals, taxi stands be constructed. These community/Public toilets may be handed over to NGOs/Business/transport associations for proper operation & maintenance.

Mobile Bio-Toilet installation may be explored in the commercial area and other public places of JDA for meeting the needs of the public and tourists and also to check pollution.

g) Sewerage System:

The sanitation system of a town needs to adapt the govt. policy, viz. National Urban Sanitation Policy (NUSP).

The aim of the NUSP, 2008 is to have community driven, totally sanitized, healthy, livable cities and towns.

Basic features laid down in NUSP are stated below:

- Cities must be open defecation free.
- Must eliminate the practice of manual scavenging and provide adequate personnel protection equipment that addresses the safety of Sanitation workers.
- Municipal sewage and storm water drainage must be safely managed.
- Recycle and reuse of treated sewage for non potable applications should be implemented wherever possible.
- Solid waste collected and disposed-off fully and safely.
- Services to the poor and systems for sustaining results
- Improved public health outcomes and environmental standards.

The implementation of the system will improve the sanitation situation at JDA area.

At present the household waste waters (excluding water from toilets with septic tank) is not flowing properly into the existing road side drains because of faulty/non-existence of drain connections from households. The house drains need to be connected to the road side drain on both sides of the roads (as per location) for proper flow of waste water. These drains shall carry both waste water and storm water through the drainage network to the treatment plant for treating the water before flowing to the river.

In the planned new townships/commercial/industrial areas, it is proposed that integrated sewerage system be implemented with underground primary & secondary sewer network connected to Trunk Sewer. The waste water shall be treated at the **treatment plant** before flowing into the river. The waste water treatment plant shall be located near the river bank such that after treatment, the water will fall into the river. The outfall level should be above the high Flood level (HFL) of the river, such that at any time there are no backflow from the river into the town/sewage system. In future the authority may consider to adopt a comprehensive sewerage system connecting the existing area and the proposed area for an effective network connecting the trunk sewer.

In future it is propose to have a combined sewerage system i.e. it will carry both the storm water drainage and other liquid wastes from households including waste from water closets. However, there will be grated openings on the roads for flow of the surface run-off in the underground system as there will be no surface drains for storm water flow.

The proposed allocation of 1.678 acres (0.67 ha.) of land in Torsa tea garden mouza under JL no. 24 and plot no 255 may be earmarked for creation of a drainage booster pumping station for treatment of waste water and sewerage before draining into the river Torsa for Jaigaon-I and Jaigaon-II GPs.

An additional area has also been earmarked for 1.80 acres(.72ha) of land at Dalsinghpara tea garden under JL No.-23, plot no.-721(part) & 722 for treatment of waste water and sewerage before draining into river Torsa for Dalsingpara GP. It is recommended that the authority may prepare separate master plan for integrated sewerage and drainage system for the entire JDA area.

6.2.3 Drainage:

As per rainfall data, the area receives high rainfall during monsoon season. This leads to heavy run-off through the town. Some parts of the roads get flooded and there is problem of water logging. The road side storm water drains is required to be covered alongwith adequate depth/width as per the run-off discharge and intensity experienced. This will ensure fast flow of the discharge with no water logging. In case of high run-off possibility, a separate storm water drainage system may be re-constructed. The connectivity of the drain networks will ensure the flow of the storm water into the river.

In 95% of JDA area, there are no adequate drainage facilities. These include 65% having no drainage facility at all and the remaining 30% is having open drains. JDA/proposed ULB has to immediately prepare area-wise proposals for implementing *pucca* drains at the areas where no drainage facility is available and also frame proposals for covering the existing open drains with slabs. There is a need to have manholes at regular intervals for cleaning and grated openings for drainage of surface run-off from nearby areas.

There is a need to have a proper connectivity of the drains from the sources (household, commercial, institutional areas, etc) upto the treatment plant/outfall with capacity to carry increasing discharge with distance. The water will flow through the network of drains to the waste water treatment plant and after that it will flow to the river through the outfall. The drainage network shall be designed as per the natural slope which is towards the River/Jhora. The location of the outfall will be as per the slope of the land, towards the river.

The outfall will be at the river after treatment needed such that river water is not polluted. The waste water treatment plant will be located near the river bank such that after treatment, the water will fall into the river. The outfall level should be above the High Flood Level (HFL) of the river, such that at any point of time there is no back flow from the river into the town/sewage system.

The 100% coverage of the area by adequate drains could lead to providing proper civic amenities to the people of that area. This work should be carried out immediately in the first phase.

Proposal for a combined drainage and sewerage system has already been proposed in the JDA area under the heading "Sewerage System".

Rain Water Harvesting:

Rain Water Harvesting helps in arresting the run-off in the development area to some extent. The main objective of the scheme is to conserve surface and rain water and preservation of precious water resources. This may be done by constructing drains with ground water re-charge pits and Check Dams, Water Harvesting Structures and Surface Flow Minor Irrigation Schemes.

It is proposed that rain water harvesting be made compulsory for any new building plan sanctioned by the Local Authority particularly with a large surface area at ground or at roof top. Further for town level intervention, the existing Jhoras can be properly aligned and utilized for rain water harvesting. The Jhoras lying unhygienic throughout the year filled with dirt and silt can be properly utilized for storing water to be used for irrigation purposes. A green patch may be created along the Jhoras to protect against flooding and for environmental conservation.

6.2.4 Solid Waste Management:

As per URDPFI guidelines, 2015, Vol I Section 8.3.6, the standard waste generation per capita per day in residential area is 0.3 to 0.6 kg. The street sweeping generation of waste is 0.05 to 0.2 kg capita per day. The commercial refuse is 0.1 to 0.2 kg capita per day. Considering the above norms, it is clear that JDA area shall generate on an average of 27 metric tons of garbage per day.

SI No	Land use type	Estimated waste generation (Kg/cap/day) as per URDPFI	Waste generation considered (kg/cap/day)	Population Considered	Total Generation of waste (Kg/day)	Total Generation of waste (Ton/day)
1	Residential refuse	0.3 to 0.6	0.3	86644	25993.2	25.99
2	Commercial refuse	0.1 to 0.2	0.1	1000	100	0.1
3	Street Sweeping refuse	0.05 to 0.2	0.05	21661	1083.05	1.08
	Total				27176.25	27.18

Table No. 51 : Solid Waste Management Forecast

The total generation of garbage shall be around 9921 MT per annum which may increase with the creation of MSME cluster at Jaigaon.

The projected Waste generation every 5 years in JDA area is depicted below in the bar chart.



Activities for Collection & Disposal of Solid Waste:

Garbage has to be collected from door to door by hand carts. The garbage shall be segregated initially from the individual house pick up points such that items like metals, paper, plastic, glass are separately identified and kept separately for disposal.

The garbage's are to be transported by trucks to the transfer stations. The organic wastes need to be treated by composting for conversion into fertilizer and again there is an option of generation of energy from these wastes. The recyclable materials, organic materials and those having combustible qualities needs to be separated. Combustible items are to be dried, compacted and sold to industries where it could be used, e. g. Cement Industry. The re-cycle able materials go to the industries for use as raw material.

The inert materials like construction waste shall be transferred to the plot earmarked for landfill using compactors. The Solid Waste Management system should be guided as per Solid Waste (Handling & Management) Rules 2000. The operation of the Solid Waste Management would be handed over to a private party by PPP mode under the guidance of the local body in that area.

As a Best Practice, local Rag Pickers may be involved in the door-to door collection of solid waste for their re-habilitation and they can earn extra through the sale of the segregated materials from the waste. Bio-medical wastes need to be handled as per the "*Biomedical Waste (Management and Handling) Rules, 1998*" and its amendment thereafter.

For sustainability of the scheme, user charges may be levied from the households, commercials & institutional establishments, industries by the proposed ULB.

Public Awareness Programme has to be conducted by the local authorities highlighting the advantages of implementing the Solid Waste Management Programme and handling of Bio-Medical Wastes in the town.

An area of 16.690 acres (6.75 Ha.) has been proposed under Torsa Tea Garden mouza in J.L. No.24, Plot No.255 as landfill site for Solid Waste Management.

The State Govt. has recently allocated 4.20 acre of land in Torsa Tea Garden mouza under JL No.-24 and Plot No.-845, 846 towards setting up solid waste management project for the JDA area. The allocation of land in that location may be reviewed by the competent authority as it is adjacent to the proposed Industrial Hub. The location of the site does not confirm to the proposed LUDCP-2035.

6.2.5 Power:

JDA area shall require augmentation of the power capacity of the electricity supply on account of future projected population and the land bank proposed for creation of MSME zone. The increased tourist flow to Jaigaon and Bhutan shall also bring additional pressure to the capacity requirement of power in JDA and in particular to the Town of Jaigaon.

The proposed 33x11 kVA sub-station at Gopimohan mouza, T.G.J.L. No.-26, Plot No.-5, 58 with an area 1.43 acres shall suffice to the additional power requirement in the near future.

The provision of street lights is extremely inadequate and requires to be immediately taken up on an urgent basis. The N.S. Road/MG Road flowing from Bulan Turning to Bhutan Gate should be lit up with street lights having LED lamps. High Masts may be built on important junctions like Bulan Turning, N.S. Road/MG

Road crossing, JDA Office and the road connecting the MG Road to the proposed India Gate.

Solar Street lights to be provided for the internal roads covering the remaining part of JDA. The Solar power generated will be supplied to the grid during day time and the drawn for usage during night.

It is proposed that installation of solar system may be explored while sanctioning building plan by the Local Authority.

6.2.6 Telecommunication:

There is a requirement of 10 post offices in the JDA area by 2035 and additional 2 post offices immediately as per the URDPFI 2015, Vol I Section 8.6.5, The additional 7 post offices may be located in the areas where there is no coverage of post offices.

	Requirement for Post Offices, Jaigaon, 2035								
Years	Population	Required Nos. of Post	Required total area @						
		Office @ 1 for 0.15 lacs	85 sqm/ PO (in sqm)						
2011	86644	5	425						
2015	95564	6	510						
2020	108017	7	595						
2025	122092	8	680						
2030	138001	9	765						
2035	155983	10	850						
Total		10	850						

Table No. 52: Requirement for Post Offices

No earmarking of land has been made for the proposed post offices as it can be located in any office-cum-commercial complexes available in that area. Presently, the post offices are slowly getting modernized and acting as a payment bank having ATM facilities. The existing post offices at JDA area are to be slowly converted to modern payment/ postal banks. Training programs need

to be organized for the citizens of that area for availing the modern facilities of a post bank. The additional post offices can be established by the postal department at different areas as per their guidelines.

6.3 Social Infrastructure

Goal: To promote social inclusion and to facilitate equality of access to health, education and socio-cultural activities.

6.3.1 Education:

a) College facility:

The requirement as per URDPFI 2015, Vol I Section 8.4.2.2 based on population projection of 2035 is placed below:

	Table No. 53: Land requirement for Education Facilities							
	Total area required for Colleges, Jaigaon, 2035							
Years	Population	Required Nos. of Colleges @ 1 for 1.25 lac	Existing	Required total area @ 5 ha/unit	Additional area requirement (in ha)			
2011	86644	1	1	5.0	-			
2015	95564	1	1	5.0	-			
2020	108017	1	1	5.0	-			
2025	122092	1	1	5.0	-			
2030	138001	1	1	5.0	-			
2035	155983	2	1	10.0	5.0			
Total		2	1	10.0	5.0			

Source: URDPFI, Vol I, Table: 8.49

The existing College has to be upgraded to Science and Commerce streams to facilitate the student community of JDA and the adjoining areas. However, if the area in the present College is not sufficient, then another College with Science and Commerce streams needs to be established.

b) Senior Secondary School:

There is adequate number of Senior Secondary schools within the Jaigaon area, and as such, no new requirement is proposed.

Total area required for Senior Secondary Schools							
Years	Population	Required Nos. of Senior Secondary Schools @ 1 for 7500 population	Existing	Required total area @ 1.80 ha/unit	Additional area requirement (in ha)		
2011	86644	12	8	21.6	7.2		
2015	95564	13	8	23.4	9		
2020	108017	14	8	25.2	10.8		
2025	122092	16	8	28.8	14.4		
2030	138001	18	8	32.4	18		
2035	155983	21	8	37.8	19.8		
Total		21	8	37.8	19.8		

Table No. 54: Land requirement for Senior Secondary Schools

Source: URDPFI, Vol I, Table: 8.48

There are English-medium senior secondary schools, affiliated to CBSE and ICSE Board of education. However, there is a requirement for a Bengali medium senior secondary school within JDA to cater to the requirement of Bengali speaking population of the region. Land has already been allocated under J. L. No.24, Torsa Tea Garden Mouza, Plot No.676 alongwith SDPO Office on the Helipad Road near Bulan turning. This land may be used for establishment of a Bengali medium senior secondary government school to cater to the population of JDA and its peripheral areas.

c) Special Children school:

There is no Special Children School within the Jaigaon area, whereas as per the norms, there is an immediate requirement of 2 such schools and further 2 more schools by 2035. However, efforts may be made to commence one school for Special Children at JDA area after conducting a survey for assessing the requirement.

	Table No. 55: Land requirement for Special Children Schools Total area required for Special Children Schools							
Years	Population	Required Nos. of Special Children Schools @ 1 for 0.45 lacs	Existing	Required total area @ 0.7 ha/unit	Additional area requirement (in ha)			
2011	86644	2	0	1.4	1.4			
2015	95564	2	0	1.4	1.4			
2020	108017	3	0	2.1	2.1			
2025	122092	3	0	2.1	2.1			
2030	138001	3	0	2.1	2.1			
2035	155983	4	0	2.8	2.8			
Total		4	0	2.8	2.8			

Table No. 55: Land requiremen	t for Special Children Schools
Total area required for	Special Children Schools

Source: URDPFI, Vol I, Table: 8.48

d) Primary school:

There is no requirement of primary schools in Jaigaon as of now and by 2035 there shall be requirement of another 8 primary schools. However the existing primary schools require immediate interventions in terms of proper building and other infrastructural requirements so that the students attending these schools are motivated to attend classes. The requirement is stated in the table below.

Table No. 56: Land requirement for Primary Schools

Total area required for Primary Schools							
Years	Population	Required Nos. of Primary Schools @ 1 for 0.05 lacs	Existing	Required total area @ 0.4 ha/unit	Additional area requirement (in ha)		
2011	86644	17	23	Nil	Nil		
2015	95564	19	23	Nil	Nil		
2020	108017	22	23	Nil	Nil		
2025	122092	25	23	0.8	0.8		

2030	138001	28	23	2.00	2.00
2035	155983	31	23	3.2	3.2
Total		31	23	3.2	3.2

Source: URDPFI, Vol I, Table: 8.48

e) Pre-Primary School:

Table No. 57: Land requirement for Pre-Primary Schools

	Total area required for Pre-Primary Schools							
Years	Population	Required Nos. of pre-Primary Schools @1 for 2500	Existing	Required total area @ 0.08 ha/unit	Additional area requirement (in ha)			
2011	86644		15	-	-			
2015	95564	38	15	1.84	1.84			
2020	108017	43	15	2.24	2.24			
2025	122092	49	15	2.72	2.72			
2030	138001	55	15	3.20	3.20			
2035	155983	62	15	3.76	3.76			
Total			15	3.76	3.76			

Source: URDPFI, Vol I, Table: 8.48

The existing pre-primary schools needs to be reviewed from the point of view of the quality of infrastructure, connectivity of roads, teacher-student ratio etc. and accordingly, corrective action may be taken to improve the quality of education for the children visiting these schools.

There is an additional requirement of pre-primary schools in that area which may be re-looked after taking care of the problems in the existing schools.

Keeping in view the projected population of 2035 and the likely economic development to happen with the establishment of MSME cluster and the tourism sector in that area, 31.78 acres (12.86 Ha.) has been earmarked under J. L. No.25 at Gopimohan Tea Garden, Plot No. 524, 528(P) towards establishment of educational institutions and colleges in the near future.

6.3.2 Health:

There is requirement of 1 (one) General hospital within Jaigaon area for the future population. The land area requirement for the general Hospital shall be 6.00 hectares.

	Table No. 58: Land requirement for Health Facilities								
	Total area required for General Hospital								
Years	Population	Required Nos. of General Hospital @ 1 for 2.5 lac	Existing	Required total area @ 6 ha/unit	Additional area requirement (in ha)				
2011	86644	1	0	6.0	6.0				
2015	95564	1	0	6.0	6.0				
2020	108017	1	0	6.0	6.0				
2025	122092	1	0	6.0	6.0				
2030	138001	1	0	6.0	6.0				
2035	155983	1	0	6.0	6.0				
Total		1	0	6.0	6.0				

Source: URDPFI, Vol I, Table: 8.50

The Urban Development and Municipal Affairs Department, Government of West Bengal has already sanctioned a hospital complex in GP-I area in the existing location of the Public Health Centre (PHC). The location of the plot is at Jaigaon Mouza under J. L. No.27 having an area of 2.99 acres (1.21 Ha.) of land under Plot No. 298/ 473.

However, a General Hospital needs to be established having a fully fledged indoor & outdoor treatment facilities in the major disciplines of medical science to cater to the projected population of Jaigaon & its adjoining areas. This hospital should have all the specialized disciplines for providing treatment to various diseases.

 Table No. 59: Land requirement for Intermediate Hospitals

	Total area required for Intermediate Hospitals							
Years	Population	Required Nos. of Intermediate Hospital @ 1 for 1.0 lac	Existing	Required total area @ 1.0 ha/unit	Additional area requirement (in ha)			
2011	86644	1	1	-	-			
2015	95564	1	1	-	-			
2020	108017	1	1	-	-			
2025	122092	1	1	-	-			
2030	138001	1	1	-	-			
2035	155983	2	1	2.0	1.00			
Total		2	1	2.00	1.00			

Source: URDPFI, Vol I, Table: 8.50

Table No. 60: Land requirement for Polyclinics

Total area required for Polyclinics							
Years	Population	Required Nos. of Polyclinics @ 1 for 1.0 lac	Existing	Required total area @ 0.3 ha/unit	Additional area requirement (in ha)		
2011	86644]	0	0.3	0.3		
2015	95564]	0	0.3	0.3		
2020	108017	1	0	0.3	0.3		
2025	122092	1	0	0.3	0.3		
2030	138001]	0	0.3	0.3		
2035	155983	2	0	0.6	0.6		
Total		2	0	0.6	0.6		

Source: URDPFI, Vol I, Table: 8.50

Table No. 61: Land requirement for Dispensary

	Total area required for Dispensary							
Years	Population	Required Nos. of Dispensary @ 1 for 0.15 lac	Existing	Required total area @ 0.12 ha/unit	Additional area requirement (in ha)			
2011	86644	6	0	0.72	0.72			
2015	95564	6	0	0.72	0.72			
2020	108017	7	0	0.84	0.84			
2025	122092	8	0	0.96	0.96			
2030	138001	9	0	1.08	1.08			
2035	155983	10	0	1.20	1.20			
Total		10	0	1.20	1.20			

Source: URDPFI, Vol I, Table: 8.50

The establishment of Polyclinics, Dispensaries, Diagnostic center, Pathology center etc. can be incentivized by the private sector for which the existing infrastructure is available in JDA.

6.3.3 Play Grounds and Parks:

a) Residential Play area:

There is no residential play area in any part of Jaigaon. There is an urgent requirement of establishment of residential play area especially for the children of that area. The existing playing areas already stated in the report needs to be reviewed by the authorities in the light of availability of adequate infrastructures, connectivity and accordingly corrective action needs to be taken. Adequate measures will have to be taken for providing residential play area in the new townships and other settlement areas coming up in near future. The total requirement of residential play area as in 2035 shall be 31 numbers with total land area of 15.50 hectares with 0.5 hectares per unit which is stated below:

Years	Population	Required Nos. of Play	Required total	
		area @ 1 unit for 0.05 lacs	area @ 0.5 ha/unit	
2011	86644	17	8.50	
2015	95564	19 9.5		
2020	108017	22	11	
2025	122092	24	12	
2030	138001	27	13.5	
2035	155983	31	15.50	
Total		31	15.50	

Table No. 62: Requirement for Residential Play area/ Green Spaces

Source: URDPFI, Vol I, Table: 8.53 & 8.56

b) Neighborhood Play area:

There is a requirement of neighborhood play area at Jaigaon but it is presently concentrated at Dalsingpara mouza. In view of the above, there is an urgent requirement for establishment of neighborhood play area especially for the children at JDA. Accordingly, adequate measures will have to taken for creation of neighborhood play area at the new townships coming up in near future as indicated in the development plan. The total requirement of neighborhood play area as in 2035 shall be 10 numbers with total land area of 15.00 hectares with 1.5 hectares per unit. These areas should be evenly spread within the JDA area.

Years	Population	Required Nos. of Playarea @ 1 unit for 0.15 lacs	Required total area @ 1.5 ha/unit
2011	86644	6	9
2015	95564	6	9
2020	108017	7	10.5
2025	122092	8	12
2030	138001	9	13.5
2035	155983	10	15
Total		10	15

Table No. 63: Requirement for Neighborhood Play area/ Green Spaces

Source: URDPFI, Vol I, Table: 8.56

Table No. 64: Requirement for Community Parks/ Green Spaces

Years	Population	Required Nos. of Playarea @1 unit for 1.0 lacs	Required total area @ 5.0 ha/unit
2011	86644	1	5
2015	95564	1	5
2020	108017	1	5
2025	122092	1	5
2030	138001	1	5
2035	155983	2	10
Total		2	10

Source: URDPFI, Vol I, Table: 8.53

The above requirements are as per the URDPFI guidelines, 2015 Vol I Section 8.4.5. However, JDA does not have sufficient land to cater to the above requirement, so this can be taken up in future while developing large residential areas in a planned way at Mechia Basti and Gopimohan Tea Garden Mouzas.

The following areas have been earmarked for creation of children's park and green zone:

- a. 0.19 acres (0.76 Ha.) of land is being earmarked for children's park at J. L. No.27 at Jaigaon Mouza under Plot No.39.
- b. 0.36 acres (0.14 Ha.) of land is also being earmarked for children's park at
 J. L. No.27 at Jaigaon Mouza under Plot No.167.
- c. 1.67 acres (0.67 Ha.) of land under J. L. No.24 in Torsa Tea Garden Mouza under Plot No.676 is being earmarked for creation of green buffer zone for children and elderly persons of that area.

There is a proposal for making an open stadium at Gopimohan Tea Garden consisting of 3.72 acres (1.51 Ha.) under J. L. No. 27, Jaigaon Mouza, Plot No. 295 / 470 / 469 and also a proposal for making an indoor stadium at Gopimohan Tea Garden Mouza, J. L. No. 26, Plot No.11, 12 and 11/61 with a fire & emergency station on the same plot having an area of 4.37 acres (1.76 ha.).

6.3.4 Socio Cultural Facilities:

The requirement of community halls as per URDPFI guidelines, 2015 Vol I Section 8.4.4 based on population projection of 2035 is placed below:

	Requirement for Community Halls						
Years	Population	Required Nos. of Community Halls @ 1 for 0.15 lacs	Required total area @ 0.2 ha/unit				
2011	86644	5	1.0				
2015	95564	6	1.2				
2020	108017	7	1.4				
2025	122092	8	1.6				
2030	138001	9	1.8				
2035	155983	10	2.0				
Total		10	2.0				

Table No. 65 : Requirement for Community Halls

Presently, there are sufficient private community halls available at JDA area. However, the locations of the halls are concentrated more in GP-1 and GP-II area. The requirement is to have proper access to these existing community halls by widening and strengthening the roads for the entry of vehicles with parking facilities.

6.3.5 Commercial Centers:

The requirement of commercial centre and shops as per the URDPFI guidelines, 2015 Vol I Section 8.4.2 are as under:

Year	Population	No. of Shops required in Town				
	(estimated)	Town/City	Sector level	Neighborhood		
		level	commercial	commercial		
		Commercial				
2011	86644	1				
2015	95564	1				
2020	108017	1	3	6		
2025	122092	1	3	6		
2030	138001	1	3	6		
2035	155983	1	3	6		
Total (2035)		1	3	6		

Table No. 66: Requirements of Shops

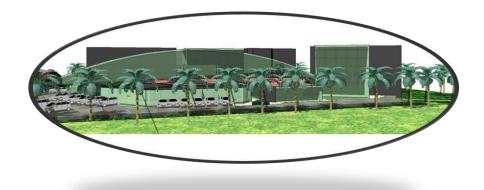
In JDA, every mouza should have neighborhood commercial areas, every GP should have the sector level commercial and the town should have a Central Commercial and shopping center. In Jaigaon, the existing commercial establishments (both wholesale & retail shops) are concentrated near the Bhutan Gate i.e., on the MG Road and the NS Road.

However, there are some shops available close to the neighborhood locations where the density of population is comparatively high (pockets of all the 3 GPs like Manglabari, Dalsingpara, Subhashpally, etc). There is absence of proper planning in the locations of neighborhood commercial areas since it is scattered and not serving the required purpose. The locations at some places are

unhygienic and having improper access roads. The sectoral /neighborhood level shops may come up in the areas demarcated in the proposed land use map.

An area of 10.50 acres (4.25 Ha.) under JL no. 25 plot no. 405/1 in Mechia Basti has been earmarked for creation of market complex which can be converted into a smart commercial centre. This complex can accommodate multiplexes for providing entertainment, various shops and food courts. This area being close to the proposed location of the Theme Township can flourish with the population staying in the township. The proposed location could be developed at a later stage when the population increases sizably.

The pictorial view of the proposed market complex at Mechia Basti, Jaigaon closed to the proposed theme township is placed below:



Keeping in view the importance of Jaigaon in near future an area of 13 acres has been earmarked at Torsa tea Garden mouza under plot no. 848, 851 (part), 858, 859, 860 (part), 867 towards creation of whole sale market. The location is beside Asian Highway-48 and ideally suited for this kind of set-up. The existing whole sale market at Jaigaon-II GP needs to be re-located at this plot.

6.3.6 Police and Fire-fighting & Emergency Services:

According to the assessment done below, Jaigaon requires 1 police post immediately and an additional Police Posts in future. The town has already 1 Police Station so provision has to be made here for an additional Police station by 2035.

	Requirement for Police Stations							
Years	Population	Required Nos. of Police station @ 1 for 0.90 lacs	Required total area @ 1.5 ha/PS					
2011	86644	1	0					
2015	95564	1	0					
2020	108017	1	0					
2025	122092	1	0					
2030	138001	1	0					
2035	155983	2	1.5					
Total		2	1.5					

Source: URDPFI, 2015, Vol I Section 8.4.4

Requirement for Police Post						
Years	Population	Required Nos. of Police posts @ 1 for 0.50 lacs	Required total area @ 0.16 ha/PP			
2011	86644	1	0.16			
2015	95564	2	0.32			
2020	108017	2	0.32			
2025	122092	2	0.32			
2030	138001	2	0.32			
2035	155983	3	0.48			
Total		3	0.48			

Table No. 68: Requirement of Land for Police Post

Source: URDPFI, 2015, Vol I Section 8.4.4

Land has already been allocated for an area of 4 acres (1.61 Ha.) including a school in Torsa Garden Mouza at J. L. No.24 and Plot No.676 for creation of SDPO office in that area. An additional police outpost is proposed within the SDPO Office complex. The camp office at the existing police station may also act as a police post under the administrative guidance of the police station. The second police station as projected above in the year 2035 may be located at the Dalsingpara mouza based on the proposed zoning map projected in the development plan.

Some of the urgent reforms requires to be implemented in the area which is stated below:

- A separate women protection desk may be opened at the existing police station for registering cases on crime against women as there is a floating tourist population always available in Jaigaon.
- The police quarters located on the rear side of existing police station needs to be demolished as the quarters are in a dilapidated state. The location of the new quarter should be made on some other area suitable for the families of the police personnel.
- There is an urgent requirement for deploying traffic police/civic volunteers at important junctions of the town.
- Traffic signals need to be created at the following areas, namely, Old Hasimara crossing, Sanial petrol pump, Dalsinghpara bazaar, Bibari bazaar, Torsa turning, Bulan turning, Monglabari bazaar, Sunsuni bazaar, Gumpha road, Supermarket, Bowbazar, NS road & MG road crossing.
- The traffic signage has to be placed on the important junctions of the JDA area. The traffic signage is placed in **Map-13**.

Fire & Emergency Services Station:

As per the assessment and population projection there is a requirement for one Fire and Emergency service station within Jaigaon area with a minimum area of 1.00 hectares of land.

	Area Requirement for Fire station						
Years	Population	Required Nos. of Fire Station @ 1 for 2.0 lacs	Required total area @ 1.0 ha/FS	New area requirement (in ha)			
2011	86644	1	1.0	1.0			
2015	95564	1	1.0	1.0			
2020	108017	1	1.0	1.0			
2025	122092	1	1.0	1.0			
2030	138001	1	1.0	1.0			
2035	155983	1	1.0	1.0			
Total		1	1.0	1.0			

Source: URDPFI, 2015, Vol I Section 8.4.9

Land has already been allocated at Gopimohan Tea Garden mouza for construction of a fire station. The proposed fire station shall cater to the requirements of JDA area.

6.3.7 Cremation & Burial Ground:

The existing burning ghat/burial ground at GP-II near Torsa River shall have to be re-located as the proposed intake to the water supply project by PHED is located adjacent to the burning ghat.

It is proposed that the burning ghat be located at Torsa Tea garden under JL no.24 having 2.407 acres (0.97 Ha.) and Plot no 89. The burning ghat can have 2 electric crematoriums. The burning ghat will have a provision for a Municipal office, food stall etc. to meet the requirements of persons coming to the ghat. The State Govt. has constructed a new Electric Crematorium at Mechia basti in an area of 1 acre of land under JL No.-25 and Plot no.-524 on the bank of Torsha River. However, the location is near the proposed river front and is not in conformity with the proposed LUDCP-2035 report. Accordingly, the same has not been incorporated in the proposal map.

The burial ground is proposed at Mechia Basti under J. L. No.25, Plot Nos.502,503 and 504(p) having 2.962 acres (1.19 Ha.) (For Christian Community) & another burial ground at Mechia Basti under J. L. No.25, Plot Nos. 3,23 having 3.051 acres (For Muslim community). These sites are to be properly connected with roads for entry of vehicular traffic. These locations are close to the Torsa river.

6.3.8 Banking Facilities:

The Bank Branches and ATMs are concentrated at GP-II area near the Bhutan gate. New bank branches should be located in parts of GP-I and in Dalsingpara Mouza. Spreading bank branches all over JDA area will provide access to the local people to avail the banking facilities. Formation of an Urban Local Body for Jaigaon town and regularizing the illegal construction in that area will help to increase the economic activities in the JDA area and its periphery. Further, establishment of MSME cluster and setting up of theme township/new township in the JDA will attract private investments. Construction of tourist cottages and star hotels / dhabas will boost credit off-take by the banks.

6.4 ENVIRONMENT PROTECTION:

Goal: To make the area environment friendly and free from floods and Soil Erosion

6.4.1 Protection from Floods & Soil Erosion:

Sudden change in the bed slope of river Torsa resulting in the deposition of huge amount of silt and debris that are brought down by the river, gets deposited causing rise in river bed levels. In Jaigaon Development Area the river mainly receives discharge from its tributaries viz. Jogikhola, GaburJyoti Jhora, Hasimara Jhora, Malongi Jhora, Howri and River Sisamara. The Gaburjyoti river, Jogkhola and Hasimara river cause tremendous problem during flood season as they deposit huge sediment load inside and outside the Jaigaon town and create problem of flooding, which has become a regular phenomenon. The

steeper slope results in frequent landslides especially in the North-Eastern part of Jaigaon town.

There are other problems like river bank failure, shifting of river courses, channel widening, resulting loss of land, and loss of forest resource, loss of tea garden areas, spilling & flooding of several Jhoras. The main factors responsible for the hazards are high rainfall, de-forestation, land slide, catchment area mining, in-stream quarrying, human encroachment.

There is a need to take some short term and long term measures.

Short Term Measures:

- a. Sharing of hydrological and sediment data with Bhutan.
- b. To stop unregulated quarrying from river-bed.
- c. Construction of Silt arresting Check Dams.
- d. Catchment Area Mining to be done scientifically.
- e. Construction of embankment.
- f. River Bank protection works with necessary armoring.
- g. Dredging of river-bed.
- h. Flood Warning System to be implemented for taking advance precautionary measures.
- i. Vulnerable sites to be identified through Satellite imageries.

Long-Term Measures:

- a. A forestation and re-forestation of catchment areas with fast growing trees.
- b. Slope Stabilization works to be carried out at hilly areas.
- c. Location wise analysis of sediment load to be carried out to prevent transportation of sediment load in downstream areas.
- d. Human encroachment of river beds & banks should be removed in a phased manner.

- e. <u>Green Buffer zones of 6m to 10m wide along both the banks of</u> <u>internal rivulets/ channels flowing within/across the town for its</u> <u>protection.</u>
- f. Restoration of periphery bunds, protective bunds, field bunding, graded bonding, contour bonding to be done along the river banks at various locations.
- g. Rain water harvesting.
- h. Strengthening of the Jhoras / drainage line / nullahs in the JDA Area.
- i. Maximize water storage capacity of existing surface water bodies by re-excavation.

j. <u>May constitute a Competent authority to determine a no</u> <u>Development and construction zone (NCDZ) on either bank of each</u> <u>river, specific to it.</u>

These measures need to be implemented at the vulnerable/disaster prone areas and environmentally sensitive areas of JDA.

(Source: Report on erosion of Torsa river by the Expert committee)

6.4.2 Pollution:

An effort has been made to make the JDA area free from pollution by adopting measures like eliminating diesel generated auto-mobiles, adequate plantation on the highways, diversion of traffic through Asian Highway and introduction of integrated transport system.

On implementation of above proposals in phases, it is proposed to install a pollution recording devise indicating a temperature, humidity, Suspended particulates (SPM), Nitrates, Sulphur di-oxide, Ammonia etc may be installed opposite JDA building to record pollution levels for information of the tourist visiting Jaigaon. In addition to the above temperature and humidity measuring devises should be installed in prominent location. These measurement devises should be having displays. The information is to be recorded and a data-base maintained for proper monitoring.

6.5 Housing:

Goal: To meet the needs of housing for all sections of society by 2035.

Shelter is a basic human need and one of the most important aspects of planned development pertains to the provision of adequate, well-planned and habitable housing for the different categories of inhabitants of the city. Habitable housing conditions mean not only the provision of merely land and building, but also the basic services like water supply, sanitation and access to roads.

The quantitative and qualitative shortages and deficiencies in the town in this regard have been analyzed while formulating the proposals for Development Plan 2035. The current housing need and supply gap is not very wide in the town, though depending on the condition of the houses and the crowding in them, there may be need for more houses or more rooms. Also, the proportion of slum population in Jaigaon is comparatively high and requires to be arrested.

SI	Years	Population (Estimated)	Average HH size	No of HHs	Current Absolute Shortage	Existing Dilapida ted Stock	New HHs	Addl. Requirement of New Housing
1	2011	86644	4.99	17354	3176	2008	0	5184
2	2015	95564	4.8	19909	-	-	2546	2546
3	2020	108017	4.5	24004	-	-	4095	4095
4	2025	122092	4.3	28393	-	6942	4390	11332
5	2030	138001	4.2	32857	-	-	4464	4464
6	2035	155983	4.2	37139	-	-	4281	4281
				Total	3176	8950	19776	31902

Table No. 70: Projected Housing Requirements

The projected Housing requirements for the year 2035 is placed below:

Source: HUDCO's Projections

The housing strategy for Jaigaon envisages ensuring "Affordable housing and Shelter for All", especially for the vulnerable groups and the poor, by

creation of adequate housing stock on either rental or ownership basis. The proposed housing strategy incorporates specific approaches for development of new housing areas, up-gradation and redevelopment of existing unplanned housing areas, mainly the traditional city centre. Special emphasis needs to be given on providing adequate housing for economically weaker sections and rehabilitation of slum clusters.

It is proposed to adopt a multi-pronged housing strategy for provision of housing stock and for delivery of serviced land, involving the private sector to a significant extent, public agencies and co-operative societies, etc. The following policy level measures shall be given priority:

- Development of new planned residential areas in the existing development area.
- Considering at present the majority of the housing development in the town is plotted in nature, mainly plotted housing would be allowed in the proposed new residential areas, considering the growing and limited availability of land for growth of the town. Group housing pockets may be allowed to the extent of 25% of total housing units in a sector.
- Emphasis on renewal and up-gradation of the traditional/ old inner town areas and unplanned areas, which are characterized by poor structural condition of buildings, sub optimal utilization of land, congestion, poor urban form, inadequate infrastructure services, lack of community facilities, etc. All these areas shall be redeveloped ensuring modern services and amenities for a safe residential environment and in the process, eliminate risk prone structures and activities. The main emphasis of Redevelopment Scheme would be to bring about in-situ improvements.

Housing Development Strategy:

- a) For Removal of Encroachment at Govt. Land, the following measures are suggested:
- The encroachment of government land and other areas including growth of slums is associated mainly with uncontrolled spatial growth in Urban areas and migration due to scope of economic development as evident in Jaigaon due to its proximity to Phuntsholing and Bhutan.
- There is an urgent need for introduction of a land policy by setting up a committee for Jaigaon to ensure land tenure ship for the people residing at Jaigaon. The land tenure-ship status shall facilitate the people to avail loans from Banks and other financial Institutions to construct/ extend/ improve their housing needs.
- The Jaigaon development authority may implement the Land pooling system as a tool of Town Planning for planned urban development of the area. The land so developed should be allotted to the people as a rehabilitation package who are encroaching on government land to make it free for Public use. A committee can be constituted to frame guidelines based on the existing situation in the area.
- To effectively manage new urban growth, the Jaigaon Development Authority may adopt Town Planning Schemes through "Land Pooling and Readjustment" method. In this process, instead of acquiring land, a group of land owners are brought together or "Pooled together", for giving the land to JDA and then the area is re-planned by readjusting or reshaping every parcel of land in a manner such that it is given a regular shape and access and in the process a portion of land parcel is appropriated for roads, infrastructure and public amenities and return a portion of the land to the owners. The remaining portion can be developed for housing and commercial purposes. The land owners will happily give the land to the

authorities for development as this will increase the market value of the properties after the development.

- There is an urgent need for introduction of Building rules and strict enforcement to regulate the unplanned construction of houses in individual plots of land for both residential and commercial uses.
- West Bengal Housing Board may take up affordable housing Projects in Jaigaon under the Prime Minister Awas Yojana - Housing For All to facilitate the greater population of Jaigaon area in having a house of their own.
- The existing houses may be regularized by issuing "No Objection Certificate" by the identified local Authority as per the Zoning Regulations and Building Rules to streamline the proper urban form in the town. Strict enforcement of the right of way of the roads and Building bye-laws within the plots are to be ensured for healthy and safe living of the people.

b) For Sustainable Development of Slums through Participatory Approach, the following are suggested:

- "Pradhan Mantri Awas Yojana-Housing for all" can be fruitfully employed in the slums to enhance the housing conditions in the slums and create a healthy environment. Subsidized construction of houses and technology assistance provided for low cost housing schemes can be beneficial for improvement of housing scenario in slums.
- In-situ slum rehabilitation using land as a resource with private participation for providing houses to eligible slum dwellers is an important component of the "Pradhan Mantri Awas Yojana"- Housing for All (Urban) Mission. This approach aims to leverage the locked potential of land under slums to provide houses to the eligible slum dwellers bringing them into the formal urban settlement.

- Promoting self help groups of women and implementation of old age/adult education programs and women education programs can help in building a scenario of educated adults and thus subsequent educated generations.
- Setting up or strengthening the existing community resources for educational, health, recreational and employment generation purposes with involvement of female population and awareness programs could be done.
- Provide awareness of central and state government policies for the urban poor in their basic form needs to be implemented for the urban poor for their welfare.
- Immediate shifting and rehabilitation measures should be taken for the people encroaching and residing along the flood plains of the river Torsa and the Jhora/Nallahs within the town by allotment of houses in the EWS blocks of the proposed new township.

Theme Concept:

The concept of theme is to be adopted for making the town and its periphery smart and attractive. It will also facilitate in attracting tourism activities within the North Bengal Tourism Circuit ending at Jaigaon. This area could be used by the tourists as a gateway for visiting the Himalayan kingdom of Bhutan. The domestic tourists can enter Bhutan for enjoying various sightseeing areas of that country through this gateway of Jaigaon. No passport or visa are required for Indian tourists visiting Bhutan for a period of 7 days. Submission of identity proof of the Indian tourist is sufficient for obtaining entry pass to Bhutan.

Keeping in mind the importance of the area, the theme for the JDA area could be '**Tourism**'. Accordingly, the township will have all the

ingredients related to the Theme. This theme has been selected based on the inherent nature of activities in that area and its surroundings. This area is surrounded by tea gardens, dense forest in the district and is the gateway to the Himalayan Kingdom of Bhutan. This area can play an important role for attracting tourism. The industry will further add to the overall development of the area and the district as well.

Theme Township:

 a) An area of 40.97 acres (16.58 ha.) of land has been earmarked under Phase-IA as the Theme Township in Gopimohan TG under J. L. No.26, Plot NO16,17,18,19,20,34,38,39,41,42,46,48,49,51,52 and also an area of 10.09 acres (4.08 Ha.) under the same J. L. number in Gopimohan TG, Plot No.8,9,and10 has been allocated as phase-1B.

The Hasimara River separates the two plots. The total area stands at around 51 acres (20.65 ha.) under Phase-I of the Theme Township. In the first plot, i.e phase1A EWS, LIG and MIG and HIG housing can be developed in that area in neighborhood concept. The total numbers of HIG/MIG/LIG & EWS flats that can be constructed in that area are 175,225,294 & 516. There could be two entry and exit points to this plot; one could be from the aside road and the other from the location of the EWS plot connecting the road passing beside the existing health centre. The name for the township located under phase 1A could be" **Torsa**".

It may be stated that there is an existing settlement namely '**Naya Bustee'** which is located in a portion of the plot. These persons could be rehabilitated and accommodated

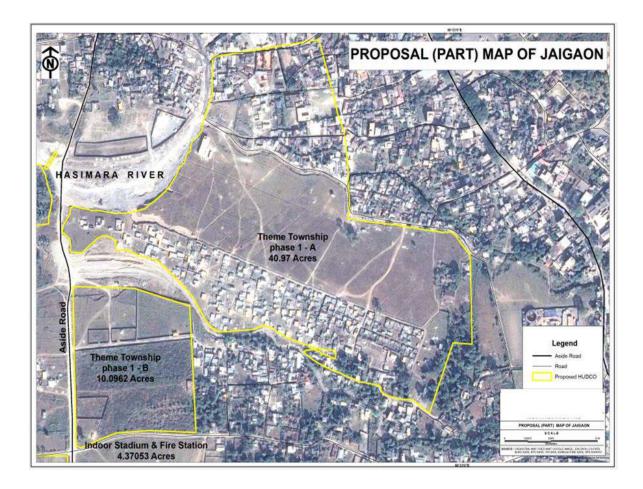


under the EWS housing to be constructed in that plot. The remaining

areas could be utilized for LIG/ MIG/ HIG housing alongwith a car parking space, open area, commercial spaces etc. The second plot i.e. phase1B could be named as "Jayanti" as a wild life variety and located at the foot of Bhutan hills. This theme township can accommodate tourists in service apartments constructed in this plot. This apartment will replicate the traditional Bhutanese houses, lifestyle and their food habits. These apartments will also highlight the animals available at the forests of North Bengal, tea tourism in the area and the tea gardens. The same plot can also accommodate star hotels in line with the hotels available at phuntsholing, Bhutan. The infrastructure and the services should match the hotels on the other side of the border. A pictorial view of the proposed gate within the township is replicated above.

There will be a market, car parking space, green zone, Biswa Bangla Globe available at the site for the tourist visiting this place. The two plots could be connected with a RCC bridge to overcome the Hasimara River passing between the plots. This Hasimara River is dry during the summer and winter season but gets filled up with water during the monsoon season creating flash floods in the adjoining areas. The sides of the river have to be properly strengthened and protected before creation of township.

The Google map on the location of the proposed Theme Township is placed below:



The layout plan and area calculation for the proposed theme township is placed below:



Description		Area (Sq Ft)	BLOCK AREA in (Sq Ft)	NO OF BLOCKS	FAR IN (FEET)	TYPE OF BUILDING	No. of Floor	No. Of Flats/ Floor	PER Flat Area (Sq Ft)	No. of House Hold
Theme Township Phase 1 - A	HIG	245000	49000	5	71.4	G+6	7	5	1400	175
	MIG	253800	28200	9	51	G+4	5	5	1200	225
	LIG	252000	18000	14	30.6	G+2	3	7	750	294
	EWS	326800	7600	43	20.4	G+1	2	6	550	516
	Total residential built up area	1077600								
	Market and Others	156000		6	24	G+1	2			
	Parking	8000								
	Green zone	245000								
	Open Space & River	532360								
	Road	477000								
	Swimming Pool	17600								
Theme Township Phase 1 - B	Service Apartment	40000	1000	40	20.4	G+1	2	2	400	160
	Hotel Zone	48000	1000	48	51	G+4	5			
	Parking	2000								
	Greenzone	178000								
	Open Space	83090								
	Road	88700								

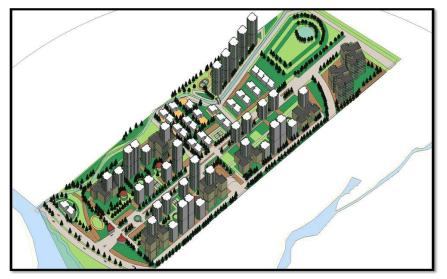
Table No. 71: AREA CALCULATION OF THEME TOWNSHIP

Proposed Township:

As the Jaigaon Development Authority area is having a linear growth pattern and the size of the population will grow in many folds in the years to come, there is a requirement for proper planning through town planning principles to give a proper direction of growth for creation of Future Township in accommodating additional population. An area of 97 acres of land at Mechia Basti may be earmarked for creation of Modern Township at New Jaigaon in JL no.25, Plot no.387-391,405, 406(p),407/1. Presently some areas of this land are encroached and the State Administration has to take adequate steps for vacating this land by creating a boundary wall and earmarking it for township in the near future.

An area of 34acres (13.76 ha.) has also been earmarked under JL no. 23 plot no 104 at Dalsinghpara Tea Garden mouza for creation of proposed township in near future. This plot is close to national highway and the proposed Asian highway.

A pictorial view of the proposed township at Mechia Basti, Jaigaon town which could cater all sectors of population in near future is placed below:



6.6 Institutional Set-up:

Goal: Allocate an area for future institutional set up.

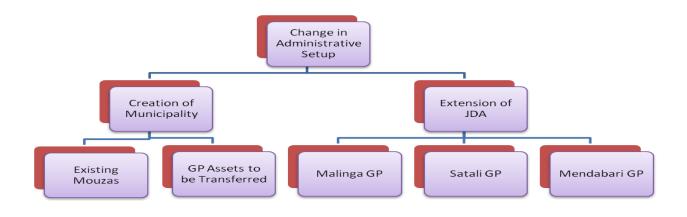
The institutional set up of the JDA area will undergo a change and in particular to the Jaigaon town. The District Govt. Offices may be reallocated in the JDA area so that the area comes under a sub-divisional set up and accordingly, necessary allocation of land needs to be earmarked for near future. Accordingly, land has been earmarked for setting up more sub-divisional Govt offices and other offices and institutions to be located in public and semipublic area.

- a) 7.80 acres (3.15 ha.) of land in JL no. 27 plot no. 675 at Torsa Tea Garden mouza towards allocation of future Govt. offices.
- b) 20.60 acres (8.34 ha.) of land in JL no. 27 plot no. 675 in Torsa Tea Garden mouza to be allocated for public and semipublic area
- c) 3.64 acres(1.47ha) has also been earmarked under public and semipublic in Torsa Tea garden mouza in JL no. 24 and plot no. 845(P).

6.7 Administrative Set-up:

Goal : Create a institution for providing civic amenities.

The Change in the Administrative Set-up can be formalized on creation of an urban local body and extension of the JDA area beyond the present area.



6.7.1 Creation of Municipality:

As per the West Bengal Municipal Act, 1993, for constitution of a municipality, an area shall have to be fulfill the mandatory conditions, namely,

- (1) Minimum total population of 30,000 (as per last preceding census),
- (2) Population density of 750 per sq.km.,
- (3) At least 50% adult population of the area shall have to be engaged in non-agricultural pursuits, and
- (4) Probable municipal income should be adequate to run the functions of the proposed municipality.

Accordingly, the proposed Jaigaon-I, Jaigaon-II & Dalsingpara Gram Panchayats proposed to be declared as an Urban Local Body under the said Municipality Act fulfills the above mandatory conditions. The details are indicated below:

SI	Gram	Name of	Area	Population	Density	Total	Non-
	Panchayat	Mouza	(in sq	(2011)	(persons/	Workers	agricultural
		Panchayat	km)		sq km)		workers
1	Jaigaon – I	Torsha Tea	13.474	6258	464.45	2262	2209
		Garden					
2	Jaigaon – I	Mechia Basti	3.823	9592	2509.02	3353	3291
3	Jaigaon - I	Gopimohan	0.74	8290	11202.70	2996	2579
	_	Tea garden					
4	Jaigaon - I	Chota Jaigaon	0.402	3083	7669.15	1020	954
5	Jaigaon - II	Jaigaon	2.764	42254	15287.26	14240	11895
6	Dalsingpara	Dalsingpara TG	19.823	17167	866.01	6587	5383
		Total	41.03	86644	2111.72	30458	28485
							(93.52%)

 Table No. 72: Criteria for Creation of Urban Local Body

Thus, as per the above table, the mandatory conditions for formation of a Urban Local Body under the Municipality Act are fulfilled as below:

- 1. Population is 86,644 as per Census 2011. (Required 30,000)
- 2. Population density is 2112 per Sq. km. which is comparatively very high than the prescribed limit. (Required 750 persons / sq km)
- 93.52% of the adult population is engaged in non-agricultural pursuits. (Required 75%)
- 4. The probable municipal income would be adequate to run the functions of the municipality after regularization of land and buildings for generating adequate revenue for the proposed municipality.

It is to mention that the proposal for creation of Jaigaon Municipality

comprising 3 Gram Panchayats i.e. Jaigaon-I & Jaigaon-II and Dalsinghpara has been unanimously approved by all 3 Gram Panchayats. Six numbers of mouzas already included in the Development Authority are proposed to be included in



the Municipality. The proposal has been submitted by the DM, Alipurduar to the Department of Municipal Affairs, Govt. of West Bengal for obtaining the necessary approval. The municipal wards will be created based on the population density / coverage area. The wards will be governed by the councilors elected through the electoral process.

JDA will help in establishment of the Municipality. The Gram Panchayats will cease to exist as the assets will be transferred to the Books of Accounts of the proposed ULB.

The Municipality should be smart enough to deliver the civic and other infrastructural requirements in the town like:

- 1. Departments such as education, health, sanitation, establishment, license, accounts, collection, assessment, water works, street light, medical, registration of births and deaths, IT/e-governance etc. should be manned by professionals.
- 2. Official website of the proposed Municipality has to be created.
- 3. Application forms from the Municipality website can be downloaded by the residents of that area for availing various civic services. All payment / collections may be made directly to the bankers.
- 4. Newsletters should be published so that the development in that area is documented and the citizens are aware with the progress of different projects in the region.
- Building Bye-laws, tax structure, grievances / suggestions / feedback and other necessary documents should be made available at the Municipal website & also placed in the Notice Board of the Municipality.

The Municipality can immediately start functioning from the respective physical infrastructure located at Jaigaon-I, Jaigaon-II & Dalsingpara GP till the construction of the new Municipal Building is completed.

A land area of 2.27 acre (0.91 Ha.) has been proposed for the New Municipality at J.L. No. 24, Plot No. 676 of Torsa Tea Garden Mouza beside the Helipad Road. The proposed land is free from encroachment and the construction of the building can commence immediately on allocation of the proposed land in favour of the Municipality. The building should install solar panels at roof top for generating electricity to be used for the staff working in these departments.

6.7.2 Extension of JDA:

On proposing to set up a municipality in that area, the administrative coverage of JDA needs to be extended beyond the present limit. The administrative coverage of JDA is proposed to be further extended upto Hasimara town. The basis of extending the area is to see that the area is extended in similar lines to one presently. The JDA area after inclusion of the additional area shall be around 132.73 Sq. Km or 32797.09 acre.

The details of existing and revised JDA area is placed below:

	I	EXISTING JDA			PROPOS	ED EXTENDED	JDA
JL.	Name of Mouza	Area in Acre	G.P	JL.	Name of Mouza	Area in Acre	G.P
23	Dalsingpara TG	4898.10	Dalsingpara	21	Beech TG	1628.62	Malangi
26	Gopimohan TG	182.88	Jaigaon-I	22	Bharnobari TG	1901.76	Malangi
25	Mechiya Basty	944.64	Jaigaon-I	20	Malangi TG	2112.85	Malangi
24	Torsa TG	3329.48	Jaigaon-I	4	Soudamini TG	1311.31	Malangi
28	Chota Jaigaon	99.36	Jaigaon-I	3	Nilpara	394.00	Malangi
27	Jaigaon	683.19	Jaigaon-I+II	2	Par Malangi	668.07	Malangi
		10137.65		18	Madhu TG	1164.60	Satali
				19	Satali TG	1330.85	Satali + Malangi
	Re	vised JDA Area	1	5	Madhya Satali	1366.10	Satali
	JDA	Area in Acre	Area in Sq Km.	15	Purba Satali	1636.11	Satali
	EXISTING JDA	10137.65	41.03	16	Satali Mandalpara	1448.76	Satali
	EXTENDED JDA	22659.44	91.70	17	Uttar Satali	1212.84	Satali
	Total Area	32797.09	132.73	6	Paschim Satali	1135.49	Mendabari GP
				7	Dakhshin Satali	1234.48	Mendabari GP
				8	Satali Nakadala	1294.45	Mendabari GP
				9	Uttar Mendabari	1382.63	Mendabari GP
				10	Dakhshin Mendabari	1436.52	Mendabari GP
						22659.44	

The extended area will include 17 mouzas consisting of Malangi, Satali and Mendabari Gram Panchayats adjoining the present JDA area consisting of 22659.44 acres of land which includes Tea Gardens. The right side of the extended area is the Gabur Bacha forest which has not been taken in the extended JDA area since no development can take place. This is depicted at Map-14. These mouzas are similar to the ones which are presently with JDA having the same type of neighborhood settlement extended to the Hasimara town. The developmental activity in the extended JDA area in near future will also add to the economic growth at the peri-urban areas and the urban villages which are connected to JDA. The present office of JDA will continue to work from the same location at Jaigaon. JDA would continue to function according to the powers vested as per the West Bengal Town and Country (Planning and Development) Act'1979 (WB Act XIII of 1979). Till such time the municipality comes into existence, the building sanction plan approval should be entrusted with JDA so that no new building in the JDA area is constructed without the statutory approval.

Table No. 73: Proposed JDA Area							
	Proposed Plar	ning Area	Area (in acre)				
А	Present Jaigaon Plannir	ng Area	10137.65				
В	Proposed Extended Jo Authority area	22659.44					
С	Total Proposed JDA a	32797.09					
	Details of Villages/ Census Towns proposed to be included in the extended area						
SI.	Gram Panchayat	Name of Village/ Mouza	Area (in acre)				
1	Malangi	Beech TB	1628.62				
2	Malangi	Bharnobari TG	1901.76				

The proposed	d extended	JDA area	will be	as follows:
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SI.	Gram Panchayat	Name of Village/ Mouza	Area (in acre)
3	Malangi	Malangi TG	2112.85
4	Malangi	Soudamini TG	1311.31
5	Malangi	Nilpara	394.00
6	Malangi	Par Malangi	668.07
7	Satali	Madhu TG	1164.60
8	Satali	Satali TG	1330.85
9	Satali	Madhya Satali	1366.10
10	Satali	Purba Satali	1636.11
11	Satali	Satali Mandalpara	1448.76
12	Satali	Uttar Satali (CT)	1212.84
13	Mendabari	Pashim satali	1135.49
14	Mendabari	Dakhin satali	1234.48
15	Mendabari	Satali nakadala	1294.45
16	Mendabari	Uttar mendabari	1382.63
17	Mendabari	Dakshinmendabari	1436.52
		Total:	22659.44

SI.	Name of Village/Mouza	No. of Household	Total Population
1	Parmalangi	25	100
2	Nilpara Forest	27	112
3	Saudamini Tea Garden	982	4225
4	Madhya Satali	484	2240
5	Satali Mandalpara	434	1962
6	Madhu Tea Garden	1000	4540
7	Satali Tea Garden	2599	12178
8	Malangi Tea Garden	1922	9516
9	Beech Tea Garden	1440	6898
10	Bharnobari Tea Garden	1546	7057
11	Purba Satali	810	3572
12	Uttar Satali (CT)	2761	18454
13	Paschim Satali	744	3153
14	Dakshin Satali	520	2189
15	Dakshin Mendabari	301	1305
16	Uttar Mendabari	777	2481
17	Satali Nakadela	467	2037
	Total :	16839	82019

Table No.74: Details of Villages & population for extended area of JDA (as per Census 2011).

The population of the extended area is 82019(census 2011) consisting of 16839 nos. of households with an average family size of 4.8 persons. The population projection for the extended area of JDA will increase in the near future. The present JDA building may install solar panels for generating electricity to be used in house as a part of green city mission.

CHAPTER 7: Stakeholders' Meeting

Stakeholders' meeting was held on 02.11.2016 and 21.03.2017 and the following feedback were received.

On 02.11.2016

The Stakeholders' Meeting was held on 02.11.2016 chaired by the Chairman, JDA and attended by CEO, JDA, senior officials from JDA, PHE,



Irrigation, Pradhans from Gram Panchayats, Electricity Board, representative of Trade & Merchant Association, Police and other concerned officials. HUDCO made a presentation on the proposed developmental plan to all the stake holders present in the meeting.

The following were the suggestions/observations:

- Connectivity between the 2nd alternative road (Ebenzer Academy to Govinda Plaza & Union bank building) and N S Road proposed by HUDCO leading to the India Gate may be dropped.
- 2. The proposed site for bus terminus presently the Balaji Truck Terminus which is in operation may not be considered for an alternative site as the site belongs to Tea Garden. The proposed site may continue to be considered as this was the best location for such infrastructure.
- Land earmarked for car parking behind the Police Station needs to be reviewed as the said land is proposed by PHE Deptt. for construction of overhead tank and ancillary facilities.

- 4. JDA has been advised to locate large area on Asian Highway near the International Border for establishment of Land Port. For this purpose, JDA has identified about 70 acres of land on the both side of Asian Highway-48. Since HUDCO has earmarked certain portion of land on the same location for other purposes, this needs to be reviewed.
- 5. The earmarking of land for MSME purpose was appreciated by all. Request was made to all the Panchayat Pradhans to motivate the unskilled people and make provision for training so that they could be utilized for employment at MSME.
- 6. There is a great need for creation/improvement of Sanitation Facility including Community Facility as the present situation is not up to the mark in all the gram panchayats. This needs to be implemented by clubbing the funds from Central and State government.
- 7. Conversion of *kutcha* drain and maintenance of the existing drains which are in poor condition needs to be implemented.
- 8. There is a need for establishment of an Urban Local Body (Municipality) considering the increase in urbanization leading to haphazard growth. It was also discussed that there is need for expansion of JDA jurisdiction. It was indicated that earlier proposals covering the larger area of Kalchini Block was not considered by the State Govt. However, considering the present situation, the area may be considered for extension adjoining Hasimara town for appropriate planning and guided urban development.
- Regularization of land holdings and providing ownership rights to the existing buildings. This will facilitate the residents to avail credit facilities from banks.

On 21st March, 2017:

HUDCO made a presentation on the 3rd Draft Report. The meeting was

chaired by the Chairman, JDA, accompanied by ADM, Alipurduar and Executive Officer of JDA, AEO, JDA, SDPO, Jaigaon, Block Development Officer, Kalchini Block and Gram Panchayat Pradhans and official from BLRO, Kalchini.



The following were the observations received from the meeting:

- 1. Extending the JDA area till Mendabari gram panchayat.
- The name for Theme City 1B may be changed to some other local name to attract the tourists.
- 3. The proposed By-pass Road along the river Torsa may be reviewed since there is a small forest area intercepting the road leading to Jaigaon town.
- 4. Chota Jaigaon being a small mouza and is in close proximity to the Bhutan Border, the development in this mouza may be restricted.
- 5. The cost component stated for the major projects includes the subsidy component. The subsidy component may be indicated in the report.
- 6. Location of proposed car parking space behind police station was not found suitable. As no other suitable plot for car parking was available at the commercial area near the Bhutan gate it was communicated that HUDCO may continue to earmark the plot in the proposal map.

On 26th May, 2017:

HUDCO made a presentation to the JDA board on the changes made after the submission of the 3rd draft report. The changes were in the area of inclusion of wholesale market, private hospital and an allocation of a booster pumping station at Dalsinghpara mouza. The other changes were the extension of the proposed JDA area to Mandabari Gram panchayat and the changes made in the layers of the proposed integrated transport system. The following observations were received which are stated below:

- The allocation of a plot for a private hospital near the Bulan turning may be discarded as the area could be better utilized as a public and semi public area in the proposed land use map and the zoning map.
- Chota Jaigaon mouza may continue to be shown as a "Rural Settlement" and not under "No Development Zone" as the railway connectivity to Toribari to Hasimara station has been projected in the development plan.
- 3. The question of allocating an alternate car parking space as indicated in our earlier report was again discussed and it was agreed upon that any allocation of a plot beyond this point would be ineffective and unviable since it will not serve the car parking problem at the commercial area near by Bhutan gate.

CHAPTER 8: DEVELOPMENT CONTROL

8.1 Zoning Regulation

The aim of this section is to enable the implementation of the Land Use Plan by providing specific regulations regarding the allowable uses of land under the purview of this Plan. These regulations are forwarded to preserve the characteristics of the various land use zones proposed, while resolving compatibility issues of the various activities. It is expected that the zoning regulations will promote and protect public health, safety, convenience, general welfare and the natural environment of the planning area. The zoning is reflected in **Map-15**.

Activities 'Permitted', 'Restricted', 'Prohibited'

The zoning regulations elaborate the activities that are generally permitted within each of the land use zones. No person shall construct, or move a building, and no person shall establish a new use of land or expand or intensify an existing use unless it conforms to the permitted uses provided in the zone district or conforms to a permit and regulations authorizing a discretionary use in the zone district in which the land is located. All construction, alteration, reconstruction or enlargement of buildings and all uses of buildings and land shall comply with all provisions of this chapter except as otherwise provided for nonconforming structures and uses

Further, All construction, alteration, reconstruction or enlargement of building and all uses of buildings and land shall comply with the provisions of the prevailing Building bye-laws and National Building Code circulated by National Disaster Management Division after going through the recommendation and adopting them as per the requirement of the area

which is relevant to IS Codes towards earthquake resistant design of buildings with a view to ensure structural safety of building against earthquake disaster as Jaigaon is located under high Seismic zone.

All waste Management shall be in conformity with the Manual on Solid waste management, 2016 viz-a-viz Solid waste Management Rules, 2016 and National Urban Sanitation Policy (NUSP) of MoHUA pertaining to specific zones.

Such use/activity is termed as Permissible on Application to Competent Authority (with conditions). The uses/activities which are otherwise not allowed in a particular use zone are termed as Activities/Uses Prohibited in certain use zones.

8.1.1 Development Control Zone 'Residential' (Residential/Mixed uses) (R):

This comprises the areas that are primarily used for residential purposes and mixed with other uses. This zone also includes the areas which are likely to be used in future for mainly residential purposes.

In Residential use zone-R :(Residential zone (R-1), Mixed residential zone (R-2), the following uses/ activities are permitted, permissible and prohibited.

Permitted Uses / Activities

Residence-plotted, (detached, semi-detached and row housing) group housing, residential-cum-work, hostels and boarding houses, barat-ghar, community hall, police post, guest houses, convenience shopping centres, local (retail shopping), medical clinics, dispensaries, nursing home and health centres, religious premises, weekly markets, library, gymnasium, park/toilets, educational buildings (nursery, primary high, college), School for mentally/physically challenged, technical training center, yoga center/health clinics, parks/ tot-lots, exhibition and art gallery, clubs, banks, police station, taxi stand/three wheeler stands, bus stops, electrical distribution depot, water pumping station, post offices,

hostels of non-commercial nature, kindergartens, public utilities and buildings except service and storage yards.

Restricted Uses/Activities

Dharamsala, foreign missions, night shelters, Petrol pumps, motor vehicle repairing workshops/garages, household industry, bakeries and confectionaries, storage of LPG gas cylinders, burial-grounds, restaurants and hotels, printing press, godowns/warehousing, bus depots without workshop, cinema halls, auditoriums, markets for retail goods, multipurpose or junior technical shops, transient visitors camp, municipal, state and central government offices, agriculture related uses (in extension areas)

Prohibited Uses/Activities:

Heavy, large and extensive industry: noxious, obnoxious and hazardous industries, warehousing storage godowns of perishable, harzardous, inflammable goods, junk yards, workshop for buses etc., slaughter-houses, wholesale mandis, hospitals treating contagious diseases, sewage treatment plant/ disposal work, water treatment plant solid waste dumping yards, outdoor games stadium, indoor games stadium, shooting range, zoological garden, botanical garden, bird sanctuary, picnic hut, international conference center, courts, sports training centre, reformatory, district battalion office, forensic science laboratory.

8.1.2 Development Control Zone 'Commercial and Business' (C):

This comprises of the areas that are used principally for commercial purpose mixed with other uses that are permissible as per the zoning

regulations indicated in this document. This zone includes areas which are likely to be used in future for commercial activities.

In commercial use zone-C (Retail Shopping zone (C-1), the following uses/ activities are permitted, permissible and prohibited.

Permitted Uses/ Activities

Shops, convenience/neighborhoods shopping center, local shopping centers, professional offices, work places/ offices, banks, stock exchanges/financial institutions, bakeries and confectionaries, cinema hall/ theatre, malls, banquet halls, Guest houses, restaurants, hostels, weekly markets, petrol pumps, go-downs and warehousing, general business, wholesale, residential plot-group housing, hostel/boarding housing, hostel, banks/ATM, restaurants, auditorium, colleges, nursing homes/ medical clinics, pet clinics, religious, places, office/work places, commercial centers. research/training institute. service centers/garages/workshops, barat-ghar/ night shelter, weekly/formal markets, library, parks/open spaces, museum, police station/post, taxi stands, stand/three wheeler parking site, post offices, offices, government/institutional telephone exchange/ centers, warehousing and covered storage, research institutions.

Restricted Uses/Activities

Non-polluting, non-obnoxious service and light industries, warehousing/ storage godowns of perishable, inflammable goods, coal, wood, timber yards, bus and truck depot, gas installation and gas works, polytechnics and higher technical institutes, junk yards, transient visitors homes, religious buildings, hospitals and nursing homes.

Prohibited Uses/Activities

Dwelling except those of service apartment, essential operational watch and ward personnel, heavy, extensive, noxious, obnoxious, hazardous and extractive industrial unit, hospital/research laboratories treating contagious disease, poultry farms/dairy farms, slaughterhouses, sewage treatment/ disposal sites, agricultural uses, storage of perishable and inflammable commodities, quarrying of gravel, sand, clay and stone, zoological garden, botanical garden, bird sanctuary, picnic hut, international conference center, courts, sports training center, reformatory, district battalion office, forensic science laboratory and all other activities which may cause nuisance and are noxious and obnoxious in nature.

8.1.3 Development Control Zone 'Industrial/Manufacturing' (M):

This zone mainly comprise of the new industries which shall preferably be non – polluting in nature and proposed in the industrial zone are of M-1 category only.

In the Industrial/Manufacturing Use Zone (M-1) the building and premises shall be normally used for identified and associated permitted uses and for permissible use/activities, on an application.

Permitted Use/Activites

Residential building for essential staff and for watch and ward personnel, all kinds of Non-polluting industries, public utilities, parking, loading/ unloading space, ware housing, storage and depot of non-perishable and non-inflammable commodities and incidental use, cold storage and ice factory, gas go-downs, cinema, bus terminal, bus depot and workshop, wholesale business establishments, petrol filling stations with garages and service stations, parks and playgrounds, medical centre, restaurants.

Restricted Uses/Activities

Noxious, Polluting and Hazardous industries except storage of perishable and inflammable goods, junkyards, sports/stadium/playgrounds, Sewage Disposal Works, electric power plants, service stations, cemeteries, government/semi-government/private business offices, banks and financial institutions, helipads, hospitals/medical centres, religious buildings, taxi stands, gas installations and gas works, workshops/garages, dairy and farming, quarrying of gravel, sand, clay or stone, bus stands, mass transport facilities, any other use incidental to industrial use.

Prohibited Uses/Activities

Residential dwelling other than those essential operational, service and watch and ward staff, school and colleges, hotels, motels and caravan parks, recreational sports or centers, other non-industrial related activities, religious buildings, irrigated and sewage farms, major oil depot and LPG refilling plants, commercial office, educational institutions, social buildings, any other use which may be deemed obnoxious and hazardous.

The requirement of establishment of Effluent treatment Plants (EFTs) specific to each unit shall be as per norms of Pollution Control Board.

8.1.4 Development Control Zone 'Public / Semi – Public' (PS):

This zone comprises of the areas that are used principally for Govt. / Semi – Govt. offices and also educational, health related and social & Cultural institutions. This zone has been suitably located so that the institutions can be easily accessible from different parts of the JDA. Also, huge parcels of land along the National Highway have been earmarked for this use.

For Public and Semi-Public Uses Zone (PS) including Government/Semi Govt./Public offices (PS-1) Educational (PS-2), Medical and Health (PS-3), Social Cultural and Religious-Including Cremation and Burial ground (PS-4), and following uses/activities are prescribed as permitted, permissible on an application to the Competent Authority and as prohibited for General guidance.

Permitted Uses/Activities

Government offices, central, state, local and semi government, public undertaking Offices, Defense courts, universities and specialized educational institutes, polytechnic, colleges, schools, nursery and kindergarten (not to be located near hospital or health care facility), research and development centers, social and welfare centers, libraries, social and cultural institutes, religious buildings/ centres, conference halls, community halls, marriage halls, Dharamshala, guest house, museum/art galleries, exhibition centres/ trade fair grounds, auditoriums, open air theatre, recreational club, playground, banks, police stations/police post, police lines, police headquarters, Jail, fire stations/fire posts, public utilities and buildings, post and telegraph, solid waste dumping grounds/sites, post offices, local state and central government offices and use for defence purposes, bus and railway terminals, municipal facilities, uses incidental to government offices, religious buildings, radio transmitters and wireless stations, telecommunications centres, telephone exchange, hospital, health centers, dispensary, clinic, crematoriums, burial grounds, defense institutions.

Restricted Activities/Uses

Residential flats and residential plot for group housing for staff employees, hostels, water supply installations, sewage disposal works, service stations, railway stations/yards, bus/truck terminals, burial ground, cremation grounds and cemeteries/graveyards, Ware houses/storage godown, helipads, commercial uses/centres, any other Govt. use.

Prohibited Uses/ Activities

Heavy, extensive and other obnoxious and hazardous industries, slaughter houses, junk yards, wholesale mandis, dairy and poultry farms, farm houses, workshops for service and repairs, processing and sal of farm product and uses not specially permitted herein.

8.1.5 Development Control Zone 'Transportation' (T):

These zone comprises of the all the transport infrastructure existing in the JDA. This zone shall comprise of the proposed roads, railways, bus terminal, truck terminal that will come up in the area.

In Transportation use zone-T: Roads (T-1), Bus Depots/Truck Terminals/ Freight Complex zone (T-2), the following uses/ activities are permitted, permissible and prohibited.

Permitted Uses/ Activities

Roads, Road transport terminals (bus terminals and depots), goods terminals, parking areas, circulation space, helipad/airports-buildings and infrastructure, Railway terminals, truck terminal, motor garage, workshop, repair and repair shop and facilities such as night shelter, boarding house, booking offices, transmission center, wireless station, radio and television station, observatory and weather office.

Restricted Uses/ Activities

Any other use/ activity incidental to transport and communication, residential dwelling units for essential staff and watch and ward personnel.

Prohibited Uses/Activities

Use/activity not specifically permitted herein. In vicinity of airports: butcheries, ta nneries and solid waste disposal sites shall be prohibited within 10 km from the Ae rodrome Reference Point (ARP)

8.1.6 Development Control Zone 'Recreational' (P):

This zone comprises of the areas that are used principally for recreational and green open spaces and in future shall be used for recreational purposes.

In use zones: Playgrounds/ stadiums/ sports complex (P-1), the following uses / activities are prescribed as permitted, permissible on an application to the Competent Authority and as prohibited for general guidance.

Permitted Uses/ Activities

Regional parks, district parks, theme parks, amusement parks, playgrounds, children traffic parks, golf courses, ecological/ nature parks, botanical/ zoological/ herbal gardens, bird/ animal sanctuary, clubs, stadiums, (indoor/ outdoor), picnic huts, holiday resorts, shooting range, sports training centers, specialized parks/ maidans for multi-use, swimming pools, special recreation and special educational areas, library, public utilities and facilities such as police post, fire post, post & telegraph office, health center.

Restricted Uses/ Activities

Buildings and structures ancillary to use permitted in open spaces and parks such as stand for vehicle on hire, taxis and scooters, bus and railway terminals, facilities such as police post, fire post, post and telegraph office, commercial use

of transit nature like cinema, circus, other show, public assembly halls, restaurants and caravan parks, sports stadium, open air cinemas.

Prohibited Uses/ Activities

Any building or structure which is not required for open air recreation, dwelling unit except for watch and ward personnel, uses not specifically permitted herein.

8.1.7 Development Control Zone 'Primary Activity' (PA):

This zone comprises of the areas that are used principally for agriculture, multi cropping area including the located within the JDA jurisdiction, Tea Gardens/green cover, rural settlements at chota Jaigaon area within JDA.

In Primary Activity use zone-PA: Agriculture use (PA-1), Tea Gardens/ Green Cover use (PA-2), Rural settlements (PA-3), the following uses/ activities are permitted, permissible and prohibited.

Permitted Uses/ Activities

Farm houses and their accessory buildings and uses not exceeding 200/250 sq. m. of plinth area for the farmer's own use, dwelling for the people engaged in the farm (rural settlement), agriculture, horticulture and forestry, poultry, piggeries and dairy farm, cottage industries, pisciculture, aquaculture, community garden farming, storage, processing and sale of farm produce, petrol and other filling stations, public utility and facility.

Restricted Uses/ Activities

Plotted housing (detached, semi-detached), Transient visitors camp, Temporary shelter for disaster affected people, farm houses, extensive industry, brick Kilns, sewage disposal works, electric power plant, quarrying of gravel, sand, clay or stone, service industries accessory to obnoxious and hazardous industries, school and library, temple, church,

mosques and other religious buildings, milk churning stations and pasteurization plants.

Prohibited Uses/ Activities

Residential use except those ancillary uses permitted in agricultural use zone, heavy extensive, noxious, obnoxious and hazardous Use, any activity which is creating nuisance and is obnoxious in nature.

8.1.8 Development Control Zone 'Protective and Undevelopable use Zone' (E):

This zone comprises all types of water bodies which includes river, canal, lakes, ponds, etc., less developed areas that falls under the purview of Reserve Forest, green belt and Hill side/slope areas prone to landslides as per the Zoning Regulations.

In use zones: Water bodies (E-1), Reserve Forest/ Green Belt (E-2), Undevelopable use zone (E-3), the following uses / activities are prescribed as permitted, permissible on an application to the Competent Authority and as prohibited for general guidance.

Undevelopable use zone shall be identified as all earthquake/landslide prone, cliffs and environmentally hazardous area, area adjacent to fault lines, areas with slope higher than 45 degree (NBC), flood plain and areas adjacent to major drainage lines for general guidance, other areas identified by State Disaster Management Authority and all the environmentally sensitive areas.

8.1.9 Development Control Zone 'Special Zone' (S) :

This zone comprises area that falls under the purview of Defense Land/IMTRAT as per the Zone Regulations. The Defense land development shall be as per the Ministry of Defense norms.

In Special use zone-S: Defence Land (S-1), the following uses/ activities are permitted, permissible and prohibited.

Permitted/Restricted Uses/ Activities

Uses/activities as identified by the Ministry of Defense for which the land has been procured for use.

Prohibited Uses/ Activities

Use/ activity not specifically permitted herein.

For the purpose of levying Development Charges for the institution of the use, as per the provisions in West Bengal Town & Country (Planning and Development) Act, 1979 as amended up to date (West Bengal Act XIII of 1979), section 102, the activities listed under the Broad use -Residential shall be charged as 'Residential, whereas the activities listed under the Broad use - Commercial, Public & Semi -Public, Transportation & communication and Recreational, shall be charged as 'Commercial', and the activities listed under the Broad use - Industrial shall be charged as 'Industrial'.

8.2 Regulatory Framework

This section of the LUDCP provides specific guidelines on controlling development within the Planning Area. The Development Control Regulations are proposed for ensuring sustainable and orderly development within the JDA. The major issues that would be covered are given in the following sections.

8.2.1 Regulation for Means of Access

- 8.2.1.1 Every plot shall abut a means of access which may be a public street or private street or passage.
- 8.2.1.2 The relationship between the width of the means of access and the maximum permissible height of the building shall be as indicated in section 8.2.3 of this Land Use Development and Control Plan.
- 8.2.1.3 The minimum width of means of access in respect of a new building shall be as follows:-
 - No new building shall be allowed on a plot unless the plot abuts a street which is not less than 10.00 meters in width at any part, or there is access to the plot from any such street by a passage which is not less than 10.00 meters in width at any part:

Provided that:-

- a) In case of a residential building with other occupancies, if any, of less than 10% of the total floor area of the building, the width of such street or passage shall not be less than 2.4 meters at any part.
- b) In case of residential building with education occupancy of 10% or more of the total floor area of the building, the width of such street or passage shall not be less than 7.50 meters at any part.
- c) In case of an educational building with residential occupancy the width of such street or passage shall not less than 7.50 meters at any part.

- d) In case of an educational building with other occupancy or occupancies not being residential of less than 10% of the total covered area of the building the width of such street shall not be less than 7.50 meters at any part.
- 2. Notwithstanding anything contained in section 8.2.1.3 (1), residential buildings up to a maximum height of 7.00 meters may be allowed on a plot abutting a means of access not less than 1.20 meters, provided such means of access is in long existence and is recorded in the settlement record and/or Municipal records accordingly.
- 8.2.1.4 Any building, which, in full or part, is put to assembly occupancy for the purpose of theatre, motion picture house, city hall, dance hall, skating rink, auditorium, exhibition hall or for similar other purpose, shall not be allowed on a plot located within 50.00 meters of junction of two streets, and such street shall not be less than 15.00 meters.
- 8.2.1.5 For plots in a scheme for Economically Weaker Section and Low Income Group Housing, subject to the approval of the Jaigaon Development Authority, the minimum width of means of access shall be as indicated in section 8.2.8 of this Land Use Development and Control Plan.

8.2.2 Regulation for Ground Coverage

8.2.2.1 The maximum permissible ground coverage for building when a plot contains a single building shall depend on the plot size and use of the building as given in the table below:

Types of the building	Maximum permissible ground coverage		
Types of the boliding	In Residential Use Zone	In all other zones	
1. Residential and educational a) On plot size up to 200.00 sqm.	50%	65%	

Maximum Permissible Ground Coverage (Plot containing a single building)

b) On plot size of 500.00 sqm. or more	45%	-
2. Other use group including mixed use	40%	40%
building		

- 8.2.2.2 For a plot of size between 201 to 500 sqm., the maximum permissible Ground coverage shall be calculated by direct interpolation.
- 8.2.2.3 When a plot contains more than one building the maximum permissible ground coverage for the building shall be as stipulated in section 8.2.7 of this Land Use Development and Control Plan.
- 8.2.2.4 For mercantile building (retail) and assembly buildings on plots measuring 5000 sqm. or more, the additional ground coverage to the extent of 15% may be allowed for car parking and building services. The additional ground coverage of 15% will be exclusively utilized for car parking, ramp, staircase, lift for upper level car parking and for building services such as Air Conditioned plant room, generator room, fire fighting equipments, not exceeding 5% out of such 15%, subject to compliance of other relevant building rules.

8.2.3 Regulation for Height of Buildings

- 8.2.3.1 Height of a building shall be the vertical distance measured from the average level of the centre line of the adjoining street or passage on which the plot abuts to the highest point of the building, whether with flat roof or sloped roof.
- 8.2.3.2 The following appurtenant structures shall not be included in the height of building:
 - i. Stair cover not exceeding 2.40 meters in height;
 - ii. Lift machine rooms as per as the latest edition of the National Building Code;

- iii. Roof tanks and their supports, the height of support not exceeding 1.00 meter.
- iv. Chimneys;
- v. Parapet walls not exceeding 1.50 meters in height;
- vi. Ventilating, air conditioning and other services equipments;
- vii. Height above mid-point between eaves level and ridge level;
- viii. Toilet at roof level upto a height of 3.00 meters subject to maximum floor area of 3.00 sqm.
- ix. Garden cover with permeable material not exceeding 3.00 meters in height;
- x. Equipments for communication such as Microwave Antenna to, Tower, Dish Antenna as well as room for installing the said equipments subject to a maximum area of 20 sqm and further subject to permission of the same from Jaigaon Development Authority.
- 8.2.3.3 The aggregate area of the structures mentioned in section 8.2.3.2 shall not exceed one-third of the area of the roof upon which these are erected.
- 8.2.3.4 The maximum permissible height of buildings on a plot shall be as given in the table below:

Width	of means of access (in meters)	Maximum permissible height (in meters)
i)	2.40 to 3.50	8.00
ii)	Above 3.50 to 7.00	11.00
iii)	Above 7.00 to 10.00	14.50

Maximum Permissible Height

i∨)	Above 10.00 to 15.00	18.00
v)	Above 15.00 to 20.00	24.00
∨i)	Above 20.00 to 24.00	36.00
∨ii)	Above 24.00	1.5 x (width of the means of access + required width of front open space).

Note:

- i. There will be no restriction in height of buildings for plots abutting means of access above 10 meters in width subject to free gifting of strip of land as per prescribed street alignment. However, this increase in height as mentioned above shall be permissible provided the minimum area of the plot is 2500 sqm. and minimum frontage of the plot abutting the main road is 30 meters.
- ii. In case of such additional height by free gifting the strip of land as mentioned above, the applicant will get FAR of original road width only. However, the applicant will be given benefit of FAR and ground coverage of the portion gifted to the Municipality.
- iii. Regulations for height of building exceeding 14.5 meters shall be as per section 8.2.6.

8.2.4 Regulation for Open Spaces for Buildings

8.2.4.1 General

Every room intended for human habitation shall abut an interior or exterior open space or an open verandah, open to such interior or exterior open space. Open spaces shall be areas forming integral parts of the plot at ground level and shall be open to the sky without any projection or overhang excepting cornices, chajjas or weather –shades of not more than 0.50 meter in width.

Every building shall have exterior open spaces comprising front open spaces, rear open space and side open spaces. The minimum width prescribed for front open spaces, rear open space and side open spaces shall be provided along the entire front, rear and side faces of the building respectively. For this purpose, the front of the building shall be that face of the building which faces the means of access of the building and the rear of a building shall be deemed to be that face of the building which is farthest from the means of access. These provisions shall also be applicable to each individual building separately when a plot contains more than one building. In case of a corner plot located at the crossing of more than one street or passage the rear of the building shall be deemed to all such streets and /or passages.

Open spaces prescribing to one side cannot be taken for another side. No building shall at any time be erected on any open space prescribed in these regulations, nor shall such open space be taken into account in determining the area of any open space required under these regulations for any other building.

If the front open space is 3.00 meters or more, a "Gate Goomti" for security purpose may be allowed in the said open space. The covered area of such "Goomti" shall not in any case exceed 3.00 sqm. and the height of such "Goomti" shall not exceed 3.00 meters. The covered area of the "Gate Goomti" shall not be included in the calculation of FAR and Ground Coverage. For buildings exceeding the height of 14.50 meters, such "Gate Goomti" shall not obstruct the vehicular movement from the means of access to the side and the rear open spaces.

For corner plots: In the case of any building intended to be erected at the corner of two streets, except the plan for a residential building, to be erected or re-erected on plot land of 300 square meters or less provided the height does not exceed 12.5 meters following regulations will apply:

In case of both the adjoining roads are below 3.5 meter width and area of land is within 200sqm., the corner of such plot shall be splayed by 1.20m x 1.20m.,

In case any of the adjoining roads is more than 3.5 meter width and less than 10.0 meter width, the corner of such plot shall be splayed by 2.50m x 2.50m.

For roads more than 10.0 meters width, the splay shall be 3.5 m x 3.5 m

The land within the splayed portion shall be transferred to the local body by a deed of gift. However, area of land gifted to local body shall be considered for FAR and Ground Coverage as applicable.

8.2.4.2 The minimum open spaces with respect to height and category of buildings shall be as follows:

Height of building (in meter)	Front open space (in meter)	Open space on side 1 (in meter)	Open space on side 2 (in meter)	Rear open space (in meter)
Upto 8.0	1.2	1.2	1.2	2.0
Above 8.0 upto 11.0	1.2	1.2	1.2	3.0
Above 11.0 upto 14.5	1.5	1.5	2.5	4.0
Above 14.5 upto 18.0	3.5	3.5	3.5	5.0
Above 18.0 upto 24.0	5.0	5.0	5.0	7.0
Above 24.0 upto 36.0	6.0	6.5	6.5	9.0
Above 36.0 upto 60.0	8.0	8.0	8.0	10.0
Above 60.0 upto 80.0	10.0	15% of the height of the building	15% of the height of the building	12.0
Above 80.0	12.0	15% of the height of the building	15% of the height of the building	14.0

 Table No. 75:
 Minimum Open Space required for Residential use

Height of building	Front open space (in meter)	Open space on side 1 (in meter)	Open space on side 2 (in meter)	Rear open space (in meter)
Upto 11.0 m (land area upto 500.0 square m)	2.0	1.8	4.0	3.5
Upto 11.0 m (land area above 500.0 square m)	3.5	3.5	4.0	4.0
Above 11.0 m upto 14.5 m	3.5	4.0	4.0	5.0
Above 14.5 m upto 21.0 m	5.0	5.0	5.0	6.0
Above 21.0 m	20% of the height of the building or 6.0 m, whichever is more	20% of the height of the building or 5.0 m, whichever is more	20% of the height of the building or 5.0 m, whichever is more	20% of the height of the building or 8.0 m, whichever is more

Table No. 76: Minimum open space required for Education use

Table No. 77: Minimum open space required for Institutional, Assembly, BusinessMercantile and Mixed use Building

Height of building	Front open space (in meter)	Open space on side 1 (in meter)	Open space on side 2 (in meter)	Rear open space (in meter)
Upto 11.0 m (land area upto 500.0 square meter	2.0	1.8	4.0	4.0
Upto 11.0 meter (land area above 500.0 square meter)	3.0	3.5	4.0	4.0
Above 11.0 meter upto 18.0 m	4.0	4.0	4.0	5.0
Above 18.0 m upto 24.0 m	5.0	5.0	5.0	9.0
Above 24.0 m upto 36.0 m	6.0	6.5	6.5	9.0
Above 36.0 m	8.0	9.0	9.0	10.0

Height of building	Front open space (in meter)	Open space on side 1 (in meter)	Open space on side 2 (in meter)	Rear open space (in meter)
Upto 11.0 meter	5.0	4.0	4.0	4.5
Above 11.0 meter upto 18.0	6.0	6.5	6.5	10.0
Above 18.0 meter	6.0 or 20% of the height of the building whichever is more			

Table No. 78: Minimum Open Space required for Industrial and Storage Building

Note:

- (i) Every residential building of height not more than 8.0 m on plot size not exceeding 65 sq.m in area shall have a minimum front space at ground level of 0.90 meter.
- (ii) For plots of size not more than 65 sq.m, minimum side open space of 0.90 meters may be allowed on each side, provided that the building height does not exceed 8.00 meters
- (iii) Notwithstanding anything contained in Table the minimum distance across the side open space from every new building to an existing building with a door or window opening shall be 1.80 meter;
- (iv) In the case of a building more than 24.00 meters in depth on a plot abutting any street, a passage along the entire depth of the building shall be provided and the minimum width of such passage shall be 4.0 meter.

- (v) For mixed use buildings the minimum front open space shall be the one applicable for that particular occupancy which gives the highest value of the minimum front open space.
- **8.2.4.3** For plots in a scheme for economically weaker section and low income group Housing approved by Jaigaon Development Authority the minimum space shall be as laid down in section 8.2.8 of this Land Use Development and Control Plan.

8.2.4.4 Interior Open Space:

The interior open space shall be as follows:

- a) For inner courtyard-
 - (i) In case the whole of one side or part of at least two sides of every habitable room is abutting either the front space, rear open space or side open space, it shall abut an interior open space. Interior open space at ground level shall be called courtyard.
 - (ii) Any room which is separated only by a verandah from the interior open space shall be deemed to abut on such interior open space for the purpose of this regulation.
 - (iii) The minimum dimension of any side of every interior open space (a) at ground level all sides of which are enclosed by a building or part thereof shall be 30% of the height of the building or 3.0 meters, whichever is more (b) at any other level, all sides of which are enclosed by a building or part thereof shall be 30% of the height of the building or 3.0 meters, whichever is more, measured from the said level where interior open space is formed.
 - (iv) Notwithstanding anything contained in these rules, if all sides of an interior open space in enclosed by a combination of higher and lower blocks of a building, the minimum dimension of such interior open space shall be governed by the height of lower block, provided that in no case the

covered area under such lower block shall be less than 25% of the total covered area of the concerned building constituting the interior open space.

(v) For the purpose of this rule, if any interior open space or courtyard is enclosed on three sides by a building or part thereof is meant to serve lighting and ventilation purpose to a part or whole of one side of one or more habitable rooms, the minimum width of such open space shall be 2.4 meters for building upto 14.5 meters in height, 3.5 meters for buildings above 14.5 meters upto 24.0 meters height, 5.0 meters for buildings above 24.0 meters upto 36.0 meters height, and 7.0 meters for all buildings above 36.0 meters height:

Provided that the depth of such open space shall not exceed twice its width and the same may be reduced to 1.2 meters, if no habitable room, or balcony attached to the habitable room is facing the interior open space. However, in case the depth of such interior open space is less than the width, the same shall not be considered as interior open spaces but be called as Notch and the same will be permitted without any restriction.

- (vi) A ventilation shaft having no access to the same except through one door for service purposes shall not be treated as a courtyard if the area of such shaft is less than 20 sqm.
- b) Ventilation Shaft for Kitchen or toilet-

For ventilation of bathroom or water closet or if it does not open into the front open space, rear open space or side open space or an interior open space, it shall open into a ventilation shaft which shall not be less than the specification in Table below:

Height of building (in meter)	Minimum size of ventilation shaft (in sqm.)	Minimum width of shaft (in meter)		
Upto 11.0	2.5	1.2		
Above 11.0 but less than 14.5	5.0	2.0		
From 14.5 but less than 20.0	6.0	2.4		
20.0 and above	9.0	3.0		

Table No. 79: Size of Ventilation Shaft

Table No. 80: Combined Ventilation Shaft for Kitchen and Toilet

Height of building (in meter)	Minimum size of ventilation shaft (in sqm.)	Minimum width of shaft (in meter)
Upto 11.0	3.0	1.5
Above 11.0 but less than 14.5	6.5	2.5
From 14.5 but less than 20.0	8.0	2.75
20.0 and above	9.0	3.0

Provided that for any building with height exceeding 20 meters, a mechanical ventilation system shall be installed in addition to the provision of minimum ventilation shaft:

Provided further that no chajja shall be allowed in any ventilation shaft:

Provided also that no ventilation shaft may be required for full air conditioned building, or mechanically ventilated toiled, kitchen, bath and W.C.

c) If there be building other than boundary wall on not more than three sides of a building the minimum width of such courtyard shall not be less than 20% of the height of the building or 2.50 meters, whichever is more.

- **8.2.4.5 Joint Open Space:** In case of multiple blocks of buildings connected with each other the open spaces between the two blocks will have to be 40% of the height of the lower block or 7.0 meters whichever is more.
- **8.2.4.6** For plot in a scheme for Economically Weaker Section and Low Income Group Housing, the minimum front space, side open space and rear open space shall be as laid downs in section 8.2.8 of this Land Use Development and Control Plan.

8.2.5 Regulation for Provision of Parking within a Plot

8.2.5.1 Minimum Parking Space:

- i. No off-street parking shall be less than
 - a) 12.5 sqm. (2.5 meters in width and 5.0 meters in length) for a motor car with a minimum head room of 2.2 meters if parked in a covered area.
- b) 37.5 sqm. (3.75 meters in width and 10 meters in length) for a truck and a bus with a minimum head room of 4.75 meters if parked in covered area.
- ii. The minimum width of circulation driveway to be provided for adequate maneuvering of vehicles shall be 4.0 meters for cars and 5.0 meters for trucks exclusive of parking space referred to in section 8.2.5.1 (i). However, a projection from a height above 5.50 meters from the ground level may be permitted keeping the mandatory open space open to sky as per this regulation.
- iii. The parking lay-out plan shall be so prepared that the parking space for each vehicle becomes directly accessible from the driveway or circulation driveway or aisles. However, stack car parking arrangement will be allowed in such a way that every car can be moved by shifting not more than one car. This stack car parking will be allowed only on the basement and ground floor levels.
- iv. (a) For building with different uses, the area of parking space shall be worked out on the basis of respective uses separately and parking space to be provided for the total number of vehicles thus required.

(b) In case of a plot containing more than one building, parking requirement for all buildings shall be calculated consideration the area of respective uses.

- v. Notwithstanding anything contained in section 8.2.5.1 (i-iv) of this regulation, if the building site abuts on a street or means of access which is less than 3.5 meters, parking space may not be insisted upon.
- vi. In calculating the areas of different occupancies in the same building or different units of same occupancy in a building, the areas of common spaces of any floor which is included in the calculation of the Floor Area Ratio as per provision of these rules shall be distributed proportionately amongst the different units or occupancies. However, in case of residential use, the actual floor area of the tenements shall be considered excluding the areas of the common space. The requirements of car parking spaces shall be calculated accordingly.
- vii. The open spaces within the plot may be allowed to be utilized for car parking spaces open to the sky provided that the minimum front, rear and side open spaces prescribed in section 8.2.4 of this Land Use Development and Control Plan shall be kept free of parking;
- viii. For plots in a scheme for Economically Weaker Section and Low Income Group housing approved by the Jaigaon Development Authority, the parking requirement shall be indicated in section 8.2.8 of this Land Use Development and Control Plan.

8.2.5.2 Parking Space requirements for motor cars:

The parking space requirements for motor cars in respect of different categories of buildings are given in the Table below:

Parking Space requirements for motor cars

SI. No.	Occupancy	Off- Street Car Parking Spaces
1	Residential	 (a) One car parking space to be provided for every 150 sqm. of floor area upto a total floor area of 600 sqm. (b) One car parking space to be provided for every 140 sqm. of floor area above a total floor area of 600 sqm upto 5000 sqm., (c) One car parking space to be provided for every 130 sqm. of floor area above a total floor area of 5000 sqm.
		 Note: (i) However, for building or buildings having individual tenements size not exceeding 60.0 sqm. in the entire building, one car parking space to be provided for every 250 sqm. of floor area; (ii) For the purpose of calculation of number of car park nearest whole number is to be considered.
2	Educational	(i) For all educational buildings, one car parking space and one bus parking space are to be provided for every 500 sqm. of floor area and part thereof (exceeding 50%). However, at least one car parking space is to be provided for every educational building.
3	Institutional	 For hospitals and other health care institutions- (i) One car parking space for every 150 sqm. of floor area is to be provided for a total floor area not exceeding 1000 sqm. However, at least one car parking space is to be provided for such institution building.

SI. No.	Occupancy	Off- Street Car Parking Spaces
3	Institutional	 (ii) One car parking space for every 100 sqm. of floor area is to be provided for a total floor area not exceeding 1000 sqm. (subject to a maximum of 250 nos. of car parking space).
		(a) For theaters, motion picture house, auditorium or similar other hall s-one car parking space for every 75 sqm of floor area shall be required. However, at one car parking space is to be provided for such buildings even having less than 75 sqm of floor area.
4	Assembly	(b) For Exhibition Halls, Town Hall or City Halls or similar other halls - one car parking space for every 200 sqm of floor area shall be required. However, at one car parking space is to be provided for such halls even having less than 200 sqm of floor area.
		(c) For restaurant, eating houses, bars, clubs, gymkhana, dance halls - one car parking space for every 75 sqm of floor area and/or part thereof (exceeding 50%). However, at one car parking space is to be provided for such buildings even having less than 75 sqm.
		(d) For hotels - one car parking space for every 250 sqm of floor area and/or part thereof (exceeding 50%). However, at least two car parking spaces are to be provided for such hotel buildings.

SI. No.	Occupancy	Off- Street Car Parking Spaces				
		Provided that for Hotels with Banquet Hall for other facilities like Conference, Marriage Ceremony and other public gatherings one car parking space for every 50 sqm of such floor area of banquet hall be required additionally:				
		Provided further that while calculating the area of hotel to assess the requirement of car parking, area of banquet hall will not be considered.				
4	Assembly	For boarding house and guest house - one car parking space for every 500 sqm of floor area and/or part thereof (exceeding 50%). However, at least one car parking space is to be provided for such houses.				
		For other assembly buildings like place of worship, gymnasium, sports stadium, railway or bus passenger station, airport terminal; or any other places where people congregate or gather – requirement of parking space shall be determined by the Jaigaon Development Authority.				
5	Business	One car parking space for every 100 sqm of floor area and/or part thereof (exceeding 50%). However, at least one car parking space is to be provided for such building.				
		(a) For floor area up to 50 sqm no car parking space.				
6	Mercantile (retail)	(b) For floor area above 50 sqm. – one car parking space plus an additional car parking space for every 100 sqm. of the covered area.				
	In dustrial	(a) For floor area up to 200 sqm no car parking space.				
7	Industrial, Storage and Mercantile (wholesale)	(b) For floor area above 200 sqm. – one car parking space for every 200 sqm. and one truck parking space for every 1000 sqm. subject to a minimum of one truck parking space.				
		(c) In no case the required car parking space shall exceed 50.				

Provided that while calculating the floor area for the purpose of car parking space required, covered areas for car parking are not to be considered.

8.2.6 Regulation for Tall Buildings (Exceeding Fourteen and half Meters in Height)

In Jaigaon Planning Area, in case of any building exceeding 14.50 meters in height, permission should be taken from Jaigaon Development Authority.

8.2.6.1 No building exceeding 14.5 meters in height shall be allowed on private or public street having less than 10.00 meters width;

8.2.6.2 Open spaces;

- There shall be a minimum front open space for every category of tall building at its narrowest part, as per provisions laid down in section 8.2.4.2 of this Land Use Development and Control Plan.
- ii. There shall be a minimum rear open space for every category of tall building along the entire width of the building forming an integral part of the site, as per provisions laid down in section 8.2.4.2 of this Land Use Development and Control Plan.
- iii. There shall be minimum open spaces on both sides for every category of tall building at its narrowest part, as per provisions as per provisions laid down in section 8.2.4.2 of this Land Use Development and Control Plan.
- a) In case the whole of one side or part of at least two sides of every room excepting bath, water-closets and store room, is not abutting either the front open space, rear open space or side open space, it shall abut an inner courtyard whose minimum width shall be 30% of the height of the building or 3 meters, whichever is more;
- b) for ventilation of water closet in bathroom, kitchen or any room not intended for human habitation, if not opening on to front open space, rear open space, side open space or interior open space, such ventilation shall be opened up to

a ventilation shaft, the size of which shall be as per provisions laid down in section 8.2.4.4 of the Land Use Development and Control Plan.

8.2.6.3 For every building exceeding 14.5 meters, the FAR shall be as specified in the table below:

Width of Means of	Resident	ial Building	Institution Buil	Industrial	
Access (meters)	Residential Use Zone	Other use zones	Residential Use Zone	Other use zones	Buildings
Above 15 to 20	2.25	2.00	1.00	2.25	1.0
Above 20 to 24	2.50	2.25	1.50	2.50	1.0
Above 24	2.75	2.50	2.00	2.75	1.5

Table No. 81: Maximum permissible Floor Area Ratios

Note; while calculating the floor area under this section, the following shall not be included:

- a) Stair cover not exceeding 2.4 meters in height and staircase with landing up to the extent of the width of the stairway in each floor including ramp if there be any;
- b) Lift machine room as per latest edition of National Building Code. Lift landing lobby with a maximum area of 6 sqm. in all floors including roof, if any;
- c) Roof tank and their support, the height of support not exceeding 1 meter;
- d) Chimneys, ventilating, air conditioning and service equipment attached to the building;

- e) Provided that the aggregate area of these structures mentioned at
 (a) to (d) above shall not exceed one-third area of the roof upon which these are erected;
- f) The actual area under covered car-parking space and area of basement used for car-parking only in accordance with the rule provided in section 8.2.5 of this Land Use Development and Control Plan subject to maximum permissible limit for one car parking space as 25 sqm. for ground floor and 35 sqm. other than ground floor inclusive of all circulation space and ramps. However, the area actually covered by the car parking space may be allowed even if the same is more than mandatory requirement. But the covered car parking shall be within the permissible ground coverage;
- g) Area of loft, ledge and areas of cupboards or wardrobes up to a maximum extent of 3% of total floor area but shall include the area of mezzanine floor;
- h) Area of service floor as permitted
- i) The areas for garden covered with permeable material, pergola, expanded or similar other material at the roof level, up to 5% of the total roof area or 10 sqm. which is more, subject to adoption of adequate structural safety measures;
- 8.2.6.4 All steel towers above 14.5 meters height should be ground based ones. Minimum access to such structure should not be less than 5.0 meters on any part. No such structure should be constructed on the mandatory open spaces of any existing building.

8.2.7 Regulation for Control of Development of Plot of Land Containing More Than One Building:

8.2.7.1 General

- Every building on a plot containing more than one building shall abut an internal road connecting the means of access of the plot. The F.A.R. shall be calculated on the basis of the width of the means of access on which the plots abut.
- ii. The minimum width of such internal roads shall not be less than 3.50 meters, where internal road of 3.50 meters in width is not possible to be provided due to an existing building constructed prior to the enforcement of this Land Use Development and Control Plan, a building of not more than 7.0 meters in height may be allowed, provided that the width of the internal road shall not be less than 1.20 meters.
- iii. The maximum permissible height of any building on a plot shall be determined by the width of the means of access on which the plot abuts according to the Table of this Land Use Development and Control Plan.
- iv. The minimum width and the maximum length of all such internal roads shall be as per Table below.

		Maximum length of internal roads				
SI No	Minimum Width of Internal Roads	For internal roads closed at one end	For internal roads open to street at both ends			
1.	3.50 meters and above but not more than 7.00 meters	25.00 meters	75.00 meters			
2.	Above 7.00 meters but not more than 10.00 meters	50.00 meters	150.00 meters			
3.	Above 10.00 meters	No restriction	No restriction			

Table No. 82: Width and Length of Internal Roads

v. In case the buildings within a plot are not of the same occupancy, an individual building of any particular occupancy shall comply with the regulation governing such occupancy except the provisions regarding Ground Coverage which shall be in accordance with section 8.2.7.2 of zonal regulation.

8.2.7.2 Ground Coverage

- i. For plots measuring less than 5000 sqm. In area, the maximum Permissible ground coverage shall be the values prescribed in section 8.2.2 of this Land Use Development and Control Plan if the buildings are of same occupancy. If the buildings are not of same occupancy then the ground coverage shall be 40%.
- ii. For plots measuring 5000 sqm or more in area, the maximum permissible ground coverage shall be 40% for building with same occupancy and 35% for buildings with different occupancies including mixed use occupancy.

8.2.7.3 Open Spaces

- Every building shall have minimum external open space as prescribed in section 8.2.4 of LUDCP, provided that on these open spaces internal roads may not be constructed.
- ii. Interspaces between two buildings, within a plot, shall be 40% of the average height of the buildings subject to a minimum of 4.0 meters even if the two buildings are inter connected by walkways, and other ornamental or structural elements say pergolas, radiating beams etc.

8.2.7.4 Parking:

The provision shall be the same as stipulated in section 8.2.5 of this Land Use Development and Control Plan.

8.2.8 Regulation for Control of Development of Residential Building for Economically Weaker Section and Low Income Group Housing Scheme:

- 8.2.8.1 In a scheme for Economically Weaker Section and Low Income group Housing approved by Jaigaon Development Authority the following regulations shall be applicable, provided that the size of the plot is not more than 65.00 sqm. in area.
 - i. No building shall be allowed on a plot if the width of the means of access to the plot is less than 1.20 meters.
 - ii. No building exceeding 8.00 meters in height shall be allowed on a plot if the width of means of access to the plot is less than 3.5 meters.
 - iii. The maximum permissible ground coverage shall be 75% of the area of the plot;
 - iv. The maximum permissible height of the building shall be 10.00 meters;
 - v. The minimum front open space shall be 0.80 meter;
 - vi. The minimum rear open space shall be 1.00 meter;
 - vii. The maximum permissible Floor Area Ratio shall be 1.75
 - viii. The buildings may be of row housing type with common wall and the maximum length of the building in a row shall be 50.00 meters and after every 50.00 meters of length of such buildings in a row, there shall be on open space of not less than 2.50 meters in width for the entire depth of the building, and that such open space shall not be necessary if there is a street or passage at such location the minimum width of which is not less than 2.50 meters;
 - ix. There shall be no need to provide any car parking space within the plot;
 - x. The size of rooms shall be as follows:

- **a. Habitable Room:** The area of a habitable room shall not be less than 7.50 sqm. with a minimum width of 2.40 meters. The habitable room for this purpose would be any room to be used for human habitation other than a kitchen, bathroom/water-closet, store/multi-purpose room;
- **b. Kitchen:** The area of kitchen shall not be less than 3.00 sqm. with a minimum width of 1.50 meters;
- **c.** Water closet and bath room: The area of an independent water closet shall not be less than 0.80 sqm. With a minimum width of 0.85 meter. The area of an independent bath room shall not be less than 0.80 sqm. with a minimum width of 0.85 meter. If water closet is combined with bath room its floor area shall not be less than 1.50 sqm. With a minimum width of 0.9 meter.
- xi. Minimum height of rooms: The height of all habitable and multi-purpose rooms shall not be less than 2.60 meters from the surface of the floor to the lowest point of the ceiling (bottom of the slab and/or beam). In the case of sloping roof, the average height of roof for habitable rooms shall not be less than 2.60 meters and the minimum height at caves shall be 2.10 meters. The height of kitchen, bath/water closet and corridor/passage shall not be less than 2.10 meters measured from the surface of the floor to the lowest point of the ceiling (bottom of the slab and/or beam);
- xii. Excepting the provisions of clause (i) to (xi) all other provisions of these regulations shall be applicable.

8.2.9 Provisions regarding Existing Buildings

8.2.9.1 The provisions of the following regulations shall apply only in the case of an existing building not complying with the regulations of the Land Use Development and Control Plan. Existing building, for this purpose, shall mean any building which was erected before the date of coming into force of these regulations in accordance with a building plan sanctioned by an authority competent to sanction such building plan under Bengal Municipal Act 1932 (Bengal Act XV of 1932) or any other law for the time being in force.

8.2.9.2 In the case of existing building:

- i. Excepting storage or hazardous buildings, where the open spaces required have not been left, and addition in the number of stories, if otherwise permissible, may be allowed with a set back provided such building continuous with the same occupancy. Provided that no formal set back may be necessary up to a height of eight meters for adding only one floor over an existing single storied residential building.
- ii. The extent of the set back from the property boundary shall be such as to make the addition to the building in conformity with the provisions of sections 8.2.2 and 8.2.4 of this Land Use Development and Control Plan.
- iii. If any car parking space is required to be provided under section 8.2.5 of this Land Use Development and Control Plan and no such car parking space can be provided in such existing building, the covered area allowable under the provisions of these regulations shall be reduced by the area required for such car parking space. For this calculation, the area required for one car parking space is to be taken as 20.0 sqm.
- iv. The height of the building shall conform to the provisions as indicated in section
 8.2.3 of this Land Use Development and Control Plan and in no case the height
 shall exceed 14.50 meters after any addition to the number of stories.
- v. The addition to an existing building with residential occupancy shall not exceed 200 sqm in covered area.

- vi. The addition to an existing building with educational occupancy shall not exceed the total covered area of the building.
- vii. The addition to an existing building with other occupancies including mixed uses excepting storage and hazardous building shall not exceed 100.00 sqm. in total covered area.
- viii. In case of partition of existing building common walls may be allowed as the partition line.

8.2.10 Regulation for Development of Building Site

No plot shall be used as site for erection or re-erection of any building:

- i. If the level of the plot is lower than the level of the crown of the nearest public street, and
- ii. Unless the land is capable of being well- drained by, means of drainage facilities leading to the existing public drains or drainage channels.

8.2.11 Regulation for Sub - Division of Plots

8.2.11.1 General

- i. A plot to be sub-divided shall be termed as "mother plot".
- ii. Sub-division shall not be allowed if the "mother plot" abuts a means of access having width of less than 7.50 meters.
- iii. Every individual plot obtained by sub-division of the "mother plot" shall abut a means of access having a width of not less than 3.50 meters.
- iv. The junctions of means of access within the "mother plot" shall be provided with splayed corners measuring not less than 2.50 meters on each side and 3.5 meters if both roads are of 10.00 meters width or more.
- These regulations are not applicable in a scheme for Economically Weaker Section and Low Income Group housing approved by the Jaigaon Development Authority.

- vi. Sub-division may be allowed on condition that the following facilities shall be provided by the owner of the "mother plot" at his own cost, as may be directed by the Local Authority:
 - a) Drainage facilities ensuring drainage of each individual plot and of the means of access and passages leading to existing public drains or drainage channels.
 - b) Streets and passages along with street lighting.
 - c) Sanitary facilities including garbage disposal facilities.
 - d) Water supply facilities.
- vii. The minimum size of plot obtained by sub- division shall not be less than 100 sqm.
- viii. Plot sub-division will be guided by the width of the means of access as per Table below:

Table No. 83 : Plot sub division as per means of access

Means of access	Area allowed for sub- division of plot
7.5m	Above 500 sqm. to 2000 sqm.
10.0 m	Above 200 sqm. to 5000 sqm.
20.0 m	Above 500 sqm. to 15000 sqm.
30.0 m	No restriction

8.2.11.2 Public open spaces

Sub division of mother plot measuring more than 500 sqm. in area shall only be allowed if a portion of the total area of the mother plot is developed as public open spaces or public amenities as follows:

i. For mother plots above 2000.0 sqm. and below 5000.0 sqm.; 7.5% of the land (excluding roads) should be reserved for the above purpose.

- For a mother plot measuring more than 5,000.00 sqm. in area and below 25000sqm, sub-division may be allowed, provided 8% of the total area of the mother plot is developed as public open space. The width of each such open space shall not be less than 10.00 meters and each such open space shall about a street having a width of not less than 7.00 meters. The minimum area of each of such open space in one parcel shall be 400.0 sqm. This open space shall be in addition to the land required for providing the means of access to the individual plots obtained by sub-division of the mother plot and 2% of the land should be reserved for public amenities.
- iii. Land for facilities -For a mother plot measuring more than 25000.00 sqm. in area, apart from providing 8% of the land for public open spaces provision of 7% additional land of the total area of the plot shall be reserved for use for facilities like school, Health Centers, Market, Police Outpost with booth, Post Office, Power Sub-station, Transport Terminal, Water Treatment Plant, Sewerage Treatment Plant as well as the provision for Green cover and free gift of land for Economically Weaker Section housing and the like, such land shall abut a means of access having a width of not less than 10.00 meters in addition to the land necessary for means of access and for open space mentioned in section 8.2.11.2 (ii) of this Land Use Development and Control Plan.

8.2.12 Regulations for New Township Project

The specific regulations for new township project shall be guided by the West Bengal Urban Development Town and Country Planning (Development of Township Projects) Rules, 2008 notified vide Notification No. 2344-T&CP/C-2/3A-06/2014 dated 21st December, 2015

8.2.13 Regulation for Rain Water Harvesting, Tree Cover and Waste Water Recycling

8.2.13.1 Roof Top rain water harvesting and Tree Cover

recharging or both, applicable in case of

- Roof Top rain water harvesting (RWH)
 Roof Top (RWH) shall form a part of the building and shall have to be included in the plan either for direct use of rain water or for ground water
 - a) New building/buildings or any housing complex covering a total floor area of 6000 sqm. or more.
 - b) Expansion of any building/ buildings or housing complex, so as to cover 6000 sqm of total floor area or more additionally.

ii. Tree Cover

Provision of tree cover should be included in the plan for sites

- a) For any housing construction projects covering a total floor area of 6000 sqm. or more, the applicant should arrange for raising and maintenance of tree cover at their own cost which should be at least 15% of the land area within the premises
- b) For any other housing construction project, having lesser total floor area the tree cover should be reduced proportionately in the perspective of (a) above.
- c) The applicant shall make provision for drainage to raise and maintain the plantation at their own cost and submit such programme to the Authority before the plan is forwarded for sanction.

8.2.13.2 Waste Water Recycling

Waste water recycling system shall be incorporated in all buildings including group housing having a minimum discharge of 40,000 litres per day. Such recycled water shall be either for non domestic purpose or for recharging of ground water.

8.2.14 No Development Zone

All permission shall be given as per the proposal/ recommendations/ approval of the Competent Authority.

8.2.15 Hilly Area

Any permission for development within this zone, if required in public interest, basically utility services shall be referred with the proposal/ recommendations to the Competent Authority for approval.

8.2.16 Levy of Development Charge

For the purpose of levying and assessment of Development Charges by JDA for the institution of the use, as per the provisions in West Bengal Town & Country (Planning and Development) Act, 1979 as amended up to date (West Bengal Act. XIII of 1979), section 102 and 103, the activities listed under the Broad use - Residential shall be charged as 'Residential, whereas the activities listed under the Broad use - Commercial, Public & Semi-Public, Transportation & communication and Recreational, shall be charged as 'Commercial', and the activities listed under the Broad use - Industrial shall be charged as 'Industrial'. The process for levying of development charges has already been specified in the above Section of WBT&C Act. 1979. No person shall be permitted to use any land for carrying out any development in that area otherwise then in conformity with the Land Use Development and Control Plan (LUDCP).

Any person intending to carry out any development or to change any use of land for which permission is necessary, shall apply to the planning/development authority for assessment of development charge payable in respect thereof.

8.2.17 Change of Land Use

(U/s 46 of the West Bengal Town and Country (Planning and Development) Act, 1979)

- The owner or the legal entity of the land, who intends to develop his land for any purpose other than that earmarked in the approved Master Plan, has to make an application, along with relevant documents, to the concerned authority for consideration.
- 2. The authority shall, if it finds that the changes sought are relevant to planning principles and are in public interest and are not in contravention to any other statute, publish the proposal in one or more daily newspapers, inviting objections from the public within a period of not less than fifteen days.
- 3. The Authority then reviews the Change of Land Use proposal with the public objections received if any and passes a resolution, recording reasons, regarding its consideration or non-consideration for change.
- 4. The Change of Land Use cases considered by the Authority are submitted to the Government for approval. The Government, with the technical opinion of the Department of Urban Development passes order approving or rejecting the case, as it thinks fit. The Authority and the owner of the land shall abide by such Government order.
- 5. If the change in land use or development is from commercial or industrial to residential or from industrial to commercial and the stipulated fee is paid and the concerned Authority is informed prior to effecting the change, the permission for such change of land use or development shall be deemed to have been given.

CHAPTER 9: PHASING OF PROJECT PROPOSALS

This chapter states on different proposals to be carried out in phases on the Plots earmarked in the Project Proposal under **Map-16** & also the proposals which are not earmarked in the Proposal Map. The reasons for having two different categories are namely (1) proposals earmarked in the JDA Map includes the name of the mouzas, area and the plot no's based on the proposed activity planned at the end of the plan period. (2) Proposals not earmarked in the JDA Map as this is related to the overall development of the area.

The Projects which have been earmarked in the Plots under the proposal map of the JDA have been divided into 4 different Phases based on the urgency of those projects. All the Projects cannot be taken up simultaneously, because of administrative constraints in allotment of lands and financial burden on the authorities and the State Govt. in particular. The Project proposals have been sub-divided into 4 different Phases. The Phase-I consists of infrastructure, theme township and the welfare related projects. The Phase-II relates to creation of land bank for MSME and Tourist Infrastructure Projects. The phase-III consists of the future Township and Railway connectivity to Bhutan and also creation of MSME. The last phase may take care of the dredging of river Torsa which can commence from the second phase. The duration of these Phases may be for a period of 5 years. The projects failing to meet the deadline period can get carried forward to the next Phase.

The different Phases of Projects have been stated in the following table:

SI. No. of (Map 16)	Proposal Details	Area (In Acres)	JL No.	Mouza Name	Plot No	Phase	Executing Authority
1	Market Complex	1.048	27	Jaigaon	65/136	Ι	JDA/ Proposed Municipality
2	Community Hall & Multipurpose Cold Chain	1.213	27	Jaigaon	67/237	I	Private
3	Taxi Stand	0.114	27	Jaigaon	94	I	JDA/ Proposed Municipality
4	Land Custom Station at Jaigoan	12.000	24	Torsa Tea Garden	852	I	Central Govt.
5	Tourist Resorts	3.660	26	Gopimohan Tea Garden	8	II	Private
6	Bus Terminus	1.240	27	Jaigaon	3	I	JDA/ Proposed Municipality
7	Maa Kalawati Devi Gyan Trust School	3.000	23	Dalsingpara Tea Garden	101,104,331	II	Private
8	Children Park	0.361	27	Jaigaon	167	I	JDA/ Proposed Municipality
9	Market Complex I	2.500	27	Jaigaon	167	I	JDA/ Proposed Municipality
10	Township	3.000	24	Torsa Tea Garden	659	I	Private/PPP
11	SDPO Office & High School	4.000	24	Torsa Tea Garden	676	I	State Govt.
12	W.B.S.E.D.C.L	1.430	26	Gopimohan Tea Garden	5, 58	I	W.B.S.E.D.C.L
13	Indoor Stadium & Fire Station	4.371	26	Gopimohan Tea Garden	11,12 & 11/61	I	State Govt.
14	Govt. Offices	0.609	27	Jaigaon	3/378	I	JDA/ Proposed Municipality
15	Govt. Hospital	2.998	27	Jaigaon	298, 298/473	I	Health Deptt., Govt. of WB

Table No. 84: PROJECTS EARMARKED IN JDA PROPOSAL MAP

SI. No. of	Proposal	Area	JL	Mouza	Plot No	Phase	Executing
(Map 16)	Details	(In Aaraa)	No.	Name			Authority
16	Infrastructure Development for Helipad	Acres) 2.577	24	Torsa Tea Garden	675	I	State Govt.
17	Open Stadium	3.723	27	Jaigaon	295/470,295/4 69	I	JDA/ Proposed Municipality
18	Slaughter House	0.753	27	Jaigaon		I	Private
19	Pig Slaughter House	0.130	25	Mechia Basti	506	I	Private
20	BLRO Office	0.744	27	Jaigaon	140,141,152	I	State Govt.
	HUDCO Proposal Details	Area	JL No.	Mouza Name	Plot No		
21	Hasimara River Bridge - 50 Mts		25	Gopimohan Tea Garden	63,65,28	I	State Govt.
22	Park	0.192	27	Jaigaon	39	I	JDA/ Proposed Municipality
23	Resort	2.800	23	Dalsingpara Tea Garden	1	11	Private
24	Car Parking	0.775	27	Jaigaon	165	I	JDA/ Proposed Municipality
25	Solid Waste Management	16.690	24	Torsa Tea Garden	255	I	JDA/ Proposed Municipality
26	Burial Ground (Chirstrian)	2.962	25	Mechia Basti	502, 503, 504(Part)	I	JDA/ Proposed Municipality
27	Dalsingpara Old Railway Station (EXTENSION)		23	Dalsingpara Tea Garden		&	NFRLY
28	Industrial Hub	66.030	24	Torsa Tea Garden	854,909,907,6 78,846	&	STATEGOVT
29	Food Park & Rest Room	1.725	24	Torsa Tea Garden	852	II	Private
30	Truck Terminal	7.810	24	Torsa Tea Garden	852	I	Private
31	Petrol Pump	1.800	24	Torsa Tea Garden	852	I	Private
32	Burial Ground (Muslim)	3.051	25	Gopimohan Tea Garden	3, 23	I	JDA/ Proposed Municipality

SI. No. of (Map 16)	Proposal Details	Area (In Acres)	JL No.	Mouza Name	Plot No	Phase	Executing Authority
33	River Front & Sc. Tech. Park	39.000	25	Mechia Basti	524(Part), 525 to 528	II	JDA/ Proposed Municipality
34	Multiplex Market Complex	10.505	25	Mechia Basti/ Jaigaon	405/1	II	Private
35	Future Township	97.000	25	Mechia Basti/ Jaigaon	387-391,405, 406(Part), 407/1	III	Private/ PPP
36	Resort & Tea Museum	22.160	24	Torsa Tea Garden	78	II	Private
37	Burning Ghat	2.407	24	Torsa Tea Garden	89	I	JDA/ Proposed Municipality
38	Green Buffer Zone	1.676	24	Torsa Tea Garden	676	I	JDA/ Proposed Municipality
39	Theme City	40.968	26	Gopimohan Tea Garden	16,17,18,19,20 34,38,39,40,4, 42,46,48,49,51 , 52	Ι	Private/PPP
40	Theme City	10.096	26	Gopimohan Tea Garden	8,9,10	I	Private/PPP
41	Biswa Bangla	0.042	27	Jaigaon	41	I	JDA/ Proposed Municipality
42	India Gate		27	Jaigaon		I	State Govt.
43	Ropeway Base	0.090	27	Jaigaon	152	I	JDA/ Proposed Municipality
44	Foot Bridge - 35 mts		27	Jaigaon		I	JDA/ Proposed Municipality
45	Bus Terminus New Proposal	1.437	24	Torsa Tea Garden	639	I	JDA/ Proposed Municipality
46	Municipality Office	2.271	24	Torsa Tea Garden	676	I	JDA/ Proposed Municipality
47	Educational Institution	31.784	24	Torsa Tea Garden	524, 528(Part)	II, III & IV	Private
48	Land Port	75.765	24	Torsa Tea Garden	851, 852	&	Central Govt.
49	PHE OHR	1.0190	27	Jaigaon	165	I	PHE
50	Govt. Offices	7.800	27	Torsa Tea Garden	675	I, II & III	State Govt.

SI. No. of (Map 16)	Proposal Details	Area (In Acres)	JL No.	Mouza Name	Plot No	Phase	Executing Authority
51	Public - Semi Public	20.600	27	Torsa Tea Garden	675	11, 111	JDA.
52	Proposed Township	34.000	23	Dalsingpara Tea Garden	104	IV	Private
53	Drainage Booster Pumping Station	1.678	24	Torsa Tea Garden	255	I	JDA/ Proposed Municipality
54	Ropeway 400 Mts		27	Jaigaon	152	&	JDA/ Proposed Municipality
55	Drainage Booster Pumping (Dalsingpara)	1.80703	23	Dalsingpara Tea Garden	721(P),722	&	JDA/ Proposed Municipality
56	Public and semipublic	3.64	24	Torsa Tea Garden	845(P)	II	JDA
57	Wholesale Market	13.00	24	Torsa Tea Garden	848,851(P),85 8,859, 860(P),867	II	Private

TABLE NO. 85: PROJECTS NOT EARMARKED IN JDA PROPOSAL MAP

SI.	Proposal	Area	JL	Mouza Name	Plot	Phase	Executing
No.	Details	(Acre)	No.	Moora Name	No.	Thuse	Authority
		(,
1	Eco-Tourism Park	N.A.	N.A.	Jaigaon	N.A.	I	JDA
2	Beautification of NS Road & MG Road	N.A.	N.A.	GP-II	N.A.	I	JDA/ULB
3	Widening of NS Road & MG Road	N.A.	N.A.	All the Mouzas under GP-I & II	N.A.	I	JDA/ULB
4	Converting the Kaccha Roads to Pucca/Metal Roads	N.A.	N.A.	All the Mouzas	N.A.	&	JDA/ULB
5	PHE Water Supply Scheme	N.A.	N.A.	All the Mouzas covering JDA Area	N.A.	I	State Govt.
6	Railway Connectivity to Bhutan	N.A.	N.A.	All the Mouzas covered GP-I & Dalsin Para GP	N.A.	III, IV &	N.F.L.
7	Asian Highway- 48	N.A.	N.A.	Mouzas covered under Dalsin Para GP	N.A.	I	NHAI (Commenced)
8	Dredging of Torsa River Bed	N.A.	N.A.	Mouzas covered under all the 3 GPs	N.A.	II, III , IV	State/ Central Govt.
9	Protection of Jhoras	N.A.	N.A.	Mouzas covered under all the 3 GPs	N.A.	&	JDA/ULB.
10	Covering the open drains & creation of Pucca Drainage systems	N.A.	N.A.	Mouzas covered under all the 3 GPs	N.A.	I	JDA/ULB

Chapter 10 Chapter 10

CHAPTER 10: ABSTRACT COST AND RESOURCE MOBILIZATION

10.1 Abstract Cost:

An abstract cost for the proposed theme city, tourist cottages, Solid Waste Management, Roads, Drainage & Sewerage and Municipality Office & Multi level car Parking has been prepared based on standard specification and practice. However, while preparing the DPRs the actual cost will vary as per the requirements. The abstract cost summary is placed below:

Table No. 86 : Abstract Cost Summary						
SI. No	ltem	Cost (Rs. In lakhs)				
	Project Proposals (Proposed in LUDCP-2035)					
1	Tourist Cottages (Site 1, Area-3.66 Acre)	484.17				
2	Tourist Cottages (Site 1, Area-2.80 Acre)	397.45				
3	Theme City (Ph-I-Residential Development) (40.96 Acres)	23608.10				
4	Theme City (Ph-II-Tourism Facilities Development) (10.09 Acres)	3433.62				
5	Solid Waste Management	1028.30				
6	Roads (180.7 km)	10661.80				
7	Drainage & Sewerage System (61.23 km)	2502.96				
8	Municipality Office & Multi-Level Car Parking	500.00				
9	Industrial Hub (66 acres)	4494.77				
10	Water Supply Scheme (proposed by PHE)	9372.00				
11	River Front Development	5649.65				
	Total	62132.82				

The individual break-up of abstract cost is placed in Annexure-1 to 9.

10.2 Resource Mobilization Options:

It is primarily understood that to accommodate a population of approximately 1.60 lakhs in the year 2035 Jaigaon Development Authority will have to initiate major infrastructure development schemes confirming the land use zones proposed in the Development Control Plan. The budgetary requirement for such development is anticipated to be huge. The Jaigaon Development Authority/Proposed Municipality have to prepare plans for incurring such expenditure and also have to decide levying user charges for mobilizing resources. It is advised that JDA would need to exploit the potential non-conventional means of resource mobilization, apart from reforming and strengthening the conventional means of resource mobilization.

Non – conventional sources

The following are some of the options that the JDA/Proposed Urban Local Body can exercise resource mobilization options.

- Consortium Finances Partners could be USAID, GOI / Ministry of Urban Development/ HoUPA, Housing and Urban Development Corporation (HUDCO)
- Development Authority Bond
- Project Funding for HUDCO/Banks/Financial Institutions (FIs)
- Foreign Direct Investment
- Public Private Partnership
- Pradhan Mantra Awas Yojna-Housing for All
- Atal mission for Rejuvenation and Urban Transformation(AMRUT)
- Other State/Central Government funds

Under AMRUT the components which can be financed are water supply, sewerage, storm water drainage and urban transport. One half of the project cost can avail central grants under the scheme up to population of 10 lakhs and the balance funds from state Govt./ Urban Local Body/private investment. The detailed guidelines are available at the official site of Ministry of Urban Development, Govt. of India.

Under housing for all "affordable housing in partnership'' the partner can be private, public sector including parastatal agencies. The central assistance for this scheme is Rs.1.5 lakh per EWS where 35% of the houses are for EWS project or of at least 250 houses in the project. In "slum redeployment" the land is the resource and extra FSI/FAR/ITDR can be received in such projects. A Gol grant of Rs.1.00 lakh is available per house. The detailed guidelines are available at the official site of ministry of Housing and Urban Poverty Alleviation, Govt. of India. The Govt. of India has recently launched Credit Link Subsidy Scheme for MIG from 01.01.2017. Under this scheme persons having annual income between Rs. 6 lakhs to Rs.12 lakhs (MIG-I) and Rs.12 lakhs to Rs. 18 lakhs (MIG-II) will be able to avail Government of India subsidy on interest on housing loan in urban areas. MIG-I category will be eligible for 4% interest subsidy upto Rs.9 lakhs loan. Loans will be available from banks and Housing Finance Institution as per normal procedures.

Conventional sources:

a) Development Charges:

As per the provisions in West Bengal Town & Country (Planning and Development) Act, 1979 as amended up to date under chapter IX, Sections 102, the Jaigaon Development Authority can, through a notification, levy

'Development Charge' on carrying out of any development change of use of land as stated in the proposed land use map for which permission is required.

For the purpose of levying Development Charges for the institution of the use, as per the provisions in West Bengal Town & Country (Planning and Development) Act, 1979 as amended up to date (West Bengal Act XIII of 1979), section 102, the activities listed under the Broad use - Residential shall be charged as 'Residential, whereas the activities listed under the Broad use - Commercial, Public Semi-Public, Transportation & communication and Recreational, shall be charged as 'Commercial', and the activities listed under the Broad use - Industrial shall be charged as 'Industrial'.

b) Civic amenity charge:

As per the provisions in West Bengal Town & Country (Planning and Development) Act, 1979 as amended up to date (West Bengal Act XIII of 1979), Section 106A, the Jaigaon Development Authority may, by notification, also levy a '**Civic amenity charge'** for extending civic amenities in the whole or part of the Planning Area.

In case of formation of a local body, the municipality can impose the following fees towards recovery of service provided to the citizens of that area. The fees are as follows:

i. Trade License:

The local authority can levy fees for licenses/permission issued to the commercial establishment in the JDA area.

ii. Property Tax:

In addition, the local authority can also levy property tax on existing land and buildings after regularization of the landholdings of the residents.

iii. Building Permission Charges:

In JDA the construction of buildings is without the building permission of the relevant statute of the State Govt. it is proposed that necessary building bye-laws may be followed for new construction and accordingly, fees may be charged as per the statute.

iv. Advertisement & Rent:

The local authority may impose fees for advertisement on the bill boards constructed by the authority based on the regulations adopted by the State Government. The local authority can also impose stall-age rent on the commercials owned by the authority.

v. Parking Fees:

The parking fees can be levied at the commercial and other areas of the town near the Bhutan gate.

vi. Any other fees and taxes as mentioned in the West Bengal Municipal Act' 1993 (West Bengal Act XXII of 1993).

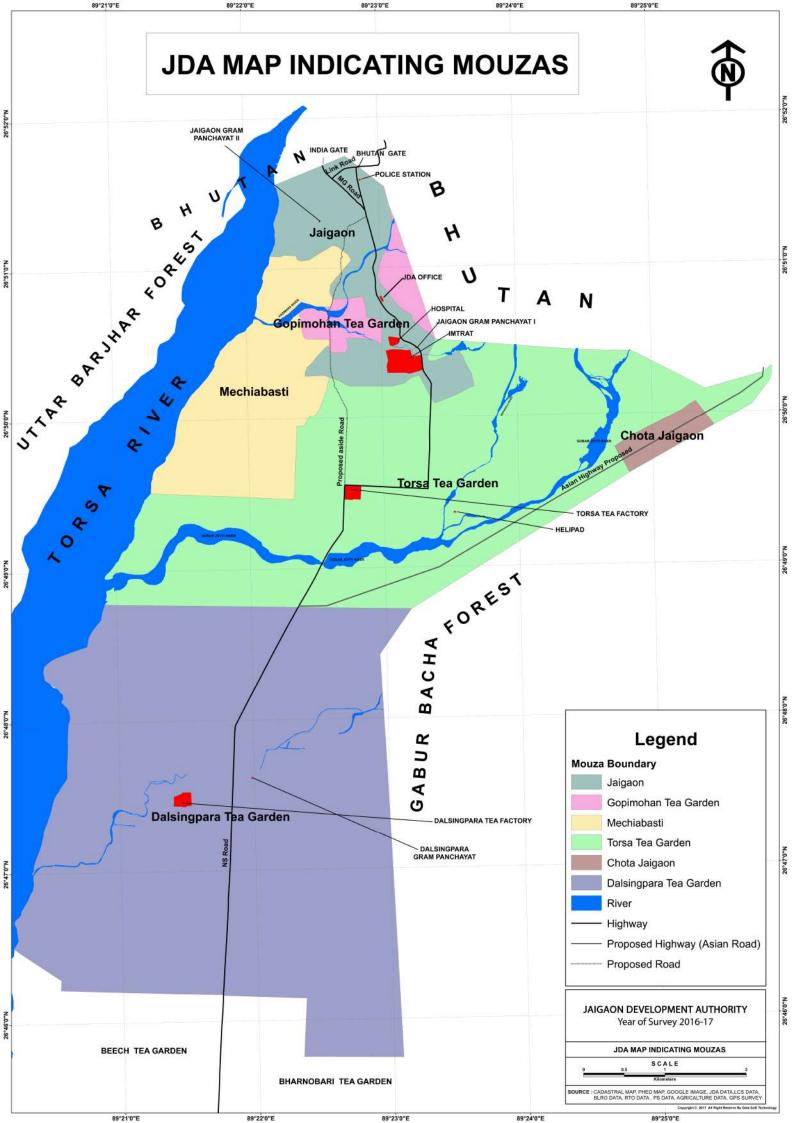
CHAPTER 11: CONCLUSION:

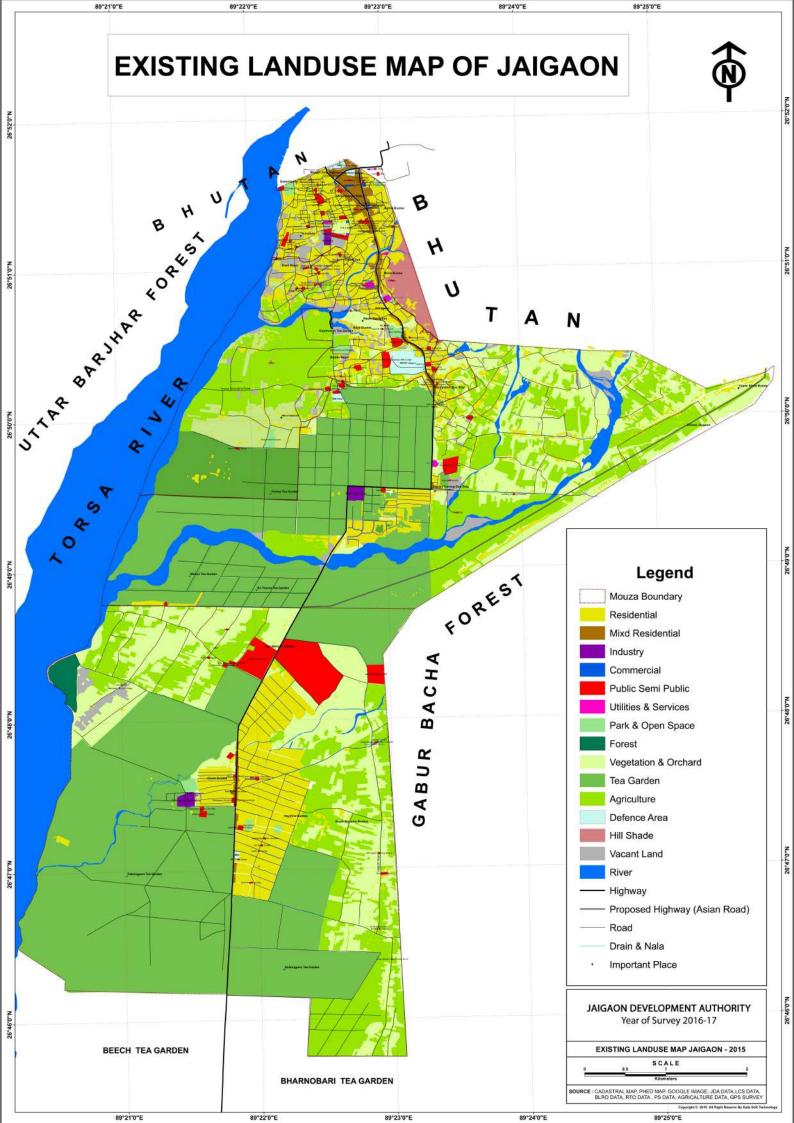
The Land Use Development and Control Plan is based on a forecast period of 20 years ending 2035. The survey work was carried out while visiting the JDA area and meeting officials of State and Central Govt. and collecting information/data/maps, etc. HUDCO team also carried out sample household survey, traffic, physical & other infrastructure survey at the JDA area. The Census 2011 data/other data from the different departments of State and Central Government were procured after assessing the needs for requirement of development work at the end of the plan period.

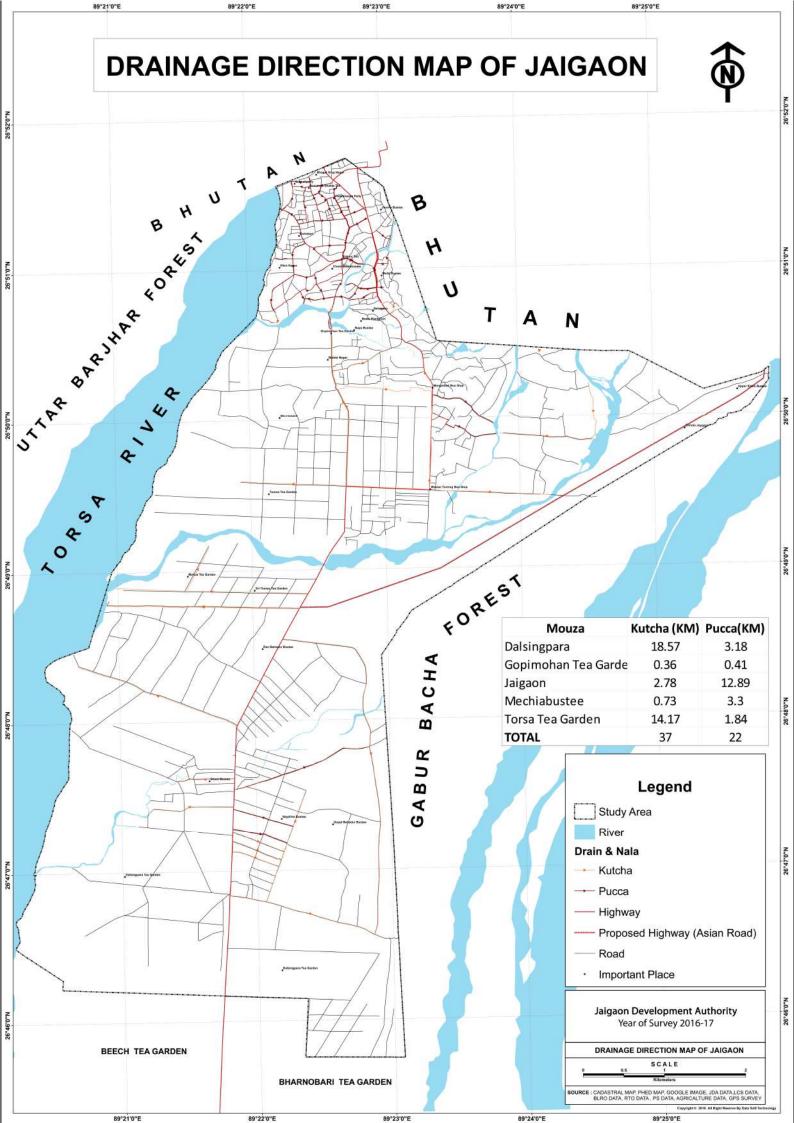
Analysis was carried out based on URDPFI/other guidelines of the Central and State Government to arrive at the infrastructural requirements of the region after projecting the population growth during the plan period. Based on the analysis, change in the land-use for implementing different project proposals was indicated in the development plan.

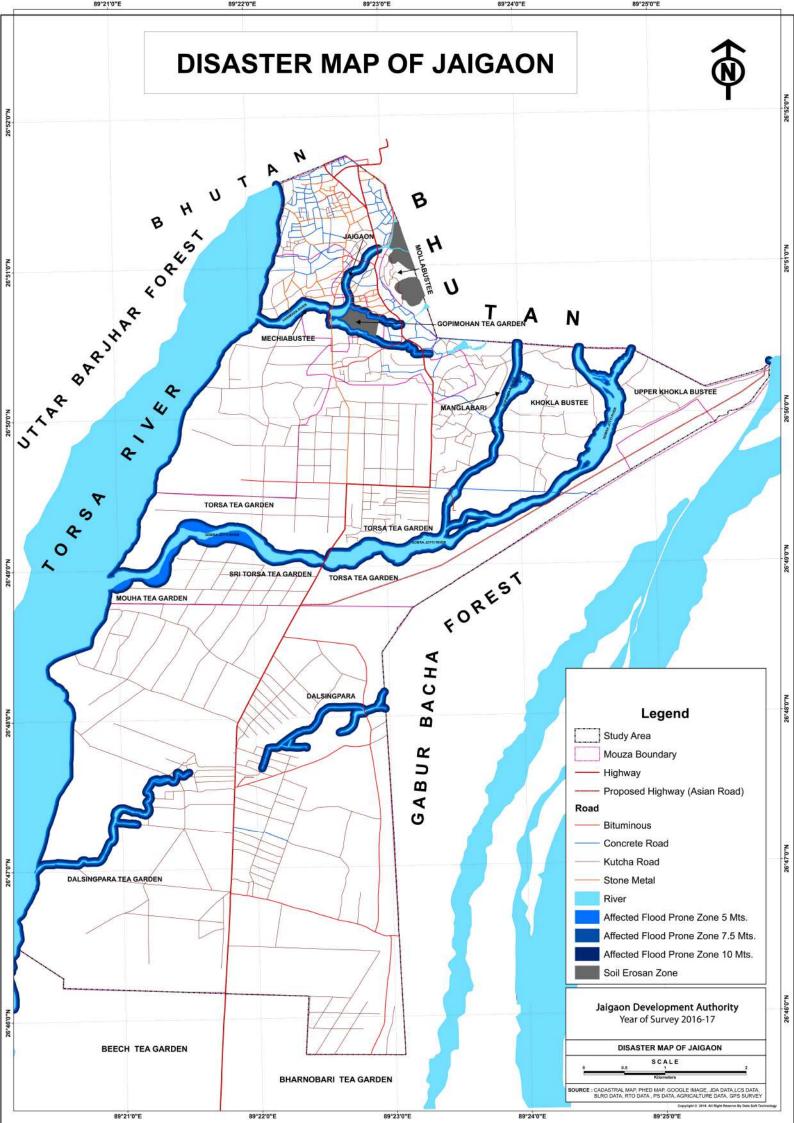
The proposed land-use was converted into zoning map dividing the area into zones for a planned development. The development control regulation highlighted the permitted, permissible and the prohibited activities and the regulation for sanctioning building plans based on the requirement at the ground level during the plan period keeping in view the vision 2035.

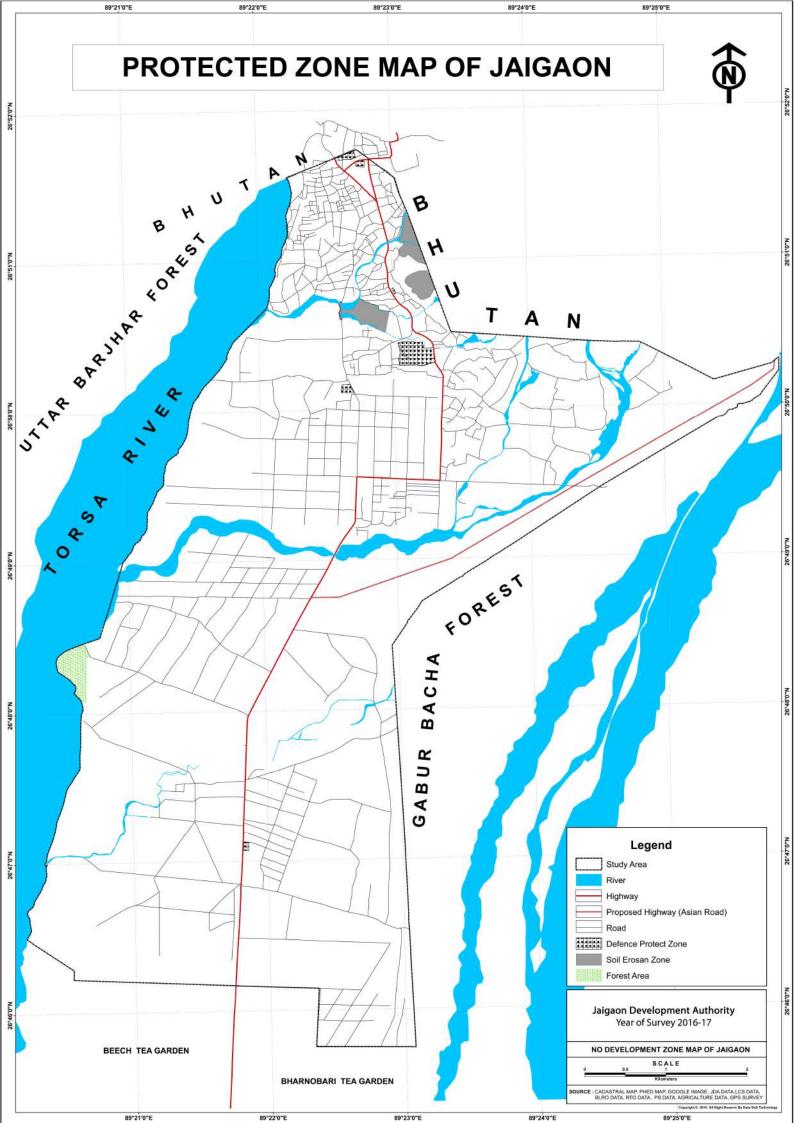
The Land Use Development and Control Plan also highlighted the abstract cost of major proposals alongwith the likely source for mobilizing the resources to fulfill the vision. The plan needs to be reviewed based on the performance on the ground and accordingly amend its plans and programmes. Zonal plans need to be prepared to detail out the proposals stated in the development plan.

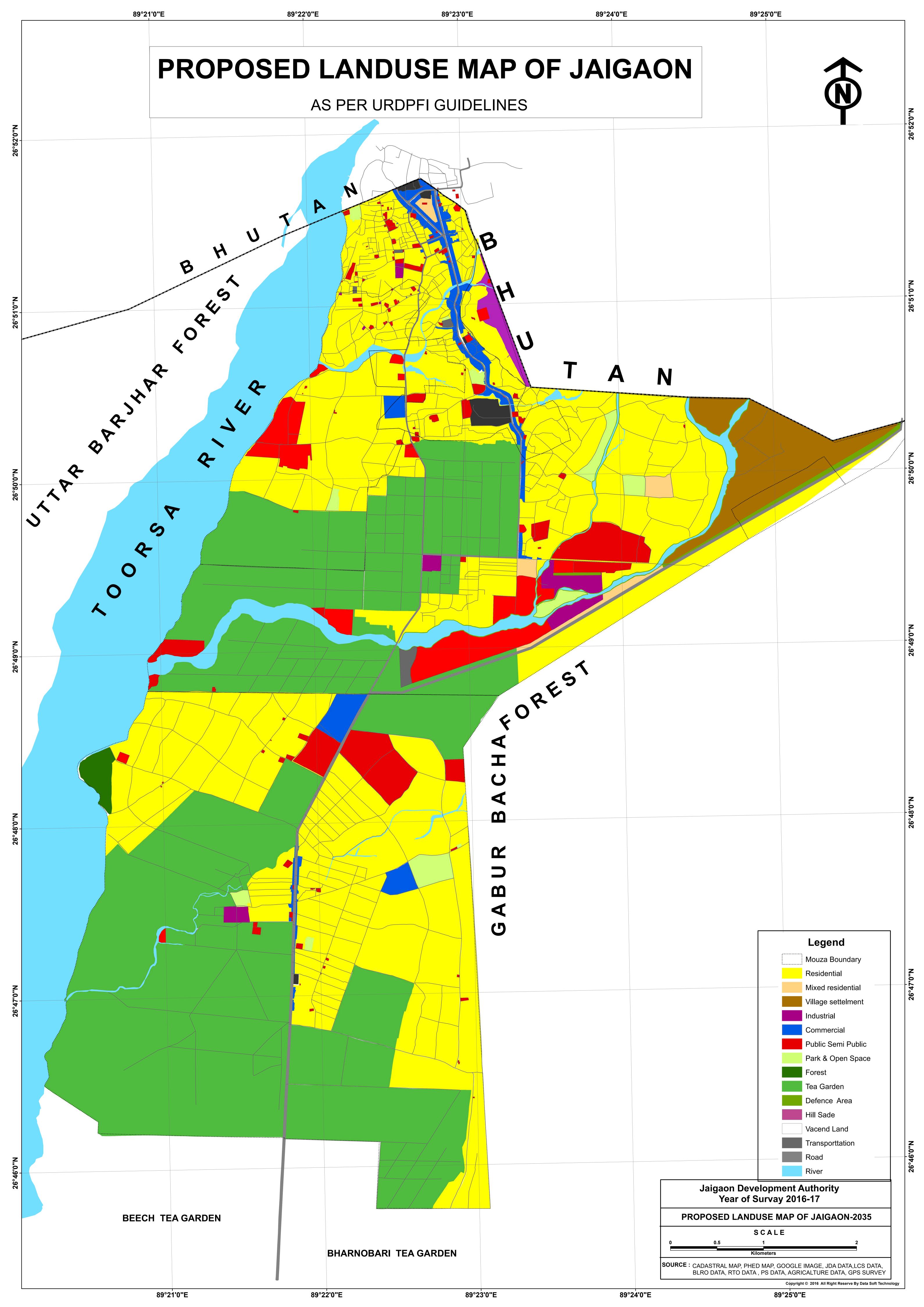


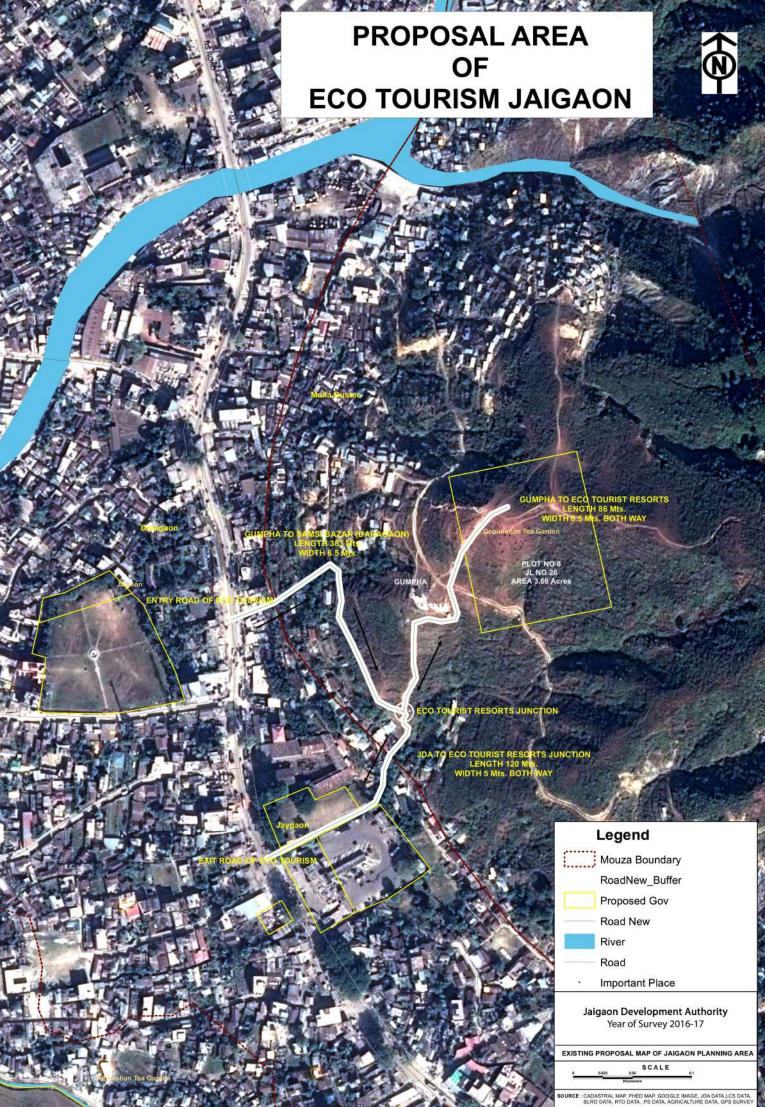


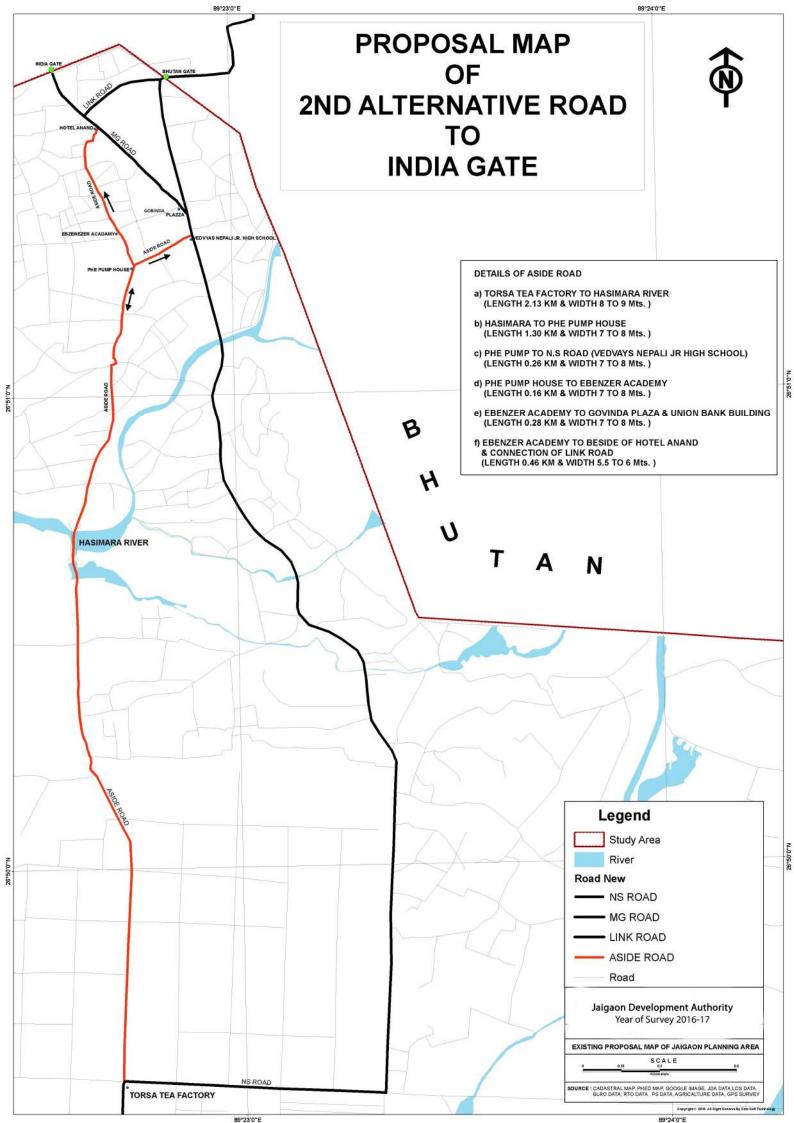


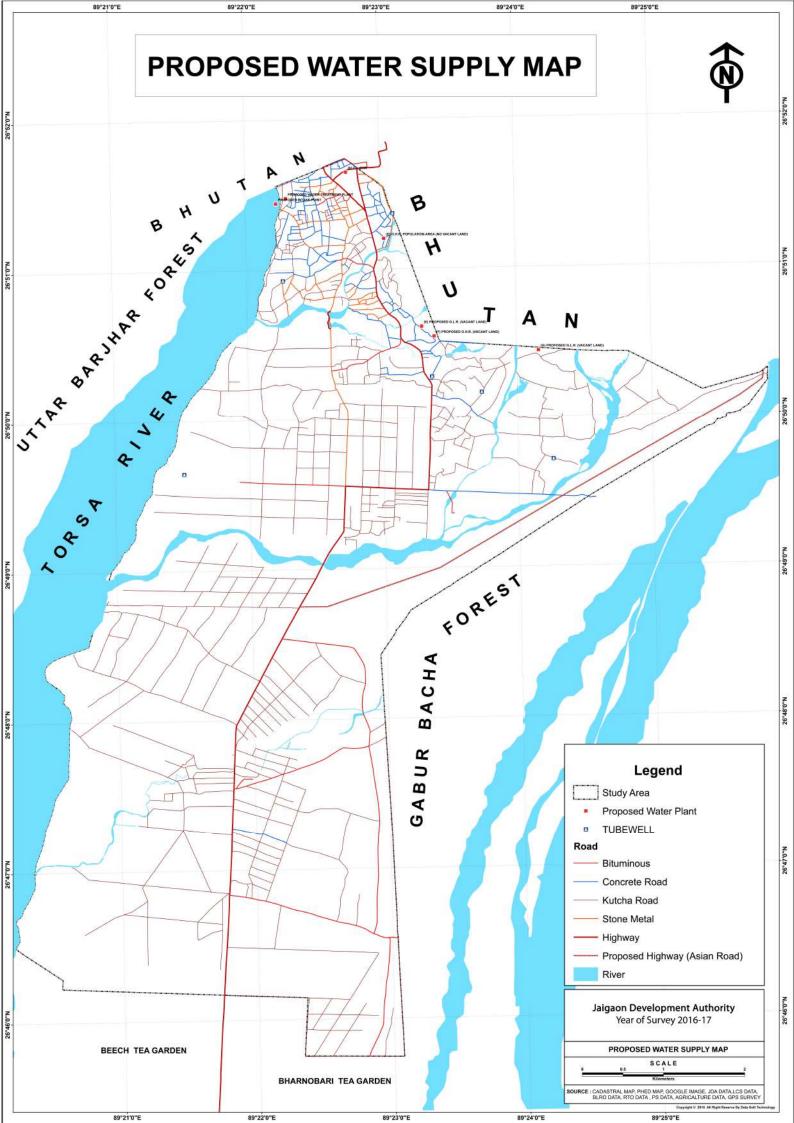












Road Traffic Signs Recognition Chart

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U-TURN

PROHIBITED

LENGTH LIMIT

RIGHT HAIR

PIN BEND

11

NARROW

ROAD AHEAD

GAP IN

MEDIAN

COMPULSORY

TURN LEFT

R.

HOSPITAL

EXPLOSIVE





7.60

LOAD LIMIT

LEFT HAIR PIN

BEND

20

NARROW

BRIDGE

MAJOR ROAD

AHEAD

COMPULSORY

AHEAD ONLY

FIRST AID

GAS





NO ENTRY

RESTRICTION LIMIT ENDS SIGN



LEFT REVERSE REVERSE BEND BEND



PEDESTRIAN CROSSING



ROUND ABOUT DANGEROUS



COMPULSORY COMPULSORY **TURN RIGHT** SOUND HORN AHEAD



LIGHT REFRESHMENT







COMBUSTIBLE





NO STANDING NO PARKING

OR PARKING



CURVE



ASCENT





ROUGH ROAD



PUBLIC TELEPHONE







POISION







LEFT-HAND CURVE



DESCENT



CROSS ROAD





AHEAD







HARMFUL

GO MOVE ON

-

赥

SCHOOL

AHEAD















(Yellow Back Ground 60cm Dia Board Black Band)

PARKING THIS SIDE



ROAD JUNCTION APPROACH

PARKING BOTH SIDE



Could be amplified with a definition plate for time during which parking is allowed and with a direction sign in which parking is allowed Blue Back Ground 60cm Square



RED and AMBER also mean STOP Do not pass through or start until GREEN shows



200 METERS

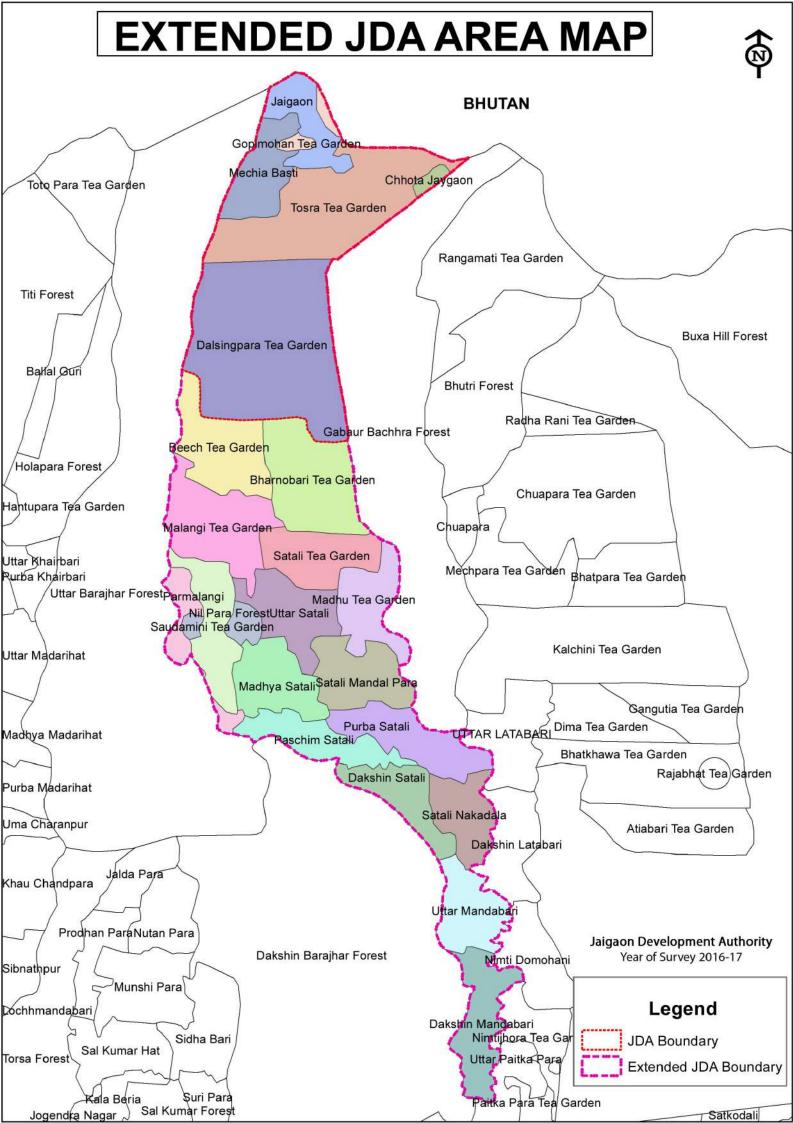
50-100 mtrs. in plain and rolling terrain and 30-60 mtrs. in hilly terrain

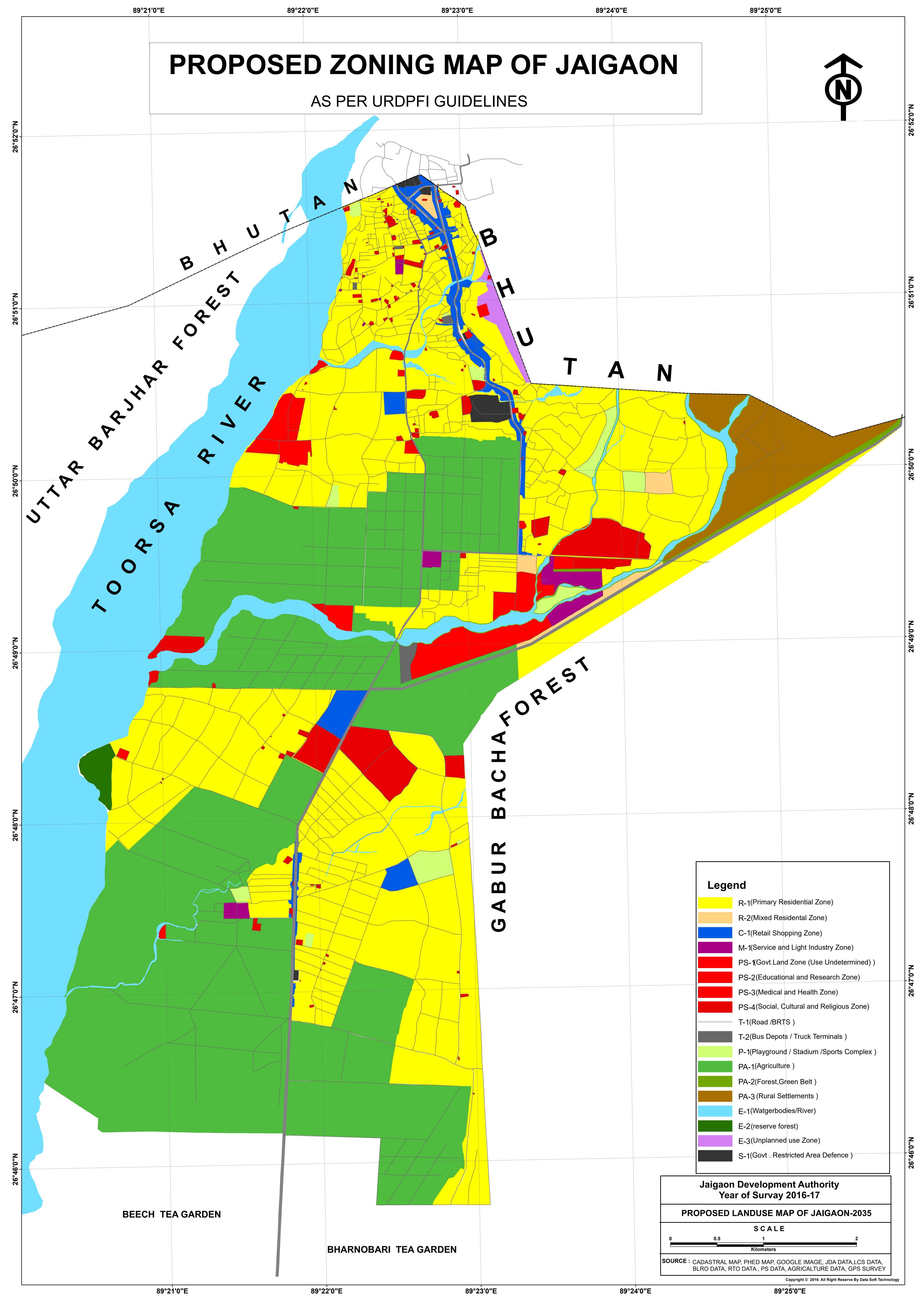
200 METERS 50-100 mtrs. in plain and rolling terrain and 30-60 mtrs. in hilly terrain

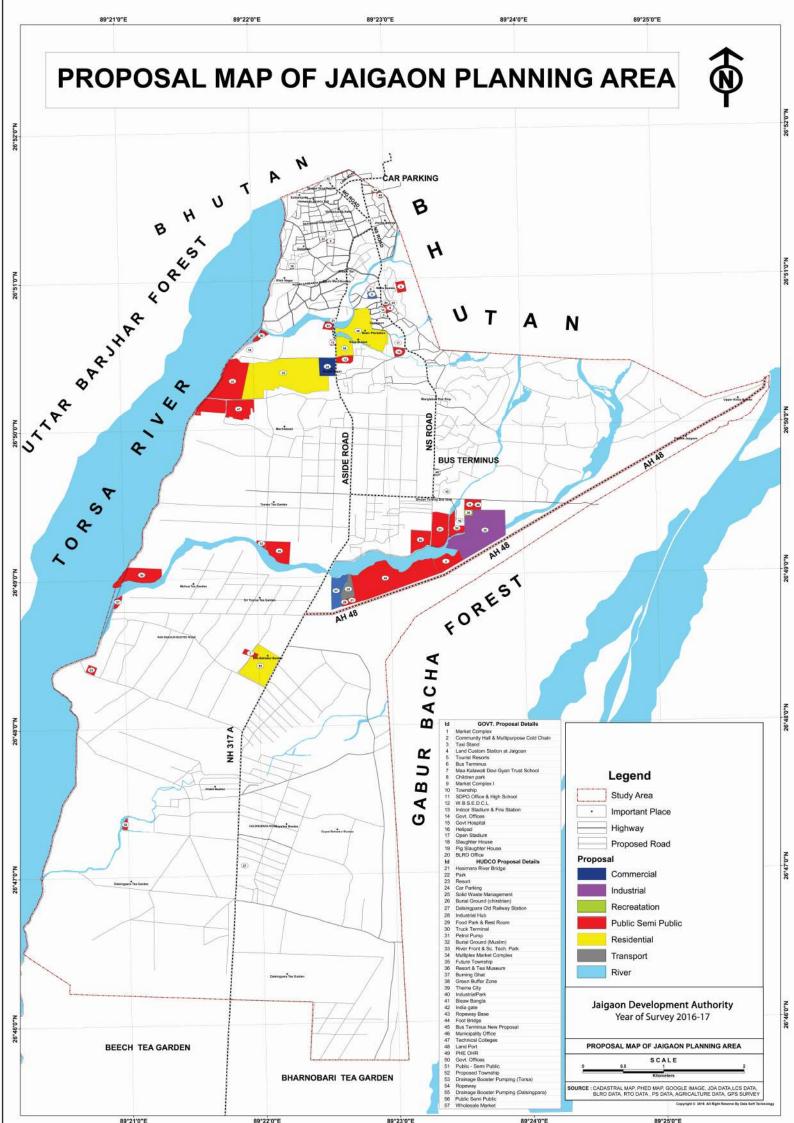


GREEN means you may GO ON if the way is clear Take special care if you mean to turn left or right and give

way to pedestrians who are crossing







Abstract of Cost Summary (Tourist Cottage-3.66 Acres)

The individual break-up of Abstract cost for Tourist Cottages are stated below:

Proie	Tourist Cottage ection of Abstract Cost for Infrastructure(Lo		Acres)	
SI No	Item	Area (sq. ft.)	Rate(Rs. Per sq. ft.)	Cost (Rs. In Lakhs)
1	Cottages(2 Bed Room)			
а	Verandah	75		
b	Room1	150		
С	Room2	180		
d	Toilet(2)	60		
е	Common Room	180		
	Total	645		
2	Cottage Area(15 nos. 2 Bed Room)	9675	1000	96.75
3	Cottages(1 Bed Room)			
а	Verandah	60		
b	Room1	150		
С	Toilet	30		
d	Common Room	180		
	Total	420		
4	Cottage Area(5 nos.1 Bed Room)	2100	1000	21.00
5	Kitchen	1000	500	5.00
6	Store Room	400	500	2.00
7	Dormitory with Common Toilet	3500	800	28.00
8	Boundary Wall(6 m high)-300m			18.00
9	Gate, Security Cabin,Support Staff Accommodation			15.00
10	Landscaping(70% of land area, @10 lakhs per acre)			25.62
11	Paved pathway (10 ft wide)	50000	400	200.00
12	Reception, Office	1000	900	9.00
13	Parking Area with top Shed	9000	350	31.50
14	Green House(Transparent roof & sides)	7000	200	14.00
15	Land Development(Rs. 5 lakhs per acre)			18.30
	Total Cost			484.17

Note : Quantities have been projected as per planned requirement of facilities. The rates have been considered as per the abstract specifications of the facilities which may be developed. During preparation of DPR as per actual plans the costs may vary as per actual requirement. Only Civil Construction costs have been taken into account.

	Tourist Cottag	es, Jaigaon		
Proje	ction of Abstract Cost for Infrastructure	e(Land Area-2.	80 Acres)	
SI No	Item	Area(sqft.)	Rate(Rs. Per sqft.)	Cost(Rs. In Lakhs)
1	Cottages(2 Bed Room)			
а	Verandah	75		
b	Room1	150		
С	Room2	180		
d	Toilet(2)	60		
е	Common Room	180		
	Total	645		
2	Cottage Area(5 nos. 2 Bed Room)	3225	1000	32.25
3	Cottages(1 Bed Room)	1		
а	Verandah	60		
b	Room1	150		
С	Toilet	30		
0		180		
d	Common Room			
	Total	420		
4	Cottage Area(8 nos.1 Bed Room)	3360	1000	33.60
5	Kitchen	1000	500	5.00
6	Store Room	400	500	2.00
7	Dormitory with Common Toilet	2500	800	20.00
8	Boundary Wall(6 m high)-400m			24.00
9	Gate, Security Cabin, Support Staff Accommodation			15.00
10	Landscaping(70% of land area, @10 lakhs per acre)			26.60
11	Paved pathway (10 ft wide)	40000	400	160.00
12	Reception, Office	1000	900	9.00

Abstract of Cost Summary (Tourist Cottage-2.80 Acres)

SI No	Item	Area(sqft.)	Rate(Rs. Per sqft.)	Cost(Rs. In Lakhs)
13	Parking Area with top Shed	10000	350	35.00
	Green House(Transparent roof &	8000	200	16.00
14	sides)			
	Land Development(Rs. 5 lakhs per			19.00
15	acre)			
	Total Cost			397.45

Note : Quantities have been projected as per planned requirement of facilities. The rates have been considered as per the abstract specifications of the facilities which may be developed. During preparation of DPR as per actual plans the costs may vary as per actual requirement. Only Civil Construction costs have been taken into account.

Abstract of Cost Summary (Theme City)

The Abstract Cost of Theme City is placed below :

	Theme City, Jaigaon					
Proje	ection of Abstract Cost for Infrastructure					
SI No	Item	Area (sqft.)	Rate (Rs. Per sqft.)	Cost (Rs. In Lakhs)		
	Theme Township(Phase-1 A-Residential)					
1	Land Filling & Development Cost(41 Acres)			2460.00		
	@60 lakhs per Acre					
2	Bank Protection works. Construction of			3000.00		
	Bund with buttress on the side & front of					
	existing channel(1km@Rs.3 lakhs per m)					
3	Built-up Area(Residential-EWS)	326800.00	1050.00	3431.40		
4	Built-up Area(Residential-LIG)	252000.00	1050.00	1200.00		
5	Built-up Area(Residential-MIG)	253800.00	2000.00	5076.00		
6	Built-up Area(Residential-HIG)	245000.00	2200.00	5390.00		
	Housing Cost	1077600.00		15097.40		
7	Market Block	156000.00	1200.00	1872.00		
8	Beautification of Open space, River			24.40		
	Bank(@Rs.20 lakhs per Acre)-1.22 Acres					
9	Green Zone with landscaping			168.60		
	(@Rs.30 lakhs per acre)-5.62 Acres					
10	Parking Area	8000.00	600.00	48.00		
11	Road(5 m wide considered)		7000.00	620.90		
	(8.87 km. Bituminous Road)					
12	Swimming Pool	17600.00	1800.00	316.80		
	Total(Ph-IA)			23608.10		

	Theme Township(Phase-1 B-Tourism Facilities)					
SI. No.	ltem	Area (sqft.)	Rate (Rs. Per sqft.)	Cost (Rs. In Lakhs)		
13	Service Apartment	40000	2800	1120.00		
14	Hotel Zone	48000	4500	2160.00		
15	Parking Area	2000	600	12.00		
16	Green Zone with landscaping (@Rs.30 lakhs per acre)-4.08 Acres			122.40		
17	Open Space(@Rs.10 lakhs per Acre)-1.91 Acres			19.10		
18	Road(5 m wide)(1.648 km).Bituminous Road		7000	0.12		
	Total(Ph-IB)			3433.62		
	Total for Township			27041.72		

Note: The abstract of cost has been prepared as per the housing and other required area indicated category-wise as per the plan of Theme Township. The rates of various components assumed as per the facilities planned. The same have been assumed from similar govt. project DPRs like BSUP, IHSDP of West Bengal with necessary incorporation of escalation as per area requirement. However during preparation of actual DPR the details estimates will need to be prepared considering required designs, specifications etc and may vary from the above estimated abstract cost. Only Civil Construction costs have been taken into account.

Abstract of Cost Summary (Solid Waste Management)

The Abstract Cost for proposed Solid Waste Management is placed below :

	Solid Waste Manageme	ent, Jaigao	n	
Proje	ection of Abstract Cost for Infrastructure			
SI No	Item	No.	Rate (Rs. Per item)	Cost (Rs. In Lakhs)
CAP	ITAL EXPENDITURE(CAPEX)			
А.	Primary Collection Cost- Door-to-Door Waste Collection, Waste Handling Tools & Vehicles for Transportation of waste up to Transfer Station or Secondary Collection Point			
1	House Hold Bins(HHBs) for Segregation at Source-Capacity 15 lit.	20000	200.00	40.00
2	Community Bin(Capacity-150 lt.)	200	1500.00	3.00
3	Rickshaw	50	25000.00	12.50
4	Wheel Barrow	80	10000.00	8.00
5	Broom	1500	300.00	4.50
6	Belcha	700	400.00	2.80
7	Punja	700	400.00	2.80
8	Collector	700	400.00	2.80
9	Compactor Placer(1100 lit.)	4	55000.00	2.20
10	Dumper Placer(4500 lit.)	2	85000.00	1.70
	Total(A)			80.30
SI. No.	ltem	No.	Rate (Rs. Per item)	Cost (Rs. In Lakhs)
В	Secondary Operation(Waste Collection, Tools & Transportation Equipment)			
11	Vehicle for Secondary waste containerized collection, compaction & transportation (8000 lit)	2	200000.00	4.00
12	Auto Tipper	10	700000.00	70.00
13	Compactor Placer Vehicle(CPV) for CP Bins(10-12 Tones)	2	3800000.00	76.00
14	Dumper Placer Vehicle(DPV) for lifting of DP Bins	2	1700000.00	34.00
15	JCB-with catcher with support services	2	2300000	46.00

С	Waste Transfer Station(2 locations)			
16	Solid Waste Portable Compactor with integral Container unit including Hydraulic Loading Bucket/ Shovel arrangement as per technical specifications	2	3000000	60.00
17	Hook loader mounted on 16 T GVW BS – IV Truck Chassis capable of handling the compactor unit with 10.5 cum volume container unit as per technical specifications.	2	3400000	68.00
18	Civil works for porting station, complete electrification works etc. for accommodating portable compactors	2	4000000	80.00
D	Service Station for the Collection Tools, Vehicles Repair & Maintenance			
19	Repairing Shed(2000 sqm.@ 6500)			130.00
20	Maintenance Equipment, Water Tank etc			80.00
21	Landfill Site Development, Office, Shed			200.00
22	Waste Re-cycling Facilities Infrastructure Development at Transfer Stations			100.00
	Total			1028.30

Note : Present population of 86444 considered. SWM Generation as per standards of MOUD SWM Manual-450 gms/capita/day. SWM generated per day-39 MTPD. SWM considered as per Door-to-Door Collection policy followed for collection. Transfer Station considered as well. System and equipments also considered for collection, transportation, treatment & disposal as per MOUD Manual, GOI. Actual estimates may vary as per projected capacity and system proposed along with application of technology.

Abstract of Cost Summary (Roads)

The Abstract Cost for proposed Roads is placed below :

	Ro	ads, Jaigaon			
Proje	ction of Abstract Cost for roads				
SI. No.	ltem	Proposed Width(m)	Length (km)	Rate (Rs. Per m length.)	Cost (Rs. In Lakhs)
1	Widening of Existing Pucca Road				
а	Jaigaon-I	10.00	10.00	6500.00	650.00
b	Jaigaon-II	8.00	18.00	6200.00	1116.00
С	Dalsignpara	8.00	9.80	6200.00	607.60
	Sub-Total		37.80		2373.60
2	Upgradation of Kutchcha Road to	Pucca Road			
а	Jaigaon-I	6.00	76.00	5800.00	4408.00
b	Jaigaon-II	5.50	12.00	5800.00	696.00
С	Dalsingpara	5.50	25.20	5800.00	1461.60
	Sub-Total		113.20		6565.60
3	Upgradation of other Road to Puc	ca Road of Me	edium Wic	lth	
а	Jaigaon-I	3.50	16.00	5800.00	928.00
b	Jaigaon-II	3.50	8.00	5800.00	464.00
С	Dalsingpara	3.50	5.70	5800.00	330.60
	Sub-Total		29.70		1722.60
	Total		180.70		10661.80

Note: The abstract of cost has been prepared as per the requirement of road length indicated in the Development Plan. The rates of road per meter length have been assumed from similar govt. project DPRs like BSUP, IHSDP of West Bengal with necessary incorporation of escalation as per area requirement. However during preparation of actual DPR the details estimates will need to be prepared considering required design traffic loads, specifications etc and may vary from the above estimated abstract costs.

Abstract of Co	ost Summary	(Drainage	& Sewerage)
		(,

The Abstract Cost for proposed Drainage & Sewerage System is placed below :

	Combined Drainage &	Sewerage Syst	em, Jaigaon	
	Projection of Abstrac	t Cost for Infr	astructure	
SI. No.	Item	Length(km)	Rate (Rs. per m length.)	Cost (Rs. In Lakhs)
1	Upgradation of Kutcha Drain Netw	ork to Pucca	Drain(250 x 350))
а	Dalsingpara	18.57	800.00	148.56
b	Gopimohan Tea Garden	0.36	800.00	2.88
С	Jaigaon	2.78	800.00	22.24
d	Mechia Basti	0.73	800.00	5.84
е	Torsa Tea Garden	14.17	800.00	113.36
	Sub-total(A)	36.61		292.88
2	Upgradation of Pucca DrainNetwo	ork to Undergro	ound Drainage	System
а	Dalsinghpara	3.18	3000.00	95.40
b	Gopimohan Tea Garden	0.41	3000.00	12.30
С	Jaigaon	12.89	3000.00	386.70
d	Mechia Basti	3.30	3000.00	99.00
е	Torsa Tea Garden	1.84	3000.00	55.20
	Sub-total(B)	21.62		648.60
3	Trunk Mains	3.00	6000.00	180.00
4	Outfall to River(2 nos.)			80.00
	Total	61.23		1201.48
5	Additional Length for uncovered areas-new development proposed(extra 100%)			1201.48
6	Treatment Plant(Capacity- 15MLD, Cost-Rs.5 lakhs per MLD considered with escalation)			100.00
	Total Cost			2502.96

Note: The abstract of cost has been prepared as per the requirement of drain length indicated in the Development Plan. The rates of drain per meter length have been assumed from similar govt. project DPRs like BSUP, IHSDP of West Bengal with necessary incorporation of escalation as per area requirement. However during preparation of actual DPR the details estimates will need to be prepared considering required design drainage outflow, specifications of the drains to be provided etc and may vary from the above estimated abstract costs.

Abstract of Cost Summary (ULB & Car Parking)

The Abstract Cost for proposed Municipality Office & Car Parking is placed below :

	Municipality Office & Car Parking, Jaigaon						
	Projection of Cost Abstract for Infrastructure(Land area-2.5 Acres)						
SI. No.	ltem	Area (sqft.)	Rate (Rs. Per sqft.)	Cost (Rs. In Lakhs)			
1	Municipality Office		·				
	Total Carpet Area Projected	20000.00	1500.00	300.00			
2	Multi Storied Car Parking	25000.00	800.00	200.00			
	Total Cost			500.00			

Note : Quantities have been projected as per planned requirement of facilities. The rates have been considered as per the abstract specifications of the facilities which may be developed. During preparation of DPR as per actual plans the costs may vary as per actual requirements.

Abstract of Cost Summary (MSME units)

The Abstract Cost of development of industrial plots for creation of MSME is placed below :

	(Land Area-66 Acres)					
SI No	Item	Area (Sq. ff.)	Rate (Rs. Per sqft.)	Cost (Rs. In Lakhs)		
1	Land Development (66 Acres @ Rs.5 lakhs per acre)			330.00		
2	Boundary Wall(2 ft high)-6km length (Rate-60 lakhs/km)			300.00		
3	Roads(15 m wide)-5 km@Rs.7000 per m			350.00		
4	Drains(underground)-7 km@3500 per m(including bends & turns)			245.00		
5	Water Supply Pipeline-12 km @ Rs.3000 per m (including bends & turns)			360.00		
6	Treatment Plant for Waste Water (15 MLD) Cost-Rs.5 lakhs per MLD considered with escalation)			75.00		
7	Electricity Sub-Station			2500.00		
8	Approach Road (1.5 km-10 m wide)	161400.00	8000.00	129.12		
9	Road Bridge over River (50 m L, 7 m wide)	3766.00	15000.00	5.65		
10	Elevated Service Reservoir(Water Supply), Pump House			200.00		
	Total Cost			4494.77		

MSME Cluster, Jaigaon Projection of Cost Abstract for Infrastructure (Land Area-66 Acres)

Note: Quantities have been projected as per planned requirement of facilities. The rates have been considered as per the abstract specifications of the facilities which may be developed. During preparation of DPR as per actual plans the costs may vary as per actual requirements.

Annexure-9

River Front Development, Jaigaon Projection of Abstract Cost for Infrastructure						
	River Bank Protection					
1	Boulder on River Bank placing, covered with wire on top (10m sloped river bank)	8000	15000	1200.00		
2	Land Development(39.01 acres, Rs.5 lakhs per acres)			195.05		
3	River Side Walkway(5 m wide)-5km			1400.00		
4	River Side Railing on Road (both side)-4 ft high-10km			400.00		
5	Entry Gate					
а	Pavement with Blocks	200	600	1.2		
b	Ticket Counter	300	4000	12.00		
6	Lawn/Flower Garden/Green Zone(8.06 Acres, @20 lakhs per acre)			161.20		
7	Lake(0.98 Acre @40 lakhs per acre)-with Bunds, side greenery, ghat with steps (3 nos.)			39.20		
8	Road for Walkway (Paved pathway-3m wide)	33000	400	132.00		
9	Amphitheater(capacity 400)	2500	8000	200.00		
10	Auditorium(capacity 600)	6000	10000	600.00		
11	Mela Ground(1.82 acres)-Halls with Dome shape, supported by steel girder, pathways	12000	3000	360.00		
12	Food Court	2500	6000	150.00		
13	Water Sport(1.56 Acre@60 lakhs per acre)- only infrastructure, not sports equipments			93.60		
14	Children Park(2.1 Acre@ @25 lakhs per acre)			52.50		

SI. No.	Item	Area (sqm.)	Rate (Rs. Per sqm.)	Cost (Rs. In Lakhs)
15	Amusement Park(5.1 Acre@Rs.25 lakhs per acre)			127.50
16	Eco Park(1.98 Acre@Rs.30 lakhs per acre)			59.40
17	Science & Technology Park(2.48 Acres @ Rs. 50 lakhs per acre)			124.00
18	Rest Room	400	10000	40.00
19	Open Gym(0.5 Acres @ Rs. 30 lakhs per acre)			15.00
20	Biswa Bangla			50.00
21	Office	800	10000	80.00
22	Boundary Wall(1 m high)-1200m			72.00
23	Gate, Security Cabin			25.00
24	Parking Area with top Shed	2000	3000	60.00
	Total Cost			5649.65

Note : Costs have been considered as per the components planned. Rates assumed as per standard specification and practice. Actual costs may vary during preparation of the DPR with the required components. Only Civil Construction costs have been taken into account.



National Urban Sanitation Policy

Ministry of Urban Development Government of India







National Urban Sanitation Policy Ministry of Urban Development Government of India





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Background

Sanitation is defined as safe management of human excreta, including its safe confinement treatment, disposal and associated hygiene-related practices. While this policy pertains to management of human excreta and associated public health and environmental impacts, it is recognized that integral solutions need to take account of other elements of *environmental sanitation*, i.e. solid waste management; generation of industrial and other specialized / hazardous wastes; drainage; as also the management of drinking water supply.

According to Census 2001, 27.8% of Indians, i.e. 286 million people or 55 million households live in urban areas¹ – projections indicate that the urban population would have grown to 331 million people by 2007 and to 368 million by 2012. 12.04 million (7.87 %) Urban households do not have access to latrines and defecate in the open. 5.48 million (8.13%) Urban households use community latrines and 13.4 million households (19.49%) use shared latrines. 12.47 million (18.5%) households do not have access to a drainage network. 26.83 million (39.8%) households are connected to open drains. The status in respect of the urban poor is even worse. The percentage of notified and non-notified slums without latrines is 17 percent and 51 percent respectively. In respect of septic latrines the availability is 66 percent and 35 percent. In respect of underground sewerage, the availability is 30 percent and 15 percent respectively. More than 37% of the total human excreta generated in urban India, is unsafely disposed. This imposes significant public health and environmental costs to urban areas that contribute more than 60% of the country's GDP. Impacts of poor sanitation are especially significant for the urban poor (22% of total urban population), women, children and the elderly. The loss due to diseases caused by poor sanitation for children under 14 years alone in urban areas amounts to Rs. 500 Crore at 2001 prices (Planning Commission-United Nations International Children Emergency Fund (UNICEF), 2006). Inadeguate discharge of untreated domestic/municipal wastewater has resulted in contamination of 75 percent of all surface water across India.

The Millennium Development Goals (MDGs) enjoin upon the signatory nations to extend access to improved sanitation to at least half the urban population by 2015, and 100% access by 2025. This implies extending coverage to households without improved sanitation, and providing proper sanitation facilities in public places to make cities open-defecation free.

¹ In 2001, about 285 million people, or 27.8% of India's 1.02 billion population, lived in 5,161 cities. About 37% lived in 35 million-plus metros, the rest being equally divided between 388 large towns (0.1 up to a million) and 4,738 small towns (less than 0.1 million). Over the last five decades, annual rates of growth of urban population ranged between 2.7 to 3.8% - 2.7% being the growth rate during 1991-2001. Projections estimate that 331 million people would be living in Urban India by 2007, growing in the Eleventh Plan period to 368 million by 2012 (Office of Registrar General and Census Commissioner, Govt. of India, 2006).

Vision

The vision for Urban Sanitation in India is:

All Indian cities and towns become totally sanitized, healthy and liveable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women.

Key Sanitation Policy Issues

In order to achieve the above Vision, following key policy issues must be addressed:

- Poor Awareness: Sanitation has been accorded low priority and there is poor awareness about its inherent linkages with public health.
- Social and Occupational aspects of Sanitation: Despite the appropriate legal framework, progress towards the elimination of manual scavenging has shown limited success, Little or no attention has been paid towards the occupational hazard faced by sanitation workers daily.
- Fragmented Institutional Roles and Responsibilities: There are considerable gaps and overlaps in institutional roles and responsibilities at the national, state, and city levels.
- Lack of an Integrated City-wide Approach: Sanitation investments are currently planned in a piece-meal manner and do not take into account the full cycle of safe confinement, treatment and safe disposal.
- Limited Technology Choices: Technologies have been focussed on limited options that have not been cost-effective, and sustainability of investments has been in question.
- Reaching the Un-served and Poor: Urban poor communities as well other residents of informal settlements have been constrained by lack of tenure, space or economic constraints, in obtaining affordable access to safe sanitation. In this context, the issues of whether services to the poor should be individualised and whether community services should be provided in non-notified slums should be addressed. However provision of individual toilets should be prioritised. In relation to "Pay and Use" toilets, the issue of subsidies inadvertently reaching the non-poor should be addressed by identifying different categories of urban poor.
- Lack of Demand Responsiveness: Sanitation has been provided by public agencies in a supply-driven manner, with little regard for demands and preferences of households as customers of sanitation services.

Policy Goals

The overall goal of this policy is to transform Urban India into **community-driven, totally sanitized, healthy and liveable cities and towns.**

The specific goals are:

A Awareness Generation and Behaviour Change

Awareness Generation and Behaviour Change

- a. Generating awareness about sanitation and its linkages with public and environmental health amongst communities and institutions;
- b. Promoting mechanisms to bring about and sustain behavioural changes aimed at adoption of healthy sanitation practices;

B Open Defecation Free Cities

Achieving Open Defecation Free Cities

All urban dwellers will have access to and use safe and hygienic sanitation facilities and arrangements so that no one defecates in the open. In order to achieve this goal, the following activities shall be undertaken:

- a. Promoting access to households with safe sanitation facilities (including proper disposal arrangements);
- b. Promoting community-planned and managed toilets wherever necessary, for groups of households who have constraints of space, tenure or economic constraints in gaining access to individual facilities;
- c. Adequate availability and 100 % upkeep and management of Public Sanitation facilities in all Urban Areas, to rid them of open defecation and environmental hazards;

C Integrated City-Wide Sanitation

Re-Orienting Institutions and Mainstreaming Sanitation

- a. Mainstream thinking, planning and implementing measures related to sanitation in all sectors and departmental domains as a cross-cutting issue, especially in all urban management endeavours;
- b. Strengthening national, state, city and local institutions (public, private and community) to accord priority to sanitation provision, including planning, implementation and O&M management;
- c. Extending access to proper sanitation facilities for poor communities and other unserved settlements;

Sanitary and Safe Disposal

100 % of human excreta and liquid wastes from all sanitation facilities including toilets must be disposed of safely. In order to achieve this goal, the following activities shall be undertaken:

- a. Promoting proper functioning of network-based sewerage systems and ensuring connections of households to them wherever possible;
- b. Promoting recycle and reuse of treated waste water for non potable applications wherever possible will be encouraged.



- c. Promoting proper disposal and treatment of sludge from on-site installations (septic tanks, pit latrines, etc.);
- d. Ensuring that all the human wastes are collected safely confined and disposed of after treatment so as not to cause any hazard to public health or the environment.

Proper Operation & Maintenance of all Sanitary Installations:

- a. Promoting proper usage, regular upkeep and maintenance of household, community and public sanitation facilities;
- b. Strengthening ULBs to provide or cause to provide, sustainable sanitation services delivery;

Implementation Support Strategy

Government of India recognizes that sanitation is a state subject and on-ground implementation and sustenance of public health and environmental outcomes requires strong city level institutions and stakeholders. Although there are some common elements across urban areas of India, there are a number of factors, constraints and opportunities that are peculiar to specific situation of states and cities with respect to sanitation, climate, physiographic factors, economic, social and political parameters, and institutional variables, etc². Therefore each state and city needs to formulate its own sanitation strategy and their respective city sanitation plan respectively in overall conformity to the National Policy.

Government of India Support

Ministry of Housing and Poverty Alleviation (HUPA) is administering a Centrally Sponsored Scheme for Integrated Low Cost Sanitation (ILCS). Under this scheme, central subsidy to the extent of 75%, state subsidy to the extent of 15% and beneficiary contribution to the extent of

² In this context, it may be noted that the interpretation and translation of the National Policy in the special states in the North-Eastern States, Andaman and Nicobar Islands, and Lakshadweep, will take account of their situation (especially community institutions and financial arrangements) and make special and/or additional provisions supporting by Government of India.

10% is provided for. The main objective of the scheme is to convert around 6 lakh dry latrines into low cost pour flush latrines by 31st March 2010. 75% of the central allocation will be used for conversion and the remaining 25% will be used for construction of new toilets for EWS households who have no toilets in urban areas. This scheme focuses on the provision of latrines/toilets and the elimination of open defecation and scavenging. It does not cover the problem of inadequate sanitation, including treatment and disposal of sewage and solid waste management, which has considerable environmental and health implications. The scope of urban sanitation is much larger than the issues covered under the Scheme for Integrated Low Cost Sanitation which essentially focuses on provision of latrines to prevent open defecation in order to eliminate manual scavenging.

Towards achievement of the Urban Sanitation Policy Goals, the Government of India will support:

- a. States will be encouraged to prepare State Level Sanitation Strategies within a period of 2 years. Chapter on Draft Framework for Developing State Sanitation Strategies gives an outline of the strategy (**Annexure I**);
- Identified cities will be urged to prepare model City Sanitation Plans within a period of 2 years. Chapter on Draft Framework for a City Sanitation Plan gives an outline of the plan (Annexure II);
- c. Providing assistance for the preparation of Detailed Project Report (DPR) as per city sanitation plan as soon as requests for funding are received;
- d. Promote public-private partnership in respect of key projects/activities identified in the city sanitation plan;
- e. Provide technical assistance and support for awareness generation and capacity building to states and cities within this financial year;
- f. Periodic rating of Cities in respect of Sanitation, and recognition of best performers by instituting a National Award within this financial year (**Annexure III**);
- Funding projects wherever possible from existing schemes. The Ministry of Urban g. Development is implementing schemes such as the Jawaharlal Nehru National Urban Renewal Mission (Urban Infrastructure and Governance (UIG) component), the Urban infrastructure development scheme for small and medium towns (UIDSSMT). Both these schemes have a time span of 7 years (2005-12) with a budget of Rs1, 00,000 crore of which the share of the central government is Rs 50,000 crore. Out of 324 projects sanctioned upto 31.03.08, 125 pertain to sewerage, storm water drainage solid waste management. In addition, this Ministry is also responsible for the scheme for new satellite townships and counter magnet cities and 10% lumpsum provision for North Eastern states including Sikkim which provide funds for the creation of urban infrastructure facilities. Proposals for financing of projects in the sewerage, solid waste disposal and storm water drainage sector will be accorded high priority under all these schemes. It is recognised that in spite of access to these schemes, there may be a deficit of funds in which case the option of approaching bilateral and multilateral agencies will be explored.

Government of India will support states in developing and implementing innovative strategies to accord priority to urban sanitation. States and cities can explore a number of options in achieving sanitation goals including;

- Using existing provisions with regard to sanitation in municipal and other Acts to promote compliance;
- Amending municipal Acts, framing of bye-laws and regulations (e.g. building and construction bye-laws) to promote sanitation by public and private agencies, prohibit discharge of untreated sewage into open areas wherever necessary;
- Create a system of incentives and disincentives including punitive actions and levies and charges on polluters wherever appropriate;
- Re-orienting policies to ensure that urban poor households or residents in informal settlements obtain access to improved sanitation facilities;
- Ear-marking and making land available for community and public sanitation facilities;
- Promoting partnerships with public, private and non-governmental agencies for improved provision, maintenance and management of sanitation facilities;
- Mainstreaming sanitation in all public activities (e.g. by coordinating with health, education and infrastructure sectors³);
- Taking up sanitation in a mission mode in order to mobilize joint actions from different public and non-government agencies. This can be accomplished by forming an urban sanitation steering committee at the state level and a task force at the city level;
- Exploring other options and innovations that may be suitable locally.

The components of Govt. of India national support strategy are presented below.

Components of National Urban Sanitation Policy

Govt. of India shall support the following components:

Awareness Generation

A country-wide Information, Education and Communication (IEC) Strategy will be designed and implemented for raising awareness on the public health and environmental importance of sanitation. The socio-cultural biases against sanitation and sanitary work need to be targeted, and dignity and humane approach promoted in the elevation of priority to sanitation in public affairs. Further, the public-good nature of urban sanitation necessitating collective action needs to be highlighted in the minds of all stakeholders.

Institutional Roles

The Govt. of India will support clear assignment of roles and responsibilities, resources and capacities and institutional incentives in relation to setting standards, planning and financing, implementation, knowledge development, capacity building and training, Monitoring & Evaluation (M&E), and regulatory arrangements. The government will help states and cities in ensuring sanitation as a core responsibility of Urban Local Bodies as

³ Investments in proper sanitation facilities (arrangements right up to treatment and safe disposal) must become a compliance requirement for any investments in infrastructure (e.g. urban transport, railways, airlines, etc.), and health and education sectors. For instance, urban transport investments must become 100 percent sanitation compliant by providing investments for public and community sanitation, as also specific plans for transport of solid waste, septage, and appropriate arrangements for sewerage systems.

envisaged in the Constitutional (Seventy fourth) Amendment Act, 1993. The special roles of NGOs and Community Based Organisations (CBOs) will be recognized in mobilizing communities, raising awareness and in working with poor communities to assist them in finding affordable, community-managed solutions to sanitation.

Reaching The Un-Served And Poor Households

The national policy will help urban areas adopt a city-wide, demand-based participatory approach to individual (resolving tenure, space and affordability constraints), and community sanitation where individual sanitation facilities are not feasible. Towards this, special slum and community sanitation plans will be formulated as a part of the City Sanitation Plan. Provision of public sanitation facilities will also be supported.

Knowledge Development

The policy recognizes the importance of developing and disseminating knowledge on institutional development, technology choices and management regimes, planning new developments and upgradation, and sustainability issues.

Capacity Building

Govt. of India will help formulate and implement a National level strategy on capacity building and training to support states and cities to build their personnel capacities and organizational systems for delivery of sanitation services.

Financing

The Govt. of India, wherever possible, will explore possibilities of providing assistance for funding projects proposed as part of City Sanitation Plans through its schemes like JNNURM, UIDSSMT, 10% Lump Sum for NE States, Satellite Township Scheme, etc. However, the emphasis will be on improving the efficiency of existing sanitation infrastructure and service delivery.

National Monitoring & Evaluation

At the national level, the Govt. of India will support periodic rating of cities by independent agencies. A National Annual Award will be instituted on the basis of this rating (Chapter on National Award Scheme for Sanitation for India Cities).

Coordination at the National Level

National investments in urban infrastructure and housing shall accord high priority to sanitation. Towards this, sanitation will be mainstreamed into all relevant programmes of all the relevant sectoral ministries.

Annexure - I

Draft Framework for Developing State Sanitation Strategies

Government of India recognizes that sanitation is a state subject and on ground implementation and sustenance of public health and environmental outcomes requires strong city level institutions and stakeholders. Further, in spite of the common elements that characterize urban areas of India across the length and breadth of the country, there are a number of factors and forces, constraints and opportunities, that are peculiar to specific situation of states and cities viz. their historical legacy with respect to sanitation, climate and physiographic factors, economic, social and political parameters, and institutional variables, etc. Therefore, it is best that each of the States develops its own State level Strategy to achieve the policy goals set out in the National Urban Sanitation Policy. In this context, it may be noted that the interpretation and translation of the National Policy in the special states i.e the North-Eastern States, Andaman and Nicobar Islands, and Lakshadweep, will take account of their situation (especially community institutions and financial arrangements) and make special and/or additional provisions supported by Government of India.

Like in the national policy, state strategies are recommended to detail out the following generic headings or areas requiring attention:

- a) Clear assignment of institutional responsibility, resources and capacities: State Urban Sanitation Strategies must ensure clear ULB responsibility as envisaged in the 74th Constitutional Amendment (CA). Where this is partial or incomplete, states will need to make concerted efforts to devolve powers, roles and responsibilities along with financial and personnel resources necessary for ULBs to discharge their functions. Alongside, the ULBs will also have to be accorded wide-ranging powers over agencies that currently carry out sanitation related activities in the city but are not directly accountable to them, e.g. para-statals and PHEDs.
- b) Setting standards at the State Level (within the overall frame of national standards):
- Environment Outcomes (e.g. State Pollution Control Board standards on effluent parameters, diminishing water resources, impact of climate change, use of low energy intensive onsite/decentralised wastewater treatment technologies, distributed utilities etc),
- Public Health Outcomes (e.g. State Health Departments)
- Processes (e.g. safe disposal of on-site septage) and infrastructure (e.g. design standards) (PHEDs/ Para-statals) and coverage of the informal sector activities like disposal of waste water, solid waste etc.
- Service Delivery standards (e.g. by Urban Development departments)

- Manpower issues such as adequate remuneration, hazardous nature of work, employment on transparent terms and conditions, use of modern and safe technology, provision of adequate safety equipment such as gloves, boots, masks, regular health checkups, medical and accident insurance cover etc.
- States are recommended to not just emulate but set their standards higher than the national standards in order to encourage its institutions and citizens to target higher standards of public health and environment.
- C) Planning and financing at the State Level: ULBs will need to be made responsible for planning and financing public infrastructure, and leveraging such private investments as may be required for achieving outcomes (as stated in their State Strategies). The problem of shortage of funds needs to be factored in. In this regard, States will need to devolve adequate and predictable resources to ULBs including setting tariffs, inter-governmental fiscal transfers and devising targeting of subsidies to the poorest of the poor households. The issue of recovery of O & M cost and through the introduction of use charges collection of dues needs to be emphasised as a means of ensuring accountability as well as financial sustainability. In doing so, State Government's support to ULBs will need to be increasingly re-oriented to reward the achievement of outcomes (moving way from input, process and hardware funding per se). State governments will also be encouraged to launch awards for best performing cities to bring about a competitive spirit in achieving total sanitation by cities. Considerable coordination will also be required across other government agencies and institutions, private and community institutions - to highlight the priority to sanitation, as well as in planning and implementation of programs.
- Reaching the Un-served populations and the Urban Poor at the State level: d) States will need to resolve tenure, space and affordability constraints to providing individual sanitation facilities preferentially, and community facilities where individual provision is not feasible. The provisioning of basic sanitation should be de-linked from the issues of land tenure. Every urban dweller should be provided with minimum levels of sanitation, irrespective of the legal status of the land in which he/she is dwelling, possession of identity proof or status of migration. However, the provision of basic services would not entitle the dweller to any legal right to the land on which he/ she is residing. At least 20% of the funds under the sanitation sector should be earmarked for the urban poor. The issues of cross subsidiary the urban poor and their involvement in the collection of O&M charges should be considered. States will need to issue guidelines to support cities in adopting participatory approaches to community sanitation, and rational planning for appropriate and adequate sanitation for floating population, institutions and public place workers, with explicit recognition of cost recovery for sustainable management, service delivery and repairs and maintenance. Special role of NGOs and CBOs needs to be recognized in this respect, especially for community sanitation facilities.
- e) Service Delivery in cities: ULBs will need to be responsible for asset-creation and managing systems including service delivery. In this context, the ULB may bring in public, private and community agencies/groups to provide services on its behalf. But



the final accountability with regard to performance in sanitation will have to be that of the ULB. Departments and para-statals currently carrying out these responsibilities will need to be accountable to the respective ULBs (including for example, financing through the ULBs). The State governments will need to make explicit directions in this regard, including roles for NGOs and CBOs and the urban poor.

- f) Regulation of cities and within cities: State Strategies will need to dwell on this issue carefully – strengthening existing state level institutions that are charged with ensuring compliance of ULBs to environmental standards (e.g. State Pollution Control Boards), health outcomes (e.g. Health Departments), and Service Delivery Standards (e.g. State Urban Departments). Wherever these responsibilities or action on deviance are not spelt out clearly, the state strategy will need to make these clear. The strategy will also have to identify the ULB as having the key regulatory remit over all properties and agencies/households in the city in respect of outcomes and process standards stipulated by it.
- g) Monitoring & Evaluation at the State and City Levels: The State government will be responsible for M&E of its cities' performance, and hence needs to devise data collection and reportage systems using outcome indicators. ULBs in turn need to track compliance of households (establishments, etc.) with outcomes and process standards that it has adopted. Introducing citizens' report cards, citizens' monitoring committees, self-assessment system, inter-city competitions, etc will be considered. NGOs and CBOs will also play key roles in M&E.
- h) Capacity Building & Training: The state strategy needs to identify agencies that will train its state level, ULB personnel and orientation of elected representatives. These agencies could be specialist agencies of the state government, and/or NGOs and private sector organizations. This will also need to focus on capacity building, i.e. not just training but also development of systems and capacities of ULBs in sanitation, in line with the Urban Sector Reforms that the state may be implementing. ULBs will need to provide training on sanitation to their own staff using state level resource agencies. They will need to utilize Govt. of India and State Government Schemes for training and capacity building in order to achieve this.

Annexure - II

Draft Framework for a City Sanitation Plan

Purpose

The purpose of this framework is to assist Urban Local Bodies, NGOs, community based organizations, citizens and private sector agencies in Govt. of India through a series of steps toward achieving the goal of 100 percent sanitation in their cities. The focus of this note is on how to go about the process. Since each city will make choices based on demand and need, local context, availability of financial and human resources, and the opportunity for innovations, this note does not answer what options etc. to choose. The exact contents of this framework may be adapted to suit the state's urban sanitation strategy and used for its cities. To assist in thinking through the challenge, some core building blocks are outlined in this note, as presented in Fig. (1).

Though apparently linear, the process needs to be highly iterative and draw in inputs from one series of steps to another.

States will need to determine time-frames and deadlines to achieve the goals mentioned in the National Urban Sanitation Policy and will need to spell out a detailed roadmap, including the incremental targets for achievement of goals. For example, to achieve the goal of open defecation free (ODF) by year 2011, a detailed plan for extending access will need to be formulated and implemented in a time-bound manner. All such steps will need to be spelt out in and operationalized under the CSPs. While some of the activities in the sanitation plan may be possible to complete with little financial resources e.g. better utilization of existing facilities, improved management systems for septage cleaning, awareness generation; etc. whereas others e.g. reconditioning or laying new sewers, may

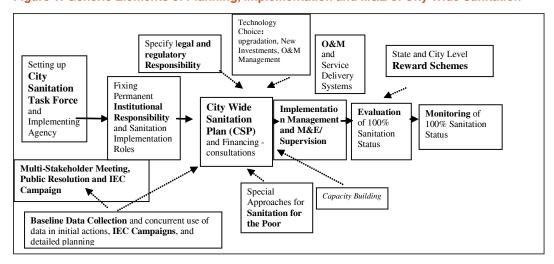


Figure 1: Generic Elements of Planning, Implementation and M&E of City Wide Sanitation

be more resource-intensive. The CSP will need to be prepared keeping in view what the city can afford and finance. It will be better as far as possible to improve the effectiveness of existing facilities before embarking on expensive new investments. Further, thinking about the whole city, and not just some portions or just some facilities, will be necessary to achieve the goals in a comprehensive and systematic manner.

Steps for Achieving 100% Sanitation

Key Principles

The National Urban Sanitation Policy identified the following core principles that need to be addressed. These must be used as a guide by the cities:

- Institutional Roles and Responsibilities
- Awareness Generation for changing mindsets
- City-wide Approach
- Technology Choice
- Reaching the un-served and poor
- Client focus and Generation of Demand
- Sustained Improvements

Preparatory Actions

City Sanitation Task Force

Mobilize Stakeholders: The first step in making the cities 100% sanitized is to elevate the consciousness about sanitation in the mind of municipal agencies, government agencies and most importantly, amongst the people of the city.

- a) Constitute a multi-stakeholder City Sanitation Task Force comprising representatives from
- Agencies directly responsible for sanitation including on-site sanitation, sewerage, water supply, solid waste, drainage, etc including the different divisions and departments of the ULB, PHED, etc;
- Agencies indirectly involved in or impacted by sanitation conditions including representatives from the civil society, colonies, slum areas, apartment buildings, etc,
- Eminent persons and practitioners in civic affairs, health, urban poverty,
- Representatives from shops and establishments,
- Representatives of other large institutions in the city (e.g. Cantonment Boards, Govt. of India or State Govt. Enterprise campuses, etc.),
- NGOs working on water and sanitation, urban development and slums, health and environment,
- Representatives of unions of safai karamcharis, sewerage sanitary workers, recycling agents / kabaris, etc

- Representatives from private firms/contractors formally or informally working in the sanitation sector (e.g. garbage collectors, septic tank de-sludging firms etc.)
- Representatives from educational and cultural institutions
- Any other significant or interested stakeholders

Some of the elected Members of the ULB must be members of the Task Force. The Task Force should be headed by the Mayor with the executive head (e.g. Municipal Commissioner) as the Convenor. Cities can also choose to appoint, as a part of the Task Force, City Sanitation Ambassadors chosen from eminent people who enjoy outstanding credibility and influence amongst the city's leadership and population. Political leadership must be involved from all political parties and persuasions so that the sanitation campaign has the full support of all stakeholders and no opposition from any group. One of the things to be considered by the Task Force is to organize a multi-stakeholder, multi-party meeting in the preparatory stage, and take a formal resolution to make the city 100% Sanitized, and publicize the same, with all signatories.

- b) The City Sanitation Task Force will be responsible for:
- Launching the City 100% Sanitation Campaign
- Generating awareness amongst the city's citizens and stakeholders
- Approving materials and progress reports provided by the implementing agency, other public agencies, as well as NGOs and private parties contracted by the Implementing Agency, for different aspects of implementation (see below)
- Approving the City Sanitation Plan for the city prepared by the Sanitation Implementation Agency after consultations with citizens
- Undertaking field visits from time to time to supervise progress
- Issue briefings to the press / media and state government about progress
- Providing overall guidance to the Implementation Agency
- Recommend to the ULB fixing of responsibilities for city-wide sanitation on a permanent basis

The Task Force should meet formally frequently (at least once in two months) in the initial stages to monitor and guide the process of planning and implementation. At a later stage, meetings and field visits can be on an as-needed basis. In some cities, the City Sanitation Task Force may divide up roles and responsibilities amongst smaller sub-committees to focus on different aspects closely while keeping the overall character of the Task Force intact.

c) The Task Force should appoint one of the key agencies, preferably the ULB, to become the City Sanitation Implementing Agency for the CSP for the city. This agency will be responsible for day-to-day coordination, management and implementation of the sanitation programs on a city-wide basis. The agency will coordinate with and agree on joint actions with other public agencies, and contract in and supervise the services of NGOs (through Memorandum of Understanding) and private parties (through contracts) for preparing and disseminating materials for IEC, conducting baseline surveys and stakeholder consultations, maintaining a

comprehensive GIS-based database, implementing physical works, letting out and supervising O&M management contracts, etc.

The ULB should formally notify and publicize the appointment of the City Sanitation Task Force and Implementing Agency.

d) Assign Institutional Responsibilities: One of the key gaps in urban sanitation is lack of clear and complementary institutional responsibilities. This comprises two aspects:
 a) roles and responsibilities institutionalized on a permanent basis; and b) roles and responsibilities for the immediate campaign, planning and implementation of the City's Sanitation Plan – based on which the former can be outlined, experimented with, and finally institutionalized.

The Sanitation Task Force will recommend the assigning of permanent responsibilities for city-wide sanitation to the ULB including the following aspects:

- The ULB to have final overall responsibility for city-wide sanitation, including devolving power, functions, functionaries and funds to them
- Planning and Financing including State Government and Govt. of India schemes
- Asset creation including improvement, augmentation
- Operations and Management (O&M) Arrangements for all network, on-site, individual, community and public sanitation facilities and systems (including transportation up to final treatment and disposal of wastes)
- Fixing tariffs and revenue collections in order to make O&M sustainable
- Improving access and instituting special O&M arrangements for the urban poor and un-served populations in slum areas and in mixed areas
- Adopting standards for
 - Environment Outcomes (e.g. State Pollution Control Board standards on effluent parameters),
 - Public Health Outcomes (e.g. State Health Departments),
 - Processes (e.g. safe disposal of on-site septage) and
 - Infrastructure (e.g. design standards) (PHEDs/ Parastatals), and
 - Service Delivery standards (e.g. by Urban Development departments)
- Adoption of Regulatory roles including environmental standards (e.g. State Pollution Control Boards), health outcomes (e.g. Health Departments).
- Measures in case specific stakeholders do not discharge their responsibilities properly
- Training and Capacity Building of implementing agency and related personnel
- Monitoring of 100% Sanitation involving multiple stakeholders

While the responsibilities for each of the above roles may temporarily vested in one or the other stakeholders, for reasons of efficiency and effectiveness during the campaign period, the Task Force will recognize that these roles must be permanently institutionalized in the ULB and amongst other stakeholders. Therefore, the recommendation of later permanent roles may be different from those in the Campaign Period.

In many cases, Acts, rules and regulations exist but these are not enforced. This may be a good entry point to start on roles and responsibilities (also see Section 3.5 below for details). The roles and responsibilities for the Sanitation Plan implementation are outlined in the relevant section below – this will also be the task of the City Sanitation Task Force.

Baseline Data Collection and Creating Database/GIS

In parallel with the preparatory steps, the ULB / Implementing Agency will collate the information on sanitation that exists with the ULB itself and other agencies in the city. This will include demographic, institutional, technical, social and financial information. In addition, it will commission a private agency or an NGO or both to carry out primary data collection on the missing items - the surveys will use a mix of structured and participatory techniques. All the data collected must be amenable to linking to an existing or proposed Geographic Information Systems (GIS) for the city. (If this does not exist, setting up a GIS for water, sanitation and solid waste management must be finalized and putting into immediate implementation). The baseline will be over-laid on plans for development of new areas and colonizations, based on the Master Plan of the City. If a Master Plan does not exist, appropriate projections will be made after consulting real estate development public authorities as well as private agencies. The combined database from the above exercise will form the basis for planning and implementing the campaign. Since such data collection can be time-consuming, ULBs must start very early on this activity and start using data as and when it starts becoming available. One of the methods of making the data collation and database preparation process efficient and adaptive to planning and implementation actions, is to break it down into simplified components like:

Stage I Data: - use for initial preparatory actions

- ULB and PHED data on institutional parameters (organizational structure, investments and assets, personnel, O&M systems and finances),
- Census 2001 data on households, JNNURM/UIDSSMT or other schemes' data compiled for poor households
- ULB data on public sanitation and available crude data on conveyance and treatment.

Stage II Data: - use for IEC Campaign, and planning 100 percent access on a city-wide basis.

- Refined secondary data on existing conditions of disposal and conveyance (sewers, on-site pits, availability and use of suction machines, etc.) and treatment systems (landfill sites, recycling, etc.);
- Baseline primary data on household / unit arrangements for sanitation and waste disposal, and hygiene behaviour and perceptions about service providers
- Baseline primary data on citizens' demands and perceptions about sanitation arrangements, outcomes, and health and environmental linkages

Stage III Data: - Use for planning and implementing institutional changes, social mobilization and upgradation, improvements and new investments in assets and systems of O&M, M&E, etc.

- Primary data based on sample condition assessment surveys (see parameters above) of arrangements, disposal and treatment systems
- Institutional Assessment detailed information on existing and required skills and capacities, systems and procedures, financial position
- Social personal hygiene and public health behaviour and practices
- Economic Surveys on willingness to pay for different options
- Financial Costs of O&M, Revenue and tariffs, systems of community management of community and neighbourhood level systems

Usually, a baseline study needs to be completed in about three to four months (Class II and above), depending on the size of the city and complexities involved. About two months is adequate to complete baseline in Cities of Class III and below. Combining participatory approaches with institutional and other stakeholders, with observation and community and household interactions using checklists, schedules, etc., makes the data collection efficient and economical. It may be noted that the baseline is not a census of all properties and households/units. It is rather an assessment, usually using sampling to cover all representative types of situations obtaining in the city, in order that progress can be measured at later points in time comparing with the baseline. Most immediately, baseline studies are required for planning the City-wide sanitation plan. It is advisable to cover all aspects during the baseline: technical, institutional, social, economic, financial, urban poor etc. and be cautious that none of the aspects are left out. Even if the baseline studies are completed in a short period - this is necessary so that planning processes are not kept on hold for long - further data collection and updating of records must continue later on too, and become a part of the ULB/Implementation Agency's implementation management system.

Awareness Generation and Launch Of 100% Sanitation Campaign

After a reasonable amount of data (See above) has been collated from secondary and primary sources, and the Task Force is in place, the first task will be of launching a citywide 100% Sanitation Campaign. This will be ideally timed with Govt. of India national media campaign, and a state wide campaign that the state government may choose to launch. If required, a professional media agency may be commissioned to work closely with the Task Force and Implementing Agency to package the messages and direct them effectively to different stakeholder groups in the city. NGOs may be commissioned to do group messaging and door-to-door campaigns with special stakeholders like slum-dwellers etc. Schools and Colleges can play a special role in propagating the messages in their institutions as well as in their families.

At the city level, it will be advisable to launch the campaign as a time-bound program that all stakeholders need to work towards. Appropriate media like Newspapers, TV and city and ward / neighbourhood level programs (sweeping streets, health camps, tree-planting etc.) may be engaged. There should be an intensive first round followed by successive rounds that may be focused on specific aspects and / or special type of stakeholders, or neighbourhoods. One of the methods that some cities or neighbourhoods may try out is to declare Clean City Week every year or half-year. The Task Force should enlist the participation of leaders and eminent persons to lead the campaigns. The messages and



media / campaign strategy for each of the successive rounds must be planned carefully. There are a number of other programmes (e.g. health, education, HIV / AIDS, etc.) that have media campaigns. The 100% Sanitation campaign should be coordinated with such agencies so that maximum multipliers can be gained by collaborative and calibrated working of these initiatives. Wherever possible, messages should be put in other campaigns to reinforce the impact.

Specifying Legal and Regulatory Institutional Responsibilities

Even though many of the municipal laws refer to sanitation responsibilities of households and ULB, etc. these are not clearly laid out or comprehensive. The Implementing Agency will examine the law and rules in this regard and make recommendations for the Task Force to make the rules explicit regarding:

- Safe sanitary arrangements at unit level (household, establishment)
- Designs and systems for safe collection
- Norms for transport / conveyance
- Treatment and final disposal

The recommended standards and guidelines are available from CPHEEO and Environment Acts. These will need to be formally adopted including laying down the monitoring and regulatory responsibilities, and incentives and disincentives for doing so. This must include the system of user charges / fees, fines and community pressure mechanisms to help people move to desirable public health behaviour. Actions to be taken in case of institutional failure will also be specified clearly.

All the above recommendations will be considered by the Task Force and recommended to the ULB for appropriate action. Executive changes may be implemented immediately whereas legal matters may be referred to the State Government if not within the ambit of the ULB. Expert advisors on the Sanitation Task Force will be the resources to utilize for this task – matters may be discussed with national or state level agencies if standards are not clear, or need to be further detailed. Interim and working standards may suffice in many cases to immediately adopt and implement, whereas the codification and detailing may be undertaken in parallel. In all cases, the Task Force will strive to make standards

based on the goals of total or 100% Sanitation, and as much as possible, simple and easy for ULBs and public to understand and adhere to.

Planning and Financing

The task of planning and finding sources of funding will be under the oversight of the Task Force but carried out by the Implementing Agency. The Agency will take assistance from consultants etc. to help prepare the plans for the city for different aspects including institutional, social, technical, financial, etc. At all stages, the plans must be comprehensive and cover the whole of the city, and not just one part or aspect. Therefore, a number of innovative measures may have to be used.

The Government of India's JNNURM, UIDSSMT and BSUP are the key programs to source funding resources (others being special programs for the North-East and satellite towns schemes, etc.), apart from State Government's own resources. Planning should be aligned to the above funding sources (as well as what customers are willing to pay by way of connection fees, user charges, etc.), and seek to derive maximum benefits from these sources for achieving 100% Sanitation. The City and States will also need to explore other sources of finance to fund their sanitation plans since Govt. of India scheme resources may not be enough to fulfil all requirements. In this context, it may also be noted that investments will need to financially sustainable and hence, cities may lay down options (different levels of infrastructure and service levels) depending what they can afford in the medium term, and what will prevent them from getting trapped in high loan repayment liabilities, or O&M management expenditure bubble at a later point in time.

The City Sanitation Plans (CSP) must be prepared and presented by the Implementing Agency and presented to the Task Force for approval. While the exact contents of the CSP may vary depending on the local situation, the following aspects must be covered:

- Plan for Development of Institutions / Organizations responsible for sanitation, and their roles and responsibilities;
- Plan for ensuring 100% Sanitation Access to different socio-economic groups, and related O&M systems (including improving existing systems, supplementary facilities, O&M Management contracts using PPP and community management, etc.);
- Costs and tariffs for service provision;
- The issue of collection of dues needs to be emphasised as a means of ensuring accountability as well as financial sustainability
- Investments and O&M systems for new development areas / market and public places, and residential and other habitations
- Plan for safe collection, conveyance and treatment of sanitary wastes
- Plan for M&E of implementation, and of achieving and sustaining 100% Sanitation (including use of community monitoring, etc.)
- Issues such as diminishing water resources, impact of climate change, use of low energy intensive onsite/decentralised wastewater treatment technologies, distributed utilities etc.
- Manpower issues such as adequate remuneration, hazardous nature of work,

employment on transparent terms and conditions, use of modern and safe technology, provision of adequate safety equipment such as gloves, boots, masks, regular health checkups, medical and accident insurance cover etc.

Plans for other aspects significant locally

Some of the bigger cities may choose to prepare the plans on a regional / district or wardwise basis. This may be a good way to mobilize stakeholders of the respective wards / regions and generate competition. However, at all times, it must be emphasized that such divisions are only limited to convenience in execution and monitoring, and sanitation must be a city-wide achievement. Hence, the Task Force will have a special role in ensuring the integration of all the regional or functional components of the CSP as outlined above.

In order to promote wide ownership reflecting the collective and collaborative spirit of the sanitation endeavour, the CSP should be presented to the public for feedback at different stages of its development. Notwithstanding the inclusive and representative character of the City Sanitation Task Force, it is to the city's benefit if more and more city stakeholders are able to contribute to the Plan. Holding of at least one, preferably two (draft and final stages) public meetings, needs to be considered by the Task Force.

Technical Options

Technology choice poses a major problem in Indian cities not only because of lack of information on what exists at present, but also because of the constraints of land, tenure, and low budgetary priority accorded to sanitation historically. This leads to estimations of investments using conventional technologies that are mind-boggling and paralyze any incremental action. The key issues about Technical Options are:

- Technologies come with attendant capital and O&M costs, and management systems that may or may not be appropriate to a city's situation at a given time. Very often we can fall into the trap of planning systems that are difficult to finance, institutions are not ready and geared to operate and maintain them, and people are not ready or willing to adopt these and pay for service provision. Also, technology is linked to a whole set of environmental, behavioural and cultural parameters that need be taken into account. A holistic approach is required for technology choice.
- Approach to difficult existing situations (e.g. dense areas with on-site systems draining into nalis) is to think about upgradation and retro-fitting options to make the systems sanitary and safe and perform to their existing capacity first.
- Technologies need to be incremental for instance, even if sewers are ideal for dense settlements, they may not be feasible to immediately execute. In such cases, interim (e.g. on-site, or community septic tanks or latrines if space is a constraint) systems may be planned with a view to later upgrade these to more sophisticated system (e.g. sewerage).
- Technologies and attendant systems for new development areas can be planned in advance. This results in early investments leading to cheaper and more sustainable systems in the future.
- Technologies are only a means and not an end in itself. They are to enable sanitary and safe confinement and disposal and hence, the approach to design must be keeping these ends in view.

 Technologies that promote recycle and reuse of treated wastewater should be encouraged.

There is considerable information available on existing options as also the experience with some new systems and processes – see for instance, "The Guide to Decision making – Technical Options for Urban Sanitation in India" (Draft, WSP SA, 2007). These need to be reviewed by the Implementing Agency and where needed, specialist advice sought from state and national level agencies, and the private and community sectors. Exposure visits and training programs will be required to take an informed decision. Finally, customers are at the heart of such systems – households and establishments must be consulted on expressing their preference after being made aware of the pros and cons of each of the systems under consideration.

Technology choice again should address the city-wide nature of the challenge – a mix of options must add up to addressing the issue completely, not just in bits.

Finally, technologies need to be planned for the full cycle of arrangements at the unit level, conveyance/transport, and final treatment and disposal into the environment. Any combination of systems that does not lead to the output of 100 % safe collection, conveyance and treatment, will not serve the purpose of achieving 100% Sanitation for the city.

Situation Analysis Studies show that the bulk of decision-making and unit level investments are made by households and establishments – with more focus on arrangements, and less attention to disposal. Public agencies are concerned with disposal and treatment but boundaries of roles and responsibilities are not clear. In many if not most of the cases, public agencies are also unable to accord much attention to the public infrastructure and systems for disposal and treatment (e.g. sewerage systems, sewage treatment plants), or leave it for the households to resolve their problems (e.g. cleaning of septage). Thus issues of O&M and sustainability need to be kept in view when planning for technology options (also see below).

Reaching the Un-Served Populations and the Urban Poor

Experiences from many Indian cities show that a differentiated approach is necessary to extend good quality sanitation services to the poor – the group that suffers the most in terms of adverse impacts on health and lost earnings.

Participatory approaches are needed to consult the poor settlements and involve them in the process of planning and management of sanitation arrangements. Many settlements may have the necessary conditions to support the provision of individual on-site sanitation arrangements (e.g. as tried out in some pockets in Ahmedabad, etc.) that are ideal, in many others, tenure and legal issues prevent provision of individual toilets and hence CTs are the only way for immediate succour and access (e.g. as is the case with Mumbai, Pune, etc.). In some places, conventional and shallow sewers have also been tried out as alternative to on-site solutions in dense settlements. Examination of legal / tenurial, space and affordability issues in close consultation with communities becomes a key step in planning innovative means that are owned by users and will be sustainably managed by them.

NGOs can play an important role in mobilizing slum communities. Further, when community groups themselves take over the O&M of community facilities, then sustainable services become possible. This is also a way of reducing costs (compared to say, pay and use public toilets) and making services affordable to the poorest of families.

Another segment of population normally without sanitation is those who live in dispersed urban locations not being slums or in groups of houses that have legally not been notified as slums. Innovative approaches are required to extend services to these population groups too.

It may be noted that Public Sanitation is for general public or floating populations whereas CTs are those where an identifiable core group of users exist, even if floating population may occasionally use these facilities.

The Implementing Agency will need to take stock of the legal and non-notified settlements in the city, and in partnership with NGOs and Community Based Organizations (CBOs), initiate a process of collaborative planning and delivery of services. Sanitation services also serve as an entry point for improved water supply, drainage improvements and community managed solid waste disposal systems – these areas should also be targeted while planning for sanitation is being undertaken.

At least 20% of the funds under the sanitation sector should be earmarked for the urban poor. The issues of cross subsidisation of the urban poor and their involvement in the collection of O&M charges should be addressed.

Finally and not least of all the obstacles, is the mindset of officers of ULBs and other citizens: biases and myths often hinder proper service provision to poor settlements. There must be a concerted effort to raise awareness amongst all stakeholders about the huge health and environmental costs that all have to bear if services are not comprehensively provided to all citizens. Two steps are necessary to achieve this change in mindsets: a) orientation programs must be conducted for ULB functionaries; and b) setting up permanent systems in ULBs, complemented with agreements with NGOs and CBOs, to deliver services and monitor outcomes on an urgent basis to all poor households, as well as others who are either un-served or have unsanitary arrangements for defecation, collection or disposal.

Operation & Maintenance and Service Delivery Systems

Institutional systems for O&M are at the heart of any successful set of systems and procedures to achieve and sustain 100 % sanitation. As outlined above, responsibilities for institutions are weakly defined and even if stipulated hardly followed properly.

Therefore, existing systems must be examined with the question: which agency or institution is responsible for operating and maintaining the system or a part thereof? If they do not discharge their responsibilities, what corrective action or recourse exists and who is responsible for this? For new investments similar questions need to be asked so that assets and services do not suffer from lack of proper O&M. A city-wide perspective is

necessary since O&M is required for all parts of the sanitation systems, whether they are to do with excreta removal, or drainage or solid waste management. Assigning institutional responsibility also must go hand in hand with technology selection, design and implementation/creation of assets.

While sewerage systems have limited responsibility of households (from own property to nearest street connection), institutions responsible for the rest of the conveyance systems are faced with a number of personnel, finance and incentives related constraints. These need to be mapped and clearly addressed – even with little resources; innovations need to be made in the organization responsible (ULB department or PHE unit) to seek immediate remedies while a more systematic planned set of steps to improve O&M may be implemented during the plan.

In most on-site systems, households are left to fend for themselves – often, there is no check on unhealthy and illegal practices such as draining wastes in to nalas and drains. These also need to be brought under the remit of the respective public agency and properly dealt with. Septage clearance services are another area where quick action can be initiated and the necessary fees charged from households.

In drainage and solid waste too, a number of steps can be initiated (some of these have been successfully tried out in solid waste management in many Indian cities) that ensure that O&M and service delivery are proper and in which consumer households also have a stake and roles built in.

Preparing O&M Protocol for each of the sanitation facilities in the city is a good step in this direction, and their adherence needs to be monitored by senior officers, elected representatives and community members.

O&M systems often suffer because customers do not recognize this as a service, and do not pay for the poor service levels. O&M is closely related to the financial sustainability of service provision, and hence, the Implementing Agency must take full stock of the financial implications of improving current and future service levels. These should lead to proposals to the City Task Force, as a part of the CSP, on how to recover or fund the costs of O&M.

Customer complaints and redressal systems are another major area needing attention. One of the important changes that need to be effected amongst the ULB, or service provision agency is to treat citizens as customers of services. Accordingly, complaints, redressal and feedback systems can be instituted for sustained improvements. Preparing proper customer records and taking structured feedback are ways already tried out in other sectors with satisfactory results in improving public services. Providing orientation and training programs, implementing customer relationship systems, and linking O&M performance to personnel performance are ways to examine for implementation of improved service delivery systems.

Finally, in many cases, households and communities may be in a better position to carry out O&M tasks or monitor performance thereof. This approach works specially when

communities have incentives to work together and/or there are considerable externalities of a particular behaviour (individual actions affecting others easily). Maintenance management of CTs, maintaining cleanliness in neighbourhoods, keeping drains and nalas clean, street sweeping, etc. are examples where community groups can easily monitor the performance of service providers. In case of poorer neighbourhoods and slums, some of these tasks may be formally entrusted to local groups too.

Capacity Building & Training

The role of capacity building and training is crucial in achieving and sustaining 100 % sanitation. Because of the historical neglect, the what and how to do of sanitation is limited to a minuscule group of personnel in ULBs / service provider agencies – even these skills run down over time due to little scope for application and sometimes the narrow nature of the specific job. Therefore, two broad kinds of interventions are necessary:

- a) Orientation, building of skills and aptitude for carrying out different types of activities in respect of total sanitation
- b) Designing and implementing working systems in ULBs or service provision agencies to provide the right kind of structures, linkages and organizational systems and environments that utilize the skills and perspectives imparted above.

The task of building capacities is huge – this is compounded by the generally low levels of synthesis and dissemination of existing knowledge and experiences of working with different kind of technologies, management regimes, organizational systems and processes and institutional relationships. Therefore, there is a dual agenda of consolidating and applying existing and new knowledge in a learning-by-doing framework, and building capacities thereon in an adaptive manner that is able to accommodate a range of personnel from different kind of backgrounds. National and State level Resource Organisations including NGOs, need to be brought in by the City Task Forces, to assist in this huge agenda – that needs to be woven closely with the Sanitation Campaign, Planning, Implementation, and Monitoring and evaluation. Similarly, specialist institutions need to be deployed early with assistance of the Union and State Governments, so that the knowledge development on technologies and management regimes is quickly made available for the city to adapt. The role of NGOs will be valuable in training and capacity building for participatory methods and consultation techniques to be used with the urban poor and un-served households.

Two strategies are worth considering in the capacity building agenda: a) bulk training for a range of municipal, NGO/CBO, private sector personnel - right from the start of the campaign in the city; b) Differentiated and specialized training on a demand-basis to personnel in and outside the government over the period of the Sanitation Plan implementation.

One of the common death-knells of training and capacity building is the lack of incentives and organizational environment to practice learnt perspectives and skills. This highlights the need for the Task Force and implementing organizations to plan the training of their personnel in such a manner that their skills can be put to productive use. Agencies from the private sector, public and NGO training and capacity building institutions must be involved in the campaign process to carry out the necessary assessments and help the Task Force plan and devise a strategy for Human Resource Development and capacity development through the implementation cycle, and institute appropriate practices within the institutional framework of the ULB and other stakeholders for the future.

Implementation Management and Monitoring & Evaluation

Implementation Management

The task of Implementation management can prove to be onerous if the planning stages are done in a hurry or are inadequate in taking account of ground reality (including current assets, finances, capacities and availability of suppliers and vendors, and other environmental conditions). While the Implementation Agency will be responsible for overall implementation, it is useful to think about plan implementation and delivery mechanisms for each of the components of the Plan (as outlined in Section 3.6 above). The typical components indicate that there need to be either in-house resources deployed for these tasks (e.g. as in bigger ULBs) or private and NGO service providers need to be contracted or commissioned to carry out the implementation. The following types of skills and competencies are required in these implementation agents:

- Institutions / Organizations Development, and financial (capital and O&M costs, tariffs, ULB finances, etc.)
- Socio-economic and community management
- Urban planning
- Health and environmental linkages to sanitation
- Technical capacities to implement new assets and facilities and set up O&M systems for new development areas
- Monitoring & Evaluation
- Capacities to address plans for other local aspects

Expert institutions, Consultants, NGOs, etc. who were involved in planning, may be considered for participating in and providing Project Management Support to the Implementation Agency. In some of the larger cities, this may be an effective way to achieve efficient implementation of a large-scale sanitation plan for which the city may not have all expertise and management competencies within the ULB, or where many parallel activities are to be implemented leading to shortage of personnel capacities for peaks of activity.

Contracts and their management are crucial in making sure that the implementation is without delays and adheres to appropriate quality standards. Two broad kinds of services are required: hardware related capacities that have to do with implementing physical works and software / process related capacities e.g. social mobilization, institutional development, training, etc. Since the ULB may not have requisite capacities and systems to effectively deal with the challenges of contracting and supervision of contracts, innovations are needed: these include taking assistance from State level agencies in selection and procurement; appointing contractors and consultants on a cost-plus basis;

lump-sum or unit-price contracts for other components and so on. Memoranda of
Understanding (e.g. with NGOs) to arrive at a common shared understanding of
responsibilities and deliverables are another tool to address some of the components.
Finally, training in contract management may be an area that core members of the
Implementing Agency need to go through if requisite capacities are deemed to be wanting.
The presence and guidance of the City Sanitation Task Force will be an assurance of
quality procedures, fairness, and focus on deliverables. Supervision and M&E of
implementation will provide other methods of mid-course correction.

Monitoring & Evaluation and Supervision of Progress

The City Sanitation Task Force and the Implementing Agency need to think about M&E of the implementation as an integral part of the City Sanitation Plan (CSP). The mechanisms to be used in monitoring implementation include:

- Administrative data from Implementing Agency Reports and from the implementing consultants, contractors
- Task Force field visits to different parts of the city
- NGOs working in different parts of the city, e.g. an NGO working in certain slum pockets may be able to monitor changes in the relevant settlements since they work there and visit and interact with people regularly. A Memorandum of Understanding or undertaking to provide additional expenses may be required from the ULB, whereas some NGOs, especially those working on health, may be collecting some of this data as a part of their own work;
- Community Groups asked to provide structured feedback to the implementing agency and the Task Force on progress of implementation and the condition in their respective neighbourhoods
- Independent third party assessments
- Concurrent Evaluations by a Survey Agency

An important aspect of monitoring and evaluation is to make the findings and reports available to the public so that feedback and suggestions can be received from other stakeholders. Sharing key features in monthly Task Force meetings and press briefings are also another way of mobilizing city stakeholders and eliciting their cooperation.

Evaluation of 100% Sanitation Status

The mechanisms and systems used for M&E often determine the quality of assessments of results as well as to a large extent the responses of different stakeholders. Section 4 of the Chapter on National Award Scheme for Sanitation for India Cities lists draft M&E indicators in terms of output, process and outcome related parameters.

While the Task Force and Implementing Agency may use a combination of mechanisms suggested above for implementation, for evaluation of 100% Sanitation Milestone achievements, a number of tools can be considered:

- A mix of Self-Assessment by the City Sanitation Task Force based on Implementation Agency data, citizens' groups feedback, and primary Field Visits;
- Independent Report Cards and Evaluation Missions commissioned by the City Task Force and/or mounted by the State Government
- Cross-city monitoring with participation of State level and other-city stakeholders
- Govt. of India monitoring missions and independent agencies

Experiences from other sectors shows that multi-stakeholder M&E systems, using simplified formats to assess objective indicators are likely to build a shared ownership, and economically produce reliable results. Therefore, the City Sanitation Task Force may consider publicizing, as a part of the initial awareness generation campaign, the key indicators that all stakeholders should monitor, and devise a simplified mechanism to collect data and report on.

Introduction of competitive reward schemes within cities are another way to improve the quality of monitoring and evaluation of 100% Sanitation achievements.

Monitoring of 100% Sanitation Status

In order to ensure that after the city or parts thereof do not slip back after the achievement of the milestone, there need to be systems instituted to ensure that this is not a one-time achievement but rather a permanent change in behaviour, systems and practices.

Again, multiple stakeholders need to be involved in this process, while the ULB or the Task Force may take the lead in doing so. The mechanisms to institute sustenance of change include:

- ULB Roles in monitoring processes, outputs and outcomes: the ULB will need to assume leadership and institutionalize the means of monitoring the 100% Sanitation Status. This will be closely tied to New Investments and O&M roles and responsibilities within the ULB divisions, but it is recommended that a unit separate from the above units is made responsible for the overall outcomes of the city's achievements and their sustenance. The ULB will also be able to do this more effectively if it involves other government agencies (Environment, Health related within and outside its own organization) NGOs, CBOs, the urban poor etc.
- The role of Citizens' Groups in monitoring on a day-to-day basis is invaluable and should be mobilized especially for the protection of neighbourhoods, incremental improvements, as well as immediate reportage of any deviance that needs solutions. At the overall city level of course, the erstwhile monitoring of implementation will transform into adding the responsibilities relating to sustained change at the ground level.
- The best method of sustaining change is to regularly collect formal data and informal information and feedback, and make it public so that there is pressure created equally on the public agencies, private service providers, as well as households and communities, to keep to sustained practices. Rewards again serve as triggers for sustenance and in many cases, also to make improvements that will earn credit to the city. As the Rewards Section (below) outlines, there are a number of other indirect

benefits that accrue to cities becoming 100 percent sanitized and making constant improvements.

City Reward Schemes

Cities can institute their own reward schemes to incentivise local stakeholders to participate in the process of improvements for reaching 100% sanitation. Rewards could be given following the national guidelines on an area basis. For example, the following could be units for rewards:-

- a) Municipal Wards;
- b) Colonies or Residents' Associations;
- c) Schools, colleges and other educational institutions
- d) Market and Bazaar Committees,
- d) City-based institutions or localities e.g. Railway stations, Bus Depot, Office Bhawans, etc.
- e) Other locations and institutions that may be in the city.

The reward may contain a nominal amount of money for further upkeep and maintenance of sanitary systems, improvements in infrastructure targeted to better health and environment, as also special purposes like holding Environment Fairs, Health Camps, etc. A scroll of honour, public function to accord recognition, and rating of wards may also be considered as a part of rewards.

While such rewards are being instituted, it must be emphasized that the responsibility of any group or locality is not over by just its own achievements. It must be a city-wide enterprise and no one will be safe and benefit from a health life and environment unless everyone in the city area and its surroundings moves to improved personal and community practices of 100% sanitation.

The leadership of municipal ward elected representatives, local community leaders, citizens' groups and community based organizations, will be a crucial in achieving and sustaining 100 % sanitized wards or localities. They must be mobilized to compete in a healthy manner in achieving sanitation.

{Therefore, the reward scheme should become important in local community civic affairs, politics, and valorize the local economy too.}

Cities with Special Institutions and Characteristics

- i) There may be cities that have special institutional arrangements: cities where ULBs are not in place or have responsibilities only for a part of the city (other parts coming under a cantonment or a development authority). In such cities, a multi-agency Task Force will need to be created that can plan, guide and monitor the 100% sanitation campaign. It will be crucial that no part of the city is left out and as convenient and efficient, the authorities implement similar measures in their respective jurisdictions.
- ii) Cities where ULBs are only partially responsible for sanitation, other responsibilities

vested in para-statal agencies like PHED / PWD. The City Sanitation Task Force must involve representatives from all agencies involved in sanitation. This will include all agencies responsible for household / unit level sanitation, sanitation and sewerage, water supply, health and environment.

iii) Cities that have unique topographical, environmental features (e.g. hilly or coastal regions), and therefore may be vulnerable to natural phenomena like floods, landslips, earthquakes, etc. Specialist advice may be sought by such cities from expert national and state level agencies, and private firms. Such specialist institutions may be invited to become members in the City Sanitation Task Force, and contribute their specialist knowledge and advice to the process. In cities vulnerable to natural disasters, special measures for sanitation must be explicitly incorporated in their Disaster Preparedness and Mitigation Plan.

If such a plan does not exist, the Task Force must lay out the steps to be taken for the city to cope with such disasters including:

- a) Institutional Roles and Responsibilities for disaster preparedness,
- Incorporation of disaster preparedness in the design and O&M of sanitation arrangements and systems (at household / unit level, in transport and conveyance, and in sewage treatment / disposal),
- c) Emergency measures and rehabilitation measures in the event of disasters,
- d) Building key points from above in public awareness generation campaigns.

Reference and Resource Material

- Manual on Sewerage and Sewage Treatment, CPHEEO, Ministry of Urban Development, Government of India.
- Urban Sanitation in India Planning for a Better Future, Urban Sanitation Planning Guidance Notes, Ministry of Urban Development, Government of India
- WSP-SA (2007). A Guide to Decision-Making: Technology Options for Urban Sanitation in India. Draft for Discussion. Forthcoming.

ASCII (2007). Case Studies on Urban Sanitation from Indian Cities (CD).

Annexure - III

National Award Scheme for Sanitation for Indian Cities

Goal

In order to rapidly promote sanitation in urban areas of the country (as provided for in the National Urban Sanitation Policy and Goals 2008), and to recognize excellent performance in this area, the Government of India intends to institute an annual award scheme for cities. The award is based on the premise that improved public health and environmental standards are the two outcomes that cities must seek to ensure for urban citizens. In doing so, governments in states and urban areas will need to plan and implement holistic city-wide sanitation plans, thereby put in place processes that help reach outputs pertaining to safe collection, disposal and disposal (including conveyance, treatment, and/ or re-use without adverse impacts on the environment in and around the cities). It may be noted that the awards will not recognize mere inputs, hardware or expenditure incurred in urban sanitation but assess how these lead to achievements of intermediate milestones toward the final result of 100 % safe disposal of wastes from the city on a sustainable basis. Cities will need to raise the awareness of city stakeholders (households, establishments, industries, municipal functionaries, media, etc.) since improved sanitation can ensure improved public health and environmental outcomes only if considerable changes in behaviour and practice take place across the spectrum of society.

Concept of Totally Sanitized Cities

A totally Sanitized City will be one that has achieved the outputs or milestones specified in the National Urban Sanitation policy, the salient features of which are as follows:

- Cities must be open defecation free
- Must eliminate the practice of manual scavenging and provide adequate personnel protection equipment that addresses the safety of sanitation workers.
- Municipal wastewater and storm water drainage must be safely managed
- Recycle and reuse of treated wastewater for non potable applications should be implemented wherever possible.
- Solid Waste collected and disposed off fully and safely
- Services to the Poor and Systems for Sustaining Results
- Improved Public Health Outcomes and Environmental Standards

Baseline, Eligibility and Selection Procedure

a) **Baseline and Planning:** First, each of the cities will conduct a survey (based on secondary and primary data sources) and establish a comprehensive baseline with respect to (liquid and solid) waste generation, collection and disposal in the city. This will enable them to place themselves through objective self-assessment, in the

relevant sanitary category (see below). This will form the basis for a City Sanitation Campaign to mobilize all stakeholders, and raise awareness about and priority to 100 % sanitation. Based on the baseline, the city will draw up and implement with support from the State Government and Govt. of India, a comprehensive City Sanitation Plan to address the situation in order to reach the goal of becoming 100% sanitized.

- b) Implementation: The city will implement its City Sanitation Plan in a strategic manner, clearly prioritizing areas that need urgent attention, and implementing long-term plans in parallel. Again, emphasis will be on mobilizing all city stakeholders and raising the importance of behaviour change, practices and installations for safe and sanitary disposal of all wastes of the city on a sustainable basis.
- c) Achievement of milestones: The cities/urban areas that have achieved the sanitation outputs and outcomes described above and have systems and procedures in place to sustain these, will apply to their State Governments (State Urban Development / Municipal Administration Department), for recognition and nomination for the national award.
- d) State-level Verification and Awards: The state government will be fully responsible for supporting and supervising their cities to implementing the above steps, and in this regard, may consider instituting a State-level award scheme to promote competition amongst the urban areas within the state. State Governments will also need to launch state level awareness campaigns.
- e) National Cities' Sanitation Rating: The MoUD, Govt. of India, will commission independent agencies to carry out surveys of all Class I cities (and other cities included under JNNURM) and publish the results nationally as the basis for recognizing performance. In addition, Govt. of India may also request states for recommending cities showing commendable performance, that will be followed by a due verification process.
- f) Criteria for Awards: The National Urban Sanitation Advisory Group, constituted by the MoUD, will be responsible for setting out and revising criteria for the national award. This Committee will also be the final authority in deciding annual awards to applicant cities.
- g) Type of Awards: the award scheme will recognize the achievement of cities at the national level. However, no monetary incentive or reward is envisaged for the award. The award may however include, for city and state representatives, sponsorship to participate in national events, trainings, and exchange and learning visits to other locations.

Rating and Categorization of Cities

The rating of cities in regard to their performance in sanitation improvements will be based on set of objective indicators of outputs, processes and outcomes, as presented in Table (1).

No	Indicators	Points*
1	Ouput-related	50
А	No open defecation sub-total	16
i. 	Access and use of toilets by urban poor and other un-served households (including slums) - individual and community sanitation facilities	4
ii.	Access and use of toilets for floating and institutional populations - adequate public sanitation facilities	4
iii.	No open defecation visible	4
iv.	Eliminate Manual Scavenging and provide personnel protection	4
в	equipment to sanitary workers Proportion of total human excreta generation that is safely collected	4
	(6 points for 100%)	6
С	Proportion of total black waste water generation that is treated and safely disposed off (6 points for 100%)	6
D	Proportion of total grey waste water generation that is treated and safely disposed off(3 points for 100%)	3
E	Proportion of treated waterwater that is recycled and reused for non potable applications	3
Е	Proportion of total storm-water and drainage that is efficiently and	
F	safely managed (3 points for 100%) Proportion of total solid waste generation that is regularly collected	3
•	(4 points for 100%)	4
G	Proportion of total solid waste generation that is treated and safely disposed off (4 points for 100%)	4
н	City wastes cause no adverse impacts on surrounding areas outside	_
	city limits (5 points for 100%)	5
2	Process-related**	30
A B	M&E systems are in place to track incidences of open defecation All sewerage systems in the city are working properly and there is no	4
D	ex-filtration (Not applicable for cities without sewerage systems)	5
С	Septage/sludge is regularly cleaned, safely transported and disposed	
	after treatment, from on-site systems in the city (MAXIMUM 10 marks for cities without sewerage systems)	5
D	Underground and Surface drainage systems are functioning and are	
Е	well-maintained Solid waste management (collection and treatment) systems are efficient	4
	(and are in conformity with the MSW Rules, 2003)	5
F	There is clear institutional responsibility assigned; and there are documented operational systems in practice for b)/c) to e) above	4
G	Sanctions for deviance on part of polluters and institutions is clearly	
2	laid out and followed in practice	3
3	Outcome-related	20
A B	Improved quality of drinking water in city compared to baseline Improved water quality in water bodies in and around city compared	7
	to baseline	7
С	Reduction in water-borne disease incidence amongst city population compared to baseline	6
		, in the second s

Table 1: Indicative Objective Rating Chart for Sanitation in Cities (Draft)

* The marks for the above indicators will be revised every two to three years. Over time, indicators about more stringent conditions e.g. no-urination, or spitting in open/public spaces, etc. will be introduced as indicators. The weights accorded to each category and specific indicators will also be revised.** In this context, bigger cities may consider instituting good practice systems that comply with ISO (International Standards Organization) and/or BIS (Bureau of Indian Standards) process systems.

 On the basis of the above rating scheme, cities will be placed in different categories as presented in Table (2). National rating survey data will utilize these categories for publication of results.

Table 2: City Colour Codes: Categories

No.	Category	Description
1	Red	Cities on the brink of public health and environmental "emergency" and needing immediate remedial action < 33
2	Black	Needing considerable improvements 34-66
3	Blue	Recovering but still diseased – 67-90
4	Green	Healthy and Clean city – 91 – 100

- On the basis of plans prepared and implemented, cities will be able to measure the results of their actions, and be able to clearly chart out their improvements over time compared to their baseline situation.
- On achievement of remarkable results, i.e. coming into the Green category (Healthy and Clean City), cities will typically become eligible for the national award. Other cities showing remarkable incremental performance or selective achievements may also be given special or honorary awards. Cities in different size-classes may also be considered for category-wise awards.
- Based on results of the Rating survey and selection of awardees, cities will be invited to participate in a National Urban Sanitation Award ceremony.

Special and Honorary Awards

In order to mobilize cities to participate in the competition, two strategies will be followed:-

- Institution of award schemes as a part of State Strategies
- Institution of special and honorary awards to cities showing spectacular performance in selective dimensions or substantial increments

Special Awards: will be given to recognize special achievements, especially in the initial stages, since achievement of 100% sanitation may be difficult especially in the initial stages. For instance, a city may demonstrate remarkable performance in the area of stopping open defecation although 100 percent treatment may be constrained because of lack of time and resources within a given year. In such cases of selective performance, awards will be instituted – in the initial years, these awards will be to accord recognition to:

- Stopping Open Defecation
- Remarkable performance in awareness generation
- Institutional assignment and implementation of operational procedures
- Mobilization of community organizations or non-government agencies in sanitation campaigns

Honorary Awards for Exemplary Performance: It may be difficult for many urban areas to immediately show all-round performance in sanitation. Therefore, cities showing maximum overall improvements in a given year, compared to their baseline situation, may also be given an award with a view to recognition of incremental efforts made.

If State strategies incorporate award schemes, many of the above category of performers will be pre-selected from states, and sent up for the national competition.

Funding

- a) The Ministry of Urban Development, Govt. of India, will fund the national rating surveys, and bear the expenses for organizing the annual national Award Presentation Ceremony.
- b) Cities will utilize funds that they are eligible for, following guidelines, under the Govt. of India-assisted (JNNURM, UIDSSMT, VAMBAY etc.). State Government schemes may also supplement funds for the purpose to their cities.
- c) The Government of India will support the cities and State Governments' efforts by i) launching a national communication campaign for awareness generation; ii) providing technical assistance and guidance (Guidance Notes, training and capacity building, etc.) for cities; iii) Providing funding support from Govt. of India-assisted schemes, where provided for; and iv) Funding the national rating of cities' surveys and annual award ceremony.





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असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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अधिसूचना

नई दिल्ली, 8 अप्रैल, 2016

का.आ. 1357(अ).—ठोस अपशिष्ट प्रबंधन नियम, 2015 का प्ररुप भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. सा.का.नि.451 (अ) तारीख 3 जून, 2015 को भारत के राजपत्र भाग II, खंड-3, उप खंड (i) में उसी तारीख को प्रकाशित किए गए थे, जिसमें उनसे प्रभावित होने वाले संभावित व्यक्तियों से नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम 2000 को अधिक्रांत करते हुए उक्त अधिसूचना के द्वारा ठोस अपशिष्ट प्रबंधन नियम, 2015 के प्रकाशन की तारीख से साठ दिनों की अवधि की समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किए थे।

उक्त राजपत्र की प्रतियां जनता को तारीख 3 जून, 2015 को उपलब्ध कराई गईं थीं;

निर्धारित अवधि के भीतर उक्त प्रारूप नियमों पर प्राप्त आपत्तियों तथा टिप्पणियों पर केन्द्र सरकार द्वारा सम्यक रूप से विचार किया गया था;

पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, 6 और 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम, 2000, उन बातों के सिवाय अधिक्रांत करते हुए जिन्हें ऐसे अधिक्रमणों से पहले किया गया है या किए जाने का लोप किया गया है, केन्द्रीय सरकार ठोस अपशिष्टों का प्रबंधन करने के लिए निम्नलिखित नियम बनाती है अर्थात् :

1. संक्षिप्त नाम और प्रारंभ.–

(1) इन नियमों का संक्षिप्त नाम ठोस अपशिष्ट प्रबंधन नियम, 2016 है।

(2) ये राजपत्र में इनके प्रकाशन की तारीख से प्रवृत्त होंगे ।

2. लागू होना- ये नियम प्रत्येक शहरी स्थानीय निकाय, शहरी क्षेत्रों के विस्तार, भारत के महारजिस्ट्रार और जनगणना आयुक्त द्वारा यथा घोषित जनगणना नगरों, अधिसूचित क्षेत्रों, अधिसूचित औद्योगिक नगरी, भारतीय रेल के अधीन क्षेत्रों, विमानपत्तनों, वायुयान बेस, बंदरगाह और हारबर, रक्षा स्थापनाओं, विशेष आर्थिक जोन, राज्य और केन्द्रीय सरकारों के संगठनों, समय-समय पर क्रमश: राज्य सरकार द्वारा यथा अधिसूचित तीर्थ, धार्मिक तथा ऐतिहासिक महत्व के स्थानों और जिसमें औद्योगिक अपशिष्ट, परिसंकटमय अपशिष्ट, परिसंकटमय रसायन, जैव चिकित्सा अपशिट, ई-अपशिष्ट, सीस-अम्ल बैटरियां और रेडियो सक्रिय अपशिष्ट पर्यावरण (संरक्षण) अधिनियम, 1986 के अधीन अलग से बनाए गए नियमों के अधीन आते हैं, के सिवाय प्रत्येक घरेलू, सांस्थानिक, वाणिज्यिक और किसी भी अन्य गैर-आवासीय ठोस अपशिष्ट जनित्रों पर लागू होंगे:-

3. **परिभाषाएं-** (1) इन नियमों में, जब तक कि संदर्भ से अन्यथा अपेक्षित न हो,- (1) **''वातजीवी कम्पोस्टीकरण''** से ऑक्सीजन की विद्यमानता में जैविक पदार्थ का सूक्ष्म जैवकीय विघटन अंतर्वलित कोई नियंत्रित प्रक्रिया अभिप्रेत है;

- "अवायुजीवी उपचारण" से ऑक्सीजन के अभाव में जैविक पदार्थ का सूक्ष्म जैवकीय विघटन अंतर्वलित कोई नियंत्रित प्रक्रिया अभिप्रेत है;
- "प्राधिकार" से यथास्थिति, राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा किसी प्रसुविधा के प्रचालक या शहरी स्थानीय प्राधिकरण या ठोस अपशिष्ट के प्रसंस्करण और निपटान के उत्तरदायी किसी अन्य अभिकरण को दी गई अनुज्ञा अभिप्रेत है;
- **''जैविक रूप से अपघटित अपशिष्ट''** से कोई ऐसी कार्बनिक सामग्री अभिप्रेत है जिसे सूक्ष्म जीव द्वारा सरलतर टिकाऊ सम्मिश्रण में निम्नीकृत किया जा सकता है;
- "जैविक मिथेनीकरण" से ऐसी प्रक्रिया अभिप्रेत है जिसमें मिथेन से भरपूर जैव गैस का उत्पादन करने के लिए सूक्ष्मजीवी क्रिया द्वारा कार्बनिक पदार्थ का इंजाइमी अपघटन को अपरिहार्य बनाता है;
- "ब्रांडस्वामी" से कोई व्यक्ति या कंपनी अभिप्रेत है जो किसी रजिस्ट्रीकृत ब्रांड लेवल के अधीन कोई वाणिज्यिक विक्रय करता है;
- 7. "मध्यवर्ती परिक्षेत्र" से ऐसा विकास रहित परिक्षेत्र अभिप्रेत है जिसमें 5 टीपीडी से अधिक की संस्थापित क्षमता वाली ठोस अपशिष्ट प्रसंस्करण तथा निपटान सुविधा के चारों ओर अनुरक्षित किया जाएगा। इसे ठोस अपशिष्ट के प्रसंस्करण तथा निपटान संबंधी सुविधा के लिए आवंटित कुल क्षेत्र के भीतर अनुरक्षित किया जाएगा;
- 8. 'भारी मात्रा में अपशिष्ट उत्पादक" से अभिप्रेत है और इसके अंतर्गत औसतन 100 कि.ग्रा. प्रतिदिन की दर से अधिक अपशिष्ट उत्पादित करते हैं तथा इनसे केन्द्रीय सरकार के विभागों अथवा उपक्रमों, राज्य सरकार के विभागों या उपक्रमों, स्थानीय निकायों, सार्वजनिक या प्राइवेट सेक्टर की कंपनियों, अस्पतालों, नर्सिंग होम, स्कूलों, कॉलेजों, विश्वविद्यालयों, अन्य शैक्षिक संस्थाओं, छात्रावासों, होटलों, वाणिज्यिक स्थापनाओं, बाजारों, पूजा स्थलों, स्टेडियमों और खेल परिसरों द्वारा अधिकृत भवन भी है;
- "उप-विधि" से स्थानीय निकाय, जनगणना शहर और अधिसूचित क्षेत्र टाउनशिप द्वारा, अपने अधिकारिता वाले क्षेत्र
 में इन नियमों को प्रभावी ढ़ंग से कार्यान्वित करने को सुविधाजनक बनाने के लिए, अधिसूचित नियामक ढांचा अभिप्रेत है;
- 10. **"जनगणना नगर"** से भारत के महारजिस्ट्रार और जनगणना आयुक्त द्वारा यथा परिभाषित शहरी क्षेत्र अभिप्रेत है;

- 11. "ज्वलनशील अपशिष्ट" से प्लास्टिक, काष्ठ लुगदी आदि जैसी क्लोरोनीकृत सामग्री को छोड़कर गैर-जैवअवक्रमणीय, गैर-पुनर्चक्रणीय, गैर-पुन:उपभोज्य, गैर-परिसंकटमय ठोस अपशिष्ट अभिप्रेत है जिनका 1500 किलो कैलोरी प्रति कि.ग्रा. से न्यूनतम कैलोरिफिक मान हो;
- 12. "**कम्पोस्टीकरण"** से जैविक पदार्थ का सूक्ष्मजीवी अपघटन अंतर्वलित की एक ऐसी नियंत्रित प्रक्रिया अभिप्रेत है;
- 13. 'ठेकेदार'' से ऐसा व्यक्ति या फर्म अभिप्रेत है जो कोई सेवा करने के लिए या सेवा प्रदाता प्राधिकारी के लिए कार्य करने के लिए सामग्री या श्रम प्रदान करने की संविदा करता है या करती है;
- 14. ''सह प्रसंस्करण'' से प्राकृतिक खनिज संसाधनों और औद्योगिक प्रक्रियाओं में जीवाश्म ईंधनों को प्रतिस्थापित करने या उन्हें अनुपूरित, दोनों को करने के लिए कच्ची सामग्री के रूप में या ऊर्जा के स्रोत के रूप में 1500 किलो कैलोरी से अधिक कैलोरिफिक मूल्य वाले गैर-जैव अवक्रमणीय और गैर-पुनर्चक्रणीय ठोस अपशिष्ट का उपयोग अभिप्रेत है;
- 15. "विकेंद्रित प्रसंस्करण" से जैव अवक्रमणीय अपशिष्ट के प्रसंस्करण को अधिकतम करने के लिए बिखरी हुई सुविधाओं की स्थापना और उत्पादन के स्रोत से निकटतम पुनर्चक्रण योग्य सामग्रियों की प्रतिप्राप्ति करना अभिप्रेत है ताकि प्रसंस्करण या निपटान के लिए अपशिष्ट का न्यूनतम परिवहन करना पड़े;
- 16. "निपटान" से भूजल, सतही जल, परिवेशी वायु के संदूषण तथा पशुओं या पक्षियों के आकर्षण को रोकने के लिए अनुसूची 1 में यथा विनिर्दिष्ट भूमि पर प्रसंस्करण के उपरांत अवशिष्ट ठोस अपशिष्ट और निष्क्रिय गली का कूड़ा, करकट और सतही नाले की गाद का अंतिम तथा सुरक्षित निपटान अभिप्रेत है;
- 17. ''घरेलू परिसंकटमय अपशिष्ट" से घरेलू स्तर पर उत्पन्न संक्रामक अपशिष्टों जैसे फेंके हुए पेंट के ड्रम, कीटनाशी के डिब्बे, सीएफएल बल्ब, ट्यूब लाइटें, अवधि समाप्त औषधियां, टूटे हुई पारा वाले थर्मामीटर, प्रयुक्त बैटरियां, प्रयुक्त सूइयां, तथा सिरिंज और संदूषित पट्टियां आदि अभिप्रेत हैं;
- 18. "द्वार-द्वार संग्रहण" से घरों, दुकानों, वाणिज्यिक प्रतिष्ठानों, कार्यालयों, संस्थागत या किसी अन्य गैर आवासीय परिसरों से द्वार तक जाकर ठोस अपशिष्ट का संग्रहण करना और जिसके अंतर्गत किसी आवासीय सोसायटी, बहुमंजिले भवन या अपार्टमेंट, बड़े आवासीय, वाणिज्यिक या संस्थागत कॉम्प्लैक्स या परिसरों में भूतल पर प्रवेश द्वार या किसी अभिहित स्थल से ठोस अपशिष्ट का संग्रहण करना भी अभिप्रेत है;
- 19. "शुष्क अपशिष्ट" से जैव-निम्नीकरण अपशिष्ट और निष्क्रिय गली का कूड़ा-करकट से भिन्न अपशिष्ट अभिप्रेत है और जिसके अंतर्गत पुनर्चक्रणीय अपशिष्ट, गैर पुनर्चक्रणीय अपशिष्ट, दाह्य अपशिष्ट और स्वास्थ्यकर नैपकिन और डायपर आदि अपशिष्ट भी है;
- 20. '**'क्षेपण स्थल''** से जिसका स्वास्थ्यकर भूमिभरण के लिए सिद्धांतों को पालन किए बिना ठोस अपशिष्ट के निपटान के लिए शहरी स्थानीय निकाय द्वारा उपयोग की गई कोई भूमि अभिप्रेत है;
- 21. "विस्तारित उत्पादक दायित्व" से पैकेजिंग उत्पादों के जीवन काल के अंत तक पर्यावरण की दृष्टि से अनुकूल प्रबंधन के लिए, पैकेजिंग उत्पादों जैसे प्लास्टिक, टिन, कांच और कॉरूगेटेड बक्सों इत्यादि के किसी उत्पादक के उत्तरदायित्व अभिप्रेत है;
- 22. **''सुविधा''** से ऐसा कोई स्थापन अभिप्रेत है जिसमें ठोस अपशिष्ट प्रबंध प्रक्रियाएं अर्थात् पृथक्करण पुनःप्राप्ति, भंडारण, संग्रहण, पुनर्चक्रण, प्रसंस्करण, उपचार या सुरक्षित निपटान किया जाता है;

- 23. **"जुर्माना"** से इन नियमों तथा/अथवा उप-विधियों के निदेशों के अनुपालन के लिए उपविधियों के अधीन अपशिष्ट जनित्रों या अपशिष्ट प्रसंस्करण के प्रचालकों और निपटान सुविधाओं पर लगाए गए जुर्माना अभिप्रेत है;
- 24. "प्ररूप" से इन नियमों से उपाबद्ध प्ररूप अभिप्रेत है;
- "प्रहस्तन" के अंतर्गत ठोस अपशिष्टों की छंटाई, पृथक्करण, सामग्री की पुन:प्राप्ति, संग्रहण, गौण भंडारण, काटना, गद्रा बनाना, दलन, लदाई, उतराई, परिवहन, प्रसंस्करण तथा निपटान से संबंधित सभी क्रियाकलाप भी हैं;
- 26. ''निष्क्रिय'' से ऐसा अपशिष्ट अभिप्रेत है जो जैव अपघटनीय, पुनःचक्रणीय या दाह्य नहीं है, गली की सफाई तथा सतही नालियों से निकाली गई धुल तथा गाद भी हैं;
- 27. **"भस्मीकरण"** से उच्च तापमान पर अपशिष्ट सामग्रियों को तापीय रूप से निम्नीकृत करने के लिए ठोस अपशिष्ट का जलाना या दहन अंतर्वलित इंजीनियरीकृत प्रक्रिया अभिप्रेत है;
- 28. "अनौपचारिक अपशिष्ट संग्राहक" के अंतर्गत व्यष्टि, संगम ऐसे या अपशिष्ट व्यापारी सम्मिलित है जो पुनर्चक्रणीय सामग्रियों की छंटाई, विक्रय और खरीद से अंतर्वलित है;
- 29. **"निक्षालितक"** से ऐसा द्रव अभिप्रेत है जो ठोस अपशिष्ट के माध्यम से या अन्य माध्यम से रिसता है जिसमें उसमें घुली हुई या निलंबित सामग्री का सत्व है;
- 30. "स्थानीय निकाय" से अभिप्रेत इन नियमों के प्रयोजन के लिए और जिसके अंतर्गत म्युनिसपल कॉरपोरेशन, नगर निगम, म्युनिसपल कौंसिल, नगरपालिका, नगरपालिका परिषद, म्युनिसपल बोर्ड, नगर पंचायत, और टाउन पंचायत, जनगणना नगर, अधिसूचित क्षेत्र और भारत के विभिन्न राज्यों और संघ राज्य क्षेत्रों में औद्योगिक नगरी चाहे उसका कोई भी नाम से पुकारा जाए, भी है;
- 31. "सामग्री पुनर्प्राप्ति सुविधा (एमआरएफ)" से ऐसी सुविधा अभिप्रेत है जहां गैर कंपोस्टीय ठोस अपशिष्ट को स्थानीय निकाय या नियम 2 में वर्णित कोई अन्य अस्तित्व या इसमें से किसी के द्वारा प्राधिकृत कोई व्यक्ति या अभिकरण जो अपशिष्ट को प्रसंस्करण या निपटान के लिए उसे परिदान या देने के पूर्व इस प्रयोजन के लिए स्थानीय निकाय या नियम 2 में वर्णित अस्तित्व द्वारा नियोजित अपशिष्ट चुनने वाले, अनौपचारिक पुनर्चक्रणकर्ता या कोई अन्य नियोजित कार्यबल को प्राधिकृत अनौपचारिक सेक्टर द्वारा अपशिष्ट के विभिन्न संघटकों से पृथक्करण, छंटाई या पुनर्चक्रण योग्य की पुनर्प्राप्ति की प्रसुविधा है;
- 32. "अजैविक निम्नीकरण योग्य अपशिष्ट" से कोई ऐसा अपशिष्ट अभिप्रेत है जिसका सूक्ष्म जीव द्वारा सरलतर स्थायी यौगिक में निम्नीकरण नहीं किया जा सकता है;
- 33. "सुविधा का प्रचालक" से ऐसा व्यक्ति या अस्तित्व अभिप्रेत है जो ऐसे ठोस अपशिष्ट के प्रहस्तन के लिए सुविधा का स्वामी है या प्रचालित करता है जिसके अंतर्गत स्थानीय निकाय और स्थानीय निकाय द्वारा नियुक्त कोई अन्य अस्तित्व या अभिकरण भी है;
- 34. "प्राथमिक संग्रहण" से पृथक्कृत ठोस अपशिष्ट को उसके उत्पादन के स्रोत जिसके अंतर्गत घर, दुकानें, कार्यालय और कोई अन्य गैर आवासीय परिसर भी हैं से या किसी संग्रहण बिंदु या शहरी स्थानीय निकाय द्वारा विर्निदिष्ट किसी अन्य अवस्थान से संगृहीत करना, उठाना या हटाना अभिप्रेत है;
- 35. "प्रसंस्करण" से कोई वैज्ञानिक प्रक्रिया जिसके द्वारा ठोस अपशिष्ट को पुन: उपयोग, पुन: चक्रित या नए उत्पादों में परिवर्तित करने के प्रयोजन के लिए हथालित करना अभिप्रेत है;

- 36. "पुनर्चक्रण" से पृथक्कृत ठोस अपशिष्ट को अजैव निम्नीकृत नए पदार्थ या उत्पाद या नए उत्पादों का उत्पादन करने के लिए कच्ची सामग्री के रूप में परिवर्तित करने की प्रक्रिया अभिप्रेत है, जिसमें मूल उत्पादों को समरूप किया जा सकेगा या नहीं किया जा सकेगा;
- 37. **"पुनर्विकास"** से जहां विद्यमान भवन और अन्य अवसंरचनाएं जीर्णशीर्ण हो गई हैं वहां उसी स्थल पर पुरानी आवासीय या वाणिज्यिक भवनों का पुनर्निर्माण अभिप्रेत है;
- 38. "कचरा व्युत्पन्न ईंधन (आरडीएफ)" से ठोस अपशिष्ट, जैसे प्लास्टिक, काष्ठ, लुगदी या कार्बनिक अपशिष्ट, क्लोरीनीकृत पदार्थों से भिन्न ठोस अपशिष्ट को सुखाकर कतरन, निर्जलीकरण और संहनन द्वारा गुटिका या रोएं के कप में उत्पादित बाह्य अपशिष्ट प्रभाजी से व्युत्पन ईंधन अभिप्रेत है;
- 39. "अवशिष्ट ठोस अपशिष्ट" से और उसके अंतर्गत ऐसी ठोस अपशिष्ट प्रसंस्करण सुविधाओं, जो पुनर्चक्रण या अतिरिक्त प्रसंस्करण के लिए उपयुक्त नहीं है, से प्राप्त अपशिष्ट और अस्वीकृत भी अभिप्रेत है;
- 40. "स्वास्थ्यकर भूमिभरण" से अवशिष्ट ठोस अपशिष्ट के अंतिम और सुरक्षित निपटान और भूजल, सतही जल या क्षणभंगुर वायु धूल, हवा से उड़ा हुआ कूड़ाकरकट, दुर्गंध, अग्नि परिसंकट, पशुओं का खतरा, पक्षियों का खतरा, नाशकजीव, कृंतकनाशी, ग्रीनहाउस गैस उत्सर्जन, सतत जैव प्रदूषणकारी तत्व प्रावण्य अस्थिरता तथा अपरदन के प्रदूषण के प्रति संरक्षात्मक उपायों सहित प्रकल्पित सुविधा में भूमि पर निष्क्रिय अपशिष्ट अभिप्रेत है;
- 41. **"स्वास्थ्यकर अपशिष्ट"** से प्रयोग किए गए डायपर, स्वास्थ्यकार तौलिए या नैपकिन, टैम्पोन, कन्डोम, इनकंटीनेंस शीट और कोई अन्य समरूप अपशिष्ट से मिलकर बना अपशिष्ट अभिप्रेत है;
- 42. "अनुसूची" से इन नियमों से उपाबद्ध अनुसूची अभिप्रेत है;
- 43. **"गौण भंडारण"** से प्रसंस्करण या निपटान सुविधा को अपशिष्ट के आगे परिवहन के लिए गौण भंडारण डिपो या एमआरएफ या आधानों पर संग्रहण के पश्चात ठोस अपशिष्ट का अस्थायी संदूषक अभिप्रेत है;
- 44. "पृथककरण" से ठोस अपशिष्ट के विभिन्न संघटकों अर्थात जैविक निम्नीकरण अपशिष्ट जिसके अंतर्गत कृषि और दुग्धपालन अपशिष्ट अजैविक निम्नीकरण अपशिष्ट जिसके अंतर्गत पुन:चक्रणयोग्य अपशिष्ट, गैर पुन:चक्रणयोग्य दाह्य योग्य अपशिष्ट, स्वास्थ्यकर अपशिष्ट और गैर चक्रण योग्य कूड़ाकरकट अपशिष्ट, घरेलू परिसंकटमय अपशिष्ट तथा संनिर्माण और विध्वंस अपशिष्ट भी है, की छंटाई और पृथक भंडारण अभिप्रेत है;
- 45. "सेवा प्रदाता" से जल, मलवहन, विद्युत, टेलीफोन, सड़क, जल निकास आदि अभिप्रेत हैं;
- 46. **"ठोस अपशिष्ट"** से ठोस या अर्द्धठोस घरेलू अपशिष्ट अभिप्रेत है और इसके अंतर्गत स्थानीय प्राधिकरण और नियम 2 में वर्णित अन्य अस्तित्व के अधीन क्षेत्र में उत्पन्न स्वास्थ्यकर अपशिष्ट, वाणिज्यिक अपशिष्ट, सांस्थानिक अपशिष्ट, खानपान और बाजार अपशिष्ट तथा अन्य गैर–आवासीय अपशिष्ट, गली की सफाई, सतह नालियों से हटाई गई या एकत्रित गाद, उद्यान कृषि अपशिष्ट, कृषि और डेयरी अपशिष्ट, औद्योगिक अपशिष्ट को छोड़कर उपचारित जैव चिकित्सक अपशिष्ट और ई-अपशिष्ट, बैटरी अपशिष्ट, रेडियो सक्रिय अपशिष्ट भी अभिप्रेत है;
- 47. ''**छंटाई करना**'' से मिश्रित अपशिष्ट से पुन:चक्रणयोग्य विभिन्न संघटकों और प्रवर्गों जैसे कागज, प्लास्टिक, गत्ता, धातु, कांच आदि को समुचित पुन:चक्रण सुविधा में पृथक करना अभिप्रेत है;
- 48. **"स्थिरीकरण"** से जैव निम्नीकरण अपशिष्ट को जैवीय अपद्यटन को स्थायी अवस्था में परिवर्तित करना अभिप्रेत है जहां वह निक्षालन या अरूचिकर सुगंध उत्पन्न नहीं करता है और कृषि भूमि, भू-कटाव नियंत्रण तथा भूमि उपचार के लिए उपयुक्त है;

- 49. **"मार्गविक्रेता"** से किसी गली, लेन, पार्श्व पथ, पैदल पथ, खडंजा, सार्वजनिक उद्यान या किसी अन्य सावर्जनिक स्थान या प्राइवेट क्षेत्र, अस्थायी रूप से निर्मित संरचना या स्थान से स्थान घूमकर साधारण जनता को दैनिक उपयोग के वस्तु, माल, सौदा, खाद्य मद या वाणिज्यिक वस्तु के विक्रय करने या उन्हें एक स्थान से दूसरे स्थान तक स्थानांतरित करने में लगे व्यक्ति अभिप्रेत हैं जिसके अंतर्गत फेरीवाला, पैकार, आबादकर तथा ऐसी सभी अन्य समानार्थी पद जो स्थानीय या विनिर्दिष्ट क्षेत्र में हो सकते हैं, भी है और "मार्ग विक्रय" शब्दों को उनके व्याकरणिक रूप भेदों और सजातीय पदों का अर्थ तदनुकूल किया जाएगा;
- 50. **"बख्शीश फीस"** से स्थानीय प्राधिकरण या राज्य सरकार द्वारा प्राधिकृत कोई राज्य अभिकरण द्वारा कोई फीस या समर्थन मूल्य अभिप्रेत है जो ठोस अपशिष्ट प्रसंस्करण सुविधा के ग्राही या प्रचालक या भूमिभरण पर ठोस अपशिष्ट के निपटान के लिए अवधारित संदात्त है;
- 51. **"अंतरण स्थल"** से संग्रह क्षेत्रों से ठोस अपशिष्ट प्राप्त करने को सृजित सुविधा और अपशिष्ट प्रसंस्करण और, या निपटान सुविधा को आच्छादित यानों या आधानों में बड़ी मात्रा में परिवहन अभिप्रेत है;
- 52. **"परिवहन"** से ठोस अपशिष्ट चाहे वह या तो उपचारित आंशिक उपचारित या अनुपचारित को एक स्थान से दूसरे स्थान पर किसी पर्यावरणीय रूप से युक्ति युक्त रीति में विशिष्ट रूप से अभिहित और आच्छादित परिवहन प्रणाली जैसे दुर्गध, कूड़ा कचरा और घृणित दशा को रोकने के लिए प्रवहन अभिप्रेत है;
- 53. **"उपचार"** से किसी अपशिष्ट के भौतिक, रसायनिक या जैविक लक्षणों या संघटन में रूपांतरण की अभिहित पद्धति, तकनीक या प्रक्रिया अभिप्रेत है जिससे उसके आयतन और क्षितिकारक क्षमता को कम करता है;
- 54. **"उपयोक्ता फीस"** से ठोस अपशिष्ट संग्रहण, परिवहन प्रसंस्करण और निपटान सेवाओं को उपलब्ध कराने की कुल या आंशिक लागत को प्राप्त करने में अपशिष्ट जनित पर स्थानीय निकाय और नियम 2 में वर्णित किसी अस्तित्व द्वारा अधिरोपित फीस अभिप्रेत है;
- 55. **"कृमि कम्पोस्ट बनाना"** से केचुओं का प्रयोग करते हुए कम्पोस्ट में सपंरिवर्तित करने की जैव निम्नीकरण प्रक्रिया अभिप्रेत है;
- 56. **"अपशिष्ट जनित्र"** से और इसके अंतर्गत सम्मिलित से, रेल तथा रक्षा स्थापनाओं सहित प्रत्येक व्यक्ति या व्यक्तियों का समूह या प्रत्येक आवासीय परिसर तथा गैर आवासीय स्थापनाएं भी है, जो ठोस अपशिष्ट उत्पन्न करते हैं, अभिप्रेत है;
- 57. ''**अपशिष्ट की क्रमबद्धता''** से ऐसा प्राथमिकता क्रम अभिप्रेत है जिसके अनुसार ठोस अपशिष्ट का प्रबंधन निवारण, कटौती, पुन:उपयोग, पुनर्चक्रण, पुन: प्राप्ति और निपटान पर बल देकर किया जाना चाहिए जिसमें निवारण को सर्वाधिक प्राथमिकता और भू-भरण में निपटान को न्यूनतम वरीयता का विकल्प होगा;
- 58. **"अपशिष्ट चुनने वाला"** से ऐसा व्यक्ति या व्यक्तियों का समूह अभिप्रेत है जो अपशिष्ट उत्पादन के स्रोत से पुनः उपयोजनीय तथा पुनर्चक्रण योग्य ठोस अपशिष्ट के संग्रहण और साथ ही पुनर्चक्रकों को उनकी आजीविका अर्जित करने के लिए सीधे या उनके मध्यवर्तियों के माध्यम से विक्रय के लिए गलियों, डिब्बों, प्रसंस्करण तथा अपशिष्ट निपटान सुविधाओं से अपशिष्ट को उठाने में औपचारिक रूप से लगे हुए है;

(2) इसमें प्रयुक्त जिन शब्दों और पदों का अर्थ परिभाषित नहीं किया गया है, परंतु जो पर्यावरण (सरंक्षण) अधिनयम 1986, जल (प्रदूषण निवारण और नियंत्रण) अधिनियम, 1974 जल (प्रदूषण निवारण और नियंत्रण) उपकर अधिनियम 1977 तथा वायु (प्रदूषण निवारण और नियंत्रण) अधिनयम, 1981 में परिभाषित है, के अर्थ होंगे जो संबंधित अधिनियमों में हैं। **4. अपशिष्ट उत्पन्नकर्ताओं के कर्तव्य**. प्रत्येक अपशिष्ट उत्पन्नकर्ता,-

(क) उनके द्वारा उत्पन्न किए गए अपशिष्ट को पृथक्कृत और तीन पृथक शाखाओं अर्थात जैव निम्नीकरणयोग्य, गैर निम्नजीकरणयोग्य और घरेलू परिसंकटमय अपशिष्ट के तीन अलग-अलग डिब्बों में भंडारित करेगा और समय-समय पर स्थानीय प्राधिकरणों द्वारा निदेश या अधिसूचना के अनुसार पृथक किए गए अपशिष्टों को प्राधिकृत अपशिष्ट चुनने वालों या अपशिष्ट संग्रहकर्ताओं को सौंपेगा;

(ख) प्रयोग किए गए स्वास्थ्यकर अपशिष्ट जैसे डायपरों और स्वास्थ्यकर पैडों आदि इन उत्पादों के निर्माताओं या ब्रांड स्वामियों द्वारा उपलब्ध कराई गई थैली में या स्थानीय प्राधिकारियों द्वारा यथा निर्देशित उपयुक्त लपेटन सामग्री में शुष्क अपशिष्ट या अजैविक निम्नीकरण अपशिष्ट के लिए बनाए गए डिब्बे में उसे डालेगा;

(ग) संनिर्माण और विध्वंस अपशिष्ट को पृथक रूप से अपने ही परिसर में भंडारित करेगा, जब कभी वह उत्पन्न होता हो,

और उसे संनिर्माण और विध्वंस अपशिष्ट नियम, 2016 के अनुसार निपटान करेगा; और

(घ) अपने परिसर से उत्पन्न कृषि उद्यान अपशिष्ट और उद्यान अपशिष्ट को अपने ही परिसर में पृथक रूप से भंडारित करेगा और समय समय पर स्थानीय निकाय द्वारा निदेशानुसार इसका निपटान करेगा;

(2) कोई अपशिष्ट जनित्र उसके द्वारा उत्पन्न अपशिष्ट को गली, खुले सार्वजनिक स्थानों, नाली या जलाशयों में न फेंकेगा, न जलाएगा और न गाड़ेगा;

(3) सभी अपशिष्ट उत्पन्नकर्ता ऐसी उपयोक्ता फीस का संदाय करेंगे जो ठोस अपशिष्ट प्रबंधन के लिए स्थानीय निकायों की उपविधियों में विनिर्दिष्ट किया जाए;

(4) कोई व्यक्ति अग्रिम रूप से कम से कम तीन कार्य दिवस पूर्व स्थानीय निकाय को सूचित किए बिना किसी गैर अनुज्ञप्ति वाले स्थान पर एक सौ व्यक्तियों से अधिक का ऐसा कोई आयोजन या समारोह आयोजित नहीं करेगा । ऐसा व्यक्ति या ऐसे आयोजन का आयोजक स्रोत पर अपशिष्ट के पृथककरण की व्यवस्था करेगा और पृथक्कृत अपशिष्ट को स्थानीय निकाय द्वारा अभिहित अपशिष्ट चुनने वाले को या अपशिष्ट संग्रहण अभिकरण को सौंपेगा;

(5) प्रत्येक मार्ग विक्रेता अपने कार्यकलाप के दौरान उत्पन्न अपशिष्ट जैसेकि खाद्य अपशिष्ट प्रयोज्य (डिस्पोजेबल) प्लेटों,

कपों, डिब्बों, रैपरों, नारियल के छिलको, शेष बचे भोजन, सब्जियों, फलों आदि के लिए उपयुक्त पात्र रखेगा और ऐसे अपशिष्ट को स्थानीय प्राधिकरण द्वारा यथा अधिसूचित अपशिष्ट भंडारण डिपो या पात्र या वाहन में डालेगा;

(6) इन नियमों के अधिसूचित होने की तारीख से एक वर्ष से अंदर सभी आवास कल्याण और बाजार संघ स्थानीय प्राधिकरण की भागीदारी में इन नियमों में यथा विहित जनित्रों द्वारा अपशिष्ट को स्रोत पर पृथक करने, पृथक किए गए अपशिष्ट को अलग-अलग पात्रों में संग्रहण करने में सहायता और पुनर्चक्रणीय सामग्री को प्राधिकृत अपशिष्ट उठाने वालों अथवा प्राधिकृत पुनर्चक्रकों को सौंपना सुनिश्चित करेंगे। जैव-अवक्रमणीय अपशिष्ट का जहां तक संभव होगा परिसर के अंदर संसाधित, उपचारित और कंपोस्ट करके अथवा बायोमिथानेशन के जरिए निपटान किया जाएगा। शेष अपशिष्ट स्थानीय प्राधिकरण द्वारा यथा निर्देशित अपशिष्ट संग्रहकर्ताओं या अभिकरण को दिया जाएगा;

(7) इन नियमों के अधिसूचित होने की तारीख से एक वर्ष के अंदर 5,000 वर्ग मीटर से अधिक क्षेत्रफल वाले सभी गेट लगे समुदाय और संस्थान स्थानीय प्राधिकरण की भागीदारी में इन नियमों में यथा विहित जनित्रों द्वारा अपशिष्ट को स्रोत पर ही पृथक करना, पृथक किए गए अपशिष्ट को अलग-अलग पात्रों में संग्रहण करने में सहायता करना तथा पुनर्चक्रकों को सौंपना सुनिश्चित करेंगे। जैव अवक्रमणीय अपशिष्ट का जहां तक संभव होगा परिसर के अंदर संसाधित, उपचारित और कंपोस्ट करके अथवा बायोमिथानेशन के जरिए निपटान किया जाएगा। शेष अपशिष्ट स्थानीय प्राधिकरण द्वारा यथा निर्देशित अपशिष्ट संग्रहकर्ताओं या अभिकरण को सौंप दिया जाएगा;

(8) इन नियमों के अधिसूचित होने की तारीख से एक वर्ष के अंदर सभी होटल और रेस्टोरेंट स्थानीय प्राधिकरण की भागीदारी में इन नियमों में यथा विहित जनित्रों द्वारा अपशिष्ट को स्रोत पर पृथक करना, पृथक किए गए अपशिष्ट को अलग-अलग पात्रों में संग्रह करने में सहायता करना तथा पुनर्चक्रणीय सामग्री को प्राधिकृत अपशिष्ट उठाने वालों अथवा प्राधिकृत पुनर्चक्रकों को सौंपना सुनिश्चित करेंगे। जैव-अवक्रमणीय अपशिष्ट का जहां तक संभव होगा परिसर के अंदर संसाधित उपचारित और कंपोस्ट करके अथवा बायोमिथानेशन के जरिए निपटान किया जाएगा। शेष अपशिष्ट स्थानीय प्राधिकरणद्वारा यथा निर्देशित अपशिष्ट संग्रहकर्ताओं या अभिकरण को दिया जाएगा।

5. पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के कर्तव्य.- (1) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय देश में इन नियमों के अनुपालन की मॉनीटरी के लिए उत्तरदायी होगा। यह सचिव, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अध्यक्षता के अधीन केन्द्रीय मॉनीटरी समिति का गठन करेगा, जिसमें निम्नलिखित अधिकारी शामिल होंगे जो संयुक्त सचिव या सलाहकार की पंक्ति से निम्न के नहीं होंगे अर्थात् :

- (1) शहरी विकास मंत्रालय
- (2) ग्रामीण विकास मंत्रालय
- (3) रसायन एवं उर्वरक मंत्रालय
- (4) कृषि मंत्रालय
- (5) केंद्रीय प्रदूषण नियंत्रण बोर्ड
- (6) तीन राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति, चक्राणुक्रम द्वारा
- (7) तीन राज्य सरकारों के शहरी विकास विभाग, चक्राणुक्रम द्वारा
- (8) दो राज्य सरकारों के ग्रामीण विकास विभाग, चक्राणुक्रम द्वारा
- (9) तीन शहरी स्थानीय निकाय, चक्राणुक्रम द्वारा
- (10) दो जनगणना (सेंसस) शहर, चक्राणुक्रम द्वारा
- (11) एफआईसीसीआई, सीआईआई
- (12) दो विषय विशेषज्ञ

2. इस केन्द्रीय मानीटरी समिति की बैठक इन नियमों के अनुपालन का मॉनीटर करने और पुनर्विलोकन करने के लिए एक वर्ष में कम से कम एक बार होगी। पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय दो विशेषज्ञों को, यदि आवश्यक हो, सहयोजित कर सकेगा। समिति का प्रत्येक तीन वर्ष में नवीकरण किया जाएगा।

6. शहरी विकास मंत्रालय के कर्त्तव्य.- (1) शहरी विकास मंत्रालय राज्य सरकारों तथा संघ राज्य क्षेत्र के प्रशासनों के साथ निम्नलिखित के लिए समन्वय करेगा, -

(क) ठोस अपशिष्ट प्रबंधन व्यवहारों को सुधारने के लिए राज्यों तथा स्थानीय निकायों द्वारा किए गए उपायों तथा मंत्रालय और बाह्य अभिकरणों द्वारा वित्त पोषित ठोस अपशिष्ट प्रबंधन परियोजनाओं के निष्पादन का वर्ष में कम से कम एक बार आवधिक पुनर्विलोकन करेगा तथा सुधारात्मक उपाय करने पर सलाह देगा;

(ख) इन नियमों की अधिसूचना की तारीख से छह मास के भीतर पणधारियों के साथ परामर्श से ठोस अपशिष्ट प्रबंधन पर राष्ट्रीय नीति तथा रणनीति तैयार करना, जिसके अंतर्गत अपशिष्ट से ऊर्जा की नीति भी है;

(ग) राष्ट्रीय ठोस अपशिष्ट प्रबंधन नीति और राष्ट्रीय शहरी स्वच्छता नीति पर आधारित ठोस प्रबंध के संबंध में राज्य नीति और रणनीति को तैयार करने में राज्यों तथा संघ राज्य क्षेत्रों का मार्गदर्शन करना और उन्हें सुकर बनाना;

(घ) ठोस अपशिष्ट प्रबंध सेक्टर में अनुसंधान और विकास को प्रोत्साहन देना तथा राज्यों और स्थानीय निकायों के लिए सूचना का प्रसार करना;

(ड.) स्थानीय निकायों और अन्य पणधारियों को प्रशिक्षण देना और उनका क्षमता निर्माण करना; और

(च) समय सीमाओं और मानकों को सुकर बनाने के लिए ठोस अपशिष्ट प्रबंधन पर राज्यों, संघ राज्य क्षेत्रों और स्थानीय
 निकायों को तकनीकी मार्गदर्शी सिद्धांत तथा परियोजना वित्त प्रदान करना;

7. उर्वरक विभाग, रसायन और उर्वरक मंत्रालय के कर्त्तव्य.- (1) उवर्रक विभाग समुचित क्रियाविधि के माध्यम से, -

(क) नगर कम्पोस्ट के बाजार विकास में सहायता उपलब्ध कराएगा; और

(ख) कंपनियों को विपणन के लिए इस सीमा तक उपलब्ध कराना कि उर्वरक कंपनियों द्वारा 3 से 4 थैले: 6 से 7 थैले के अनुपात में रासायनिक उर्वरकों के साथ कम्पोस्ट के सह विपणन का संर्वधन सुनिश्चित हो।

8. कृषि मंत्रालय, भारत सरकार के कर्तव्य :- कृषि मंत्रालय समुचित तंत्र के माध्यम से.-

(क) कंपोस्ट के विनिर्माण एवं बिक्री के लिए उर्वरक नियंत्रण आदेश को लचीलापन प्रदान करेगा;

(ख) कृषि भूमि पर कंपोस्ट के उपयोग को बढ़ावा देगा;

(ग) स्थानीय प्राधिकारियों या उनकी प्राधिकृत एजेंसियों द्वारा उत्पादित कंपोस्ट की गुणता जांच के लिए प्रयोगशालाएं स्थापित करेगा;

(घ) कंपोस्ट की गुणता बनाए रखने और कृषि भूमि पर कंपोस्ट का उपयोग करते समय कंपोस्ट की तुलना में रासायनिक उर्वरकों के उपयोग के अनुपात के लिए समुचित मार्गदर्शक सिद्धांत जारी करेगा।

9. विद्युत मंत्रालय के कर्तव्य.- विद्युत मंत्रालय समुचित तंत्र के माध्यम से :- (क) ठोस अपशिष्ट पर आधारित अपशिष्ट से ऊर्जा पैदा करने वाले संयंत्रों से उत्पादित विद्युत के लिए टैरिफ या प्रभार निर्धारित करेगा;

(ख) ऐसे अपशिष्ट से उत्पन्न विद्युत की खरीद को वितरण कंपनियों द्वारा ऊर्जा संयंत्रों के लिए अनिवार्य बनाएगा

10. नवीन और नवीकरणीय ऊर्जा स्रोत मंत्रालय के कर्तव्य.- नवीन और नवीकरणीय ऊर्जा स्रोत मंत्रालय समुचित तंत्र के माध्यम से :-

(क) अपशिष्ट से ऊर्जा पैदा करने वाले संयंत्रों के लिए अवसंरचना सृजन को सुविधाजनक बनाएगा; और

(ख) ऐसे अपशिष्ट से ऊर्जा पैदा करने वाले संयंत्रों के लिए समुचित सब्सिडी या प्रोत्साहन प्रदान करेगा।

11. राज्यों और संघ राज्य क्षेत्रों में शहरी विकास के प्रभारी सचिव के कर्तव्य.-

(1) राज्य या संघ राज्य क्षेत्र में सचिव, राज्य शहरी विकास विभाग म्युनिसिपल प्रशासन के आयुक्त या निदेशक या स्थानीय निकायों के निदेशक के माध्यम से निम्नलिखित सुनिश्चित करेगा :

(क) इन नियमों से सुसंगत अपशिष्ट प्रबंधन के क्षेत्र में अपशिष्ट चुनने वालों के प्रतिनिधियों, स्वयं सहायता समूह और समान समूहों सहित पणधारियों के परामर्श से राज्य या संघ राज्य क्षेत्र के लिए राज्य नीति और ठोस अपशिष्ट प्रबंधन रणनीति तैयार करना जो इन नियमों की अधिसूचना की तारीख से एक वर्ष की अवधि के भीतर शहरी विकास मंत्रालय को राष्ट्रीय ठोस अपशिष्ट प्रबंधन नीति और राष्ट्रीय शहरी स्वच्छता नीति से समरूप होगी;

(ख) ठोस अपशिष्ट प्रबंधन के संबंध में राज्य नीति और रणनीति तैयार करते समय भूमिभरण में जाने वाले अपशिष्ट का न्यूनीकरण को सुनिश्चित करने तथा राज्य नीति और ठोस अपशिष्ट प्रबंध रणनीति में मानव स्वास्थ्य और पर्यावरण पर ठोस अपशिष्ट के प्रभाव को न्यूनीकृत करने के लिए ठोस अपशिष्ट के विभिन्न संघटकों के अपशिष्ट में कमी, पुन:उपयोग,

पुनर्चक्रण, वसूली और अनुकूलतम उपयोग पर बल देगा;

(ग) राज्य नीतियों और रणनीतियों में कूड़ा चुनने वालों एवं अपशिष्ट संग्रहकर्ताओं और पुनर्चक्रण उद्योग के अनौपचारिक सेक्टर द्वारा अपशिष्ट को कम करने में निभाई गई महत्वपूर्ण भूमिका को स्वीकार किया जाना और अपशिष्ट प्रबंधन प्रणाली में अपशिष्ट चुनने वालों या अनौपचारिक अपशिष्ट संग्रहकर्ताओं के एकीकरण के बारे में विस्तृत मार्गदर्शक सिद्धांत उपलब्ध कराना;

(घ) सभी स्थानीय प्राधिकरणों द्वारा इन नियमों के उपबंधों के क्रियान्वयन को सुनिश्चित करना;

(ड.) राज्य के शहरी योजना विभाग को यह सुनिश्चित करने के लिए निदेश देना कि उन शहरों को छोड़कर जो साझा अपशिष्ट प्रसंस्करण सुविधा या शहरों के एक समूह के लिए क्षेत्रीय स्वच्छता भूमिभरण के सदस्य है, राज्य या संघ राज्य क्षेत्र में प्रत्येक शहर की मास्टर प्लान में ठोस अपशिष्ट प्रसंस्करण और निपटान सुविधाएं स्थापित करने के लिए प्रावधान है;

(च) ठोस अपशिष्ट के लिए प्रसंस्करण और निपटान सुविधाएं स्थापित करने के लिए एक वर्ष के अंदर स्थानीय निकायों के वास्ते उपयुक्त भूमि की पहचान और आवंटन सुनिश्चित करना और उन्हें महानगर एवं जिला योजना समितियों या नगर एवं ग्राम योजना विभाग के माध्यम से राज्य/शहरों की मास्टर योजना (भूमि उपयोग की योजना) में शामिल करना;

(छ) राज्य और स्थानीय निकायों के शहरी योजना विभाग को यह सुनिश्चित करने के लिए निदेश देना कि 200 से अधिक आवास वाले या 5,000 वर्ग मीटर से अधिक क्षेत्रफल के प्लॉट वाली ग्रुप हाउसिंग या वाणिज्यिक, सांस्थानिक या अन्य गैर-आवासीय परिसर के लिए विकास योजना में ठोस अपशिष्ट के पृथक्करण, भंडारण, विकेंद्रित प्रसंस्करण के लिए एक अलग स्थल चिन्हित किया जाता है;

(ज) विशेष आर्थिक जोन, औद्योगिक संपदा, औद्योगिक पार्क के विकासकों को निदेश देना कि प्लॉट के कुल क्षेत्रफल का कम से कम 5 प्रतिशत प्लॉट या शैड वसूली या पुनर्चक्रण सुविधा के लिए आरक्षित करें;

(झ) लागत भागीदारी आधार पर क्षेत्रीय सुविधा से 50 कि. मी. (या अधिक) की दूरी के अन्तर्गत आने वाले शहरों और नगरों के समूह के साझा क्षेत्रीय स्वास्थ्यकर भूमिभरण की स्थापना को सुकर बनाना और ऐसे स्वास्थ्यकर भूमिकरणों के वृत्तिक प्रबंधन को सुनिश्चित करना;

(ञ) ठोस अपशिष्ट के प्रबंधन में शहरी स्थानीय निकायों के क्षमता निर्माण तथा स्रोत पर अपशिष्ट के पृथक्करण एवं परिवहन या प्रसंसकरण की व्यवस्था करना;

(ट) राज्य प्रदूषण नियंत्रण बोर्ड के साथ परामर्श करके 5 टन प्रतिदिन से अधिक के ठोस अपशिष्ट प्रसंस्करण और निपटान सुविधाओं के लिए बफर जोन अधिसूचित करना; और

(ठ) अपशिष्ट चुनने वालों और अपशिष्ट के व्यापारियों के पंजीकरण के संबंध में एक योजना शुरू करना ।

12. जिला मजिस्ट्रेट या जिला कलक्टर या उपायुक्त के कर्त्तव्य.- यथा स्थिति, जिला मजिस्ट्रेट या जिला कलक्टर या उपायुक्त,

(क) इन नियमों की अधिसूचना की तारीख से एक वर्ष के भीतर राज्य शहरी विकास विभाग के प्रभारी सचिव के निकट समन्वय से अपने जिले में स्थानीय निकायों को ठोस अपशिष्ट प्रसंस्करण तथा निपटान सुविधाओं की स्थापना करने के लिए नियम 11 के खंड (च) के अनुसार उपयुक्त भूमि की पहचान तथा आबंटन को सुकर बनाएगा;

(ख) अपशिष्ट के पृथक्करण, प्रसंस्करण, उपचार और निपटान पर एक तिमाही में कम से कम तीन मास में एक बार स्थानीय निकायों के अनुपालन का पुनर्विलोकन करेगा और निदेशक या नगरपालिका प्रशासन के आयुक्त या स्थानीय निकायों के निदेशक और राज्य शहरी विकास के प्रभारी सचिव के साथ परामर्श करके उपचारात्मक उपाय करेगा ।

13. राज्य और संघ राज्य क्षेत्र में ग्राम पंचायत या ग्रामीण विकास विभाग के प्रभारी सचिव के कर्तव्य.- (1) उन क्षेत्रों के लिए जो इन नियमों के अधीन आते हैं और उनके अधिकार क्षेत्र में हैं, राज्य और संघ राज्य क्षेत्र में ग्राम पंचायत या शहरी विकास विभाग के प्रभारी सचिव के कर्तव्य वहीं होंगे जो राज्य या संघ राज्य क्षेत्र में शहरी विकास के प्रभारी सचिव के हैं ।

14. केन्द्रीय प्रदूषण नियंत्रण बोर्ड के कर्त्तव्य.- केन्द्रीय प्रदूषण नियंत्रण बोर्ड –

(क) इन नियमों के कार्यान्वयन के लिए राज्य प्रदूषण नियंत्रण बोर्डों और प्रदूषण नियंत्रण समितियों के साथ समन्वय करेगा और स्थानीय निकायों द्वारा विहित मानकों का पालन करेगा;

(ख) सभी ठोस अपशिष्ट प्रसंस्करण और निपटान सुविधाओं की बाबत भूजल, परिवेशी वायु, ध्वनि प्रदूषण, निक्षालन के लिए मानक निश्चित करेगा; (ग) ठोस अपशिष्ट प्रसंस्करण सुविधाओं या उपचार प्रौद्योगिकियों के लिए विहित पर्यावरणीय मानकों और सन्नियमों का पुनर्विलोकन करना और जब कभी भी अपेक्षित हो, उनको अद्यतन करना;

(घ) ठोस अपशिष्ट प्रसंस्करण सुविधाओं या उपचार प्रौद्योगिकियों के लिए विहित पर्यावरणीय मानकों के कार्यान्वयन को वर्ष में कम से कम एक बार राज्य प्रदूषण नियंत्रण बोर्डों/प्रदूषण नियंत्रण समितियों के माध्यम से पुनर्विलोकन और उनके द्वारा मॉनीटर किए गए आंकड़ों का संकलन करना;

(ड.) ठोस अपशिष्ट के प्रसंस्करण, पुनर्चक्रण और उपचार के लिए किसी नई प्रौद्योगिकी के प्रयोग पर राज्य प्रदूषण नियंत्रण बोर्डों या प्रदूषण नियंत्रण समितियों के प्रस्तावों का पुनर्विलोकन करना और छ: माह के अंदर उनके लिए निष्पादन मानक, उत्सर्जन मानदंड विहित करना;

(च) स्थानीय निकायों द्वारा इन नियमों के कार्यान्वयन को राज्य प्रदूषण नियंत्रण बोर्डों या प्रदूषण नियंत्रण समितियों के माध्यम से मॉनीटर करना;

(छ) राज्य प्रदूषण नियंत्रण बोर्डों और समितियों से प्राप्त रिपोर्टों के आधार पर इन नियमों के कार्यान्वयन पर वार्षिक रिपोर्ट तैयार करना और उसे पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को प्रस्तुत करना तथा यह रिपोर्ट लोक अधिकार क्षेत्र में भी रखी जाएंगी;

(ज) प्रतिदिन 5 टन से अधिक ठोस अपशिष्ट का प्रबंधन करने वाली सुविधाओं के विभिन्न आकारों के लिए अपशिष्ट प्रसंस्करण और निपटान सुविधाओं की बाहरी सीमाओं से किसी आवासीय, वाणिज्यिक या किसी अन्य संनिर्माण संबंधी क्रियाकलाप को प्रतिबंधित करने वाले बफर जोन को बनाए रखने के लिए मार्गदर्शक सिद्धांतों को प्रकाशित करना;

(झ) इन नियमों के प्रावधानों का अनुपालन करने के लिए ठोस अपशिष्ट के शहरी स्थानीय निकायों के समर्थ बनाने के लिए प्रसंस्करण और निपटान के पर्यावरणीय पहलुओं पर समय-समय पर मार्गदर्शक सिद्धांत प्रकाशित करना; और

(ञ) अपशिष्ट के अंतरराज्यीय संचलन पर राज्यों या संघ राज्य क्षेत्रों को मार्गदर्शन प्रदान करना ।

15. स्थानीय निकायों, और जनगणना नगरों की ग्राम पंचायतों तथा शहरी समूहों के कर्तव्य और उत्तरदायित्व.- (1) स्थानीय निकाय और पंचायतें :-

(क) राज्य नीति और रणनीति की अधिसूचना की तारीख से छह मास के भीतर ठोस अपशिष्ट प्रबंधन पर राज्य नीति और रणनीति के अनुसार ठोस अपशिष्ट प्रबंध योजना तैयार करना और उसकी एक प्रति राज्य सरकार या संघ राज्य प्रशासन द्वारा राज्य सरकार या संघ राज्य प्रशासन द्वारा प्राधिकृत अभिकरण से उसे अनुमोदित कराना;

(ख) मलिन बस्तियों तथा अनौपचारिक बसावटों, वाणिज्यिक, संस्थागत और अन्य गैर आवासीय परिसरों सहित सभी घरों से पृथक्कृत ठोस अपशिष्ट का द्वार-द्वार के संग्रहण की व्यवस्था करना। बहु मंजिलों भवनों, बड़े वाणिजियक परिसरों, मॉलों, आवासीय परिसरों इत्यादि से अपशिष्ट का संग्रहण प्रवेश द्वार या किसी अन्य अभिहित स्थान किया जा सकता है;

(ग) कूड़ा चुनने वालों/अनौपचारिक अपशिष्ट संग्रहकर्ताओं के संगठनों को मान्यता प्रदान करने की प्रणाली स्थापित करना और द्वार-द्वार जाकर अपशिष्ट संग्रह करने सहित ठोस अपशिष्ट के प्रबंधन में इनकी भागीदारी को सुकर बनाने के लिए इन प्राधिकृत चुनने वालों और अपशिष्ट संग्रहणकर्ताओं के एकीकरण के लिए एक प्रणाली स्थापित करना;

(घ) स्वयं सहायता समूह बनाने को सुकर बनाना, पहचान पत्र उपलब्ध कराना और तदुपरांत घर-घर जाकर अपशिष्ट संग्रह करने सहित ठोस अपशिष्ट प्रबंधन में एकीकरण को प्रोत्साहन देना;

(ड.) इन नियमों की अधिसूचना की तारीख से एक वर्ष के भीतर इन नियमों के उपबंधों को समाविष्ट करते हुए उपविधियां बनाना और समय पर कार्यान्वयन सुनिश्चित करना; (च) उपयोक्ता फीस, जो समुचित समझी जाए, समय-समय पर विहित करना और स्वयं या प्राधिकृत अभिकरण के माध्यम से ठोस अपशिष्ट उत्पन्नकर्ताओं से फीस का संग्रह करना;

(छ) अपशिष्ट उत्पन्नकर्ताओं को निदेश देना कि कूड़ा करकट न फैलाएं अथवा कागज, पानी की बोतलें, पेय पदार्थों के केनों,

टेट्रा पैक्स, फलों के छिलके, रैपर आदि या सड़क खुले सार्वजनिक स्थान, नालों अपशिष्ट निकायों पर न जलाए या कुंड में न फैंके या उनका निपटान न करें तथा इन नियमों के अधीन विहित किए गए अनुसार स्रोत अपशिष्ट को अलग-अलग करें और पृथक किए गए अपशिष्ट को स्थानीय निकाय द्वारा प्राधिकृत अपशिष्ट चुनने वालों या प्राधिकृत अपशिष्ट संग्रहकर्ता को सौंप दें;

(ज) पुनर्चक्रणीय सामग्रियों छंटाई करने के लिए पर्याप्त स्थान के साथ सामग्री वसूली सुविधाएं या गौण भंडारण सुविधाएं स्थापित करना ताकि अनौपचारिक या प्राधिकृत अपशिष्ट चुनने वाले और अपशिष्ट संग्रह करने वाले अपशिष्ट में से पुनर्चक्रणीय सामग्रियों को अलग कर सकें या उत्पादन के स्रोत से या सामग्री वसूली सुविधाओं से कागज, प्लास्टिक, धातु, शीशा, कपड़ा आदि जैसे पृथक किए गए पुनर्चक्रणीय अपशिष्ट को संग्रह करने के लिए अपशिष्ट चुनने वालों और पुनर्चक्रकों को सुलभ मार्ग उपलब्ध कराना; जैव निम्नीकरण अपशिष्ट के भंडारण के लिए डिब्बे हरे रंग से मुद्रित होंगे, जो पुनर्चक्रण के अपशिष्ट के भंडारण के लिए सफेद रंग से मुद्रित होंगे और अन्य अपशिष्ट के भंडारण के लिए काले रंग से मुद्रित होंगे;

(झ) घरेलू परिसंकटमय अपशिष्ट के लिए अपशिष्ट निक्षेपण केंद्रों की स्थापना करना और अपशिष्ट उत्पन्नकर्ताओं को निदेश देना कि घरेलू परिसंकटमय अपशिष्टों निक्षेपण परिसंकटमय अपशिष्ट निपटान सुविधा में उसके सुरक्षित निपटान के लिए इस केंद्र में करें। ऐसी सुविधा की स्थापना किसी शहर या नगर में इस ढंग से की जाएगी कि एक केंद्र की स्थापना बीस किलोमीटर क्षेत्रफल या उसके भाग के लिए हो जाए और इन केंद्रों में घरेलू परिसंकटमय अपशिष्ट प्राप्त करने के समय अधिसूचित होगा;

(ञ) परिसंकटमय अपशिष्ट निपटान सुविधा तक घरेलू परिसंकटमय अपशिष्ट का सुरक्षित भंडारण और परिवहन सुनिश्चित करना या जो राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति द्वारा निर्देश किया जाए;

(ट) गली के सफाई कर्मचारियों को निदेश देना कि गली की सफाई से संग्रहीत पेड़ के पत्तों को न जलाएं तथा उन्हें अलग से भंडारण करे और स्थानीय निकाय द्वारा प्राधिकृत अपशिष्ट संग्रहकर्ता या अभिकरण को सौंपे;

(ठ) अपशिष्ट चुनने वालों और अपशिष्ट संग्रहकर्ताओं को ठोस अपशिष्ट प्रबंधन का प्रशिक्षण देना;

(ड) दिन-प्रतिदिन आधार पर बाजारों से सब्जियों, फलों, फूलों, मांस, कुक्कुट पालन और मछली बाजार से अपशिष्ट संग्रह करना और स्वास्थ्यकर स्थिति सुनिश्चित करने के लिए बाजारों में उचित स्थानों पर या बाजारों के आस-पास विकेन्द्रीकृत कंपोस्ट प्लांट या जैव मिथेनीकरण प्लांट की स्थापना को प्रोत्साहन देना;

(ढ) जनसंख्या के घनत्व, वाणिज्यिक क्रियाकलाप और स्थानीय स्थिति पर निर्भर करते हुए दैनिक या वैकल्पिक दिवसों या सप्ताह में दो बार सड़कों, मार्गों, गलियों और उप-गलियों की सफाई के अपशिष्ट को पृथक रूप से संग्रह करना;

(ण) सड़क की सफाई के कूड़े और सतही नालियों से निकाली गई गाद को जिन मामलों में इन अपशिष्टों का सीधा संग्रह करने के लिए परिवहन वाहन सुविधाजनक व्यवहार्य नहीं है, अस्थाई रूप से भंडारण करने के लिए आच्छादित गौण भंडारण सुविधा स्थापित करना। इस प्रकार संग्रह किए गए अपशिष्ट का संग्रह और निपटान स्थानीय निकाय द्वारा यथा निर्धारित नियमित अंतराल पर किया जाएगा;

(त) बागवानी, उद्यानों और बगीचों के अपशिष्ट को पृथक रूप से संग्रह करना और जहां तक संभव हो उसका प्रसंस्करण पार्कों और बगीचों में करना;

(थ) पृथक किए गए जैव निम्नीकरणीय अपशिष्ट का परिवहन प्रसंस्करण सुविधाओं जैसे कंपोस्ट प्लांट, जैव मिथेनिकरण संयंत्र या ऐसी कोई सुविधा तक करना। ऐसे अपशिष्ट के स्थल पर प्रसंस्करण को अधिमान्यता दी जानी चाहिए; (द) क्रमवर्ती प्रसंस्करण सुविधा या सामग्री पुनःप्राप्ति सुविधाओं या द्वितीयक भंडारण सुविधा को गैर जैव निम्नीकरणीय अपशिष्ट को परिवहन करना;

(ध) निर्माण और विध्वंस अपशिष्ट का परिवहन समय-समय पर यथासंशोधित निर्माण और विध्वंस अपशिष्ट प्रबंधन नियम, 2016 के उपबंधों के अनुसार करना;

(न) समुदाय सुविधा के आस-पास दुर्गंध के नियंत्रण और स्वास्थ्य रक्षक स्थितियों के अनुरक्षण के अध्यधीन समुदाय स्तर पर घरेलू कंपोस्टिंग, बायोगैस उत्पादन, अपशिष्ट के विकेंद्रित प्रसंस्करण में समुदायों को अंतर्वलित करना;

(प) दो वर्षों के भीतर रासायनिक खाद के उपयोग को चरणबद्ध रूप से समाप्त करना और स्थानीय निकायों द्वारा अनुरक्षित सभी उद्यानों, बगीचों में कंपोस्ट का प्रयोग करना और जहां कहीं संभव हो इसके अधिकारिता के अधीन अन्य स्थानों पर भी ऐसा करना अनौपचारिक अपशिष्ट पुनर्चक्रण क्षेत्र द्वारा की जाने वाली पुनर्चक्रण पहलों को प्रोत्साहन उपलब्ध कराए जा सकते हैं;

(फ) उपयुक्त प्रौद्योगिकी जिसके अंतर्गत निम्नलिखित प्रौद्योगिकियां भी हैं, को अंगीकृत करते हुए और समय-समय पर शहरी विकास मंत्रालय द्वारा समय-समय पर जारी मार्गदर्शी सिद्धांतों और केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी दिशार्निदेशों का पालन करते हुए ठोस अपशिष्ट के विभिन्न अवयवों के उचित उपयोग के लिए स्वयं या निजी क्षेत्र के सहभागी या किसी अभिकरण के माध्यम से ठोस अपशिष्ट प्रसंस्करण सुविधाओं और संबंधित अवसंरचना के संनिर्माण, प्रचालन और अनुरक्षण को सुकर बनाना: परिवहन लागत और पर्यावरणीय आघात को न्यूनतम करने के लिए विकेन्द्रीयकृत प्रसंस्करण को अधिमान्यता देना जैसे.-

(क) जैव-मिथैनिकरण, सूक्ष्म जैविक कंपोस्टिंग, वर्मी कंपोस्टिंग, अनारोबिक डाईजेशन या जैव निम्नकरणीय-अपशिष्टों के जैव स्थिरीकरण के लिए कोई अन्य समुचित प्रसंस्करण;

(ख) अपशिष्ट के दहनशील भाग के लिए अवशिष्ट जनित ईंधन सहित अपशिष्ट से ऊर्जा प्रक्रियाएं या अपशिष्ट आधारित विद्युत प्लांटों या सीमेंट भट्टियों को फीड स्टॉक के रूप में आपूर्ति;

(ब) इन नियमों के अधीन विहित रीति से अवशेष अपशिष्टों के निपटान के लिए अनुसूची-l के अनुसार स्वास्थ्यकर भरण स्थलों और आनुषंगिक अवसंरचना का निर्माण, प्रचालन और अनुरक्षण स्वयं या किसी अन्य अभिकरण के माध्यम से करना;

(भ) वार्षिक बजट में पूंजी निवेश के साथ-साथ ठोस अपशिष्ट प्रबंधन सेवाओं के प्रचालन और अनुरक्षण के लिए निधियों का पर्याप्त उपबंध करना और यह सुनिश्चित करना कि स्थानीय निकाय के वैवेकिक कृत्यों के लिए निधियां ठोस अपशिष्ट प्रबंधन तथा इन नियमों के अनुसार स्थानीय निकाय के अन्य बाध्यकारी कृत्यों के लिए आवश्यक निधियों की अपेक्षा पूर्ण करने के पश्चात् की आबंटित की जाएं;

(म) प्ररूप-1 में अपशिष्ट प्रसंस्करण, शोधन या निस्तारण सुविधा स्थापित करने के लिए प्राधिकार अनुदत्त करने के लिए आवेदन करना जिसके अंतर्गत यथास्थिति राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति से स्वास्थ्यकर भरण स्थल सहित प्रतिदिन 5 मीट्रिक टन से अधिक अपशिष्ट हो;

(य) प्राधिकार की विधिमान्यता समाप्त होने से कम से कम साठ दिन पूर्व प्राधिकार के नवीकरण के लिए आवेदन करना;

(यक) उत्तरवर्ती वर्ष के 30 अप्रैल या उसके पूर्व आयुक्त या निदेशक, नगरपालिका प्रशासन को या प्राधिकृत अधिकारी को प्ररूप-4 में वार्षिक रिपोर्ट तैयार और प्रस्तुत करना;

(यख) वार्षिक रिपोर्ट प्रत्येक वर्ष के 31 मई तक शहरी विकास विभाग के प्रभारी सचिव या ग्राम पंचायत या ग्रामीण विकास विभाग और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति को भेजी जाएगी;

(यग) कार्मिकों जिसके अंतर्गत संविदा कार्मिकों और पर्यवेक्षकों भी है, को पृथक किए गए अपशिष्ट के द्वार-द्वार से संग्रहण के लिए और प्रसंस्करण या निपटान सुविधा को प्राथमिक और द्वितीयक परिवहन के दौरान अमिश्रित अपशिष्ट के संबंध में प्रशिक्षण;

(यघ) यह सुनिश्चित करना कि प्रसुविधा का प्रचालक व्यक्तिगत सुरक्षा उपकरण अर्थात् वर्दी, प्रदीप्त जैकट, हाथ के दस्ताने, बरसाती, समुचित जूते और मास्क ठोस अपशिष्ट के प्रहस्तन में लगे सभी कार्मिकों को उपलब्ध कराए और कार्यबल द्वारा इनका उपयोग सुनिश्चित किया जाए;

(यड.) किसी ग्रुप हाँउसिंग सोसाइटी या मार्केट काम्पलैक्स की निर्माण योजना के अनुमोदन से पूर्व सुनिश्चित करने की भवन योजना में पृथक किए गए अपशिष्टों के संग्रहण, पृथक्करण और भंडारण के लिए अपशिष्ट संग्रहण केन्द्र स्थापित किया जाना सुनिश्चित किया जाए; (यच) कचरा फैलाने वाले या इन नियमों के उपबंधों का अनुपालन करने में असफल रहने वाले व्यक्तियों के लिए स्थल ही जुर्माना लगाने के लिए उपविधि बनाना और मापदंड विहित करना तथा बनाई गई उपविधियों के अनुसार स्थल पर ही जुर्माना लगाने की शक्तियां उचित अधिकारियों या स्थानीय निकायों को प्रत्यायोजित करना; और (यछ) सूचना, शिक्षण और संचार अभियान के माध्यम से लोक जागरुकता का सृजन करना और निम्नलिखित के संबंध में

(यध) सूचना, ।शक्षण आर संचार आमयान क मोठ्यम से लाक जागरेकता का सृजन करना आर निम्नालाखत क संवय म अपशिष्ट उत्पन्न करने वालों को जानकारी देना;

- i. कचरा न फैलाना;
- ii. कम अपशिष्ट उत्पन्न करना;
- iii. संभव सीमा तक अपशिष्ट का पुनःउपयोग;
- iv. अपशिष्ट का जैव निम्नीकरणीय, गैर-जैव निम्नीकरणीय (पुनर्चक्रण योग्य तथा दहनयोग्य), स्वास्थ्यकर अपशिष्ट और घरेलू परिसंकटमय अपशिष्ट के रूप में स्रोत पर पृथक्करण;
- v. घरेलू कंपोस्टिंग, वर्मिन कंपोस्टिंग, बायोगैस उत्पादन या समुदाय स्तरीय कंपोस्टिंग/बायोगैस उत्पादन का व्यवहार करना;
- vi. उपयोग हुए प्रसाधन अपशिष्ट को ब्रांड स्वामियों द्वारा उपलब्ध कराए गए पाउचों या स्थानीय निकाय द्वारा विहित उपयुक्त लपेटने वाली सामग्री में लपेटना और इसे गैर जैव निम्नीकरणीय अपशिष्ट के लिए रखे गए डिब्बों में डालना;
- vii. स्त्रोत पर पृथक्कृत अपशिष्टों का अलग-अलग डिब्बों में भंडारण करना;
- viii. अपशिष्ट चुनने वालों, अपशिष्ट संग्राहकों, पुनःचक्रणकर्ताओं या अपशिष्ट संग्रहण अभिकरणों को पृथक्कृत अपशिष्ट सौंपना; और
- ix. अपशिष्ट एकत्र करने वालों या स्थानीय निकायों या स्थानीय निकाय द्वारा प्राधिकृत किसी अन्य व्यक्ति को ठोस अपशिष्ट प्रबंधन के लिए मासिक उपयोक्ता फीस या प्रभार का संदाय करना।

(यज) स्वास्थ्यकर स्थल की स्थापना और प्रचालन के लिए नियम 23 में यथाविनिर्दिष्ट समय सीमा के समाप्त होने के तुरंत पश्चात् मिश्रित अपशिष्ट से भरण स्थल को भरना या एकत्र करना बंद किया जाए;

(यझ) अपशिष्ट प्रसंस्करण सुविधाओं से केवल अप्रयोजनीय, गैर-पुनर्चक्रणयोग्य, गैर-जैवनिम्नीकरणीय, गैर-दहनशील और गैर-सक्रिय अपशिष्ट और पूर्व प्रसंस्करण अपशिष्टों तथा अवशिष्टों को ही स्वास्थ्यकर भरण स्थल पर जाने देने की अनुमति दी जाए और स्वास्थ्यकर भरण स्थलों द्वारा अनुसूची 1 में दी गई विशिष्टयों का अनुपालन किया जाएगा। तथापि, अवशिष्टों का यथासंभव पुनर्चक्रण या पुनप्रयोग किए जाने के प्रयास किए जाने चाहिए ताकि भरण स्थल तक शून्य अपशिष्ट जाने के अपेक्षित लक्ष्य की प्राप्ति हो सके;

(यञ) सभी पुराने खुले मलबा स्थलों तथा विद्यमान प्रचालनरत मलबा स्थलों के जैव-खनन तथा जैव-उपचार की संभाव्यता के लिए जांच और विश्लेषण करना और जहां कहीं व्यवहार्य हो स्थलों के जैव-खनन या जैव-उपचार हेतु आवश्यक कार्रवाई करना;

(यट) मलबा स्थल के जैव-खनन और जैव-उपचार की संभाव्यता न होने की स्थिति में पर्यावरण को होने वाली क्षति को रोकने के लिए इसे भरण स्थल कैपिंग मानकों के अनुसार वैज्ञानिक रूप से आच्छादित जाएगा।

16. राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति के कर्तव्य.- (1) राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा -

(क) अपनी-अपनी अधिकारिता में स्थानीय निकायों के माध्यम से राज्य में इन नियमों का प्रवर्तन किया जाएगा तथा संबंधित नगरपालिका प्रशासन निदेशालय या राज्य शहरी विकास विभाग के प्रभारी सचिव के निकट समन्वय से वर्ष में कम से कम दो बार इन नियमों के क्रियान्वयन की समीक्षा की जाएगी; (ख) अपशिष्ट प्रसंस्करण और निस्तारण स्थलों के लिए अनुसूची । और अनुसूची ।। के अधीन यथा विर्निदिष्ट पर्यावरणीय मानकों को मॉनीटर करना तथा शर्त का पालन करना;

(ग) स्थानीय निकाय या स्थानीय निकाय द्वारा प्राधिकृत किसी अन्य अभिकरण से प्ररूप 1 में आवेदन की प्राप्ति के पश्चात् प्रस्ताव का परीक्षण करना और ऐसी जांच करना जो उचित समझा जाए;

(घ) प्राधिकार के प्रस्ताव की जांच करते समय, संबंधित अधिनियमितियों के अधीन सहमति की अपेक्षा और अन्य अभिकरणों जैसे राज्य शहरी विकास विभाग, नगर और ग्राम योजना विभाग, जिला योजना समिति या महानगरीय क्षेत्र योजना समिति, जैसा लागू हो, विमानपत्तन या एयरबेस प्राधिकरण, भू-जल बोर्ड, रेलवे, विद्युत वितरण कंपनियां, राजमार्ग विभाग और अन्य संबंधित अभिकरणों के विचारों को ध्यान में रखा जाएगा और उन्हें अपने विचार, यदि कोई हों, देने के लिए चार सप्ताह का समय दिया जाएगा;

(ड.) स्थानीय निकाय या किसी सुविधा प्रचालक या स्थानीय प्राधिकरण द्वारा प्राधिकृत किसी अन्य अभिकरण को प्ररूप 2 में साठ दिन की अवधि के भीतर प्राधिकार जारी करना जिसमें यथाआवश्यक अन्य शर्तों सहित अनुसूची 1 और 2 में यथाविर्निदिष्ट अनुपालन मापदंड और पर्यावरण मानक अधिकथित हों;

(च) ऐसे प्राधिकार की विधिमान्यता सहमतियों की विधिमान्यता के साथ समकालिक होगी;

(छ) यदि स्थानीय प्राधिकरण या सुविधा प्रचालक सुविधा का प्रचालन विहित शर्तों के अनुसार करने में असफल रहता है तो राज्य प्रदूषण नियंत्रण बोर्ड द्वारा खंड (क) के अधीन जारी उक्त प्राधिकार को निलंबित या रद्द किया जा सकेगा;

परंतु यथास्थिति, स्थानीय निकाय या प्रचालक को सूचना दिए बिना ऐसा कोई प्राधिकार निलंबित या रद्द नहीं किया जाएगा; और

(ज) नवीकरण के लिए आवेदन की प्राप्ति पर, प्रत्येक आवेदन को गुणागुण के आधार पर परीक्षा करने के पश्चात् और इस शर्त के अधीन रहते हुए कि सुविधा के प्रचालन में नियमों के सभी उपबंधों, प्राधिकार, सहमति या पर्यावरण अनापत्ति में विनिर्दिष्ट मानकों या शर्तों को पूर्ण कर दिया है, अगले पांच वर्षों के लिए प्राधिकार का नवीकरण करेगा;

(2) राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति आवेदक को सुने जाने का युक्तियुक्त अवसर देने के पश्चात् और लिखित में कारणों को लेखबद्ध करने के पश्चात् प्राधिकार अनुदत्त करने या नवीकरण करने से इंकार कर सकेगा

(3) नई प्रोद्यौगिकियों के मामले में, जहां यथास्थिति, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा कोई मानक विहित नहीं किया गया है, मानक विनिर्दिष्ट करने के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड से निवेदन करेगा ।

(4) यथास्थिति, राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति जब कभी उचित समझा जाए किन्तु वर्ष में कम से कम एक बार, यथाअभिहित या अधिकथित मानकों तथा यथाअनुमोदित उपचार प्रोद्यौगिकी तथा प्राधिकार में निर्दिष्ट शर्तों और इन नियमों के अधीन अनुसूची-1 और अनुसूची-2 में विनिर्दिष्ट मानकों का अनुपालन मॉनीटर करेगा ।

(5) राज्य प्रदूषण नियंत्रण बोर्डे या प्रदूषण नियंत्रण समिति परिसंकटमय अपशिष्ट भंडारण सुविधाओं में अपशिष्ट उत्पादकों द्वारा एकत्रित घरेलू परिसंकटमय अपशिष्ट के सुरक्षित प्रहस्तन और निस्तारण के लिए स्थानीय निकायों को निदेश देगा ।

(6) राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा अपशिष्ट के अंतर राज्य प्रचालन को विनियमित किया जाएगा

17. निपटानयोग्य उत्पादों तथा स्वास्थ्यकर नैपकिनों और डायपरों के विनिर्माताओं या ब्रांड स्वामियों के कर्तव्य.- (1) निपटान योग्य उत्पादों जैसे टिन, कांच, प्लास्टिक पैकेजिंग इत्यादि के सभी निर्माता या ऐसे उत्पादों को बाजार में लाने वाले ब्रांड स्वामी अपशिष्ट प्रबंधन प्रणाली की स्थापना के लिए स्थानीय निकायों को आवश्यक वित्तीय सहायता उपलब्ध कराएंगे।

(2) गैर जैव-निम्नीकरणीय पैकेजिंग सामग्री में अपने उत्पादों की बिक्री या विपणन करने वाले ऐसे सभी ब्रांड स्वामी उनके उत्पाद के कारण उत्पन्न हुए पैकेजिंग अपशिष्ट को वापस ग्रहण करने के लिए प्रणाली की व्यवस्था करेंगे।

(3) स्वास्थ्यकर नैपकिनों तथा डायपरों के विनिर्माताओं या ब्रांड स्वामियों या विपणन कंपनियों द्वारा अपने उत्पादों में सभी पुनर्चक्रणयोग्य सामग्रियों के प्रयोग की संभाव्यता का पता लगाएंगे या अपने स्वास्थ्यकर उत्पादों के पैकेट के साथ प्रत्येक नैपकिन या डायपर के निस्तारण के लिए एक पाउच या रैपर उपलब्ध कराएंगे।

(4) ऐसे सभी विनिर्माताओं, ब्रांड स्वामियों या विपणन कंपनियों द्वारा अपने उत्पादों को लपेटने और उनका निस्तारण करने के संबंध में लोगों को जानकारी दी जाएगी। **18. कचरा व्युत्पन ईंधन से सौ कि.मी. के अंदर अवस्थित औद्योगिक इकाईयों और ठोस अपशिष्ट आधारित ऊर्जा संयंत्रों के कर्ताव्य.-** ईंधन का प्रयोग करने वाली और ठोस अपशिष्ट आधारित कचरा व्युत्पन ईंधन संयंत्र से सौ कि.मी. के भीतर अवस्थित सभी औद्योगिक इकाइयां इस प्रकार उत्पन्न कचरा व्युत्पन ईंधन द्वारा अपनी ईंधन अपेक्षा के कम से कम 5 प्रतिशत का प्रतिस्थापन करने के लिए इन नियमों की अधिसूचना की तारीख से छह मास के भीतर व्यवस्था करेंगे।

19. ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधा की स्थापना के लिए मानदंड.- (1) भूमि समनुदेशन कार्य आबंटन विभाग ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधाओं की स्थापना के लिए उपयुक्त भूमि उपलब्ध कराने और राज्य सरकार या संघ राज्य क्षेत्र प्रशासन से ऐसे स्थलों को अधिसूचित करने के लिए उत्तरदायी होंगे।

(2) सुविधा का प्रचालक समय-समय पर इस संबंध में केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी तकनीकी मार्गदर्शी सिद्धांतों और शहरी विकास मंत्रालय द्वारा तैयार किए गए ठोस अपशिष्ट प्रबंधन संबंधी मैनुअल के अनुसार सुविधा का डिजाइन करेगा और इसकी स्थापना करेगा।

(3) सुविधा के प्रचालक द्वारा राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति से आवश्यक अनुमोदन प्राप्त किया जाएगा।

(4) राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधाओं के प्रचालन के पर्यावरण मानकों की मॉनीटरी की जाएगी।

(5) सुविधा के प्रचालक का उत्तरदायित्व समय-समय पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी मार्गदर्शी सिद्धांतों और समय-समय पर शहरी विकास मंत्रालय द्वारा प्रकाशित नगरीय ठोस अपशिष्ट प्रबंधन संबंधी मैनुअल के अनुसार ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधाओं के पर्यावरण के दृष्टि से अनुकूल प्रचालन की होगी।

(6) ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधा के प्रचालक द्वारा राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति और स्थानीय प्राधिकरण को प्रत्येक वर्ष 30 अप्रैल तक प्ररूप 3 में वार्षिक रिपोर्ट प्रस्तुत करेगा।

20. पर्वतीय क्षेत्रों में ठोस अपशिष्ट प्रबंधन के मानदंड और की जाने वाली कार्रवाईयां.- पर्वतीय क्षेत्रों में स्थानीय प्राधिकरणों के कर्तव्य और दायित्व निम्नलिखित अतिरिक्त खंडों के सहित नियम 15 में उल्लिखित के समान होंगे :

(क) पर्वत पर भरण स्थल के संनिर्माण से बचना होगा। प्रसंस्करण सुविधा से अवशिष्ट अपशिष्ट और निष्क्रिय अपशिष्ट का संग्रहण करने के लिए एक उपयुक्त निकटतम अवस्थान पर एक अंतरण स्थान स्थापित किया जाएगा। स्वास्थ्यकर भरण की स्थापना करने के लिए 25 किलोमीटर के भीतर पहाड़ी के नीचे समतल भूमि क्षेत्र में योग्य भूमि का पहचान की जाएगी। अंतरण स्थान से अवशिष्ट अपशिष्ट का निपटान इस स्वास्थ्यकर भरण स्थल पर किया जाएगा।

(ख) ऐसी भूमि उपलब्ध न होने पर की दशा में निष्क्रिय और अवशिष्ट अपशिष्ट के लिए क्षेत्रीय स्वास्थ्यकर भरण स्थल स्थापित करने के प्रयास किए जाएंगे।

(ग) स्थानीय निकाय उपविधि बनाएगा और नागरिकों को गलियों में अपशिष्ट फैंकने से प्रतिषिद्ध करने तथा पर्यटकों को गलियों में या पहाड़ियों से नीचे न फैंकने किसी अपशिष्ट जैसे कागज, पानी की बोतल, शराब की बोतल, सॉफ्ट ड्रिंक के केन, टेट्रा पैक, अन्य कोई प्लास्टिक या कागज अपशिष्ट के स्थान पर सभी पर्यटक स्थलों पर स्थानीय निकाय द्वारा रखे गए कूड़ेदान में फेंकने के निर्देश देना।

(घ) स्थानीय निकाय द्वारा, पर्वतीय क्षेत्रों का भ्रमण करने वाले सभी पर्यटकों को उपविधियों के अधीन ठोस अपशिष्ट प्रबंधन के उपबंधों को नगर में प्रवेश बिंदु के साथ-साथ होटलों तथा अतिथि गृहों इत्यादि के माध्यम से, जहां वे ठहरते हैं और पर्यटन स्थलों पर उपयुक्त विज्ञापन बोर्ड लगाकर, व्यवस्था करेगा।

(ड.) स्थानीय निकाय ठोस अपशिष्ट प्रबंधन सेवाएं संवहनीय बनाने को प्रवेश द्वार पर पर्यटक से ठोस प्रबंधन प्रभार उदगृहीत कर सकेगा ।

(च) भूमि समनुदेशन का प्रभारी विभाग विकेन्द्रीकृत अपशिष्ट प्रसंस्करण सुविधाओं की स्थापना के लिए पर्वतों पर उपयुक्त स्थल की पहचान और आबंटन करेगा। स्थानीय निकाय द्वारा ऐसी सुविधाएं स्थापित की जाएंगी। पर्वतीय स्थान का अनुकूलतम उपयोग करने के लिए सीढ़ी उद्यान प्रणाली को अपनाया जा सकेगा।

21. अपशिष्ट से उर्जा प्रसंस्करण के लिए मानदंड - (1) 1500 कि./कैल./कि.ग्रा. या अधिक के कैलोरिफिक मान रखने वाले गैर पुनःचक्रण अपशिष्टों को भरण स्थलों में निस्तारित नहीं किया जाएगा और उनका उपयोग या तो केवल व्युत्पन्न ईंधन अवशेष के माध्यम से या अवशेष व्युत्पन्न ईंधन तैयार करने के लिए फीड स्टॉक के रूप में देकर या ऊर्जा का उत्पादन करने के लिए ही किया जाएगा।

(2) उच्च कैलोरिफिक अपशिष्टों का उपयोग सीमेंट या ताप विद्युत संयंत्रों में सह-प्रसंस्करण के लिए किया जाएगा।

(3) स्थानीय निकाय या सुविधा का प्रचालक या उनके द्वारा नामनिर्दिष्ट अभिकरण जो पांच टन प्रतिदिन से अधिक प्रसंस्करण क्षमता वाली सुविधा के अपशिष्ट के ऊर्जा संयंत्र की स्थापना करना चाहते हों, वे यथास्थिति, राज्य प्रदूषण नियंत्रक बोर्ड या प्रदूषण नियंत्रण समिति को प्राधिकार के लिए प्ररुप-1 में आवेदन प्रस्तुत करेंगे।

(4) अपशिष्ट से ऊर्जा सुविधा की स्थापना करने के लिए ऐसे आवेदनों की प्राप्ति पर राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति उसका परीक्षण करेगा और साठ दिनों के अंदर अनुमति प्रदान करेगा।

22. क्रियान्वयन की समय-सीमा - इन नियमों के क्रियान्वयन के लिए आवश्यक अवसंरचना यथास्थिति, स्थानीय निकायों और अन्य संबंधित प्राधिकरणों द्वारा प्रत्यक्ष तथा स्वयं या नियोजित अभिकरणों द्वारा निम्नलिखित विनिर्दिष्ट समय-सीमा में सुजित की जाएंगी :

क्रम सं.	क्रियाकलाप	नियमों की अधिसूचना की तारीख से समय- सीमा
(1)	ठोस अपशिष्ट प्रसंस्करण सुविधा को स्थापित करने के लिए उपयुक्त स्थलों की पहचान करना	1 वर्ष
(2)	0.5 करोड़ जनसंख्या से कम के स्थानीय निकायों के योग्य उपयुक्त समूह के लिए साझा क्षेत्रीय स्वास्थ्यकर भरण सुविधा को स्थापित करने के लिए और 0.5 करोड़ या अधिक की जनसंख्या वाले सभी स्थानीय प्राधिकरणों द्वारा साझा क्षेत्रीय स्वास्थ्यकर भरण स्थल सुविधाओं या एकल भरण सुविधाओं की स्थापना करने के लिए उपयुक्त स्थलों की पहचान।	1 वर्ष
(3)	ठोस अपशिष्ट प्रसंस्करण सुविधा और स्वास्थ्यकर भरण स्थल सुविधाओं के लिए उपयुक्त स्थलों का उपापन।	2 वर्ष
(4)	जैव निम्नीकरणीय, पुनःचक्रण योग्य, दहन योग्य, स्वास्थ्यकर अपशिष्ट, घरेलू परिसंकटमय तथा निष्क्रिय ठोस अपशिष्टों का स्रोत पर पृथक्करण के लिए चलन के लिए अपशिष्ट उत्पन्नकर्ताओं को बाध्य करना ।	2 वर्ष
(5)	पृथक्कृत अपशिष्ट घर-घर से एकत्र करके और प्रसंस्करण या निपटान सुविधाओं का परिवहन आच्छादित वाहनों में सुनिश्चित करना।	2 वर्ष
(6)	संनिर्माण तथा विध्वंस अपशिष्टों का अलग-अलग भंडारण, संग्रहण और परिवहन सुनिश्चित करना।	2 वर्ष
(7)	100000 से अधिक जनसंख्या वाले सभी स्थानीय निकायों द्वारा ठोस अपशिष्ट प्रसंस्करण सुविधाओं की स्थापना करना।	2 वर्ष
(8)	100000 से कम जनसंख्या वाले स्थानीय निकायों और नगरों द्वारा ठोस अपशिष्ट प्रसंस्करण सुविधाओं की स्थापना करना।	3 वर्ष
(9)	इन नियमों के अधीन यथा अनुज्ञात प्रसंस्करण सुविधाओं से केवल ऐसे अवशिष्ट अपशिष्टों के साथ-साथ अशोधित निष्क्रिय अपशिष्ट के निपटान के	3 वर्ष

	लिए 0.5 करोड़ या उससे अधिक की जनसंख्या वाले सभी स्थानीय निकायों द्वारा या के लिए सम्मिलित या एकल भरण की स्थापना।	
(10)	इन नियमों के अधीन अनुज्ञात अपशिष्ट के निपटान के लिए 0.5 करोड़ से कम के अधीन सभी स्थानीय निकायों और जनसंख्या नगरों द्वारा सम्मिलित या क्षेत्रीय भरण स्थलों की स्थापना।	3 वर्ष
(11)	पुराने या परित्यक्त कूड़ा स्थलों का जैविक उपचार करना या उन्हें ढकना।	5 वर्ष

23. राज्य स्तरीय सलाहकार निकाय.- (1) संबंधित राज्य सरकार या संघ राज्य क्षेत्र प्रशासन के स्थानीय निकायों का प्रत्येक विभाग प्रभारी इन नियमों की अधिसूचना की तारीख से छह मास के भीतर एक राज्य स्तरीय सलाहकार समिति का गठन करेगा जिसमें निम्नलिखित सदस्य शामिल होंगे:-

क्रम संख्या	पदनाम	सदस्य
(1)	(2)	(3)
1.	राज्य के शहरी विकास विभाग/स्थानीय स्वशासन विभाग के सचिव	अध्यक्ष, पदेन
2	राज्य सरकार के पंचायत या ग्रामीण विकास विभाग का संयुक्त सचिव से अन्यून पंक्ति का एक प्रतिनिधि	सदस्य, पदेन
3.	राज्य सरकार के राजस्व विभाग का एक प्रतिनिधि	सदस्य, पदेन
4.	पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, भारत सरकार का एक प्रतिनिधि	सदस्य, पदेन
5.	शहरी विकास मंत्रालय, भारत सरकार का एक प्रतिनिधि	सदस्य, पदेन
6.	ग्रामीण विकास मंत्रालय, भारत सरकार का एक प्रतिनिधि	सदस्य, पदेन
7.	केंद्रीय प्रदूषण नियंत्रण बोर्ड का एक प्रतिनिधि	सदस्य, पदेन
8.	राज्य प्रदूषण नियंत्रण बोर्ड .या प्रदूषण नियंत्रण समिति का एक प्रतिनिधि	सदस्य, पदेन
9.	भारतीय प्रौद्योगिकी संस्थान या राष्ट्रीय प्रौद्योगिकी संस्थान का एक प्रतिनिधि	सदस्य, पदेन
10.	राज्य का मुख्य नगर नियोजक	सदस्य
11.	स्थानीय निकायों के चक्रानुक्रम द्वारा तीन प्रतिनिधि,	सदस्य
12.	जनगणना नगरों/शहरी समुदायों के दो प्रतिनिधि	सदस्य
13.	अपशिष्ट चुनने वालों/अनौपचारिक पुनर्चक्रणकर्ता या ठोस अपशिष्ट प्रबंधन के लिए काम करने वाले विख्यात गैर सरकारी संगठन या सिविल सोसायटी का एक प्रतिनिधि	सदस्य

14.	राज्य या केन्द्रीय स्तर पर उद्योगों का प्रतिनिधित्व करने वाले निकाय का एक प्रतिनिधि	सदस्य
15.	अपशिष्ट पुनर्चक्रण उद्योग का एक प्रतिनिधि	सदस्य
16.	दो विषय विशेषज्ञ	सदस्य
17.	राज्य सरकार के राजस्व विभाग, कृषि विभाग और श्रम विभाग का सहयोजित एक प्रतिनिधि	सदस्य

(2) इन नियमों के क्रियान्वयन से संबंधित सभी विषयों, ठोस अपशिष्ट प्रबंध संबंधी राज्य की नीति तथा कार्यनीति की समीक्षा करने और इन नियमों के त्वरित और समुचित क्रियान्वयन के लिए आवश्यक उपाय करने के लिए राज्य सरकार को सलाह देने के लिए राज्य स्तरीय सलाहकार निकाय प्रत्येक छह माह में कम से कम एक बैठक करेगी।

(3) समीक्षा रिपोर्ट की प्रतियां आवश्यक कार्रवाई हेतु राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति को अग्रेषित की जाएंगी।

24. वार्षिक रिपोर्ट.- (1) सुविधा के प्रचालक द्वारा प्रत्येक वर्ष 30 अप्रैल को या इससे पूर्व प्ररुप III में स्थानीय निकाय को वार्षिक रिपोर्ट प्रस्तुत की जाएगी।

(2) स्थानीय नगरीय निकाय प्ररुप IV में अपनी वार्षिक रिपोर्ट राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण समिति और संबंधित राज्य या संघ राज्य क्षेत्र के शहरी विकास विभाग के प्रभारी सचिव या मेट्रोपालिटिन नगर की दशा में नगर पालिका प्रशासन के निदेशक या नगरपालिका प्रशासन के आयुक्त या राज्य के अन्य सभी स्थानीय निकायों के मामले में राज्य के स्थानीय निकायों प्रभारी अधिकारी को प्रत्येक वर्ष के 30 जून या उससे पहले अग्रेषित करेगी।

(3) यथास्थिति, प्रत्येक राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति, इन नियमों के क्रियान्वयन और अनुपालन न करने वाले स्थानीय निकायों पर की गई कार्रवाई की समेकित वार्षिक रिपोर्ट प्ररुप V में तैयार करेगी और प्रत्येक वर्ष के 31 जुलाई तक केद्रीय प्रदूषण नियंत्रण बोर्ड और शहरी विकास मंत्रालय को प्रस्तुत करेगी ।

(4) केद्रीय प्रदूषण नियंत्रण बोर्ड, देश में स्थानीय निकायों द्वारा इन नियमों के क्रियान्वयन की स्थिति पर एक समेकित समीक्षा रिपोर्ट तैयार की जाएगी और शहरी विकास मंत्रालय और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को अपनी सिफारिशों के साथ प्रत्येक वर्ष 31 अगस्त से पहले अग्रेषित की जाएगी।

(5) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा केन्द्रीय निगरानी समिति की बैठक के दौरान वार्षिक रिपोर्ट का पुनर्विलोकन किया जाएगा।

25. दुर्घटना की रिपोर्ट देना - किसी ठोस अपशिष्ट प्रसंसकरण या सुविधा केंद्र या भराव भूमि स्थल पर कोई दुर्घटना होने की दशा में, तब सुविधा का प्रभारी अधिकारी प्ररुप VI में घटना की रिपोर्ट स्थानीय निकाय को भेजेगा। स्थानीय निकाय द्वारा समीक्षा की जाएगी और सुविधा के प्रभारी अधिकारी को अनुदेश, यदि कोई हो, जारी किया जाएगा।

अनुसूच<mark>ी</mark> |

[नियम 15 (ब),(यझ),16(1)(ख)(ड.),16(4) देखें]

स्वास्थ्यकर भरण स्थलों के लिए विनिर्देश

क. स्थल चयन के लिए मानदंड. -

- भूमि निर्धारण के कार्य आबंटन में विभाग द्वारा ठोस अपशिष्ट प्रसंस्करण और शोधन सुविधाओं की स्थापना करने के लिए उपयुक्त स्थल उपलब्ध कराया जाएगा और ऐसे स्थलों को अधिसूचित किया जाएगा।
- (ii) भूमि भरण स्थल योजनाबद्ध, तथा निर्माण योजना के साथ-साथ चरणबद्ध रीति से बंदी योजना के उचित प्रलेखन के साथ अभिकल्पित और विकसित किए जाएंगे। किसी विद्यमान भूमि भरण स्थल से लगी हुई कोई नई भूमि भरण सुविधा तैयार किए जाने की दशा में विद्यमान भूमि भरण स्थल की बंदी योजना, ऐसे नए भूमि भरण स्थल के प्रस्ताव का भाग होगी।
- (iii) भरण स्थलों का चयन आसपास की अपशिष्ट प्रसंस्करण सुविधाओं का प्रयोग करने के लिए किया जाएगा। अन्यथा अपशिष्ट प्रसंस्करण सुविधा की योजना भरण स्थल के अभिन्न भाग के रूप में बनाई जाएगी।
- (iv) भूमि भरण स्थल शहरी विकास मंत्रालय, भारत सरकार और केन्द्रीय प्रदूषण नियंत्रण बोर्ड के मार्गदर्शी सिद्धांतों के अनुसार स्थापित किए जाएंगे।
- (v) विद्यमान भूमि भरण स्थल, जो पांच वर्षों से अधिक से उपयोग में हैं, इस अनुसूची में दिए गए विनिर्देशों के अनुसरण में उन्नत किए जाएंगे।
- (vi) भूमि भरण स्थल कम से कम 20-25 वर्षों तक चलने के लिए पर्याप्त रूप से बड़े होंगे तथा जल जमाव और दुरूपयोग को रोकने के लिए चरणबद्ध रीति से "भूमि भरण सेल" विकसित किए जाएंगे।
- (vii) भूमि भरण स्थल नदी से 100 मीटर, तालाब से 200 मीटर, राजमार्गों, आवास स्थलों, सार्वजनिक उद्यानों और जल आपूर्ति कुंओं से 200 मीटर तथा विमानपत्तनों या हवाई अड्डे से 20 किमी की दूरी पर होंगे । तथापि, विशेष मामले में, भूमि भरण स्थल को नागर विमानन प्राधिकरण/वायु सेना, जैसा भी मामला हो, से अनापत्ति प्रमाण पत्र प्राप्त कर लेने के बाद विमानपत्तन/हवाईअड्डे से 10 और 20 किमी की दूरी के अंदर स्थापित किया जा सकता है। तटीय विनियम जोन, नमभूमि, महत्वपूर्ण आवासीय क्षेत्रों, संवेदनशील पारि-भंगुर क्षेत्रों और गत 100 वर्षों से यथा दर्ज बाढ़ के मैदानों के अंदर भूमि भरण स्थल के लिए अनुमति नहीं दी जाएगी।
- (viii) भरण स्थल और ठोस अपशिष्ट के शोधन तथा निस्तारण के लिए स्थलों को नगर आयोजना विभाग की भूमि उपयोग योजनाओं में शामिल किया जाएगा।
- (ix) पांच टन प्रतिदिन से अधिक की संस्थापित क्षमता वाली ठोस अपशिष्ट प्रसंस्करण तथा निस्तारण सुविधा के आसपास गैर विकास का बफर जोन बनाए रखा जाएगा। इसका अनुरक्षण ठोस अपशिष्ट प्रसंस्करण तथा निस्तारण सुविधा के कुल क्षेत्र के अंदर किया जाएगा। बफर जोन का निर्धारण स्थानीय प्राधिकरण द्वारा संबंधित राज्य प्रदूषण नियंत्रण बोर्ड के परामर्श से मामला दर मामला आधार पर किया जाएगा।
- (x) जैव-चिकित्सीय अपशिष्ट का निपटान समय-समय पर यथा संशोधित जैव-चिकित्सीय अपशिष्ट प्रबंधन नियम,
 2016 के अनुसार किया जाएगा। परिसंकटमय अपशिष्टों का प्रबंधन समय-समय पर यथासंशोधित परिसंकटमय
 और अन्य अपशिष्ट (प्रबंधन और सीमा-पारीय संचलन) नियम, 2016 के अनुसार किया जाएगा। ई-अपशिष्टों का
 प्रबंधन समय-समय पर यथासंशोधित ई-अपशिष्ट (प्रबंधन) नियम, 2016 के अनुसार किया जाएगा।

(xi) अपशिष्ट प्रसंस्करण का कार्य न हो पाने और आपातकाल या प्राकृतिक आपदाओं के दौरान अपशिष्ट को रखने के लिए प्रत्येक भरण स्थल पर ठोस अपशिष्ट के लिए अस्थाई भंडारण सुविधा स्थापित की जाएगी।

ख. स्वास्थ्यकर भरण स्थलों पर सुविधाओं के विकास के लिए मानदंड .-

- (i) भूमि भरण स्थल पर चार-दीवारी या बाड़ होगी और अंदर आने वाले वाहनों की निगरानी करने, अनधिकृत व्यक्तियों तथा आवारा पशुओं के प्रवेश को रोकने के लिए उचित उपयुक्त दरवाजा लगाया जाएगा।
- (ii) वाहनों और अन्य मशीनरी का मुक्त संचलन सुनिश्चित करने के लिए पहुंच और/आंतरिक सड़कें ठोस या पक्की बनाई जाएगी ताकि वाहनीय संचलन के कारण धूल कणों को उड़ने से रोका जा सके।
- (iii) भूमि भरण स्थल पर भूमि भरण के लिए लाए जाने वाले अपशिष्ट की मॉनीटरी करने के लिए अपशिष्ट निरीक्षण सुविधा, अभिलेख रखने के लिए कार्यालय सुविधा तथा प्रदूषण मॉनीटरी उपस्कर सहित उपस्कर और मशीनरी रखने के लिए आश्रय स्थल होंगे। सुविधा का प्रचालक अपशिष्ट प्राप्ति, प्रसंस्करण और निपटान का लेखा-जोखा रखेगा।
- (iv) भूमि भरण स्थल पर लाए जाने वाले अपशिष्ट की मात्रा को मापने के लिए धर्मकांटा, अग्नि सुरक्षा उपस्कर और अन्य सुविधाएं, जो भी अपेक्षित हों, जैसे प्रावधान किए जाएंगे।
- (v) पेयजल और स्वास्थ्य सुविधाओं (अधिमानत: कर्मकारों के लिए धोने/नहाने की सुविधाओं) जैसी उपयोगिताओं और सहज भूमि भरण प्रचालनों, जब रात्रि के समय किए जाते हैं, के लिए प्रकाश व्यवस्था का प्रावधान होगा।
- (vi) भूमि भरण स्थलों पर कार्मिकों के स्वास्थ्य की जांच सहित सुरक्षा प्रावधान किए जाएंगे।
- (vii) परिवहन वाहनों की पार्किंग और सफाई या धुलाई के लिए प्रावधान किए जाएंगे। इस प्रकार उत्पन्न मल जल का शोधन विनिर्दिष्ट मानकों को पूरा करने के लिए किया जाएगा।

ग. भूमि भरण प्रचालनों और भूमि भरण पूर्ण होने पर उनको बंद करने के विनिर्देशों के लिए मानदण्ड.-

- (i) अपशिष्ट का उच्च घनत्व प्राप्त करने के लिए भूमि भरण किए जाने वाले अपशिष्ट को भारी कम्पेक्टरों का प्रयोग करते हुए पतली परतों में संहत किया जाएगा । अधिक वर्षा वाले क्षेत्रों, जहां भारी कम्पेक्टरों का प्रयोग नहीं किया जा सकता, में वैकल्पिक उपाय अपनाए जाएंगे ।
- (ii) अपशिष्टों को तत्काल या प्रत्येक कार्य दिवस के अंत में कम से कम 10 सेमी मिट्टी, अक्रिय मलबे या निर्माण सामग्री से उस समय तक ढक दिया जाएगा जब तक कि कम्पोस्टिंग या पुनर्चक्रण या ऊर्जा पुनर्प्राप्ति के लिए अपशिष्ट प्रसंस्करण सुविधाएं स्थापित न कर दी जाएं।
- (iii) मानसून ऋतु के आरंभ होने से पूर्व भूमि भरण स्थल पर मानसून के दौरान पानी के रिसाव को रोकने के लिए उचित संहनन और श्रेणीकरण के साथ 40-65 सेमी मोटी मिट्टी का मध्यवर्ती आवरण बिछा दिया जाएगा। भूमि भरण स्थल के प्रभावी क्षेत्र से पानी के बहाव को विपथित करने के लिए उचित निकास नालियों का निर्माण किया जाएगा।
- (iv) भूमि भरण स्थल के पूरा हो जाने के पश्चात उसके रिसाव और अपरदन को न्यूनतम करने के लिए अंतिम आवरण डिजाइन किया जाएगा। अंतिम आवरण निम्नलिखित विनिर्देशों के अनुसार होगा, अर्थात् -
 - (क) अंतिम आवरण में 1x10⁻⁷ सेमी/सेकंड से कम के पारगम्यता गुणांक सहित 60 सेमी की चिकनी मिट्टी या शोधित मिट्टी से युक्त अवरोधक मिट्टी की परत होगी।

- (ख) अवरोधक मिट्टी की परत के ऊपर 15 सेमी की एक निकास परत होगी।
- (ग) निकास परत के ऊपर प्रकृतिजन्य पादपों की वृद्धि में सहायता करने और अपरदन को कम करने के लिए
 45 सेमी की एक वनस्पतिक परत होगी।

घ. प्रदूषण निवारण के मानदंड.- भूमि भरण प्रचालनों से प्रदूषण समस्याओं को रोकने के क्रम में निम्नलिखित प्रावधान किए जाएंगे, अर्थात्-

- (i) तूफान जल नाले को इस तरीके से डिजाइन और निर्मित किया जाए कि सतही जल बहाव, भूमि भरण स्थल से विपथित हो जाए और ठोस अपशिष्ट स्थानों से निक्षालक, सतही जल बहाव में मिश्रित न हो। निक्षालक उत्पत्ति को कम करने और सतही जल के प्रदूषण को रोकने तथा बाढ़ और दलदली स्थितियों से बचने के लिए भी तूफान जल प्रवाह नालियों के विपथन का प्रावधान किया जाएगा।
- (ii) अपशिष्ट निपटान क्षेत्र के आधार और दीवारों पर गैर-पारगम्य लाइनिंग प्रणाली का निर्माण। ऐसी अपशिष्ट प्रसंस्करण सुविधाओं के अवशिष्ट अथवा मिश्रित अपशिष्ट या खतरनाक सामग्रियों (जैसे कि ऐरोसोल, ब्लीच, पालिश, बैटरी, अपशिष्ट तेल, पेंट उत्पाद और कीटनाशक) के संदूषण वाले अपशिष्ट को भरने के लिए प्रयुक्त होने वाले भरण स्थलों के लिए न्यूनतम लाइनर विनिर्देश, एक ऐसा मिश्र अवरोधक होगा जो 1.5 मिमी मोटी उच्च घनत्व वाली पॉलीईथाइलीन (एचडीपीई) जियो-मेम्ब्रेन या जियो-सिंथेटिक लाइनर या उसके समतुल्य होगा तथा मिट्टी (चिकनी अथवा शोधित मिट्टी) के 90 सेमी के ऊपर होगी तथा इसका पारगम्यता गुणांक 1x10⁻⁷ सेमी/सेकंड से अधिक नहीं होगा। जल सारणी का अधिकतम स्तर, भूमि भरण स्थलों के निचले भाग पर उपलब्ध कराई गई चिकनी अथवा शोधित मिट्टी के अवरोधक परत के आधार से कम से कम दो मीटर नीचे होगा।
- (iii) निक्षालकों के संग्रहण और शोधन सहित इनके प्रबंधन के लिए प्रावधान किए जाएंगे । शोधित निक्षालक, अनुसूची-II में निर्दिष्ट मानकों को पूरा करने के पश्चात् पुनर्चक्रित या उपयोग में लाए जाएंगे। अन्यथा इन्हें मलनिर्यास लाइन में विमुक्त कर दिया जाएगा। किसी भी हाल में निक्षालक को खुले वातावरण में विमुक्त नहीं किया जाएगा।
- (iv) भूमि भरण क्षेत्र से बहने वाले जल को किसी नाले, धारा, नदी, झील या तालाब में प्रवेश करने से रोकने की व्यवस्था की जाएगी। जल बहाव के निक्षालक या ठोस अपशिष्ट के साथ मिश्रित होने के मामले में, समस्त मिश्रित जल को संबंधित प्राधिकरण द्वारा शोधित किया जाएगा।

ड. जल गुणवत्ता मॉनीटरी के लिए मानदंड.-

- (i) किसी भूमि भरण स्थल को स्थापित करने से पूर्व, क्षेत्र में भूमि जल गुणवत्ता के मूलाधार आंकड़े एकत्रित किए जाएंगे और उन्हें भविष्य में संदर्भ के लिए रिकार्ड में रखा जाएगा। भूमि भरण स्थल की परिधि के 50 मीटर के अंदर भूमि जल गुणवत्ता को वर्ष में विभिन्न ऋतुओं अर्थात ग्रीष्म, मानसून और मानसून-पश्च अवधि के दौरान आवधिक रूप से मॉनीटर किया जाएगा ताकि यह सुनिश्चित हो सके कि भू- जल, स्वीकार्य सीमा से अधिक संदूषित न हो।
- (ii) किसी भी प्रयोजन (पेय जल और सिंचाई सहित) के लिए भूमि भरण स्थलों में और उनके आस-पास भूमि जल के उपयोग पर उसकी गुणवत्ता को सुनिश्चित करने के बाद विचार किया जाएगा। मॉनीटरी प्रयोजन के लिए पेयजल गुणवत्ता हेतु निम्नलिखित विनिर्देश लागू होंगे, अर्थात् :-

क्र.सं.	पैरामीटर	आईएस 10500:2012, संस्करण 2.2	
		(2003-09) वांछनीय सीमा (मिग्रा/ली., पीएच को छोड़कर	
(1)	(2)	(3)	
(1)	आर्सेनिक	0.01	
(2)	कैडमियम	0.01	
(3)	क्रोमियम (Cr ⁶⁺ के रूप में)	0.05	
(4)	तांबा	0.05	
(5)	साइनाइड	0.05	
(6)	सीसा	0.05	
(7)	पारा	0.001	
(8)	निकल	-	
(9)	नाइट्रेट, एनओ ₃ के रूप में	45.0	
(10)	पीएच (pH)	6.5-8.5	
(11)	लोहा	0.3	
(12)	कुल कठोरता (सीएसीओ₃ के रूप में)	300.0	
(13)	क्लोराइड	250	
(14)	विलीन ठोस	500	
(15)	फेनोलिक यौगिक (सी ₆ एच ₅ ओएच के रूप में)	0.001	
(16)	जस्ता	5.0	
(17)	सल्फेट (एसओ₄ के रूप में)	200	
L		1	

च. परिवेशी वायु गुणवत्ता की मानीटरी के लिए मानदंड. -

(i) भूमि भरण स्थल पर दुर्गंध को कम करने, गैसों को अपस्थलीय फैलने से रोकने, पुनर्वासित भूमि भरण स्थल सतह पर उगाई गई वनस्पति को बचाने के लिए गैस संग्रहण प्रणाली सहित भूमि भरण गैस नियंत्रण प्रणाली संस्थापित की जाएगी। भूमि भरण गैस पुनर्प्राप्ति को बढ़ाने के लिए गैस संग्रहण कुओं के साथ आच्छादन प्रणालियों में जियो मेम्ब्रेन के प्रयोग पर विचार किया जाएगा।

- (ii) भूमि भरण स्थल पर निकलने वाली मीथेन गैस का सान्द्रण, निम्न विस्फोटक सीमा (एलईएल) के 25 प्रतिशत से अधिक नहीं होगा।
- (iii) किसी भूमि भरण स्थल पर संग्रहण सुविधा से प्राप्त भूमि भरण गैस का उपयोग व्यवहार्यता के अनुसार या तो सीधे तापीय अनुप्रयोगों या विद्युत उत्पादन में किया जाएगा। अन्यथा, भूमि भरण गैस को जला (प्रदीप्त) दिया जाएगा और सीधे वायुमंडल में या अवैध रूप से निकासी के लिए नहीं छोड़ा जाएगा। यदि इसका उपयोग या प्रदीप्त संभव न हो तो निष्क्रिय निकास की अनुमति दी जाएगी।
- (iv) भूमि भरण स्थल पर और इसके आसपास परिवेशी वायु गुणवत्ता के नियमित रूप से मॉनीटरी की जाएगी। परिवेशी वायु गुणवत्ता औद्योगिक क्षेत्र के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विहित मानकों के अनुसार होगी।

छ. भूमि भरण स्थल पर पौधरोपण के लिए मानदंड.- तैयार स्थल के ऊपर निम्नलिखित विनिर्देशों के अनुसार वनस्पतिक आवरण बनाया जाएगा, अर्थातु :

- (क) स्थानीय रूप से अंगीकृत अखाद्य बारहमासी पौधों, जो सूखे तथा अत्यधिक तापमान के प्रतिरोधी हैं, को उगाया जाएगा;
- (ख) पौधे ऐसे प्रजाति के होंगे कि उनकी जड़ें 30 सेमी से अधिक गहरी न हों। यह शर्त, भूमि भरण स्थल के स्थिर होने तक लागू रहेगी;
- (ग) चयनित पौधों में न्यूनतम पोषक वृद्धि के साथ न्यून-पोषक मिट्टी में पनपने की क्षमता होगी;
- (घ) मिट्टी के अपरदन को कम करने के लिए पर्याप्त घनत्व में पौधरोपण किया जाएगा;
- (ड.) राज्य प्रदूषण नियंत्रण बोर्डों या प्रदूषण नियंत्रण समितियों के परामर्श से भूमि भरण स्थल की सीमा के चारों ओर हरित क्षेत्र विकसित किए जाएंगे।
- **ज. भूमि भरण स्थल पर पश्चात्वर्ती देखरेख के लिए मानदंड**. **(**1) भूमि भरण स्थल की बंदी-पश्च देखरेख कम से कम पंद्रह वर्षों के लिए की जाएगी और दीर्घकालिक मॉनीटरी या देखरेख योजना निम्नलिखित से युक्त होगी, अर्थात् :-
- (क) सबसे ऊपरी परत की अखंडता और प्रभाविता को बनाए रखना, मरम्मत करते रहना तथा सबसे ऊपरी परत को अपरदन या अन्य प्रकार के नुकसान के जारी रहने और बहने को रोकना;
- (ख) अपेक्षानुसार निक्षालक संग्रहण प्रणाली की मॉनीटरी करना;
- (ग) भरण स्थल में और इसके आसपास भू-जल की मॉनीटरी करना;
- (घ) मानकों के अनुरूप भूमि भरण गैस संग्रहण प्रणाली का अनुरक्षण और प्रचालन करना।

(2) पंद्रह वर्ष की बंदी-पश्च मॉनीटरी के बाद बंद पड़े भूमि भरण स्थलों के उपयोग पर मानव बस्ती या अन्यथा प्रयोग किए जाने के बारे में यह सुनिश्चित करने के बाद ही विचार किया जाएगा कि गैसीय उत्सर्जन और निक्षालक गुणवत्ता विश्लेषण, विनिर्दिष्ट मानकों के अनुपालन में हैं और मृदा स्थिरता सुनिश्चित की गई है।

झ. पहाड़ी क्षेत्रों के लिए विशेष प्रावधानों हेतु मानदंड - पहाड़ों पर बसे नगरों और शहरों में स्थानीय प्राधिकरण द्वारा संबंधित राज्य बोर्ड या प्रदूषण नियंत्रण समिति के अनुमोदन से ठोस अपशिष्ट के अंतिम निपटान के लिए विकसित की गई स्थान-विशिष्ट पद्धतियां अपनाई जाएंगी। नगरपालिका प्राधिकरण जैवअवक्रमणीय जैविक अपशिष्ट को उपयोगी बनाने के लिए प्रसंस्करण सुविधाएं स्थापित करेगा। गैर-जैवअवक्रमणीय पुनर्चक्रण योग्य सामग्रियों का भण्डारण किया जाएगा और इन्हें पुनर्चक्रण के लिए आवधिक रूप से भेजा जाएगा। अक्रिय और गैर-जैवअवक्रमणीय अपशिष्ट का उपयोग, सड़कें बनाने या पहाड़ों पर उपयुक्त क्षेत्रों की भराई करने के लिए किया जाएगा। पहाडी क्षेत्रों में पर्याप्त भूमि प्राप्त करने में आ रही कठिनाईयों के कारण सड़क पर बिछाने या भराई के लिए उपयुक्त न पाए गए अपशिष्ट का निपटान मैदानी क्षेत्रों में क्षेत्रीय भरण स्थलों में किया जाएगा।

a. **पुराने मलबा स्थलों को बंद और बहाल करना -** ठोस अपशिष्ट के मलबा स्थल जिन्होंने अपनी क्षमता पूरी कर ली है या नए और उपयुक्त रूप से डिजाइन किए गए भरण स्थलों की स्थापना के बाद जिनमें अतिरिक्त अपशिष्ट नहीं डाले जाते हैं, उन्हें बंद कर दिया जाना चाहिए और निम्नलिखित विकल्पों की जांच करने के बाद बहाली की जानी चाहिए :

- (i) जैव खनन और अपशिष्ट प्रसंस्करण द्वारा अपशिष्ट को कम करना जिसके बाद नए भरण स्थलों या नीचे (ii)
 के अनुसार आच्छादन में अवशिष्टों को रखा जाएगा।
- (ii) ग्रीन हाऊस गैसों के संग्रहण और चमकाने/उपयोग में समर्थ बनाने के लिए ठोस अपशिष्ट आवरण या जियो मेम्ब्रेन से संवर्धित ठोस अपशिष्ट आवरण से आच्छादित किया जाना।
- (iii) ऊपर (ii) के अनुसार अतिरिक्त उपायों (जलोढ़ और अन्य खुरदरी दानेदार मिट्टियों में) जैसे संदूषित भू-जल को निकालने और शोधित करने के लिए कट-ऑफ वॉल और निष्कर्षण कुओं में आच्छादन।
- (iv) स्वीकार्य स्तर तक पर्यावरणीय प्रभाव को कम करने के लिए उपयुक्त कोई अन्य पद्धति।

अनुसूची II

[नियम 16(1), (ख), (ड.),16(4) देखें]

ठोस अपशिष्ट के प्रसंस्करण और शोधन के मानक

क. खाद के मानक.- अपशिष्ट प्रसंस्करण सुविधाओं में जैव अवक्रमणीय अपशिष्ट के प्रसंस्करण हेतु प्रौद्योगिकियों में से एक के रूप में कंपोस्टिंग शामिल होगा। कंपोस्ट संयंत्र से होने वाले प्रदूषण को रोकने के उद्देश्य से निम्नलिखित का पालन किया जाएगा अर्थात् :

- (क) स्थल पर पहुंचने वाले जैविक अपशिष्ट का आगे के प्रसंस्करण से पूर्व समुचित रखरखाव किया जाएगा। जहां तक संभव हो, अपशिष्ट भण्डारण क्षेत्र ढका हुआ होना चाहिए। यदि ऐसा भण्डारण खुले में किया गया हो तो निक्षालक शोधन और निपटान सुविधा तक पहुंचने वाले पंक्तिबद्ध नालों में निक्षालक और सतही जल बहाव को एकत्रित करने की सुविधा के साथ अपारगम्य आधार उपलब्ध कराया जाना चाहिए;
- (ख) गंध, मक्खियों, कृंतकों, पक्षी के खतरे और आग के जोखिम की बाधा को कम करने के लिए आवश्यक सावधानियां बरती जाएंगी;
- (ग) संयंत्र के ब्रेकडाउन या रखरखाव के मामले में, अपशिष्ट अंतर्ग्राही को बंद कर दिया जाएगा और अपशिष्ट को अस्थाई प्रसंस्करण स्थल या अस्थायी भूमि भरण स्थलों की दिशा में विपथित करने की व्यवस्था की जाएगी, जिनका संयंत्र के ठीक-ठाक हो जाने पर पुन:प्रसंस्करण किया जाएगा;
- (घ) प्रसंस्करण सुविधा से प्रक्रिया पूर्व और प्रक्रिया-पश्च अवशिष्टों को नियमित आधार पर हटा दिया जाएगा और स्थल पर इकट्ठा नहीं होने दिया जाएगा। पुनर्चक्रण योग्य सामग्री, उपयुक्त विक्रेताओं के माध्यम से भेजी जाएगी। गैर-पुनर्चक्रण योग्य उच्च तापजनक अंशों को पृथक किया जाएगा और सीमेंट संयंत्रों में या विद्युत संयंत्रों को आरडीएफ उत्पादन, सह-प्रसंस्करण के लिए भेजा जाएगा। भूमि भरण स्थलों में केवल सभी प्रक्रियाओं के अवशिष्ट भेजे जाएंगे।

- (ड.) अपारगम्य आधार के साथ विंड्रो क्षेत्र उपलब्ध कराया जाएगा। ऐसा आधार बजरी या ठोस चिकनी मिट्टी, 50 सेमी मोटी, जिसका पारगम्यता गुणांक 10⁻⁷ सेमी/सेकंड से कम हो, का बनाया जाएगा। आधार में 1 से 2 प्रतिशत ढाल होगी और निक्षालक या सतही बहाव का संग्रहण करने के लिए इसकी चारों तरफ नालियों का घेरा होगा।
- (च) परिवेशी वायु गुणवत्ता की नियमित रूप से मॉनीटरी की जाएगी। प्रसंस्करण संयंत्र की बाहरी दीवार पर या नीचे की हवा की दिशा में गंध की समस्या की भी नियमित रूप से जांच की जाएगी।
- (छ) नमी बनाए रखने के लिए खाद संयंत्र में निक्षालक को पुन:परिचालित किया जाएगा।
- (ज) अंतिम उत्पाद खाद, समय-समय पर अधिसूचित उर्वरक नियंत्रण आदेश के अंतर्गत विनिर्दिष्ट मानकों के अनुसार होगा।
- (झ) खाद का सुरक्षित अनुप्रयोग सुनिश्चित करने हेतु खाद गुणवत्ता के लिए निम्नलिखित विनिर्देशों को पूरा किया जाएगा, अर्थात् :-

पैरामीटर	जैविक खाद (एफसीओ 2009)	फॉस्फेट संपन्न जैविक खाद (एफसीओ 2013)
(1)	(2)	(3)
आर्सेनिक (मिग्रा/किग्रा)	10.00	10.00
कैडमियम (मिग्रा/किग्रा)	5.00	5.00
क्रोमियम (मिग्रा/किग्रा)	50.00	50.00
तांबा (मिग्रा/किग्रा)	300.00	300.00
सीसा (मिग्रा/किग्रा)	100.00	100.00
पारा (मिग्रा/किग्रा)	0.15	0.15
निकल (मिग्रा/किग्रा)	50.00	50.00
जस्ता (मिग्रा/किग्रा)	1000.00	1000.00
सी/एन अनुपात	<20	20:1 से कम
पीएच (pH)	6.5-7.5	(1:5 घोल) अधिकतम 6.7
नमी, भार का प्रतिशत, अधिकतम	15.0-25.0	25.0
थोक घनत्व (ग्राम/सेमी ³)	<1.0	1.6 से कम
कुल जैविक कार्बन, भार द्वारा	12.0	7.9
प्रतिशत, न्यूनतम		
कुल नाइट्रोजन (एन के रूप में), भार द्वारा प्रतिशत, न्यूनतम	0.8	0.4

कुल फॉस्फेट (पी2ओ5 के रूप में)	0.4	10.4
भार द्वारा प्रतिशत, न्यूनतम		
कुल पोटेशियम (के ₂ ओ के रूप में),	0.4	-
भार द्वारा प्रतिशत, न्यूनतम		
रंग	गहरे भूरे से काले तक	-
गंध	बदबू की अनुपस्थिति	-
कण आकार	कम से कम 90% सामग्री, 4.0	कम से कम 90% सामग्री,
	मिमी आईएस छलनी से होकर	4.0 मिमी आईएस छलनी से
	गुजरनी चाहिए	होकर गुजरनी चाहिए
प्रवाहकत्व (डीएसएम-1 के रूप में),	4.0	8.2
से कम		

*उपरोक्त कथित संकेन्द्रण सीमाओं से अधिक वाली खाद (अंतिम उत्पाद) का उपयोग खाद्य फसलों के लिए नहीं किया जाएगा। तथापि, इसका उपयोग खाद्य फसलों को उगाने से भिन्न प्रयोजनों के लिए किया जा सकता है।

ख. शोधित निक्षालकों के लिए मानक. - शोधित निक्षालकों के निपटान में निम्नलिखित मानकों का पालन किया जाएगा, अर्थात्:-

क्र.सं.	मापदंड	मानक (निपटान का तरीका)		r)
		अंतर्देशीय सतही जल	सार्वजनिक सीवर	भूमि निपटान
(1)	(2)	(3)	(4)	(5)
1.	निलंबित ठोस, मिग्रा/ली, अधिकतम	100	600	200
2.	विलीन ठोस (अजैविक), मिग्रा/ली, अधिकतम	2100	2100	2100
3.	पीएच (ph) मान	5.5 से 9.0	5.5 से 9.0	5.5 से 9.0
4.	अमोनिकल नाइट्रोजन (एन के रूप में) मिग्रा/ली., अधिकतम	50	50	
5.	कुल केल्डाल नाइट्रोजन (एन के रूप में) मिग्रा/ली, अधिकतम	100		

[PART II—SEC. 3(ii)]

6.	जैव रासायनिक ऑक्सीजन मांग (27º से. पर 3 दिन) अधिकतम (मिग्रा/ली)	30	350	100
7.	रासायनिक ऑक्सीजन मांग, मिग्रा/ली, अधिकतम	250		
8.	आर्सेनिक (एएस के रूप में), मिग्रा/ ली, अधिकतम	0.2	0.2	0.2
9.	पारा (एचजी के रूप में), मिग्रा/ली, अधिकतम	0.01	0.01	
10.	सीसा (पीबी के रूप में), मिग्रा/ली, अधिकतम	0.1	1.0	
11.	कैडमियम (सीडी के रूप में), मिग्रा/ली, अधिकतम	2.0	1.0	
12.	कुल क्रोमियम (सीआर के रूप में), मिग्रा/ली, अधिकतम	2.0	2.0	
13.	तांबा (सीयू के रूप में), मिग्रा/ली, अधिकतम	3.0	3.0	
14.	जस्ता ((जेडएन के रूप में), मिग्रा/ली, अधिकतम	5.0	15	
15.	निकल (एनआई के रूप में), मिग्रा/ली, अधिकतम	3.0	3.0	
16.	साइनाइड (सीएन के रूप में), मिग्रा/ली, अधिकतम	0.2	2.0	0.2
17.	क्लोराइड (सीएल के रूप में), मिग्रा/ली, अधिकतम	1000	1000	600
18.	फ्लोराइड (एफ के रूप में), मिग्रा/ली, अधिकतम	2.0	1.5	
19.	फेनोलिक यौगिक (सी6एच₅ ओएच के रूप में), मिग्रा/ली, अधिकतम	1.0	5.0	

नोट : आंतरिक सतही जल-निकायों में शोधित निक्षालकों को बहाते समय, बहाए जाने वाले निक्षालकों की मात्रा और प्राप्त करने वाले जल निकाय में उपलब्ध मिश्रित जल की मात्रा पर उचित रूप से ध्यान दिया जाएगा ।

ग. भस्मीकरण के मानक : ठोस अपशिष्ट शोधन/निपटान सुविधा में भस्मकों/ताप प्रौद्योगिकियों से होने वाले उत्सर्जन में निम्नलिखित मानकों का अनुपालन किया जाएगा, अर्थात् :

मानदण्ड		उत्सर्जन मानक		
(1)	(2)	(3)		
विविक्त-कण	50 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
एचसीएल	50 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
एसओ2	200 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
सीओ	100 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
	50 मिग्रा/एनएम ³	मानक का अर्थ दैनिक औसत मान से है		
कुल जैविक कार्बन	20 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
एचएफ	4 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
एनओएक्स (एनओ2 के रूप में व्यक्त	400 मिग्रा/एनएम ³	मानक का अर्थ आधे घंटे के औसत मान से है		
एनओ और एनओ2)				
कुल डाइऑक्सिन और फ्यूरन	0.1 एनजी टीईक्यू/एनएम ³	मानक का अर्थ 6-8 घंटे के नमूने से है। कृपया कुल विषाक्त समतुल्यता प्राप्त करने के लिए विषाक्त समतुल्यता मानों हेतु 17 संबंधित समप्रकारी वस्तु के दिशानिर्देशों का संदर्भ लें।		
सीडी+टीएच+उनके यौगिक	0.05 एमजी/एनएम ³	मानक का अर्थ 30 मिनट और 8 घंटे के बीच कहीं भी नमूना लिए गए समय से है।		
एचजी और इसके यौगिक	0.05 एमजी/एनएम ³	मानक का अर्थ 30 मिनट और 8 घंटे के बीच कहीं भी नमूना लिए गए समय से है।		
एसबी+एएस+पीबी+सीआर+ सीओ+सीयू+एमएन+एनआई+वी+ उनके यौगिक	0.5 एमजी/एनएम ³	मानक का अर्थ 30 मिनट और 8 घंटे के बीच कहीं भी नमूना लिए गए समय से है।		
नोट : सभी मानों में शुष्क आधार पर 11% ऑक्सीजन तक शुद्धि की गई है।				

टिप्पणी :

- (क) उपरोक्त उत्सर्जन सीमाओं को प्राप्त करने के लिए भस्मीकरण यंत्र के साथ उपयुक्त प्रकार के डिजाइन किए गए
 प्रदूषण नियंत्रण उपकरण संस्थापित या पुन:संयोजित किए जाएंगे।
- (ख) भस्मीकृत किए जाने वाले अपशिष्ट को किसी क्लोरीनयुक्त कीटाणुनाशक के साथ रासायनिक तरीके से शोधित नहीं
 किया जाएगा।

- (ग) क्लोरीनयुक्त प्लास्टिक के भस्मीकरण को दो वर्षों के अंदर क्रमबद्ध रूप से समाप्त किया जाएगा।
- (घ) यदि भस्मीकरण राख में विषाक्त धातुओं की सांद्रता समय-समय पर यथासंशोधित परिसंकटमय अपशिष्ट (प्रबंधन, हथालन और सीमा-पारीय संचलन) नियम, 2008 में यथाविनिर्दिष्ट सीमाओं से अधिक हो तो ऐसे राख को परिसंकटमय अपशिष्ट शोधन, भंडारण और निपटान सुविधा को भेजा जाएगा।
- (ड.) भस्मीकरण-यंत्र में ईंधन के रूप में केवल एलडीओ, एलएसएचएस, डीजल, बायोमास, कोयला, एलएनजी, सीएनजी, आरडीएफ और बायोगैस जैसे निम्न सल्फर ईंधन का ही प्रयोग किया जाएगा।
- (च) अधोवायु गैस में सीओ2 संकेन्द्रण 7% से अधिक नहीं होगा।
- (छ) ट्विन चैम्बर भस्मीकरण-यंत्रों में सभी सुविधाएं इस प्रकार से डिजाइन की जाएंगी कि द्वितीय ज्वलन चैम्बर में
 950[°] से. के न्यूनतम तापमान को प्राप्त करने के लिए और 2 (दो) सेकंड से अधिक के द्वितीय ज्वलन चैम्बर में गैस रह सके।
- (ज) भस्मीकरण संयंत्र (दहन चैम्बर) ऐसे तापमान, अवधारण समय और विक्षोभ के साथ परिचालित किए जाएंगे ताकि
 लावा और तलहटी राखों में कुल जैविक कार्बन (टीओसी) तत्व को 3% से कम किया जा सके या प्रज्वलन पर उनकी
 क्षति सूखे वजन के 5% से कम हो।
- (झ) स्थलों से निकलने वाली गंध का प्रबंधन केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा समय-समय पर जारी मार्गदर्शी सिद्धांतों के साथ किया जाएगा।

प्ररूप -I

[नियम 15 (म), 16(1)(ग), 21(3) देखें]

ठोस अपशिष्ट के प्रसंस्करण/पुनर्चक्रण/शोधन और निपटान के लिए ठोस अपशिष्ट प्रबंधन नियमों के अंतर्गत प्राधिकार प्राप्त करने के लिए आवेदन

सेवा में,

..... के

सदस्य सचिव

राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति

महोदय,

मैं/हम ठोस अपशिष्ट के प्रसंस्करण, पुनर्चक्रण, शोधन और निपटान के लिए ठोस अपशिष्ट नियम, 2016 के अंतर्गत प्राधिकार के लिए एतददारा आवेदन करता हूँ/करते हैं।

1.	उनके/सुविधा के प्रचालक द्वारा नियुक्त स्थानीय निकाय/अभिकरण का नाम
2.	पत्राचार का पता
	दूरभाष सं.
	फैक्स सं.

	ई-मेल		
3.	नोडल अधिकारी और पदनाम		
	(प्रसंस्करण/शोधन या निपटान सुविधा के प्रचालन के		
	लिए उत्तरदायी स्थानीय निकाय या अभिकरण द्वारा		
	प्राधिकृत अधिकारी)		
4.	सुविधा की स्थापना करने और प्रचालन के लिए अपेक्षित	i.	अपशिष्ट प्रसंस्करण
	प्राधिकार (कृपया निशान लगाएं)	ii.	पुनर्चक्रण
		iii.	शोधन
		iv.	भूमि भरण स्थल पर निपटान
5.	इन दस्तावेजों की प्रतियां संलग्न करें	i.	स्थल स्वीकृति (स्थानीय प्राधिकरण)
		ii.	पर्यावरणीय स्वीकृति का प्रमाण
		iii.	स्थापना के लिए अनुमति
		iv.	नगरपालिका प्राधिकरण औ प्रचालन अभिकरण के बीच करार
		v .	परियोजना में निवेश और अपेक्षि आय
6.	ठोस अपशिष्ट का प्रसंस्करण/पुनर्चक्रण/शोधन		
	i. प्रतिदिन प्रसंस्करित अपशिष्ट की कुल मात्रा		
	क) पुनर्चक्रित किए जाने वाले अपशिष्ट की		
	मात्रा		
	ख) शोधित किए जाने वाले अपशिष्ट की मात्रा		
	ग) भूमिभरण स्थल में निपटाए जाने वाले अपशिष्ट की मात्रा		
	अपाशटका मात्र। ii. प्रसंस्करित अपशिष्ट के लिए उपयोगिता		
	कार्यक्रम (उत्पाद उपयोग)		
	iii. निपटान के लिए कार्य-पद्धति (ब्यौरा संलग्न		
	करें)		
	क) निक्षालक की मात्रा		
	ख) निक्षालक के लिए शोधन प्रौद्योगिकी		
	iv. पर्यावरणीय प्रदूषण के निवारण और नियंत्रण के लिए किए जाने वाले उपाय		
	 v. संयंत्र में कार्यरत कर्मकारों की सुरक्षा के लिए किए जाने वाले उपाय 		
	vi. ठोस अपशिष्ट प्रसंस्करण/पुनर्चक्रण/शोधन/		

	निपटान सुविधा संबंधी ब्यौरा (संलग्न किया	
	जाए)	
7.	ठोस अपशिष्ट का निपटान	
	अभिज्ञात स्थलों की संख्या	
	प्रतिदिन निपटाए जाने वाले अपशिष्ट की मात्रा	
	स्थल चयन के लिए अपनाई गई कार्य-पद्धति या	
	मानदण्ड का ब्यौरा (संलग्न करें)	
	प्रचालन के अंतर्गत विद्यमान स्थल का ब्यौरा	
	भूमि भरण की कार्य-पद्धति और प्रचालनात्क ब्यौरा	
	पर्यावरणीय प्रदूषण को रोकने के लिए किए गए उपाय	
8.	कोई अन्य सूचना	

हस्ताक्षर :.....

पदनाम

तारीख :

स्थान :

प्ररुप-II

[नियम 16(1)(ड.) देखें]

प्राधिकार जारी करने के लिए प्रपत्र

फाइल सं. : _____

दिनांक : _____

<u> प्राधिकार सं. :</u>_____

सेवा में,

संदर्भ : आपका आवेदन सं. _____ दिनांक _____

____ राज्य प्रदूषण नियंत्रण बोर्ड/प्रदूषण नियंत्रण समिति द्वारा प्रस्ताव का परीक्षण करने के पश्चात _____ को

जिनका प्रशासनिक कार्यालय _____ में है, पर अपशिष्ट प्रसंस्करण/पुनर्चक्रण/शोधन/ निपटान सुविधा स्थापित और प्रचालित करने के लिए प्राधिकृत किया जाता है।

यह प्राधिकार ठोस अपशिष्ट के प्रसंस्करण, पुनर्चक्रण, शोधन और निपटान के लिए सुविधा के प्रचालन हेतु प्रदान किया जाता है।

यह प्राधिकार नीचे उल्लिखित निबंधन एवं शर्तों और इन नियमों में अन्यथा यथानिर्दिष्ट ऐसी शर्तों और इन नियमों के अंतर्गत अनुसूचियों I और II में विनिर्धारित मानकों के अध्यधीन है।

_____ राज्य प्रदूषण नियंत्रण बोर्ड/संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति द्वारा किसी भी समय, प्राधिकार के अंतर्गत लागू किसी शर्त को रद्द किया जा सकता है और इसकी लिखित सूचना दी जाएगी।

ठोस अपशिष्ट प्रबंधन नियम, 2016 के उपबंध का उल्लंघन होने पर पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) के दंडात्मक उपबंध लागू होंगे।

दिनांक :

स्थान :

(सदस्य सचिव) राज्य प्रदूषण नियंत्रण बोर्ड/संघ राज्य क्षेत्र प्रदूषण नियंत्रण समिति (हस्ताक्षर और पदनाम)

प्ररुप-III

[नियम 19(6), 24(1) देखें]

सुविधा के प्रचालक द्वारा स्थानीय निकाय को प्रस्तुत किए जाने के लिए वार्षिक रिपोर्ट का प्रपत्र

1.	शहर/नगर का नाम
2.	जनसंख्या
3.	क्षेत्रफल वर्ग किलो मीटर में
4.	स्थानीय निकाय का नाम और पता
	दूरभाष सं
	फैक्स
	ई-मेल :
5.	सुविधा के प्रचालक का नाम और पता
6.	सुविधा के प्रभारी अधिकारी का नाम
	दूरभाष सं.
	फैक्स
	ई-मेल :

7.	शहर/नगर में परिवारों की संख्या	
	शहर में गैर आवासीय परिसरों की संख्या	
	शहर/नगर में चुनाव/प्रशासनिक वार्डों की संख्या	
8.	ठोस अपशिष्ट की मात्रा	
	प्रति दिन स्थानीय निकाय के क्षेत्र में उत्पन्न ठोस अपशिष्ट की अनुमानित मात्रा मीट्रिक टन में	/टीपीडी
	प्रतिदिन संग्रहित ठोस अपशिष्ट की मात्रा	/टीपीडी
	प्रतिदिन संग्रहित प्रति व्यक्ति अपशिष्ट	/ग्रा./दिन
	प्रसंसकृत ठोस अपशिष्ट की मात्रा	/टीपीडी
	भरण स्थल पर निपटान किए गए ठोस अपशिष्ट की मात्रा	/टीपीडी
9.	ठोस अपशिष्ट प्रबंधन सेवा की स्थिति	
	स्रोत पर अपशिष्ट का पृथक्करण और भंडारण	हां/नहीं
	क्या घरेलू/वाणिज्यिक/संस्थागत बिनों में स्रोत पर ठोस अपशिष्ट का भंडारण किया जाता है, यदि हां	%
	घरेलू बिनों में स्रोत पर अपशिष्ट के भंडारण की घरेलू रीति की प्रतिशतता	%
	वाणिज्यिक/संस्थागत बिनों में स्रोत पर अपशिष्ट का गैर आवासीय परिसरों में भंडारण करने की प्रतिशतता	%
	गलियों में घरों के ठोस अपशिष्ट का निपटान करने या फेंकने की प्रतिशतता	%
	गलियों में गैर आवासीय परिसरों के ठोस अपशिष्ट का निपटान करने या फेंकने की प्रतिशतता	%
	क्या ठोस अपशिष्ट को स्रोत पर पृथककृत स्वरूप में भंडारित किया जाता है	हां/नहीं
	यदि हां, तो स्रोत पर अपशिष्ट का पृथककरण करने वाले परिसरों की प्रतिशतता	%
	ठोस अपशिष्ट का घर-घर जाकर संग्रहण	
	क्या शहर/नगर में ठोस अपशिष्ट का घर-घर जाकर संग्रहण किया जाता है	हां/नहीं
	यदि हां, तो अपशिष्ट के घर-घर जाकर संग्रहण किए जाने में शामिल वार्डों की संख्या	
	शामिल किए गए घरों की संख्या	
	शामिल किए गए वाणिज्यिक संस्थापनाओं, होटलों, रेस्तराओं, शैक्षिक संस्थाओं/कार्यालय इत्यादि सहित गैर आवासीय परिसरों की संख्या	
	निम्न के माध्यम से घर-घर जाकर संग्रहण किए जाने में शामिल आवासीय और गैर आवासीय परिसरों की प्रतिशतता :	
	मोटरकृत वाहन	
	कंटेनरकृत तिपहिया साइकिल/हैंड कार्ट	
	अन्य साधन	

					%		
					%		
					%		
यदि नहीं, तो संग्रहण में अपनाई गई प्राथमिक प	द्धति						
गलियों में झाडू लगाया जाना							
शहर में सड़कों, गलियों, लेनों, बाइलेनों की लम्प की आवश्यकता है	बाई जिनकी स	फाई किए	ु जाने		कि.र्म	<u>न</u> े.	
गली में झाडू लगाए जाने की बारंबारता और							
लाभान्वित जनसंख्या की प्रतिशतता	बारंबारता	रोजान	। ए	कांतर	सप्ताह में	कभी-]
				देवस पर	दो बार	कभी	
				भर			
	जनसंख्या						
	की प्रतिशतता						
प्रयुक्त साधन					%		
हाथ से झाडू लगाया जाना					%		
यांत्रिक रूप से झाडू लगाया जाना							
क्या सफाई कर्मचारियों द्वारा लंबी हैंडल वाले जाता है	झाडू का प्रयोग	ा किया			हां/नही		
क्या प्रत्येक सफाई कर्मचारी को अपशिष्ट का हैंडकार्ट/तिपहिया साइकिल दी जाती है	संग्रहण करने ^{हे}	के लिए			हां/नही		
क्या हैंडकार्ट/तिपहिया साइकिल में कंटेनर लगा	है				हां/नही		
क्या संग्रहण का साधन प्रयोग किए गए संग्रहण कंटेनरों समकालिक है	/अपशिष्ट भंड	ारण के			हां/नही		
द्वितीयक अपशिष्ट भंडारण सुविधाएं							
शहर/नगर में अपशिष्ट भंडारण डिपो की संख्या	और प्रकार		;	संख्या	क्षमता घन	न मीटर में	
खुले अपशिष्ट भंडारण स्थल							
चिनाई किए गए बिन							

सीमेंट कंक्रीट सिलिंडर के बिन		
ढलाव/ढ़के हुए कक्ष/स्थान		
ढ़के हुए धातु/प्लास्टिक के कंटेनर		
1.1 घन मीटर तक के बिन		
2 से 5 घन मीटर के बिन		
5 घन मीटर से बड़े कंटेनर		
बिन रहित शहर		
बिन/जनसंख्या अनुपात		
अपशिष्ट भंडारण डिपो का वार्डवार विवरण		
(संलग्न करें) :		
वार्ड सं. :		
क्षेत्रफल :		
जनसंख्या :		
रखे हुए बिनों की संख्या		
रखे गए बिनों का कुल आयतन		
अपशिष्ट भंडारण सुविधाओं की कुल भंडारण क्षमता घन मीटर में		
अपशिष्ट भंडारण डिपो में प्रतिदिन वास्तविक रूप से भंडारित कुल अपशिष्ट		
डिपो से अपशिष्ट के संग्रहण की बारंबारता बताएं	बारंबारता	बिनों की संख्या
	बारबारता	।बनाका सख्या
 साफ किए गए बिनों की संख्या	~~~	
	प्रतिदिन	
	एकांतर दिवस	
	सप्ताह में दो बार	
	सप्ताह में एक बार	
	कभी-कभी	
क्या भंडारण डिपो में पृथक्कृत अपशिष्ट को हरे, नीले और काले बिनों	हां/नहीं	
में भंडार करके रखने की सुविधा है	(यदि हां तो विवरण दें)	
	हरे बिनों की संख्या :	
	नीले बिनों की संख्या :	
	काले बिनों की संख्या :	
भंडारण डिपो से ठोस अपशिष्ट उठाने का कार्य हाथ से किया जाता है		
	1	

प्रत्येक दिन परिवहन किए गए अपशिष्ट की मात्रा

प्रयोग की गई अपशिष्ट शोधन प्रौद्योगिकियां

क्या ठोस अपशिष्ट का प्रसंस्करण किया जाता है

प्रतिदिन परिवहन किए गए कुल अपशिष्ट की प्रतिशतता

-खण्ड 3(11)] मारत का राजपत्र : असाधारण	57
	1
या यांत्रिक तरीके से? प्रतिशत बताएं	
ठोस अपशिष्ट को हाथ से उठाए जाने की प्रतिशतता	%
यात्रिक तरीके से उठाने की प्रतिशतता	%
यदि यांत्रिक है तो प्रयुक्त पद्धति का स्पष्ट उल्लेख करें	फ्रंट-एंड लोडर/टॉप लोडर
्र् क्या ठोस अपशिष्ट को घर-घर से उठाया जाता है और पृथककृत	हां/नहीं
स्वरूप में सीधे शोधन संयंत्र तक भेजा जाता है	
	(यदि हां तो स्पष्ट उल्लेख करें)
प्रतिदिन अपशिष्ट का परिवहन	अपशिष्ट का परिवहन करने में लगाए गए
प्रयोग किए गए वाहनों का प्रकार और संख्या (कृपया टिक करें या	फेरों की संख्या
जोड़ें)	
पशु गाड़ी	
ट्रैक्टर	
नॉन टीपिंग ट्रक	
टीपिंग ट्रक	
डम्पर प्लेसर	
अवशिष्ट संग्राहक	
कम्पैक्टर	
अन्य जेसीबी - लोडर	
अपशिष्ट के परिवहन की बारंबारता	बारंबारता परिवहन किए गए अपशिष्ट का प्रतिशत
	प्रतिदिन
	एकांतर दिवस पर
	सप्ताह में दो
	बार
	सप्ताह में एक

बार

कभी-कभी

/टीपीडी

%

हां/नहीं

यदि हां, तो प्रतिदिन प्रसंस्करण किए गए अपशिष्ट की मात्रा	/टीपीडी
अपशिष्ट प्रसंस्करण के लिए स्थानीय निकाय के पास उपलब्ध भूमि (हेक्टेयर में)	
अपशिष्ट प्रसंस्करण के लिए वर्तमान में प्रयुक्त भूमि	
प्रचालनरत ठोस अपशिष्ट प्रसंस्करण सुविधाएं	
निर्माणाधीन ठोस अपशिष्ट प्रसंस्करण सुविधाएं	
शहर/नगर की सीमा से प्रसंस्करण सुविधाओं की दूरी	
अपनाई गई प्रौद्योगिकियों का विवरण	
कंपोस्टिंग	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
वर्मी कंपोस्टिंग	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
बायो-मिथेनेशन	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
अवशिष्ट जनित ईंधन	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
अपशिष्ट से ऊर्जा प्रौद्योगिकी जैसे कि भष्मीकरण, गैसीकरण,	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
पाइरोलेसिस या कोई अन्य प्रौद्योगिकी (विवरण दें)	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
सह-प्रसंस्करण	प्रसंस्करण की गई कच्ची सामग्री
सीमेंट संयंत्र को आपूर्तित दहनशील अपशिष्ट	

	ठोस अपशिष्ट आधारित विद्युत संयंत्रों को आपूर्तित दहनशील अपशिष्ट	
	अन्य	मात्रा
	ठोस अपशिष्ट निपटान सुविधाएं	
	स्थानीय निकाय के पास उपलब्ध मलबा स्थलों की संख्या	
	स्थानीय निकाय के पास उपलब्ध स्वास्थ्यकर भरण स्थलों की संख्या	
	अपशिष्ट के निपटान हेतु उपलब्ध ऐसे प्रत्येक स्थल का क्षेत्रफल	
	अपशिष्ट के निपटान के लिए वर्तमान में प्रयुक्त भूमि का क्षेत्रफल	
	शहर/नगर से मलबा स्थल/भरण सुविधा की दूरी	कि.मी.
	निकटतम वसावट से दूरी	कि.मी.
	जल निकाय से दूरी	कि.मी.
	राज्य/राष्ट्रीय राजमार्ग से दूरी	कि.मी.
	विमानपत्तन से दूरी	कि.मी.
	महत्वपूर्ण धार्मिक स्थलों या ऐतिहासिक स्मारक से दूरी	कि.मी.
	क्या यह बाढ़ संभावित क्षेत्र में पड़ता है	हां/नहीं
	क्या यह भूकंप संभावित क्षेत्र में पड़ता है	हां/नहीं
	प्रत्येक दिन भरण में डाले गए अपशिष्ट की मात्रा	टीपीडी
	क्या भरण स्थल को घेरा गया है	हां/नहीं
	क्या स्थल पर रोशनी की सुविधा उपलब्ध है	हां/नहीं
	क्या धर्मकांटा सुविधा उपलब्ध है	हां/नहीं
	भरण स्थल पर प्रयुक्त वाहन और उपकरण (स्पष्ट करें)	उपलब्ध बुलडोजर, कम्पैक्टर इत्यादि
	भरण स्थल पर नियोजित जनशक्ति	हां/नहीं
		(यदि हां तो विवरण संलग्न करें)
	क्या ढ़कने का काम दैनिक आधार पर किया जाता है	हां/नहीं
	यदि नहीं, तो भरण स्थल पर जमा अपशिष्ट को ढ़कने की बारंबारता	
	ढ़कने के लिए प्रयुक्त सामग्री	
	क्या ढ़कने की पर्याप्त सामग्री उपलब्ध है	हां/नहीं
	क्या गैस निकलने की व्यवस्था की गई है	हां/नहीं
		(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
	निक्षालन संग्रहण का प्रावधान	हां/नहीं
		(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
10.	क्या शहर में ठोस अपशिष्ट प्रबंधन पद्धतियों में सुधार लाने के लिए	हां/नहीं

	कार्ययोजना बनाई गई है	(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
11.	निम्न के लिए कौन से पृथक प्रावधान किए गए हैं :	प्रस्तावों, उठाए गए कदमों के संबंध में विवरण संलग्न करें
	डेयरी से संबंधित कार्यकलाप :	
	बूचड़खाने के अपशिष्ट :	हां/नहीं
	निर्माण एवं विध्वंस अपशिष्ट (निर्माण मलबा) :	हां/नहीं
		हां/नहीं
12.	पश्च संवृत्ति योजना का विवरण	योजना संलग्न करें
13.	कितनी मलिन बस्तियों का निर्धारण किया गया है और क्या इनमें ठोस अपशिष्ट प्रबंधन सुविधाएं उपलब्ध कराई गई हैं :	हां/नहीं (यदि हां, तो विवरण संलग्न करें)
14.	गली में झाडू लगाने, अपशिष्ट के द्वितीयक भंडारण, परिवहन, प्रसंस्करण और निपटान सहित संग्रहण के लिए ठेकेदार/रियायतग्राही की नियोजित जनशक्ति का विवरण दें	
15.	इन नियमों के प्रावधानों का अनुपालन करने में स्थानीय निकाय द्वारा महसूस की जा रही कठिनाइयों का संक्षेप में उल्लेख करें	
16.	ठोस अपशिष्ट से संबंधित समस्या से निपटने के लिए किसी अभिनव विचार का संक्षेप में उल्लेख करें जिसे अन्य स्थानीय निकायों द्वारा अपनाया जा सके	

प्रचालक के हस्ताक्षर

तारीख :

स्थान :

प्ररुप-IV

[नियम 15 (यक), 24(2) देखें]

स्थानीय निकाय द्वारा प्रस्तुत किए जाने के लिए ठोस अपशिष्ट प्रबंधन संबंधी

वार्षिक रिपोर्ट का प्रारूप

कैलेंडर वर्ष	रिपोर्ट प्रस्तुत करने की तारीख

1.	शहर/नगर का नाम	
2.	जनसंख्या	
3.	क्षेत्रफल वर्ग किलो मीटर में	
4.	स्थानीय निकाय का नाम और पता	
	दूरभाष सं.	
	फैक्स	
	ई-मेल :	
5.	ठोस अपशिष्ट प्रबंधन (वेस्टेम) से संबंधित प्रभारी अधिकारी का नाम	
	दूरभाष सं.	
	फैक्स	
	ई-मेल :	
6.	शहर/नगर में परिवारों की संख्या	
	शहर में गैर आवासीय परिसरों की संख्या	
	शहर/नगर में चुनाव/प्रशासनिक वार्डों की संख्या	
7.	ठोस अपशिष्ट की मात्रा	
	प्रति दिन स्थानीय निकाय के क्षेत्र में उत्पन्न ठोस अपशिष्ट की अनुमानित मात्रा मीट्रिक टन में	/टीपीडी
	प्रतिदिन संग्रहित ठोस अपशिष्ट की मात्रा	/टीपीडी
	प्रतिदिन संग्रहित प्रति व्यक्ति अपशिष्ट	/ग्रा./दिन
	प्रसंसकृत ठोस अपशिष्ट की मात्रा	/टीपीडी
	मलबा स्थल/भरण स्थल पर निपटान किए गए ठोस अपशिष्ट की मात्रा	/टीपीडी
8.	ठोस अपशिष्ट प्रबंधन सेवा की स्थिति	
	स्रोत पर अपशिष्ट का पृथक्करण और भंडारण	
	क्या घरेलू/वाणिज्यिक/संस्थागत बिनों में स्रोत पर ठोस अपशिष्ट का भंडारण किया जाता है, यदि हां	हां/नहीं

घरेलू बिनों में स्रोत पर अपशिष्ट के भंडारण की घरेलू रीरि प्रतिशतता	तेकी %
वाणिज्यिक/संस्थागत बिनों में स्रोत पर अपशिष्ट का गैर आव परिसरों में भंडारण करने की प्रतिशतता	त्रासीय %
गलियों में घरों के ठोस अपशिष्ट का निपटान करने या फेंक प्रतिशतता	ने की %
गलियों में गैर आवासीय परिसरों के ठोस अपशिष्ट का निपटान क फेंकने की प्रतिशतता	रने या %
ठोस अपशिष्ट का घर-घर जाकर संग्रहण	
क्या शहर/नगर में ठोस अपशिष्ट का घर-घर जाकर संग्रहण किया है	जाता हां/नहीं
यदि हां, तो अपशिष्ट के घर-घर जाकर संग्रहण किए जाने में श वार्डों की संख्या	ामिल
शामिल किए गए घरों की संख्या	
शामिल किए गए वाणिज्यिक संस्थापनाओं, होटलों, रेस्तराओं, संस्थाओं/कार्यालय इत्यादि सहित गैर आवासीय परिसरों की संख्या	
निम्न के माध्यम से घर-घर जाकर संग्रहण किए जाने में श आवासीय और गैर आवासीय परिसरों की प्रतिशतता :	ामिल
मोटरकृत वाहन	%
कंटेनरकृत तिपहिया साइकिल/हैंड कार्ट	%
अन्य साधन	%
यदि नहीं, तो संग्रहण में अपनाई गई प्राथमिक पद्धति	
गलियों में झाडू लगाया जाना	
शहर में सड़कों, गलियों, लेनों, बाइलेनों की लम्बाई जिनकी सफाई जाने की आवश्यकता है	ई किए कि.मी.
गली में झाडू लगाए जाने की बारंबारता और लाभान्वित जनसंख्या की प्रतिशतता	
बारंबारता रोजा	ना एकांतर सप्ताह में कभी- दिवस दो बार कभी पर
लाभान्वित जनसंख्या की प्रतिशतता	
प्रयुक्त साधन	%
हाथ से झाडू लगाया जाना	
यांत्रिक रूप से झाडू लगाया जाना	%

क्या सफाई कर्मचारियों द्वारा लंबी हैंडल वाले झाडू का प्रयोग किया जाता है		हां/नही
क्या प्रत्येक सफाई कर्मचारी को अपशिष्ट का संग्रहण करने के लिए हैंडकार्ट/तिपहिया साइकिल दी जाती है		हां/नही
क्या हैंडकार्ट/तिपहिया साइकिल में कंटेनर लगा है		हां/नही
क्या संग्रहण का साधन प्रयोग किए गए संग्रहण/अपशिष्ट भंडारण के कंटेनरों समकालिक है		हां/नही
द्वितीयक अपशिष्ट भंडारण सुविधाएं		
 शहर/नगर में अपशिष्ट भंडारण डिपो की संख्या और प्रकार	संख्या	क्षमता घन मीटर में
खुले अपशिष्ट भंडारण स्थल		
चिनाई किए गए बिन		
सीमेंट कंक्रीट सिलिंडर के बिन		
ढलाव/ढ़के हुए कक्ष/स्थान		
ढ़के हुए धातु/प्लास्टिक के कंटेनर		
1.1 घन मीटर तक के बिन		
2 से 5 घन मीटर के बिन		
5 घन मीटर से बड़े कंटेनर		
बिन रहित शहर		
बिन/जनसंख्या अनुपात		
अपशिष्ट भंडारण डिपो का वार्डवार विवरण		
(संलग्न करें) :		
वार्ड सं. :		
क्षेत्रफल :		
जनसंख्या :		
रखे हुए बिनों की संख्या		
रखे गए बिनों का कुल आयतन		
अपशिष्ट भंडारण सुविधाओं की कुल भंडारण क्षमता घन मीटर में		
अपशिष्ट भंडारण डिपो में प्रतिदिन वास्तविक रूप से भंडारित कुल अपशिष्ट		

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डिपो से अपशिष्ट के संग्रहण की बारंबारता बताएं	बारंबारता	बिनों की
साफ किए गए बिनों की संख्या		संख्या
	प्रतिदिन	
	एकांतर दिवस	
	सप्ताह में दो बार	
	सप्ताह में एक बार	
	· ·	
	कभी-कभी	
क्या भंडारण डिपो में पृथककृत अपशिष्ट को हरे, नीले और काले बिनों में भंडार करके रखने की सुविधा है	हां/नहीं	
ाबना म मडार करक रखन का सुावधा ह 	(यदि हां तो विवरण दें)	
	हरे बिनों की संख्या :	
	नीले बिनों की संख्या :	
	काले बिनों की संख्या :	
भंडारण डिपो से ठोस अपशिष्ट उठाने का कार्य हाथ से किया		
जाता है या यांत्रिक तरीके से? प्रतिशत बताएं		
ठोस अपशिष्ट को हाथ से उठाए जाने की प्रतिशतता	%	
यात्रिक तरीके से उठाने की प्रतिशतता	%	
यदि यांत्रिक है तो प्रयुक्त पद्धति का स्पष्ट उल्लेख करें	फ्रंट-एंड लोडर/टॉप	लोडर
 क्या ठोस अपशिष्ट को घर-घर से उठाया जाता है और पृथककृत	हां/नहीं	
स्वरूप में सीधे शोधन संयंत्र तक भेजा जाता है	(यदि हां तो स्पष्ट उल	त्रेख करें।
प्रतिदिन अपशिष्ट का परिवहन	अपशिष्ट का परिवहन क जप्म ऐन्टों की संख्या	रने में लगाए
प्रयोग किए गए वाहनों का प्रकार और संख्या	गए फेरों की संख्या	

पशु गाड़ी		
ट्रैक्टर		
नॉन टीपिंग ट्रक		
टीपिंग ट्रक		
डम्पर प्लेसर		
अवशिष्ट संग्राहक		
कम्पैक्टर		
अन्य जेसीबी - लोडर		
अपशिष्ट के परिवहन की बारंबारता	बारंबारता	परिवहन किए गए अपशिष्ट का प्रतिशत
	प्रतिदिन	
	एकांतर दिवस पर	
	सप्ताह में दो बार	
	सप्ताह में एक	
	बार	
	कभी-कभी	
प्रत्येक दिन परिवहन किए गए अपशिष्ट की मात्रा		/टीपीडी
प्रतिदिन परिवहन किए गए कुल अपशिष्ट की प्रतिशतता		%
प्रयोग की गई अपशिष्ट शोधन प्रौद्योगिकियां		
क्या ठोस अपशिष्ट का प्रसंस्करण किया गया है		हां/नहीं
यदि हां, तो प्रतिदिन प्रसंस्करण किए गए अपशिष्ट की मात्रा		/टीपीडी
क्या शोधन का कार्य स्थानीय निकाय या किसी अभिकरण के माध्यम से किया जाता है		
अपशिष्ट प्रसंस्करण के लिए स्थानीय निकाय के पास उपलब्ध भूमि (हेक्टेयर में)		
अपशिष्ट प्रसंस्करण के लिए वर्तमान में प्रयुक्त भूमि		
प्रचालनरत ठोस अपशिष्ट प्रसंस्करण सुविधाएं		
निर्माणाधीन ठोस अपशिष्ट प्रसंस्करण सुविधाएं		
 शहर/नगर की सीमा से प्रसंस्करण सुविधाओं की दूरी		

अपनाई गई प्रौद्योगिकियों का विवरण	
कंपोस्टिंग	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
वर्मी कंपोस्टिंग	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
बायो-मिथेनेशन	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
अवशिष्ट जनित ईंधन	प्रसंस्करण की गई कच्ची सामग्री की मात्रा
	उत्पन्न किए गए अंतिम उत्पाद की मात्रा
	बेची गई मात्रा
	भरण स्थल में डाले गए शेष अपशिष्ट की मात्रा
सह-प्रसंस्करण	प्रसंस्करण की गई कच्ची सामग्री
सीमेंट संयंत्र को आपूर्तित दहनशील अपशिष्ट	
ठोस अपशिष्ट आधारित विद्युत संयंत्रों को आपूर्तित दहनशील अपशिष्ट	
अन्य	मात्रा
ठोस अपशिष्ट निपटान सुविधाएं	
स्थानीय निकाय के पास उपलब्ध मलबा स्थलों की संख्या	
स्थानीय निकाय के पास उपलब्ध स्वास्थ्यकर भरण स्थलों की संख्या	

	अपशिष्ट के निपटान हेतु उपलब्ध ऐसे प्रत्येक स्थल का क्षेत्रफल	
	्र अपशिष्ट के निपटान के लिए वर्तमान में प्रयुक्त भूमि का क्षेत्रफल	
	शहर/नगर से मलबा स्थल/भरण सुविधा की दूरी	कि.मी.
	निकटतम वसावट से दूरी	कि.मी.
	जल निकाय से दूरी	कि.मी.
	राज्य/राष्ट्रीय राजमार्ग से दूरी	कि.मी.
	विमानपत्तन से दूरी	कि.मी.
	महत्वपूर्ण धार्मिक स्थलों या ऐतिहासिक स्मारक से दूरी	कि.मी.
	क्या यह बाढ़ संभावित क्षेत्र में पड़ता है	हां/नहीं
	क्या यह भूकंप संभावित क्षेत्र में पड़ता है	हां/नहीं
	प्रत्येक दिन भरण में डाले गए अपशिष्ट की मात्रा	टीपीडी
	क्या भरण स्थल को घेरा गया है	हां/नहीं
	क्या स्थल पर रोशनी की सुविधा उपलब्ध है	हां/नहीं
	क्या धर्मकांटा सुविधा उपलब्ध है	हां/नहीं
	भरण स्थल पर प्रयुक्त वाहन और उपकरण (स्पष्ट करें)	उपलब्ध बुलडोजर, कम्पैक्टर इत्यादि
	भरण स्थल पर नियोजित जनशक्ति	हां/नहीं
		(यदि हां तो विवरण संलग्न करें)
	क्या ढ़कने का काम दैनिक आधार पर किया जाता है	हां/नहीं
	यदि नहीं, तो भरण स्थल पर जमा अपशिष्ट को ढ़कने की बारंबारता	
	ढ़कने के लिए प्रयुक्त सामग्री	
	क्या ढ़कने की पर्याप्त सामग्री उपलब्ध है	हां/नहीं
	क्या गैस निकलने की व्यवस्था की गई है	हां/नहीं
		(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
	निक्षालन संग्रहण का प्रावधान	हां/नहीं
		(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
9.	क्या शहर में ठोस अपशिष्ट प्रबंधन पद्धतियों में सुधार लाने के	हां/नहीं
	लिए कार्ययोजना बनाई गई है	(यदि हां, तो तकनीकी डाटा शीट संलग्न करें)
10.	निम्न के लिए कौन से पृथक प्रावधान किए गए हैं :	प्रस्तावों, उठाए गए कदमों के संबंध में
	डेयरी से संबंधित कार्यकलाप :	विवरण संलग्न करें
	बूचड़खाने के अपशिष्ट :	
	निर्माण एवं विध्वंस अपशिष्ट (निर्माण मलबा) :	हां/नहीं

		हां/नहीं
		हां/नहीं
11.	पश्च संवृत्ति योजना का विवरण	योजना संलग्न करें
12.	कितनी मलिन बस्तियों का निर्धारण किया गया है और क्या	हां/नहीं
	इनमें ठोस अपशिष्ट प्रबंधन सुविधाएं उपलब्ध कराई गई हैं :	(यदि हां, तो विवरण संलग्न करें)
13.	कृपया विवरण दें :	
	गली में झाडू लगाने, अपशिष्ट के द्वितीयक भंडारण, परिवहन, प्रसंस्करण और निपटान सहित संग्रहण के लिए स्थानीय निकाय की स्वयं की जनशक्ति	
14.	कृपया विवरण दें :	
	गली में झाडू लगाने, अपशिष्ट के द्वितीयक भंडारण, परिवहन, प्रसंस्करण और निपटान सहित संग्रहण के लिए ठेकेदार/रियायतग्राही की नियोजित जनशक्ति	
15.	इन नियमों के प्रावधानों का अनुपालन करने में स्थानीय निकाय द्वारा महसूस की जा रही कठिनाइयों का संक्षेप में उल्लेख करें	
16.	ठोस अपशिष्ट से संबंधित समस्या से निपटने के लिए किसी अभिनव विचार का संक्षेप में उल्लेख करें जिसे अन्य स्थानीय निकायों द्वारा अपनाया जा सके	

मुख्य कार्यकारी अधिकारी/

नगरपालिका आयुक्त/कार्यकारी अधिकारी/

मुख्य अधिकारी के हस्ताक्षर

तारीख :

स्थान :

प्ररुप-V

[नियम 24(3) देखें]

राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समितियों द्वारा केन्द्रीय प्रदूषण नियंत्रण बोर्ड को प्रस्तुत की जाने वाली वार्षिक रिपोर्ट का प्रपत्र

भाग क

सेवा में,

अध्यक्ष, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली-110032

1.	राज्य/संघ राज्य क्षेत्र का नाम		• •	
2.	राज्य प्रदूषण नियंत्रण बोर्ड का नाम और पता		•	
3.	इन नियमों के अंतर्गत राज्य/संघ राज्य क्षेत्र में ठोस अपशिष्टों के प्रबंधन के लिए उत्तरदायी स्थानीय निकायों की संख्या		• •	
4.	प्राप्त हुए प्राधिकार आवेदनों की संख्या			
5.	ठोस अपशिष्ट प्रबंधन के संबंध में स्थानीय निकाय द्वारा की गई प्रगति के संबंध में सारांश विवरण		:	कृपया अनुबंध- । के रूप में संलग्न करें
6.	अपशिष्ट संग्रहण, पृथक्करण, परिवहन और निपटान के संबंध में स्थानीय निकायों द्वारा की गई प्रगति के संबंध में सारांश विवरण			कृपया अनुबंध- ॥ के रूप में संलग्न करें
7.	अनुसूची II के कार्यान्वयन के संबंध में स्थानीय की गई प्रगति के संबंध में सारांश विवरण	निकायों द्वारा	:	कृपया अनुबंध- III के रूप में संलग्न करें
तारीख	:			अध्यक्ष या सदस्य सचिव
स्थान :				राज्य प्रदूषण नियंत्रण बोर्ड/
				प्रदूषण नियंत्रण समिति

भाग ख

नगर/शहर

नगरों/शहरों की कुल संख्या

शहरी स्थानीय निकायों की कुल संख्या

श्रेणी-l तथा श्रेणी-ll नगरों/शहरों की संख्या

प्राधिकार की स्थिति (नाम/संख्या)

प्राप्त हुए आवेदनों की संख्या

प्रदान किए गए प्राधिकारों की संख्या

जांच के अधीन प्राधिकार

ठोस अपशिष्ट उत्पादन की स्थिति

राज्य में ठोस अपशिष्ट उत्पादन (टीपीडी)

संग्रहित

शोधित

खत्ते में डाले गए

ठोस अपशिष्ट नियम की अनुसूची | का अनुपालन (नगरों की संख्या/नाम/क्षमता)

शहरों/नगरों में अच्छी रीतियां घर-घर से संग्रहण पृथक्करण भंडारण

आवृत्त परिवहन

ठोस अपशिष्ट का प्रसंस्करण (नगरों की संख्या/नाम/क्षमता)

ठोस अपशिष्ट प्रसंस्करण सुविधाओं की स्थापना :

क्रम सं.	कम्पोस्टिंग	वर्मी-कम्पोस्टिंग	बायो गैस	आरडीएफ/गुटिकाकरण

प्रचालनरत प्रसंस्करण सुविधा

क्रम सं.	कम्पोस्टिंग	वर्मी -कम्पोस्टिंग	बायो गैस	आरडीएफ/गुटिकाकरण

संस्थापनाधीन/योजनाकृत प्रसंस्करण सुविधा

क्रम सं.	कम्पोस्टिंग	वर्मी-कम्पोस्टिंग	बायो गैस	आरडीएफ/गुटिकाकरण

अपशिष्ट से ऊर्जा संयंत्र : (नगरों की संख्या/नाम/क्षमता)

क्रम सं.	संयंत्र का स्थान	प्रचालन की स्थिति	विद्युत उत्पादन (मेगा वाट)	अभ्युक्ति

ठोस अपशिष्ट का निपटान (नगरों की संख्या/नाम/क्षमता)

अभिनिर्धारित भरण स्थल

निर्मित भरण स्थल

निर्माणाधीन भरण स्थल

प्रचालनरत भरण स्थल

निश्शेषित भरण स्थल

आच्छादित भरण स्थल

ठोस अपशिष्ट मलबा स्थल (नगरों की संख्या/नाम/क्षमता)

विद्यमान मलबा स्थलों की कुल संख्या

पुनर्निर्मित/आच्छादित भरण स्थल

स्वास्थ्यकर भरण स्थल में परिवर्तित मलबा स्थल

अपशिष्ट प्रसंस्करण/भरण स्थलों पर निगरानी

क्रम सं.	सुविधाओं का नाम	परिवेशी वायु	भू जल	निक्षालन की गुणवत्ता	कंपोस्ट की गुणवत्ता	वीओसी
1.				3	3	
2.						
3.						

नगरपालिकाओं द्वारा तैयार की गई कार्य योजनाओं की स्थिति

नगरपालिकाओं की कुल संख्या:

प्रस्तुत की गई कार्य योजना की संख्या:

प्ररुप-VI

[नियम 25 देखें]

दुर्घटना का प्रतिवेदन

1.	दुर्घटना की तारीख और समय	:
2.	दुर्घटना के लिए कारकों का अनुक्रम	:
3.	दुर्घटना में शामिल अपशिष्ट	:
4.	मानव स्वास्थ्य और पर्यावरण पर दुर्घटनाओं के प्रभावों का मूल्यांकन	
5.	किए गए आपातकालीन उपाय	
6.	दुर्घटनाओं के प्रभावों को कम करने के लिए उठाए गए कदम	
7.	ऐसी किसी दुर्घटना की पुनरावृत्ति को रोकने के लिए उठाए गए कदम	
तारीख		हस्ताक्षर
स्थान		पदनाम

[फा. सं.18-3/2004-एचएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFICATION

New Delhi, the 8th April, 2016

S.O. 1357(E).—Whereas the draft of the Solid Waste Management Rules, 2015 were published under the notification of the Government of India in the Ministry of Environment, Forest and Climate Change number G.S.R. 451 (E), dated the 3rd June, 2015 in the Gazette of India, part II, Section3, sub- section (i) of the same date inviting objections or suggestions from the persons likely to be affected thereby, before the expiry of the period of sixty days from the publication of the said notification on the Solid Waste Management Rules, 2015 in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000;

And whereas, copies of the said Gazette were made available to the public on the 3rd June, 2015;

And whereas, the objections or comments received within the stipulated period were duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) and in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government hereby makes the following rules for management of Solid Waste, namely:-

1. Short title and commencement.-

- (1) These rules may be called the Solid Waste Management Rules, 2016.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. **Application.-** These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other non residential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986.

3. **Definitions** –(1) In these rules, unless the context otherwise requires,- (1) "**aerobic composting**" means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;

- 2. "anaerobic digestion" means a controlled process involving microbial decomposition of organic matter in absence of oxygen;
- 3. "**authorisation**" means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local suthority, or any other agency responsible for processing and disposal of solid waste;
- 4. **"biodegradable waste**" means any organic material that can be degraded by micro-organisms into simpler stable compounds;
- 5. "bio-methanation" means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;
- 6. "brand owner" means a person or company who sells any commodity under a registered brand label.
- 7. "**buffer zone**" means zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total and area allotted for the solid waste processing and disposal facility.
- 8. **"bulk waste generator"** means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day;
- 9. "bye-laws" means regulatory framework notified by local body, census town and notified area townships for facilitating the implementation of these rules effectively in their jurisdiction.
- 10. "census town" means an urban area as defined by the Registrar General and Census Commissioner of India;
- 11. **"combustible waste"** means non-biodegradable, non-recyclable, non-reusable, non hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc;
- 12. "composting" means a controlled process involving microbial decomposition of organic matter;
- 13. "**contractor**" means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;
- 14. "**co-processing**" means use of non-biodegradable and non recyclable solid waste having calorific value exceeding 1500k/cal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;
- 15. "decentralised processing" means establishment of dispersed facilities for maximizing the processing of biodegradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;
- 16. "**disposal**" means the final and safe disposal of post processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
- 17. "domestic hazardous waste" means discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;

- 18. "door to door collection" means collection of solid waste from the door step of households, shops, commercial establishments, offices, institutional or any other non residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society, multi storied building or apartments, large residential, commercial or institutional complex or premises;.
- 19. "**dry waste**" means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non recyclable waste, combustible waste and sanitary napkin and diapers, etc;
- 20. "dump sites" means a land utilised by local body for disposal of solid waste without following the principles of sanitary land filling;
- 21. "extended producer responsibility" (EPR) means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;
- 22. "facility" means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;
- 23. "fine" means penalty imposed on waste generators or operators of waste processing and disposal facilities under the bye-laws for non-compliance of the directions contained in these rules and/or bye- laws
- 24. "Form" means a F8orm appended to these rules;
- 25. **"handling"** includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;
- 26. "inerts" means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
- 27. **"incineration"** means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
- 28. **"informal waste collector"** includes individuals, associations or waste traders who are involved in sorting, sale and purchase of recyclable materials;
- 29. "leachate" means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;
- 30. "**local body**" for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India;
- 31. "materials recovery facility" (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;
- 32. "non-biodegradable waste" means any waste that cannot be degraded by micro organisms into simpler stable compounds;
- 33. **"operator of a facility"** means a person or entity, who owns or operates a facility for handling solid waste which includes the local body and any other entity or agency appointed by the local body;
- 34. **primary collection''** means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;
- 35. "**processing**" means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products;
- 36. **"recycling**" means the process of transforming segregated non-biodegradable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;
- 37. **"redevelopment"** means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;

- "refused derived fuel"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;
- 39. "**residual solid waste**" means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;
- 40. **"sanitary land filling "** means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;
- 41. "sanitary waste" means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;
- 42. "Schedule" means the Schedule appended to these rules;
- 43. "**secondary storage**" means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;
- 44. "segregation" means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;
- 45. "service provider" means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;
- 46. "solid waste" means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;
- 47. "sorting" means separating various components and categories of recyclables such as paper, plastic, cardboards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling;
- 48. **"stabilising"** means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land ,soil erosion control and soil remediation;
- 49. "street vendor" means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;
- 50. **"tipping fee"** means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;
- 51. "**transfer station**" means a facility created to receive solid waste from collection areas and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;
- 52. **"transportation"** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions;
- 53. "**treatment**" means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
- 54. **"user fee"** means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.
- 55. "**vermi composting''** means the process of conversion of bio-degradable waste into compost using earth worms;
- 56. "waste generator" means and includes every person or group of persons, every residential premises and non residential establishments including Indian Railways, defense establishments, which generate solid waste;
- 57. "waste hierarchy" means the priority order in which the solid waste is to should be managed by giving

emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;

58. **"waste picker"** means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.

(2) Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (prevention and Control of Pollution) Act, 1981 shall have the same meaning as assigned to them in the respective Acts.

4 Duties of waste generators.- (1) Every waste generator shall,-

(a) segregate and store the waste generated by them in three separate streams namely bio-degradable, non biodegradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorised waste pickers or waste collectors as per the direction or notification by the local authorities from time to time;

(b) wrap securely the used sanitary waste like diapers, sanitary pads etc., in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and shall place the same in the bin meant for dry waste or non- bio-degradable waste;

(c) store separately construction and demolition waste, as and when generated, in his own premises and shall dispose off as per the Construction and Demolition Waste Management Rules, 2016; and

(d) store horticulture waste and garden waste generated from his premises separately in his own premises and dispose of as per the directions of the local body from time to time.

(2) No waste generator shall throw, burn or burry the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.

(3) All waste generators shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies.

(4) No person shall organise an event or gathering of more than one hundred persons at any unlicensed place without intimating the local body, at least three working days in advance and such person or the organiser of such event shall ensure segregation of waste at source and handing over of segregated waste to waste collector or agency as specified by the local body.

(5) Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container or vehicle as notified by the local body.

(6) All resident welfare and market associations shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(7) All gated communities and institutions with more than 5,000 sqm area shall, within one year from the date of notification of these rules and in partnership with the local body, ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorized recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(8) All hotels and restaurants shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

5. Duties of Ministry of Environment, Forest and Climate Change.- (1) The Ministry of Environment, Forest and Climate Change shall be responsible for over all monitoring the implementation of these rules in the country. It shall constitute a Central Monitoring Committee under the Chairmanship of Secretary, Ministry of Environment, Forest and Climate Change comprising officer not below the rank of Joint Secretary or Advisor from the following namely,-

- 1) Ministry of Urban Development
- 2) Ministry of Rural Development
- 3) Ministry of Chemicals and Fertilizers
- 4) Ministry of Agriculture
- 5) Central Pollution Control Board
- 6) Three State Pollution Control Boards or Pollution Control Committees by rotation
- 7) Urban Development Departments of three State Governments by rotation
- 8) Rural Development Departments from two State Governments by rotation
- 9) Three Urban Local bodies by rotation
- 10) Two census towns by rotation
- 11) FICCI, CII
- 12) Two subject experts

2. This Central Monitoring Committee shall meet at least once in a year to monitor and review the implementation of these rules. The Ministry of Environment, Forest and Climate Change may co-opt other experts, if needed. The Committee shall be renewed every three years.

6. Duties of Ministry of Urban Development.- (1) The Ministry of Urban Development shall coordinate with State Governments and Union territory Administrations to,-

(a) take periodic review of the measures taken by the states and local bodies for improving solid waste management practices and execution of solid waste management projects funded by the Ministry and external agencies at least once in a year and give advice on taking corrective measures;

(b) formulate national policy and strategy on solid waste management including policy on waste to energy in consultation with stakeholders within six months from the date of notification of these rules;

(c) facilitate States and Union Territories in formulation of state policy and strategy on solid management based on national solid waste management policy and national urban sanitation policy;

(d) promote research and development in solid waste management sector and disseminate information to States and local bodies;

(e) undertake training and capacity building of local bodies and other stakeholders; and

(f) provide technical guidelines and project finance to states, Union territories and local bodies on solid waste management to facilitate meeting timelines and standards.

7. Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers.- (1) The Department of Fertilisers through appropriate mechanisms shall,-

(a) provide market development assistance on city compost; and

(b) ensure promotion of co-marketing of compost with chemical fertilisers in the ratio of 3 to 4 bags: 6 to 7 bags by the fertiliser companies to the extent compost is made available for marketing to the companies.

8. Duties of Ministry of Agriculture, Government of India.- The Ministry of Agriculture through appropriate mechanisms shall,-

- (a) provide flexibility in Fertiliser Control Order for manufacturing and sale of compost;
- (b) propagate utilisation of compost on farm land;
- (c) set up laboratories to test quality of compost produced by local authorities or their authorised agencies; and
- (d) issue suitable guidelines for maintaining the quality of compost and ratio of use of compost visa-a-vis chemical fertilizers while applying compost to farmland.
- 9. Duties of the Ministry of Power. The Ministry of Power through appropriate mechanisms shall,-
- (a) decide tariff or charges for the power generated from the waste to energy plants based on solid waste.
- (b) compulsory purchase power generated from such waste to energy plants by distribution company.

10. Duties of Ministry of New and Renewable Energy Sources- The Ministry of New and Renewable Energy Sources through appropriate mechanisms shall,-

(a) facilitate infrastructure creation for waste to energy plants; and

(b) provide appropriate subsidy or incentives for such waste to energy plants.

11. Duties of the Secretary-in-charge, Urban Development in the States and Union territories.- (1) The Secretary, Urban Development Department in the State or Union territory through the Commissioner or Director of Municipal Administration or Director of local bodies shall,-

(a) prepare a state policy and solid waste management strategy for the state or the union territory in consultation with stakeholders including representative of waste pickers, self help group and similar groups working in the field of waste management consistent with these rules, national policy on solid waste management and national urban sanitation policy of the ministry of urban development, in a period not later than one year from the date of notification of these rules;

(b) while preparing State policy and strategy on solid waste management, lay emphasis on waste reduction, reuse, recycling, recovery and optimum utilisation of various components of solid waste to ensure minimisation of waste going to the landfill and minimise impact of solid waste on human health and environment;

(c) state policies and strategies should acknowledge the primary role played by the informal sector of waste pickers, waste collectors and recycling industry in reducing waste and provide broad guidelines regarding integration of waste picker or informal waste collectors in the waste management system.

(d) ensure implementation of provisions of these rules by all local authorities;

(e) direct the town planning department of the State to ensure that master plan of every city in the State or Union territory provisions for setting up of solid waste processing and disposal facilities except for the cities who are members of common waste processing facility or regional sanitary landfill for a group of cities; and

(f) ensure identification and allocation of suitable land to the local bodies within one year for setting up of processing and disposal facilities for solid wastes and incorporate them in the master plans (land use plan) of the State or as the case may be, cities through metropolitan and district planning committees or town and country planning department;

(h) direct the town planning department of the State and local bodies to ensure that a separate space for segregation, storage, decentralised processing of solid waste is demarcated in the development plan for group housing or commercial, institutional or any other non-residential complex exceeding 200 dwelling or having a plot area exceeding 5,000 square meters;

(i) direct the developers of Special Economic Zone, Industrial Estate, Industrial Park to earmark at least five percent of the total area of the plot or minimum five plots or sheds for recovery and recycling facility.

(j) facilitate establishment of common regional sanitary land fill for a group of cities and towns falling within a distance of 50 km (or more) from the regional facility on a cost sharing basis and ensure professional management of such sanitary landfills;

(k) arrange for capacity building of local bodies in managing solid waste, segregation and transportation or processing of such waste at source;

(1) notify buffer zone for the solid waste processing and disposal facilities of more than five tons per day in consultation with the State Pollution Control Board; and

(m) start a scheme on registration of waste pickers and waste dealers.

12. Duties of District Magistrate or District Collector or Deputy Commissioner.- The District Magistrate or District Collector or as the case may be , the Deputy Commissioner shall, -

(a) facilitate identification and allocation of suitable land as per clause (f) of rules 11 for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules;

(b) review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal Administration or Director of local bodies and secretary-in-charge of the State Urban Development.

13. Duties of the Secretary-in-charge of Village Panchayats or Rural Development Department in the State and Union territory.- (1) The Secretary-in-charge of Village Panchayats or Rural Development Department in the State and Union territory shall have the same duties as the Secretary-in-charge, Urban Development in the States and Union territories, for the areas which are covered under these rules and are under their jurisdictions.

14. Duties of Central Pollution Control Board.-The Central Pollution Control Board shall, -

(a) co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities;

(b) formulate the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities;

(c) review environmental standards and norms prescribed for solid waste processing facilities or treatment technologies and update them as and when required;

(d) review through State Pollution Control Boards or Pollution Control Committees, at least once in a year, the implementation of prescribed environmental standards for solid waste processing facilities or treatment technologies and compile the data monitored by them;

(e) review the proposals of State Pollution Control Boards or Pollution Control Committees on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months;

(f) monitor through State Pollution Control Boards or Pollution Control Committees the implementation of these rules by local bodies;

(g) prepare an annual report on implementation of these rules on the basis of reports received from State Pollution Control Boards and Committees and submit to the Ministry of Environment, Forest and Climate Change and the report shall also be put in public domain;

(h) publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than five tons per day of solid waste;

(i) publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of these rules; and

(j) provide guidance to States or Union territories on inter-state movement of waste.

15. Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.- The local authorities and Panchayats shall,-

(a) prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification of state policy and strategy and submit a copy to respective departments of State Government or Union territory Administration or agency authorised by the State Government or Union territory Administration;

(b) arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non residential premises. From multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location;

(c) establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;

(d) facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;

(e) frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules and ensure timely implementation;

(f) prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorised agency;

(g) direct waste generators not to litter i.e throw or dispose of any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, fruit peel, wrappers, etc., or burn or burry waste on streets, open public spaces, drains, waste bodies and to segregate the waste at source as prescribed under these rules and hand over the segregated waste to authorised the waste pickers or waste collectors authorised by the local body;

(h) setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials to enable informal or authorised waste pickers and waste collectors to separate recyclables from the waste and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste such as paper, plastic, metal, glass, textile from the source of generation or from material recovery facilities; Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;

(i) establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a city or town in a manner that one centre is set up for the area of twenty square kilometers or part thereof and notify the timings of receiving domestic hazardous waste at such centres;

(j) ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the State Pollution Control Board or the Pollution Control Committee;

(k) direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorised by local body;

(l) provide training on solid waste management to waste-pickers and waste collectors;

(m) collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;

(n) collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;

(o) set up covered secondary storage facility for temporary storage of street sweepings and silt removed from surface drains in cases where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by the local body;

(p) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;

(q) transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference shall be given for on site processing of such waste;

(r) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;

(s) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste management Rules, 2016;

(t) involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;

(u) phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by the local body and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.

(v) facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation of various components of solid waste adopting suitable technology including the following technologies and adhering to the guidelines issued by the Ministry of Urban Development from time to time and standards prescribed by the Central Pollution Control Board. Preference shall be given to decentralised processing to minimize transportation cost and environmental impacts such as-

- a)bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes;
- b)waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;

(w) undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule 1 for disposal of residual wastes in a manner prescribed under these rules;

(x) make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget ensuring that funds for discretionary functions of the local body have been allocated only after meeting the requirement of necessary funds for solid waste management and other obligatory functions of the local body as per these rules;

(y) make an application in Form-I for grant of authorisation for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills from the State Pollution Control Board or the Pollution Control Committee, as the case may be;

(z) submit application for renewal of authorisation at least sixty days before the expiry of the validity of authorisation;

(za) prepare and submit annual report in Form IV on or before the 30^{th} April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;

(zb) the annual report shall then be sent to the Secretary -in-Charge of the State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;

(zc) educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;

(zd) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;

(ze) ensure that provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and

(zf) frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and

(zg) create public awareness through information, education and communication campaign and educate the waste generators on the following; namely:-

- (i) not to litter;
- (ii) minimise generation of waste;
- (iii) reuse the waste to the extent possible;
- (iv) practice segregation of waste into bio-degradable, non-biodegradable (recyclable and combustible), sanitary waste and domestic hazardous wastes at source;
- (v) practice home composting, vermi-composting, bio-gas generation or community level composting;
- (vi) wrap securely used sanitary waste as and when generated in the pouches provided by the brand owners or a suitable wrapping as prescribed by the local body and place the same in the bin meant for nonbiodegradable waste;

(vii)storage of segregated waste at source in different bins;

- (viii) handover segregated waste to waste pickers, waste collectors, recyclers or waste collection agencies; and
- (ix) pay monthly user fee or charges to waste collectors or local bodies or any other person authorised by the local body for sustainability of solid waste management.

(zh) stop land filling or dumping of mixed waste soon after the timeline as specified in rule 23 for setting up and operationalisation of sanitary landfill is over;

(zi) allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfill and the sanitary landfill sites shall meet the specifications as given in Schedule–I, however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;

(zj) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of biomining and bio-remediation and wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.

16. Duties of State Pollution Control Board or Pollution Control Committee.- (1) The State Pollution Control Board or Pollution Control Committee shall,-

- (a) enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;
- (b) monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for waste processing and disposal sites;
- (c) examine the proposal for authorisation and make such inquiries as deemed fit, after the receipt of the application for the same in Form I from the local body or any other agency authorised by the local body;

- (d) while examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like the State Urban Development Department, the Town and Country Planning Department, District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, the Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks time to give their views, if any;
- (e) issue authorisation within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary;
- (f) synchronise the validity of said authorisation with the validity of the consents;
- (g) suspend or cancel the authorization issued under clause (a) any time, if the local body or operator of the facility fails to operate the facility as per the conditions stipulated:

provided that no such authorization shall be suspended or cancelled without giving notice to the local body or operator, as the case may be; and

(h) on receipt of application for renewal, renew the authorisation for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or environment clearance.

(2) The State Pollution Control Board or Pollution Control Committee shall, after giving reasonable opportunity of being heard to the applicant and for reasons thereof to be recorded in writing, refuse to grant or renew an authorisation.

(3) In case of new technologies, where no standards have been prescribed by the Central Pollution Control Board, State Pollution Control Board or Pollution Control Committee, as the case may be, shall approach Central Pollution Control Board for getting standards specified.

(4) The State Pollution Control Board or the Pollution Control Committee, as the case may be, shall monitor the compliance of the standards as prescribed or laid down and treatment technology as approved and the conditions stipulated in the authorisation and the standards specified in Schedules I and II under these rules as and when deemed appropriate but not less than once in a year.

(5) The State Pollution Control Board or the Pollution Control Committee may give directions to local bodies for safe handling and disposal of domestic hazardous waste deposited by the waste generators at hazardous waste deposition facilities.

(6) The State Pollution Control Board or the Pollution Control Committee shall regulate Inter-State movement of waste.

17. Duty of manufacturers or brand owners of disposable products and sanitary napkins and diapers.- (1) All manufacturers of disposable products such as tin, glass, plastics packaging, etc., or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for establishment of waste management system.

(2) All such brand owners who sell or market their products in such packaging material which are nonbiodegradable shall put in place a system to collect back the packaging waste generated due to their production.

(3) Manufacturers or brand owners or marketing companies of sanitary napkins and diapers shall explore the possibility of using all recyclable materials in their products or they shall provide a pouch or wrapper for disposal of each napkin or diapers along with the packet of their sanitary products.

(4) All such manufacturers, brand owners or marketing companies shall educate the masses for wrapping and disposal of their products.

18. Duties of the industrial units located within one hundred km from the refused derived fuel and waste to energy plants based on solid waste- All industrial units using fuel and located within one hundred km from a solid waste based refused derived fuel plant shall make arrangements within six months from the date of notification of these rules to replace at least five percent of their fuel requirement by refused derived fuel so produced.

19. Criteria for Duties regarding setting-up solid waste processing and treatment facility.- (1) The department in- charge of the allocation of land assignment shall be responsible for providing suitable land for setting up of the solid waste processing and treatment facilities and notify such sites by the State Government or Union territory Administration.

(2) The operator of the facility shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

(3) The operator of the facility shall obtain necessary approvals from the State Pollution Control Board or Pollution Control Committee.

(4) The State Pollution Control Board or Pollution Control Committee shall monitor the environment standards of the operation of the solid waste processing and treatment facilities.

(5) The operator of the facility shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time-

(6) The operator of the solid waste processing and treatment facility shall submit annual report in Form III each year by 30^{th} April to the State Pollution Control Board or Pollution Committee and concerned local body.

20. Criteria and actions to be taken for solid waste management in hilly areas.- In the hilly areas, the duties and responsibilities of the local authorities shall be the same as mentioned in rule 15 with additional clauses as under:

- (a) Construction of landfill on the hill shall be avoided. A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. The residual waste from the transfer station shall be disposed of at this sanitary landfill.
- (b) In case of non-availability of such land, efforts shall be made to set up regional sanitary landfill for the inert and residual waste.
- (c) Local body shall frame Bye-laws and prohibit citizen from littering wastes on the streets and give strict direction to the tourists not to dispose any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, any other plastic or paper waste on the streets or down the hills and instead direct to deposit such waste in the litter bins that shall be placed by the local body at all tourist destinations.
- (d) Local body shall arrange to convey the provisions of solid waste management under the bye-laws to all tourists visiting the hilly areas at the entry point in the town as well as through the hotels, guest houses or like where they stay and by putting suitable hoardings at tourist destinations.
- (e) Local body may levy solid waste management charge from the tourist at the entry point to make the solid waste management services sustainable.
- (f) The department in- charge of the allocation of land assignment shall identify and allot suitable space on the hills for setting up decentralised waste processing facilities. Local body shall set up such facilities. Step garden system may be adopted for optimum utilisation of hill space.

21. Criteria for waste to energy process.- (1) Non recyclable waste having calorific value of 1500 K/cal/kg or more shall not be disposed of on landfills and shall only be utilised for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel.

(2) High calorific wastes shall be used for co-processing in cement or thermal power plants.

(3) The local body or an operator of facility or an agency designated by them proposing to set up waste to energy plant of more than five tones per day processing capacity shall submit an application in Form-I to the State Pollution Control Board or Pollution Committee, as the case may be, for authorisation.

(4) The State Pollution Control Board or Pollution Control Committee, on receiving such application for setting up waste to energy facility, shall examine the same and grant permission within sixty days.

22. Time frame for implementation.- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.		Time limit from the date of notification of rules
(1)	(2)	(3)
1.	identification of suitable sites for setting up solid waste processing facilities	1 year

2.	identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	1 year
3.	procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years
4.	enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	2 years
5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years
6.	ensure separate storage, collection and transportation of construction and demolition wastes	2 years
7.	setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years
8.	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	3 years
9	setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	
10.	setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3 years
11.	bio-remediation or capping of old and abandoned dump sites	5years

23. State Level Advisory Body. – (1) Every Department in-charge of local bodies of the concerned State Government or Union territory administration shall constitute a State Level Advisory Body within six months from the date of notification of these rules comprising the following members, namely:-

Sl. No	Designation	Member
(1)	(2)	(3)
1.	Secretary, Department of Urban Development orLocal self government department of the State	Chairperson, ex- officio
2.	One representative of Panchayats or Rural development Department not below the rank of Joint Secretary to State Government	Member, ex-officio
3.	one representative of Revenue Department of State Government	Member,ex-officio
4.	One representative from Ministry of Environment, Forest and Climate Change Government of India	Member, ex-officio

5.	One representative from Ministry of Urban Development, Government of India	Member, ex-officio
6.	One representative from Ministry of Rural Development, Government of India	Member, ex-officio
7.	One representative from the Central Pollution Control Board	Member, ex-officio
8.	One representative from the State Pollution Control Board or Pollution Control Committee	Member, ex-officio
9.	One representative from Indian Institute of Technology or National Institute of Technology	Member,Ex-officio
10.	Chief town planner of the state	Member
11.	Three representatives from the local bodies by rotation	Member
12.	Two representatives from census towns or urban agglomerations by rotation.	Member
13.	One representative from reputed Non-Governmental Organisation or Civil Society working for the waste pickers or informal recycler or solid waste management	Member
14.	One representative from a body representing Industries at the State or Central level	Member
15.	one representative from waste recycling industry	member
16.	Two subject experts	Member
17.	Co-opt one representative each from agriculture department, and labour department of State Government.	Member

(2) The State Level Advisory Body shall meet at least one in every six months to review the matters related to implementation of these rules, state policy and strategy on solid waste management and give advice to state government for taking measures that are necessary for expeditious and appropriate implementation of these rules.

(3) The copies of the review report shall be forwarded to the State Pollution Control Board or Pollution Control Committee for necessary action.

24. Annual report. (1) The operator of facility shall submit the annual report to the local body in Form-III on or before the 30^{th} day of April every year.

(2) The local body shall submit its annual report in Form-IV to State P Control Board or P Committee and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year

(3) Each State Pollution Control Board or Pollution Control Committee as the case may be, shall prepare and submit the consolidated annual report to the Central Pollution Control Board and Ministry of Urban Development on the implementation of these rules and action taken against non complying local body by the 31st day of July of each year in Form-V.

(4) The Central Pollution Control Board shall prepare a consolidated annual review report on the status of implementation of these rules by local bodies in the country and forward the same to the Ministry of Urban Development

(5) The annual report shall be reviewed by the Ministry of Environment, Forest and Climate Change during the meeting of Central Monitoring Committee.

25. Accident reporting- In case of an accident at any solid waste processing or treatment or disposal facility or landfill site, the Officer- in- charge of the facility shall report to the local body in Form-VI and the local body shall review and issue instructions if any, to the in- charge of the facility.

SCHEDULE I

[see rule 15 (w),(zi), 16 (1) (b) (e), 16 (4)]

Specifications for Sanitary Landfills

(A) Criteria for site selection.-

- (i) The department in the business allocation of land assignment shall provide suitable site for setting up of the solid waste processing and treatment facilities and notify such sites.
- (ii) The sanitary landfill site shall be planned, designed and developed with proper documentation of construction plan as well as a closure plan a phased manner. In case a new landfill facility is being established adjoining an existing landfill site, the closure plan of existing landfill should form a part of the proposal of such new landfill.
- (iii) The landfill sites shall be selected to make use of nearby wastes processing facilities. Otherwise, wastes processing facility shall be planned as an integral part of the landfill site.
- (iv) Landfill sites shall be set up as per the guidelines of the Ministry of Urban Development, Government of India and Central Pollution Control Board.
- (v) The existing landfill sites which are in use for more than five years shall be improved in accordance with the specifications given in this Schedule.
- (vi) The landfill site shall be large enough to last for at least 20-25 years and shall develop 'landfill cells' in a phased manner to avoid water logging and misuse.
- (vii) The landfill site shall be 100 meter away from river, 200 meter from a pond, 200 meter from Highways, Habitations, Public Parks and water supply wells and 20 km away from Airports or Airbase. However in a special case, landfill site may be set up within a distance of 10 and 20 km away from the Airport/Airbase after obtaining no objection certificate from the civil aviation authority/ Air force as the case may be. The Landfill site shall not be permitted within the flood plains as recorded for the last 100 years, zone of coastal regulation, wetland, Critical habitat areas, sensitive eco-fragile areas..
- (viii) The sites for landfill and processing and disposal of solid waste shall be incorporated in the Town Planning Department's land-use plans.
- (ix) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local body in consultation with concerned State Pollution Control Board.
- (x) The biomedical waste shall be disposed of in accordance with the Bio-medical Waste Management Rules, 2016, as amended from time to time. The hazardous waste shall be managed in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended from time to time. The E-waste shall be managed in accordance with the e-Waste (Management) Rules, 2016 as amended from time to time.
- (xi) Temporary storage facility for solid waste shall be established in each landfill site to accommodate the waste in case of non- operation of waste processing and during emergency or natural calamities.

(B) Criteria for development of facilities at the sanitary landfills.-

- (i) Landfill site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles, to prevent entry of unauthorised persons and stray animals
- (ii) The approach and / internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
- (iii) The landfill site shall have waste inspection facility to monitor waste brought in for landfilling h, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipment. The operator of the facility shall maintain record of waste received, processed and disposed.

(iv)		Provisions like weigh bridge to measure quantity of waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.
(v)		Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided.
(vi)		Safety provisions including health inspections of workers at landfill sites shall be carried out made.
(vii)		Provisions for parking, cleaning, washing of transport vehicles carrying solid waste shall be provided. The wastewater so generated shall be treated to meet the prescribed standards.
		(C) Criteria for specifications for land filling operations and closure on completion of land filling
(i)		Waste for land filling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. In high rainfall areas where heavy compactors cannot be used, alternative measures shall be adopted.
(ii)		Till the time waste processing facilities for composting or recycling or energy recovery are set up, the waste shall be sent to the sanitary landfill. The landfill cell shall be covered at the end of each working day with minimum 10 cm of soil, inert debris or construction material.
(iii)		Prior to the commencement of monsoon season, an intermediate cover of 40-65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon. Proper drainage shall be constructed to divert run-off away from the active cell of the landfill.
(iv)		After completion of landfill, a final cover shall be designed to minimise infiltration and erosion. The final cover shall meet the following specifications, namely :
a)	The final cover shall have a barrier soil layer comprising of 60 cm of clay or amended soil with permeability coefficient less than 1×10^{-7} cm/sec.
t)	On top of the barrier soil layer, there shall be a drainage layer of 15 cm.
С)	On top of the drainage layer, there shall be a vegetative layer of 45 cm to support natural plant growth and to minimise erosion.
		eria for pollution preventionIn order to prevent pollution from landfill operations, the following provisions made, namely:-

THE GAZETTE OF INDIA: EXTRAORDINARY

[PART II—SEC. 3(ii)]

- (i) The storm water drain shall be designed and constructed in such a way that the surface runoff water is diverted from the landfilling site and leachates from solid waste locations do not get mixed with the surface runoff water. Provisions for diversion of storm water discharge drains shall be made to minimise leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.
- (ii) Non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) shall have liner of composite barrier of 1.5 mm thick high density polyethylene (HDPE) geo-membrane or geo-synthetic liners, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1 x 10-7 cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer provided at the bottom of landfills.
- (iii) Provisions for management of leachates including its collection and treatment shall be made. The treated leachate shall be recycled or utilized as permitted, otherwise shall be released into the sewerage line, after meeting the standards specified in Schedule- II. In no case, leachate shall be released into open environment.
- (iv) Arrangement shall be made to prevent leachate runoff from landfill area entering any drain, stream, river, lake or pond. In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concern authority.

(E) Criteria for water quality monitoring.-

66

- (i) Before establishing any landfill site, baseline data of ground water quality in the area shall be collected and kept in record for future reference. The ground water quality within 50 meter of the periphery of landfill site shall be periodically monitored covering different seasons in a year that is, summer, monsoon and post-monsoon period to ensure that the ground water is not contaminated.
- (ii) Usage of groundwater in and around landfill sites for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. The following specifications for drinking water quality shall apply for monitoring purpose, namely :-

S. No.	ParametersIS 10500:2012, Edition 2.2(2003-09) Desirable limit (mg/l except for pH)	
(1)	(2)`	(3)
	Arsenic	0.01
	Cadmium	0.01
	Chromium(as Cr ⁶⁺)	0.05
	Copper	0.05
	Cyanide	0.05
	Lead	0.05
	Mercury	0.001
	Nickel	-
	Nitrate as NO ₃	45.0
	рН	6.5-8.5
	Iron	0.3
	Total hardness (as CaCO ₃)	300.0
	Chlorides	250
	Dissolved solids	500
	Phenolic compounds (as C_6H_5OH)	0.001
	Zinc	5.0
	Sulphate (as SO ₄)	200

(F) Criteria for ambient air quality monitoring.-

- (i) Landfill gas control system including gas collection system shall be installed at landfill site to minimize odour, prevent off-site migration of gases, to protect vegetation planted on the rehabilitated landfill surface. For enhancing landfill gas recovery, use of geomembranes in cover systems along with gas collection wells should be considered.
- (ii) The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL).
- (iii) The landfill gas from the collection facility at a landfill site shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to escape directly to the atmosphere or for illegal tapping. Passive venting shall be allowed in case if its utilisation or flaring is not possible.
- (iv) Ambient air quality at the landfill site and at the vicinity shall be regularly monitored. Ambient air quality shall

meet the standards prescribed by the Central Pollution Control Board for Industrial area.

G. Criteria for plantation at landfill Site.- A vegetative cover shall be provided over the completed site in accordance with the following specifications, namely:-

- (a) Locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be planted;
- (b) The selection of plants should be of such variety that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilized;
- (c) Selected plants shall have ability to thrive on low-nutrient soil with minimum nutrient addition;
- (d) Plantation to be made in sufficient density to minimise soil erosion.
- (e) Green belts shall be developed all around the boundary of the landfill in consultation with State Pollution Control Boards or Pollution Control Committees .

H. Criteria for post-care of landfill site.- (1) The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :- '

- (a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover;
- (b) Monitoring leachate collection system in accordance with the requirement;
- (c) Monitoring of ground water in and around landfill;
- (d) Maintaining and operating the landfill gas collection system to meet the standards.

(2) Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous emission and leachate quality analysis complies with the specified standards and the soil stability is ensured.

I. Criteria for special provisions for hilly areas.-Cities and towns located on hills shall have location-specific methods evolved for final disposal of solid waste by the local body with the approval of the concerned State Pollution Control Board or the Pollution Control Committee. The local body shall set up processing facilities for utilisation of biodegradable organic waste. The non-biodegradable recyclable materials shall be stored and sent for recycling periodically. The inert and non-biodegradable waste shall be used for building roads or filling-up of appropriate areas on hills. In case of constraints in finding adequate land in hilly areas, waste not suitable for road-laying or filling up shall be disposed of in regional landfills in plain areas.

J. Closure and Rehabilitation of Old Dumps- Solid waste dumps which have reached their full capacity or those which will not receive additional waste after setting up of new and properly designed landfills should be closed and rehabilitated by examining the following options:

- (i) Reduction of waste by bio mining and waste processing followed by placement of residues in new landfills or capping as in (ii) below.
- (i). Capping with solid waste cover or solid waste cover enhanced with geomembrane to enable collection and flaring / utilisation of greenhouse gases.
- (iii) Capping as in (ii) above with additional measures (in alluvial and other coarse grained soils) such as cut-off walls and extraction wells for pumping and treating contaminated ground water.
- (iv) Any other method suitable for reducing environmental impact to acceptable level.

SCHEDULE II

[see rule 16 (1), (b), (e), 16 (4))

Standards of processing and treatment of solid waste

- **A. Standards for composting.-** The waste processing facilities shall include composting as one of the technologies for processing of bio degradable waste. In order to prevent pollution from compost plant, the following shall be complied with namely :-
- (a) The incoming organic waste at site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility;
- (b) Necessary precaution shall be taken to minimise nuisance of odour, flies, rodents, bird menace and fire hazard;

- (c) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of waste to the temporary processing site or temporary landfill sites which will be again reprocessed when plant is in order;
- (d) Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions to be segregated and sent to waste to energy or for RDF production, co-processing in cement plants or to thermal power plants. Only rejects from all processes shall be sent for sanitary landfill site(s).
- (e) The windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay of 50 cm thick having permeability coefficient less than 10^{-7} cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off;
- (f) Ambient air quality monitoring shall be regularly carried out. Odurnuisance at down-wind direction on the boundary of processing plant shall also be checked regularly.
- (g) Leachate shall be re-circulated in compost plant for moisture maintenance.
- (h) The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.
- (i) In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely:-

Parameters	Organic Compost (FCO 2009)	Phosphate Rich Organic Manure (FCO 2013)
(1)	(2)	(3)
Arsenic (mg/Kg)	10.00	10.00
Cadmium (mg/Kg)	5.00	5.00
Chromium (mg/Kg)	50.00	50.00
Copper (mg/Kg)	300.00	300.00
Lead (mg/Kg)	100.00	100.00
Mercury (mg/Kg)	0.15	0.15
Nickel (mg/Kg)	50.00	50.00
Zinc (mg/Kg)	1000.00	1000.00
C/N ratio	<20	Less than 20:1
pH	6.5-7.5	(1:5 solution) maximum 6.7
Moisture, percent by weight, maximum	15.0-25.0	25.0
Bulk density (g/cm ³)	<1.0	Less than 1.6
Total Organic Carbon, per cent by weight, minimum	12.0	7.9

Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
Total Phosphate (as P ₂ 0 ₅) percent by weight, minimum	0.4	10.4
Total Potassium (as K ₂ 0), percent by weight, minimum	0.4	-
Colour	Dark brown to black	-
Odour	Absence of foul Odor	-
Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
Conductivity (as dsm-1), not more than	4.0	8.2

* Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

S. No	Parameter	Standards (Mode of Disposal)		
		Inland surface water	Public sewers	Land disposal
(1)	(2)	(3)	(4)	(5)
1.	Suspended solids, mg/l, max	100	600	200
2.	Dissolved solids (inorganic) mg/l, max.	2100	2100	2100
3	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
4	Ammonical nitrogen (as N), mg/l, max.	50	50	-
5	Total Kjeldahl nitrogen (as N), mg/l, max.	100	-	-
6	Biochemical oxygen demand (3 days at 27 [°] C) max.(mg/l)	30	350	100
7	Chemical oxygen demand, mg/l, max.	250	-	-
8	Arsenic (as As), mg/l, max	0.2	0.2	0.2
9	Mercury (as Hg), mg/l, max	0.01	0.01	-
10	Lead (as Pb), mg/l, max	0.1	1.0	-
11	Cadmium (as Cd), mg/l, max	2.0	1.0	-

B. Standards for treated leachates.-The disposal of treated leachates shall meet the following standards, namely:-

12	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13	13 Copper (as Cu), mg/l, max.		3.0	-
14	Zinc (as Zn), mg/l, max.	5.0	15	-
15	Nickel (as Ni), mg/l, max	3.0	3.0	-
16	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17	Chloride (as Cl), mg/l, max.	1000	1000	600
18	Fluoride (as F), mg/l, max	2.0	1.5	-
19	Phenolic compounds (as C ₆ H ₅ OH) mg/l, max.	1.0	5.0	-

Note : While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

C. Standards for incineration: The Emission from incinerators /thermal technologies in Solid Waste treatment/disposal facility shall meet the following standards, namely:-

Parameter		Emission standard
(1)	(2)	(3)
Particulates	50 mg/Nm^3	Standard refers to half hourly average value
нсі	50 mg/Nm^3	Standard refers to half hourly average value
SO2	200 mg/Nm ³	Standard refers to half hourly average value
со	100 mg/Nm ³	Standard refers to half hourly average value
	50 mg/Nm ³	Standard refers to daily average value
Total Organic Carbon	20 mg/Nm^3	Standard refers to half hourly average value
HF	4 mg/Nm ³	Standard refers to half hourly average value
NOx (NO and NO2 expressed as NO2)	400 mg/Nm ³	Standard refers to half hourly average value
Total dioxins and furans	0.1 ng TEQ/Nm ³	Standard refers to 6-8 hours sampling. Please refer guidelines for 17 concerned congeners for toxic equivalence values to arrive at total toxic equivalence.
Cd + Th + their compounds	0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Hg and its compounds	0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.

Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds	0.5 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Note All values corrected to 11%	o oxygen on a dry basis.	

Note:

- (a) Suitably designed pollution control devices shall be installed or retrofitted with the incinerator to achieve the above emission limits..
- (b) Waste to be incinerated shall not be chemically treated with any chlorinated disinfectants.
- (c) Incineration of chlorinated plastics shall be phased out within two years.
- (d) if the concentation of toxic metals in incineration ash exceeds the limits specified in the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008, as amended from time to time, the ash shall be sent to the hazardous waste treatment, storage and disposal fcaility.
- (e) Only low sulphur fuel like LDO, LSHS, Diesel, bio-mass, coal, LNG, CNG, RDF and bio-gas shall be used as fuel in the incinerator.
- (f) The CO2 concentration in tail gas shall not be more than 7%.
- (g) All the facilities in twin chamber incinerators shall be designed to achieve a minimum temperature of 950°C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds.
- (h) Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve total Organic Carbon (TOC) content in the slag and bottom ash less than 3%, or the loss on ignition is less than 5% of the dry weight.
- (i) Odour from sites shall be managed as per guidelines of CPCB issued from time to time

<u>FORM – I</u>

[see rule 15 (y) 16 (1) (c), 21(3)]

Application for obtaining authorisation under solid waste management rules

for processing/recycling/treatment and disposal of solid waste

То,

The Member Secretary,

State Pollution Control Board or Pollution Control Committee,

of.....

Sir,

I/We hereby apply for authorisation under the Solid Waste Management Rules, 2016 for processing, recycling, treatment and disposal of solid waste.

1.	. Name of the local body/agency appointed by them/ operator of facility		
2.	Correspondence address		
	Telephone No.		
	Fax No.	,e-mail:	

3.	Nodal Officer & designation(Officer authorised by the local body or agency responsible for operation of processing/ treatment or disposal facility)	
4.	Authorisation required for setting up and operation of the facility (Please tick mark)	waste processing recycling treatment disposal at landfill
5.	Attach copies of the Documents	
	Site clearance (local body)	
	Proof of Environmental Clearance	
	Consent for establishment	
	Agreement between municipal authority and operating agency	
	Investment on the project and expected return	
6.	Processing/recycling/treatment of solid waste	
	(i) Total Quantity of waste to be processed per day	
	Quantity of waste to be recycled	
	Quantity of waste to be treated	
	Quantity of waste to be disposed into landfill	
	(ii)Utilisation programme for waste processed (Product utilisation)	
	(iii)Methodology for disposal (attach details)	
	Quantity of leachate	
	Treatment technology for leachate	
	(iv)Measures to be taken for prevention and control of environmental pollution	
	(v)Measures to be taken for safety of workers working in the plant	
	(vi)Details on solid waste processing/recycling/ treatment/disposal facility (to be attached)	
7.	Disposal of solid waste	
	Number of sites identified	
	Quantity of waste to be disposed per day	
	Details of methodology or criteria followed for site selection (attach)	
	Details of existing site under operation	
	Methodology and operational details of landfilling	
	Measures taken to check environmental pollution	
8	Any other information.	

Date: Place: Signature: Designation

Form- II

[see rule 16 (1) (e)]

Format for issue of authorisation

File No.: _____

Dated:____

Authorisation No

То

Ref: Your application number _____dt. _____

The ______State Pollution Control Board/Pollution Control Committee after examining the proposal hereby authorises ______having administrative office at ______to set up and operate waste processing/recycling/ treatment/disposal facility at ______

The authorisation is hereby granted to operate the facility for processing, recycling, treatment and disposal of solid waste.

The authorisation is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.

The _____State Pollution Control Board/Pollution Control Committees of the UT may, at any time, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

Any violation of the provision of the Solid Waste Management Rules, 2016will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

(Member Secretary)

State Pollution Control Board/Pollution Control Committee of the UT

(Signature and designation)

Date:

Place:

<u>Form – III</u>

[see rule 19 (6), 24 (1)]

Format of annual report to be submitted by the operator of facility to the local body

1	l	Name of the City/Town and State	
2	2	Population	
3	3	Area in sq. kilometers	
4	ł	Name & Address of the local body	
		Telephone No.	
		Fax No.	
		E-mail:	
5	5	Name and address of operator of the facility	
6	5	Name of officer in-charge of the facility	
		Phone No:	
		Fax No:	
		E-mail:	

7	Number of households in the city/town ,	
	Number of non-residential premises in the city	
	Number of election/ administrative wards in the city/town	
8	Quantity of Solid waste	
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected per day	/tpd
	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at landfill	/tpd
9	Status of Solid Waste Management (SWM) service	
	Segregation and storage of waste at source	
	Whether solid waste is stored at source in domestic/commercial/ institutional bins If yes,	Yes/No
	Percentage of households practice storage of waste at source in domestic bins	%
	Percentage of non-residential premises practice storage of waste at source in commercial /institutional bins	%
	Percentage of households dispose of throw solid waste on the streets	%
	Percentage of non-residential premises dispose of throw solid waste on the streets	%
	Whether solid waste is stored at source in a segregated form	Yes/No
	If yes, Percentage of premises segregating the waste at source	%
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No
	if yes	
	Number of wards covered in D2D collection of waste	
L	No. of households covered	
	No. of non-residential premises including commercial establishments ,hotels, restaurants educational institutions/ offices etc covered	

Percentage of residential and non-residential premises covered in door to door collection through : % Motorized vehicle % Containerized tricycle/handcart % Other device % If not, method of primary collection adopted % Sweeping of streets Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned km Frequency of street sweepings and percentage of population covered frequency Daily Alternate Twice Occurates % of a % of week	asionally			
Motorized vehicle Containerized tricycle/handcart Other device	asionall			
Containerized tricycle/handcart % Other device % If not, method of primary collection adopted Sweeping of streets Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned Frequency of street sweepings and percentage of population covered frequency Alternate Twice/Occ. % of	asionall			
Other device If not, method of primary collection adopted If not, method of primary collection adopted Sweeping of streets Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned km Frequency of street sweepings and percentage of population covered frequency Daily Alternate Twice Occurdays a week % of Image: Street s	asionall			
Sweeping of streets Sweeping of streets Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned Image: Comparison of the city of	asionally			
Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned Frequency of street sweepings and percentage of population frequency Daily Alternate TwiceOccur days a week % of	asionall			
be cleaned with the second street sweepings and percentage of population frequency Daily Alternate Twice Occurs covered 6 of the second street sweepings and percentage of population frequency Daily Alternate Twice Occurs days a week 6 of the second street stree	asionally			
covered days a week % of 0	asionall			
% of				
population				
covered				
Tools used				
Manual sweeping	%			
Mechanical sweeping %				
Whether long handle broom used by sanitation workers Yes/No				
Whether each sanitation worker is given handcart/tricycle for Collection of waste				
Whether handcart / tricycle is containerized Yes/No				
Whether the collection tool synchronizes with collection/ waste storage containers utilized Yes/No	Yes/No			
Secondary Waste Storage facilities				
No. and type of waste storage depots in the city/town No. Capacity in m ³				
Open waste storage sites				
Masonry bins				
Cement concrete cylinder bins				
Dhalao/covered rooms/space				
Covered metal/plastic containers				
Upto 1.1 m ³ bins				
$2 \text{ to } 5 \text{ m}^3 \text{ bins}$				
Above 5m ³ containers				
Bin-less city				
Bin/ population ratio				

Ward wise details of waste storage depots (attach) :			
Ward No:			
Area:			
Population:			
No. of bins placed			
Total volume of bins placed			
Total storage capacity of waste storage facilities in cubic meters			
Total waste actually stored at the waste storage depots daily			
Give frequency of collection of waste from the depots	Frequency	No. of bins	
Number of bins cleared	Daily		
	Alternate day		
	Twice a week		
	Once a week		
	Occasionally		
Whether storage depots have facility for storage of segregated	Yes/ No		
waste in green, blue and black bins	(if yes, add details)		
	No. of green bins:		
	No. of blue bins		
	No. of black bir		
Whether lifting of solid waste from storage depots is manual or mechanical. Give percentage	(%) of Manua of SOLID WAS		
	(%) of Me lifting	echanical %	
If mechanical – specify the method used	front-end loade	rs/ Top loaders	
	Yes/ No		
Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form			

Waste Transportation per day	No. Trips made
Type and Number of vehicles used (pl tick or add)	waste
Animal cart	transported
Tractors	
Non tipping Truck	
Tipping Truck	
Dumper Placers	
Refuse collectors	
Compactors	
Others	
JCB/loader	
Frequency of transportation of waste	Frequency (%) of waste transported
	Daily
	Alternate day
	Twice a week
	Once a week
	Occasionally
Quantity of waste transported each day	/tpd
Percentage of total waste transported daily	%
Waste Treatment Technologies used	
Whether solid waste is processed	Yes/No
If yes, Quantity of waste processed daily	/tpd
Land(s) available with the local body for waste processing (in Hectares)	
Land currently utilized for waste processing	
Solid waste processing facilities in operation	
Solid waste processing facilities under construction	
Distance of processing facilities from city/town boundary	
Details of technologies adopted	

7	n
1	9

Composting,	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Qty. of residual waste landfilled
vermi composting	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Quantity of residual waste landfilled
Bio-methanation	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Quantity of residual waste landfilled
Refuse Derived Fuel	Qty. raw material processed
	Qty. final product produced
	Qty. sold Quantity of residual waste landfilled
Waste to Energy technology	Qty. raw material processed
	Qty. final product produced
technology (give detail)	Qty. sold Quantity of residual waste landfilled
Co-processing	Qty. raw material processed
Combustible waste supplied to cement plant	
Combustible waste supplied to solid waste based power plants	
Others	Qty.
Solid waste disposal facilities	
No. of dumpsites sites available with the local body	
No. of sanitary landfill sites available with the local body	
Area of each such sites available for waste disposal	
Area of land currently used for waste disposal	
Distance of dumpsite/landfill facility from city/town	kms
Distance from the nearest habitation	kms
Distance from water body	kms

	Distance from state/national highway	kms
	Distance from Airport	kms
	Distance from important religious places or historical monument	kms
	Whether it falls in flood prone area	Yes/No
	Whether it falls in earthquake fault line area	Yes/No
	Quantity of waste landfilled each day	tpd
	Whether landfill site is fenced	Yes / No
	Whether Lighting facility is available on site	Yes / No
	Whether Weigh bridge facility available	Yes / No
	Vehicles and equipments used at landfill (specify)	Bulldozer, Compacters etc. available
	Manpower deployed at landfill site	Yes/No (if yes, attach details)
	Whether covering is done on daily basis	Yes/No
	If not, Frequency of covering the waste deposited at the landfill	
	Cover material used	
	Whether adequate covering material is available	Yes/No
	Provisions for gas venting provided	Yes/No, (if yes, attach technical data sheet)
	Provision for leachate collection	Yes/No, (if yes, attach technical data sheet)
10	Whether an Action Plan has been prepared for improving solid	Yes/No
	waste management practices in the city	(if Yes attach Action Plan details)
11	What separate provisions are made for :	Attach details on Proposals,
	Dairy related activities :	Steps taken,
	Slaughter houses waste :	Yes/No
	C&D waste (construction debris) :	Yes/No
		Yes/No
12	Details of Post Closure Plan	Attach Plan
13	5	Yes/ No
	with Solid Waste Management facilities :	(if Yes, attach details)
14	Give details of manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	

15	Mention briefly, the difficulties being experienced by the local body in complying with provisions of these rules	
16	Mention briefly, if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies.	

Signature of Operator

Dated :

Place:

<u>Form – IV</u>

[see rules 15(za), 24(2)]

Format for annual report on solid waste management to be submitted by the local body

	DATE OF SUBMISSION OF REPORT:	
YEAR:		

1	Name of the City/Town and State	
2	Population	
3	Area in sq. kilometers	
4	Name & Address of local body	
	Telephone No.	
	Fax No.	
	E-mail:	
5	Name of officer in-charge dealing with solid waste management (SOLID WASTEM)Phone No:	
	Fax No:	
	E-mail:	
6	Number of households in the city/town	
	Number of non-residential premises in the city	
	Number of election/ administrative wards in the city/town	
7	Quantity of Solid waste (solid waste)	
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected per day	/tpd

	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at dumpsite/ landfill	/tpd
8	Status of Solid Waste Management service	
	Segregation and storage of waste at source	
	Whether SOLID WASTE is stored at source in domestic/commercial/institutional bins, If yes,	Yes/No
	Percentage of households practice storage of waste at source in domestic bins	%
	Percentage of non-residential premises practice storage of waste at source in commercial /institutional bins	%
	Percentage of households dispose or throw solid waste on the streets	%
	Percentage of non-residential premises dispose of throw solid waste on the streets	%
	Whether solid waste is stored at source in a segregated form, If yes,	Yes/No
	Percentage of premises segregating the waste at source	%
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No
	if yes	
	Number of wards covered in D2D collection of waste	
	No. of households covered	
	No. of non-residential premises including commercial establishments ,hotels, restaurants educational institutions/ offices etc covered	
	Percentage of residential and non-residential premises covered in door to door collection through :	
	Motorized vehicle	%
	Containerized tricycle/handcart	%
	Other device	%
	If not, method of primary collection adopted	
	Sweeping of streets	
	Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned	km

Frequency of street sweepings and percentage of population covered	frequency	Daily	Alternate days	Twice a week	Occasiona
	% of				
	population covered				
Tools used		Ι	l	I	I
Manual sweeping			%		
Mechanical sweeping			%		
Whether long handle broom used by sanitation workers			Yes/No		
Whether each sanitation worker is given handcart/tricycle for collection of waste			Yes/No		
Whether handcart / tricycle is containerized			Yes/No		
Whether the collection tool synchronizes with collection/ waste storage containers utilized			Yes/No		
Secondary Waste Storage facilities					
No. and type of waste storage depots in the city/town	No. Capac	city in m ³			
Open waste storage sites					
Masonry bins					
Cement concrete cylinder bins					
Dhalao/covered rooms/space					
Covered metal/plastic containers					
Upto 1.1 m3 bins					
2 to 5 m3 bins					
Above 5m3 containers					
Bin-less city					
Bin/ population ratio					
Ward wise details of waste storage depots (attach)	:				
Ward No:					
Area:					
Population:					
No. of bins placed					
Total volume of bins placed					
Total storage capacity of waste storage facilities in cubic meters					
Total waste actually stored at the waste storage depots daily					

	Give frequency of collection of waste from the depots	Frequency	No. of bins	
	Number of bins cleared			
L		Daily		
		Alternate day		
		Twice a week		
		Once a week		
		Occasionally		
	Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes/ No (if yes, add details)		
		No. of green bins:		
		No. of blue bins:		
		No. of black bins:		
	Whether lifting of solid waste from storage depots is manual or mechanical. Give percentage			
	(%) of Manual Lifting of solid waste	%		
	(%) of Mechanical lifting		%	
	If mechanical – specify the method used	front-end loaders/ Top lo	paders	
	Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Yes/ No (if yes, specify)		
	Waste transportation per day	No. Trips made	waste	
	Type and Number of vehicles used	transported		
	Animal cart			
	Tractors			
	Non tipping Truck			
	Tipping Truck			
	Dumper Placers			
	Refuse collectors			
	Compactors			
	Others			
	JCB/loader			

Frequency of transportation of waste	Frequency (%) of waste transported
	Daily
	Alternate day
	Twice a week
	Once a week
	Occasionally
Quantity of waste transported each day	/tpd
Percentage of total waste transported daily	%
Waste Treatment Technologies used	
Whether solid waste is processed	
	Yes/No
If yes, Quantity of waste processed daily	/tpd
Whether treatment is done by local body or through an agency	
Land(s) available with the local body for waste processing (in Hectares)	
Land currently utilized for waste processing	
Solid waste processing facilities in operation	
Solid waste processing facilities under construction	n
Distance of processing facilities from city/town boundary	
Details of technologies adopted	
Composting ,	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Quantity of residual waste landfilled
Vermi composting	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Quantity of residual waste landfilled
Bio-methanation	Qty. raw material processed
	Qty. final product produced
	Qty. sold
	Quantity of residual waste landfilled

Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled	
Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology (give detail)	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled	
Co-processing	Qty. raw material processed	
Combustible waste supplied to cement plant		
Combustible waste supplied to solid waste based power plants		
Others	Qty.	
Solid waste disposal facilities		
No. of dumpsites sites available with the local body		
No. of sanitary landfill sites available with the local body		
Area of each such sites available for waste disposa		
Area of land currently used for waste disposal		
Distance of dumpsite/landfill facility from city/town	kms	
Distance from the nearest habitation	kms	
Distance from water body	kms	
Distance from state/national highway	kms	
Distance from Airport	kms	
Distance from important religious places or historical monument	kms	
Whether it falls in flood prone area	Yes/No	
Whether it falls in earthquake fault line area	Yes/No	
Quantity of waste landfilled each day	tpd	
Whether landfill site is fenced	Yes / No	
Whether Lighting facility is available on site	Yes / No	

	Whether Weigh bridge facility available	Yes / No
	Vehicles and equipments used at landfill (specify)	Bulldozer, Compacters etc. available
	Manpower deployed at landfill site	Yes/No
		(if yes, attach details)
	Whether covering is done on daily basis	Yes/No
	If not, Frequency of covering the waste deposited at the landfill	
	Cover material used	
	Whether adequate covering material is available	Yes/No
	Provisions for gas venting provided	Yes/No
		(if yes, attach technical data sheet)
	Provision for leachate collection	Yes/No
		(if yes, attach technical data sheet)
9	Whether an Action Plan has been prepared for	Yes/No
	improving solid waste management practices in the city	(if Yes attach Action Plan details)
10	What separate provisions are made for :	Attach details on Proposals,Steps taken,
	Dairy related activities :	Yes/No
	Slaughter houses waste :	Yes/No
	C&D waste (construction debris) :	Yes/No
11	Details of Post Closure Plan	Attach Plan
12	······································	Yes/ No
	are provided with Solid Waste Management facilities :	(if Yes, attach details)
13	Give details of:	
	Local body's own manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	
14	Give details of:	
	Contractor/ concessionaire's manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	
15	Mention briefly, the difficulties being experienced by the local body in complying with provisions of these rules	

16 Mention briefly, if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies

Signature of CEO/Municipal Commissioner/

Executive Officer/Chief Officer

Date:

Place:

Form – V

[see rule 24(3)]

Format of annual report to be submitted by the state pollution control board or pollution control committee committees to the central pollution control board

PART A

To,

The Chairman Central Pollution Control Board Parivesh Bhawan, East Arjun Nagar DELHI- 110 0032

1.	Name of the State/Union territory	:	
2.	Name & address of the State Pollution Control	:	
3.	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	:	
4.	No. of authorisation application Received	:	
5.	A Summary Statement on progress made by local body in respect of solid waste management	:	Please attach as Annexure-I
6.	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	:	Please attach as Annexure-II
7.	A summary statement on progress made by local bodies in respect of implementation of Schedule II	:	Please attach as Annexure-III

Date:

Place:

Chairman or the Member Secretary State Pollution Control Board/ Pollution Control Committee

PART B

Towns/cities

Total number of towns/cities

Total number of ULBs

Number of class I & class II cities/towns

Authorisation status (names/number)

Number of applications received

Number of authorisations granted

Authorisations under scrutiny

SOLID WASTE Generation status

Solid waste generation in the state (TPD)

collected

treated

landfilled

Compliance to Schedule I of SW Rules (Number/names of towns/capacity)

Good practices in cities/towns

House-to-house collection

Segregation

Storage

Covered transportation

Processing of SW (Number/names of towns/capacity)

Solid Waste processing facilities setup:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility operational:

Sl. No	o. Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility under installation/planned:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation

Waste-to-Energy Plants: (Number/names of towns/capacity)

Sl. No.	Plant Location	Status of operation	Power generation (MW)	Remarks

Disposal of solid waste (number/names of towns/capacity):

Landfill sites identified

Landfill constructed

Landfill under construction

Landfill in operation

Landfill exhausted

Landfilled capped

Solid Waste Dumpsites (number/names of towns/capacity):

Total number of existing dumpsites

Dumpsites reclaimed/capped

Dumpsites converted to sanitary landfill

Monitoring at Waste processing/Landfills sites

	Name of facilities	Ambient air	Groundwater	Leachate quality	Compost quality	VOCs
1.						
2.						
3.						

Status of Action Plan prepared by Municipalities

Total number of municipalities:

Number of Action Plan submitted:

Form – VI

[see rule 25]

Accident Reporting

1.	Date and time of accident	:	
2.	Sequence of events leading to accident	:	
3.	The waste involved in accident	:	

4.	Assessment of the effects of the accidents on human health and the environment	:	
5.	Emergency measures taken	:	
6.	Steps taken to alleviate the effects of accidents	:	
7.	Steps taken to prevent the recurrence of such an accident	:	
Date:		Sig	nature:
Place:			signation:

[F. No. 18-3/2004-HSMD]

BISHWANATH SINHA, Jt. Secy.

REGD. No. D. L.-33004/99



सी.जी.-डी.एल.-अ.-12082021-228947 CG-DL-E-12082021-228947

> असाधारण EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i) PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं. 459]नई दिल्ली, बृहस्पतिवार, अगस्त 12, 2021/श्रावण 21, 1943No. 459]NEW DELHI, THURSDAY, AUGUST 12, 2021/SHRAVANA 21, 1943

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 12 अगस्त, 2021

सा.का.नि. 571(अ).—प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 को संशोधन करने के लिए भारत के राजपत्र, असाधारण में अधिसूचना संख्या सा.का.नि. 169 (अ) द्वारा तारीख 11 मार्च, 2021 में प्रारूप नियम प्रकाशित किए गए थे, जिसमें उन सभी लोगों से, जो उन नियमों से प्रभावित हो सकते हैं, उक्त प्रारूप नियम को अंतर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध कराए जाने की तारीख से साठ दिन की अवधि के भीतर आक्षेप और सुझाव आमंत्रित किए गए थे;

और, उक्त प्रारूप नियमों को अंतर्विष्ठ करने वाले राजपत्र की प्रतियां जनता को तारीख 11 मार्च, 2021 को उपलब्ध कराई गई थी;

और, उपर्युक्त अवधि के भीतर प्राप्त आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा सम्यक रूप से विचार किया गया है;

अत:, अब केन्द्रीय सरकार पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6, धारा 8 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, एतद्वारा प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 में संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:-

1. (1) इन नियमों का संक्षिप्त नाम प्लास्टिक अपशिष्ट प्रबंधन (संशोधन) नियम, 2021 कहा है।

(2) वे राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे।

 प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 (इसमें इसके पश्चात् उक्त नियमों को कहा गया है) में, नियम 2 में, उप-नियम (1) में, "आयातकों" शब्द के पश्चात् "ब्राण्ड स्वामी, प्लास्टिक अपशिष्ट प्रसंस्करणकर्ता (पुनर्चक्रक, सह-प्रसंस्करणकर्ता आदि)" शब्द अंत:स्थापित किया जाएगा।

उक्त नियमों में, नियम 3 में –

(i) खंड (ढ) के पश्चात, निम्नलिखित खंड अंत:स्थापित किया जाएगा, अर्थात् -

'(ढ क) "बिना बुने प्लास्टिक बैग" – से अभिप्रेत है जो यांत्रिक अथवा थर्मल अथवा रासायनिक साधनों द्वारा एक-साथ बंधे हुए जटिल प्लास्टिक फाइबरों या तंतुओं (और छिद्रित फिल्मों द्वारा) की प्लास्टिक की शीट अथवा वेब आकार के कपड़े से बने हुए बिना बुने प्लास्टिक के बैग और "बिना बुने कपड़े" से अभिप्रेत है जिसमें एक समतल अथवा गुच्छेदार छिद्रयुक्त शीट जो सीधे प्लास्टिक फाइबरों, पिघले हुए प्लास्टिक अथवा प्लास्टिक की फिल्मों से बनाया जाता है;

(ii) खंड (थ) के पश्चात, निम्नलिखित खंड अंत:स्थापित किया जाएगा, अर्थात् -

'(थ क) "प्लास्टिक अपशिष्ट प्रसंस्करण" – से अभिप्रेत है जिससे कोई ऐसी प्रक्रिया जिसके द्वारा प्लास्टिक अपशिष्ट को पुन:उपयोग, पुनर्चक्रण, सह-प्रसंस्करण अथवा नए उत्पादों में परिवर्तन के प्रयोजन के लिए प्रबंधित किया जाता है; ';

(iii) खंड (फ) के पश्चात, निम्नलिखित खंड अंत:स्थापित किया जाएगा, अर्थात् -

'(फ क) "एकल प्रयोग प्लास्टिक से बनी वस्तु" का अर्थ है – जिससे प्लास्टिक की मद, जिसके निपटान अथवा पुनर्चक्रण से पहले उसे एक ही प्रयोजन के लिए एक बार ही उपयोग किया जाना है;

(फ ख) "थर्मोसेट प्लास्टिक" से अभिप्रेत है जिसमें ऐसा प्लास्टिक जो गर्म करने पर अपरिवर्तनीय रूप से कठोर हो जाता है और इसलिए इसे वांछित आकार में नहीं बदला जा सकता है;

(फ ग) "थर्मोप्लास्टिक" से अभिप्रेत है जिसमें ऐसा प्लास्टिक जो गर्म करने पर नरम हो जाता है और इसे वांछित आकार में ढाला जा सकता है;'

4. उक्त नियमों में, नियम 4 में –

(क) उप-नियम (1) में, - (i) "आयातक भंडारण" शब्दों के स्थान पर "आयात, भंडारण" शब्द रखें जाएंगे;

(ii) खंड (ग) में, "पचास माइक्रोन की मोटाई", शब्दों के स्थान पर, शब्द आंकड़े, अक्षर और कोष्ठक "30 सितम्बर 2021 से पचहत्तर माइक्रोन की मोटाई और 31 दिसम्बर, 2022 से एक सौ बीस (120) माइक्रोन की मोटाई" शब्द रखे जाएंगे;

(iii) खंड (ज), "कैरी बैगों", शब्दों के बाद, "और वस्तु" शब्द अंतर्विष्ट किए जाएंगे;

(iv) खंड (ज), "कंपोस्ट योग्य प्लास्टिक कैरी बैगों", शब्दों के बाद, "या वस्तु या दोनों" शब्द अंतर्विष्ट किए जाएंगे;

(v) खंड (झ) के पश्चात, निम्नलिखित खंड अंत:स्थापित किया जाएगा, अर्थात् -

"(ञ) 30 सितम्बर, 2021 की तारीख से गैर-बुना हुआ प्लास्टिक कैरी बैग 60 ग्राम प्रति वर्ग मीटर (जीएसएम) से कम नहीं होगा।";

(ख) उप-नियम (1) के पश्चात, निम्नलिखित उप-नियम अंत:स्थापित किया जाएगा, अर्थात् -

"(2)" 1 जुलाई, 2022 की तारीख से पोलीस्टाइरीन और विस्तारित पोलीस्टाइरीन वस्तुओं सहित निम्नलिखित एकल-प्रयोग-प्लास्टिक वस्तुओं के विनिर्माण, आयात, भंडारण, वितरण, बिक्री और उपयोग का निषेध किया जाएगा:-

(क) प्लास्टिक स्टिक युक्त ईयर बड्स, गुब्बारों के लिए प्लास्टिक की डंडिया, प्लास्टिक के झंडे, कैंडी स्टिक, आइसक्रीम की डंडिया, पोलीस्टाइरीन (थर्मोकोल) की सजावटी सामग्री;

(ख) प्लेटें, कप, गिलास, कांटे, चम्मच, चाकू, स्ट्रॉ, ट्रे जैसे कटलरी, मिठाई के डिब्बों के इर्द-गिर्द लपेटने या पैक करने वाली फिल्में, निमंत्रण कार्ड और सिगरेट पैकेट, 100 माइक्रोन से कम मोटाई वाले प्लास्टिक या पीवीसी बैनर, स्ट्रिर।

(3) उप-नियम (2) (ख) के उपाबंध, कंपोस्ट योग्य प्लास्टिक से बनी हुई वस्तुओं पर लागू नहीं होंगे।

(4) इस अधिसूचना के बाद कैरी बैग, प्लास्टिक शीट या समान प्रकार की सामग्री या प्लास्टिक शीट और बहु-परतीय पैकेजिंग से बने कवर और पोलिस्टाइरीन और विस्तारित पोलिस्टाइरीन, वस्तुओं सहित एकल प्रयोग के प्लास्टिक के विनिर्माण, आयात, भण्डारण, वितरण, विक्रय और उपयोग को निषिद्ध करने के संबंध में, जारी की गई कोई भी अधिसूचना, इस अधिसूचना के प्रकाशन की तारीख से दस वर्ष की अवधि समाप्त होने के पश्चात लागू होगी।

5. उक्त नियमों में, नियम 5 में, उप-नियम (1) में, खण्ड (घ) में "2000" अंकों के स्थान पर "2016" रखा जाएगा।

6. उक्त नियमों, में, नियम 6 में, उप-नियम (2) में, खण्ड (क) के पश्चात निम्नलिखित खण्ड अंत-स्थापित किया जाएगा, अर्थात्:-

"(क क) सुनिश्चित करना कि इन यथा संशोधित नियमों के उपबंधों का अनुपालन किया जाए।

7. उक्त नियमों में नियम 7 में, उप-नियम (1) में, खण्ड (क) के पश्चात निम्नलिखित खण्ड अंत:स्थापित किया जाएगा, अर्थात्:-

''(क क) सुनिश्चित करना कि इन यथा संशोधित नियमों के उपबंधों का अनुपालन किया जाए।

8. उक्त नियमों में, नियम 9 में, उप-नियम (1) में, ''संबंधित स्थानीय निकाय'' शब्दों के पश्चात, ''इन नियमों के अंतर्गत समय-समय पर जारी किए गए दिशानिर्देशों के अनुसार'' शब्द अंत:स्थापित किए जाएंगे।

9. नियम 11 में, उप-नियम (1), -

(i) "प्लास्टिक कैरी बैग" शब्दों के पश्चात, "प्लास्टिक पैकिंग" शब्द अंत:स्थापित किए जाएंगे;

 (ii) खंड (क) में "विनिर्माता" शब्द के पश्चात, "उत्पादक" या ब्रैंड स्वामी" शब्द जोड़े जाएंगे, और "कैरी बैग" शब्द के बाद, "और ब्रैंड के स्वामी द्वारा उपयोग प्लास्टिक पैकिंग" शब्द अंत:स्थापित किए जाएंगे;

(iii) खंड (ख), ''बहु-परतीय पैकिंग'' शब्दों के पश्चात, ''आयातित सामग्री के लिए उपयोग बहु-परतीय पैकिंग को छोडकर'' अंत:स्थापित किया जाएगा।

(iv) खंड (ग) में, ''नाम और प्रमाणपत्र सं.'' शब्दों के पश्चात, ''उत्पादक का'' अंत:स्थापित किया जाएगा।

10. नियम 12 में, -

(i) उप-नियम (2) में, ''अपशिष्ट जनक'' शब्दों के पश्चात, ''पर प्रतिबंध या निषेध'' शब्द अंत:स्थापित किए जाएंगे;

(ii) उप-नियम (3) में, ''अपशिष्ट जनक'' शब्दों के पश्चात, ''पर प्रतिबंध या निषेध'' शब्द अंत:स्थापित किए जाएंगे।

11. नियम 13, में उप-नियम (1) में, ''संबंधित संघ राज्यक्षेत्र'' शब्दों के पश्चात, ''या केंद्रीय प्रदूषण नियंत्रण बोर्ड'' अंत:स्थापित किया जाएगा।

[फा. सं. 17-2/2001(पार्ट)पार्ट I-एचएसएमडी]

नरेश पाल गंगवार, संयुक्त सचिव

टिप्पण: मूल नियम, भारत के राजपत्र, असाधारण, भाग-II, खंड 3, उपखंड (i) में सा.का.नि. 320(अ) तारीख 18 मार्च, 2016 द्वारा प्रकाशित किए गए थे और तत्पश्चात इनमें अधिसूचना संख्या सा.का.नि. 285(अ) तारीख 27 मार्च, 2018 के द्वारा संशोधन किया गया था।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 12th August, 2021

G.S.R. 571(E).—Whereas the draft rules to amend the Plastics Waste Management Rules, 2016, were published in the Gazette of India, Extraordinary, dated the 11th March, 2021 vide notification number GSR 169 (E), inviting objections and suggestions from all persons likely to be affected thereby within a period of sixty days from the date copies of the Gazette containing the said draft rules were made available to the public;

And whereas, copies of the Gazette containing the said draft rules were made available to the public on the 11th March, 2021;

And whereas, objections and suggestions received within the aforesaid period have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 6, 8 and 25 of Environment (Protection) Act 1986, (29 of 1986), the Central Government hereby makes the following rules to amend the Plastic Waste Management Rules, 2016, namely :-

1. (1) These rules may be called Plastic Waste Management (Amendment) Rules, 2021.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Plastic Waste Management Rules,2016 (hereinafter referred to as the said rules), in rule 2, in sub-rule (1), after the word "Importers", the words, "brand-owner, plastic waste processor (recycler, co-processor, etc.)" shall be inserted.

3. In the said rules, in rule 3,

(i) after clause (n), the following clause shall be inserted, namely :-

'(na) "Non-woven plastic bag" means Non-woven plastic bag made up of plastic sheet or web structured fabric of entangled plastic fibers or filaments (and by perforating films) bonded together by mechanical or thermal or chemical means, and the "non-woven fabric" means a flat or tufted porous sheet that is made directly from plastic fibres, molten plastic or plastic films;'

(ii) after clause (q), the following clause shall be inserted, namely: -

'(qa) "Plastic waste processing" means any process by which plastic waste is handled for the purpose of reuse, recycling, co-processing or transformation into new products;'

(iii) after clause (v), the following clauses shall be inserted, namely: -

'(va) "Single-use plastic commodity" mean a plastic item intended to be used once for the same purpose before being disposed of or recycled;'

'(vb) "Thermoset plastic" means a plastic which becomes irreversibly rigid when heated and hence cannot be remoulded into desired shape;'

'(vc) "Thermoplastic" means a plastic which softens on heating and can be moulded into desired shape;'.

4. In the said rules, in rule 4, -

(a) in sub-rule (1),-

(i) for the words "importer stocking", the words "import, stocking" shall be substituted;

(ii) in clause (c), for the words "fifty microns in thickness", the words, figures, letters and brackets "seventy five microns in thickness with effect from the 30th September, 2021and one hundred and twenty (120) microns in thickness with effect from the 31st December, 2022" shall be substituted;

(iii) in clause (h), after the words, "carry bags", the words "and commodities" shall be inserted;

(iv) in clause (h), after the words, "compostable plastic carry bags", the words "or commodities or both" shall be inserted;

(v) after clause (i), following clause shall be inserted, namely: -

" (j) non-woven plastic carry bag shall not be less than 60 Gram Per Square Meter (GSM) with effect from the 30^{th} September, 2021.";

(b) after sub-rule (1), the following sub-ules shall be inserted, namely:-

"(2) The manufacture, import, stocking, distribution, sale and use of following singleuse plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1^{st} July, 2022:-

(a) ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration;

(b) plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 micron, stirrers.

(3) The provisions of sub-rule (2) (b) shall not apply to commodities made of compostable plastic.

(4) Any notification prohibiting the manufacture, import, stocking, distribution, sale and use of carry bags, plastic sheets or like, or cover made of plastic sheets and multilayered packaging and single-use plastic, including polystyrene and expanded polystyrene, commodities, issued after this notification, shall come into force after the expiry of ten years, from the date of its publication".

5. In the said rules, in rule 5, in sub-rule (1), in clause (d), for the figures "2000", the figures "2016" shall be substituted.

6. In the said rules, in rule 6, in sub-rule (2), after clause (a), following clause shall be inserted, namely: -

"(aa) ensuring that the provisions of these rules, as amended, are adhered to;".

7. In the said rules, in rule 7, in sub-rule (1), after clause (a), following clause shall be inserted, namely : -

"(aa) ensuring that the provisions of these rules, as amended, are adhered to;".

8. In the said rules, in rule 9, in sub-rule (1), after the words, "local body concerned", the words "as per guidelines issued under these rules from time to time" shall be inserted.

9. In rule 11, sub-rule (1), –

(i) after the words "plastic carry bag", the words, "plastic packaging" shall be inserted;

(ii) in clause (a), after the word "manufacturer", the words "producer or brandowner" shall be inserted, and after the words "carry bag", the words "and plastic packaging used by the brand owner" shall be inserted;

(iii) in clause (b), after the words "multilayered packaging", the words "excluding multi-layered packaging used for imported goods" shall be inserted;

(iv) in clause (c), after the words "name and certificate number", the words "of producer" shall be inserted.

10. In rule 12, –

(i) in sub-rule (2), after the words "waste generator," ,the words "restriction or prohibition on" shall be inserted;

(ii) in sub-rule (3), after the words "waste generator," ,the words "

restriction or prohibition on" shall be inserted.

11. In rule 13, in sub-rule (1), after the words "Union Territory concerned", the words "or the Central Pollution Control Board" shall be inserted.

[F. No. 17-2-2001 (Pt)-Part I -HSMD]

NARESH PAL GANGAWAR, Jt. Secy.

Note : The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Subsection (i), *vide* number GSR 320 (E), dated the 18th March, 2016 and subsequently amended vide notification number GSR 285 (E), dated the 27th March, 2018.

REGD. No. D. L.-33004/99



सी.जी.-डी.एल.-अ.-24082022-238351 CG-DL-E-24082022-238351

असाधारण EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

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अधिसूचना

नई दिल्ली, 22 अगस्त, 2022

का.आ. 3984(अ).—अपशिष्ट बैटरी प्रबंधन नियम, 2020 भारत के राजपत्र, असाधारण, भाग II, खण्ड 3, उप-खंड (ii) का.आ. 770(अ) तारीख 20 फरवरी, 2020 में प्रकाशित किया गया था, जिसमें उन सभी व्यक्तियों को उक्त प्रारूप उपबंधों को अंतर्विष्ट करने वाले राजपत्र की प्रतियां जनता को उपलब्ध करा दी गई थी, तारीख से साठ दिन की समाप्ति से पहले आक्षेप और सुझाव आमंत्रित किए गए थे;

और, सभी प्राप्त किए गए आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा सम्यक रूप से विचार किया गया है;

अत:, केन्द्रीय सरकार पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) धारा 3 की उप धारा (1) के खंड (v) और उप धारा (2) के खंड (vii), धारा 6 की उप धारा (1) के खंड (ग) और उप धारा (2) के खंड (घ), धारा 8, धारा 25 की उपधारा (2) के खंड (ख) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और बैटरी (प्रबंधन और हथालन) नियम, 2001 को उन बातों के सिवाय अधिक्रांत करते हुए जिन्हें ऐसे अधिक्रमण से पहले किया गया है या करने का लोप किया गया है निम्नलिखित नियम बनाती है, अर्थात् :-

1. संक्षिप्त नाम और प्रारंभ- (1) इन नियमों का संक्षिप्त नाम "अपशिष्ट बैटरी प्रबंधन नियम, 2022" है।

(2) ये राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे।

2. **लागू होना – (1) -** ये **नियम निम्नलिखित पर लागू होंगे: (**i) अपशिष्ट बैटरी के संग्रहण, पृथक्करण, परिवहन, नवीकरण और पुनर्चक्रण में सम्मिलित उत्पादक, व्यापारी, उपभोक्ता, इकाई;

ii. रसायन, आकार, मात्रा, भार, सामग्री संघटन और उपयोग पर ध्यान दिए बिना सभी प्रकार की बैटरी;

(2) ये नियम **निम्नलिखित में उपयोग में लाई गई बैटरी पर लागू नहीं होते हैं, (i)** हाथियार, आयुद्यों, युद्ध सामग्री सहित आवश्यक सुरक्षा हितों की रक्षा और विशेष रूप से सेना के प्रयोजनों से आशयित संबंद्ध उपकरण।

ii. अंतरिक्ष (अंतरिक्ष खोज करने हेतु) में भेजे जाने हेतु अभिकल्पित उपकरण ।

- 3. परिभाषाएं इन नियमों में, जब तक कि संदर्भ से अन्यथा अपेक्षित न हो-
- (क) 'अधिनियम' से पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) अभिप्रेत है;
- **(ख) 'मोटरयान बैटरी'** से केवल मोटरयान स्टार्टर, प्रकाश या दहन ऊर्जा के लिए उपयोग में आने वाली कोई बैटरी अभिप्रेत है;
- (ग) 'बैटरी' से संचायक सहित नया या नवीकृत सेल और/या बैटरी और/या उनके घटक है, जो रासायनिक ऊर्जा से प्रत्यक्ष संपरिवर्तन द्वारा उत्पादित विद्युत ऊर्जा का कोई स्रोत है और जिसमें निपटान योग्य प्राथमिक और/या द्वितीयक बैटरी सम्मिलित अभिप्रेत है;
- (घ) 'बैटरी पैक' से सेलों और/या बैटरी का कोई ऐसा सेट या मॉड्यूल है जो बाहरी आवरण के भीतर इस प्रकार से संयोजित या समाहित है कि एक ऐसी संपूर्ण इकाई का निर्माण करे जिसे अंत्य-उपयोक्ता उसे अलग करने या खोलने का इरादा न करे;
- (ड.) **'बैटरी सामग्रियों'** से निकेल, कोबाल्ट, सीसा, लीथियम जैसी धातुओं और अन्य सामग्रियों जैसे कि प्लास्टिक, कागज आदि सहित बैटरी में अंतर्विष्ट सामग्रियां अभिप्रेत है।
- (च) 'सेल' से इलैक्ट्रोड, इलैक्ट्रोलाइट, कंटेनर, टर्मिनलों और सेपरेटरों के संयोजन से गठित आधारभूत कार्यात्मक इकाई है जो रासायनिक ऊर्जा के प्रत्येक संपरिवर्तन द्वारा उत्पादित ऊर्जा का कोई स्रोत है; और जिसमें प्राथमिक/या द्वितीयक सेल भी हैं।
- (छ) 'केंद्रीय प्रदूषण नियंत्रण बोर्ड' से जल (प्रदूषण निवारण और नियंत्रण) अधिनियम, 1974 (1974 का 6) की धारा
 3 की उप धारा (1) के अधीन गठित केंद्रीय प्रदूषण नियंत्रण बोर्ड है;
- (ज) 'उपभोक्ता' से किसी बैटरी का कोई अंत्य उपयोक्ता अभिप्रेत है;
- (झ) 'निपटान' से कोई प्रचालन अभिप्रेत है जिसके फलस्वरूप पुन: उपयोग, पुन: प्राप्ति, नवीकरण या पुनर्चक्रण नहीं होता है और जिसमें, अन्य बातों के साथ भौतिक-रासायनिक और/या जौविक शोधन, और/या सुरक्षित भराई में निक्षेप सम्मिलित है;
- (ञ) 'विद्युत यान बैटरी' से विशेष रूप से सड़क परिवहन के लिए हाईब्रिड और विद्युत यानों को संकर्षण प्रदान कराने हेतु डिजाइन की गई कोई बैटरी अभिप्रेत है;
- (ट) 'ईओएल बैटरी' से बैटरी जिसका उपयोग कर लिया गया है, जिसके उपयोग की अवधि समाप्त हो गई है और जिसका नवीकरण नहीं किया जा सकता है;

- (ठ) 'पर्यावरणीय दृष्टि से सुदृढ़ प्रबंधन' से अपशिष्ट बैटरी का प्रबंधन इस रीति से करना कि अपशिष्ट बैटरी में अंतर्विष्ट किसी पदार्थ से उत्पन्न किन्हीं प्रतिकूल प्रभावों से मानव स्वास्थ्य और पर्यावरण को सुरक्षित किया जा सके। इनमें नवीकरण, और/या पुनर्चक्रण सम्मिलित हो सकता है;
- (ड) 'विस्तारित उत्पादक उत्तरदायित्व' (ईपीआर) से बैटरी के किसी उत्पादक के लिए अपशिष्ट बैटरी के पर्यावरणीय दृष्टि से सुदृढ़ प्रबंधन का उत्तरदायित्व अभिप्रेत है;
- (ढ) 'ईपीआर-रजिस्ट्रीकरण' से ईपीआर हेतु केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा किसी उत्पादक का रजिस्ट्रीकरण अभिप्रेत है;
- **(ण) 'सुविधा केंद्र'** से ऐसा कोई अवस्थान अभिप्रेत है जिसमें अपशिष्ट बैटरी के संग्रहण/भंडारण/पृथक्करण/ मरम्मत करने, भंजक/पुनर्चक्रण/निपटान की आनुषंगिक प्रक्रियाओं को किया जाता है;
- (त) 'प्ररूप' से इन नियमों के परिशिष्ट में दिया गया कोई प्ररूप अभिप्रेत है;
- (थ) परिसंकटमय अपशिष्ट से परिसंकटमय और अन्य अपशिष्ट (प्रबंधन और सीमापार संचलन) नियम, 2016 के अधीन परिभाषित परिसंकटमय अपशिष्ट अभिप्रेत है।
- (द) 'औद्योगिक बैटरी' से वहनीय बैटरी, विद्युत यान बैटरी और मोटरयान बैटरी के सिवाय औद्योगिक उपयोगों के लिए डिजाई की गई कोई बैटरी अिभप्रेत है। इनमें सीलबंद बैटरी (वहनीय बैटरी के सिवाय), सील न की गई बैटरी (मोटरयान बैटरी के सिवाय) सम्मिलित हो सकती हैं;
- (ध) 'विनिर्माता' से कंपनी अधिनियम, 2013 (2013 का 18) में यथापरिभाषित कोई व्यक्ति या इकाई या कंपनी या कारखाना अधिनियम, 1948 (1948 का 63) में यथापरिभाषित कोई कारखाना अभिप्रेत है जिसके पास बैटरी और/या उनके घटकों के विनिर्माण की सुविधाएं हैं;
- (न) 'वहनीय बैटरी' से कोई ऐसी बैटरी अभिप्रेत है जो सीलबंद है, 5 कि.ग्रा. से कम है, औद्योगिक प्रयोजनों, विद्युत यान के लिए या मोटरयान बैटरी के रूप में उपयोग करने के लिए नहीं बनी है;
- (प) 'उत्पादक' से कोई ऐसा निकाय अभिप्रेत है जो निम्निलखित में संलग्न है:
 - अपने ब्रांड के अधीन पुनर्नवीकृत बैटरी, जिनमें उपकरणों में प्रयुक्त बैटरी सम्मिलित हैं, सहित बैटरी का विनिर्माण और विक्रय; या
 - अन्य विनिर्माताओं या आपूर्तिकर्ताओं द्वारा उसके अपने ब्रांड के अधीन उत्पादित पुनर्नवीकृत
 बैटरी, जिनमें उपकरणों में प्रयुक्त बैटरी सम्मिलित हैं, सहित बैटरी का विक्रय; या
 - iii. बैटरी और बैटरी को सन्निविष्ट करने वाले उपकरणों का आयात;
- (फ) 'सार्वजनिक अपशिष्ट प्रबंधन प्राधिकरण' से इन नियमों के प्रयोजन के लिए, ग्राम पंचायत, नगर निगम, नगरपालिका और उनकी ओर से सेवाएं देने वाले अभिकरण अभिप्रेत है।
- (ब) 'पुनर्चक्रणकर्ता' से अपशिष्ट बैटरी के पुनर्चक्रण में संलग्न कोई निकाय है;
- (भ) 'नवीकरण' से प्रयुक्त बैटरी को दूसरी बार नए रूप में उपयोग हेतु उनकी मरम्मत, री-कंडीशनिंग और री-पर्पसिंग अभिप्रेत है;
- (म) 'नवीकरणकर्ता' से पुनर्नवीकरण में संलग्न कोई निकाय अभिप्रेत है;
- (य) 'अनुसूची' से इन नियमों के साथ संलग्न कोई अनुसूची अभिप्रेत है;

- (र) 'राज्य प्रदूषण नियंत्रण बोर्ड से जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 (1974 का 6) की धारा
 4 के अधीन गठित राज्य प्रदूषण नियंत्रण बोर्ड अभिप्रेत है और इसमें संघ राज्य क्षेत्र से संबंधित प्रदूषण नियंत्रण समिति भी सम्मिलित हैं;
- (ल) 'भण्डारण' से अपशिष्ट बैटरी का भण्डारण अभिप्रेत है;
- (व) 'शोधन' से पुनर्चक्रण के लिए अपशिष्ट बैटरी के संबंध में संपादित कोई कार्यकलाप अभिप्रेत है;
- (श) 'प्रयुक्त बैटरी' से ऐसी बैटरी और/या उसके घटक अभिप्रेत है जिसका उपयोग किया गया है और जिसका और प्रयोग किया जा सकता है और उसका पुनर्नवीकरण यथोचित है;
- (ष) 'अपशिष्ट बैटरी' में सम्मिलित है :
 - प्रयुक्त और/या ईओएल बैटरी और/या उनके घटक/कल-पुर्जे/ भाग /उपभोज्य सामग्री जो प्रकृति में परिसंकटमय हो या नहीं भी हो सकते हैं;
 - प्री-कंज्यूमर ऑफ स्पेक बैटरी और उनके घटक/कल-पुर्जे/ भाग /उपभोज्य सामग्री;
 - वे बैटरी जिनके समुचित उपयोग की तारीख समाप्त हो गई है;
 - वे बैटरी जिन्हें उपयोगिक्ता द्वारा परित्यक्त कर दिया गया है;

उन शब्दों और पदों के, जो इन नियमों में परिभाषित नहीं है, वहीं अर्थ होंगे, जो पर्यावरण (संरक्षण) अधिनियम, 1986 में यथा परिभाषित है।

4. उत्पादक के कृत्य – (1) उत्पादक की बाजार में उपलब्ध कराई गई बैटरी के लिए विस्तारित उत्पादक उत्तरदायित्व (ईपीआर) बाध्यता होगी जिससे उनके पुनर्चक्रण/नवीनीकरण की बाध्यताओं को प्राप्त करना सुनिश्चित हो;

(2) उत्पादक को, बाजार में उपलब्ध कराई गई बैटरी के लिए अनुसूची-।। में यथा उल्लिखित संग्रहण और पुनर्चक्रण और/या नवीनीकरण लक्ष्यों (ईपीआर लक्ष्यों) को पूरा करना होगा।

(3) उत्पादक द्वारा संग्रहित की गई अपशिष्ट बैटरी को किसी पुनर्चक्रण के लिए भेजा जाएगा और कचरा पाटन स्थलों में नहीं भेजा जाएगा या भस्म नहीं किया जाएगा।

(4) उत्पादक को प्ररूप 1(क) के अनुसार ऑनलाइन केंद्रीकृत पोर्टल के माध्यम से रजिस्ट्रीकरण करना होगा। रजिस्ट्रीकरण का प्रमाण-पत्र, प्ररूप 1(ख) के अनुसार जारी किया जाएगा।

(5) उत्पादक, ईपीआर-रजिस्ट्रीकरण के नवीनीकरण के लिए, इसकी अवधि समाप्त होने से साठ दिन पहले प्ररूप 1(क) फाइल करेगा;

(6) उत्पादक केन्द्रीय प्रदूषण नियंत्रण बोर्ड को ईपीआर-रजिस्ट्रीकरण में अंतर्विष्ट सूचना में किंही परिवर्तनों में और ईपीआर-रजिस्ट्रीकरण में निर्दिष्ट बैटरी के बाजार में उपलब्ध कराए जाने के संबंध में किसी स्थाई समाप्ति के बारे में सूचित करेगा।

(7) उत्पादक पूर्ववर्ती वित्तीय वर्ष में विनिर्मित बैटरी के लिए प्रत्येक वर्ष की 30 जून की तारीख तक केंद्रीय प्रदूषण नियंत्रण बोर्ड को प्ररूप-1(ग) में ईपीआर योजना प्रस्तुत करेगा। इसमें केंद्रीकृत पोर्टल के माध्यम से बैटरी की मात्रा, भार के साथ-साथ बैटरी की सामग्रियों के शुष्क भार की जानकारी होगी।

(8) उत्पादक, इन नियमों के प्रकाशन से तीन मास के भीतर वित्तीय वर्ष 2022-23 में विनिर्मित बैटरी के लिए ईपीआर योजना प्ररूप-1(ग) में केंद्रीय प्रदूषण नियंत्रण बोर्ड को प्रस्तुत करेगा; (9) विस्तारित उत्पादक उत्तरदायित्व की बाध्यताओं को पूरा करने के लिए अपशिष्ट बैटरी के संग्रहण के लिए एक पृथक अपशिष्ट केंद्र विकसित करने के लिए उत्पादक, निक्षेप वापसी प्रणाली या बॉय बैक या किसी अन्य मॉडल जैसी योजनाओं का संचालन कर सकते हैं।

(10) विस्तारित उत्पादक उत्तरदायित्व की बाध्यताओं को पूरा करने के लिए, उत्पादक अपशिष्ट बैटरी के संग्रहण, पुनर्चक्रण या नवीनीकरण हेतु स्वयं को या प्राधिकृत किसी अन्य इकाई को संलग्न कर सकता है। तथापि, ईपीआर लक्ष्यों को पूरा करने की बाध्यता उत्पादक की ही रहेगी।

(11) उत्पादक, अगले वित्तीय वर्ष की जून, 30 तक प्ररूप-3 के अनुसार, ईपीआर के अधीन बाध्यताओं को पूरा करने के लिए संग्रहित और पुनर्चक्रित/नवीकृत अपशिष्ट बैटरी के संबंध में प्ररूप 3 में केंद्रीय प्रदूषण नियंत्रण बोर्ड और संबद्धक राज्य प्रदूषण नियंत्रण बोर्ड को वार्षिक रिटर्न फाइल करेगा। रजिस्ट्रीकृत पुनर्चक्रकों के ब्यौरे, जिनसे ईपीआर प्रमाण-पत्र प्राप्त किए गए हैं, भी प्रदान किया जाएगा।

(12) उत्पादक का यह उत्तरदायित्व होगा कि वह :-

- i. अनुसूची-। में यथा विहित प्रतिबंधों और लेबल लगाने की अपेक्षाओं को पूरा करे;
- ii. बैटरी/अपशिष्ट बैटरी की सुरक्षित संभलाई सुनिश्चित करें जिससे कि मानव स्वास्थ्य और पर्यावरण को कोई क्षति न हो;

(13) उत्पादक अपशिष्ट बैटरी की संभलाई और प्रबंधन में सम्मिलित किसी इकाई द्वारा इन नियमों के किसी उल्लंघन को केंद्रीय प्रदूषण नियंत्रण बोर्ड या राज्य प्रदूषण नियंत्रण बोर्ड के संज्ञान में लाएगा।

(14) उत्पादक की नीचे दी गई सारणी के अनुसार, नई बैटरी में घरेलू रूप से पुनर्चक्रित सामग्रियों के न्यूनतम उपयोग के संबंध में बाध्यता होगी। बैटरी में पुनर्चक्रित सामग्रियों के न्यूनतम उपयोग का आकलन, बैटरी के कुल शुष्क भार की बावत किया जाएगा। आयातित बैटरी के मामले में, उत्पादक को अन्य व्यवसायों द्वारा उपयोग की गई पुनर्चक्रित सामग्रियों की ऐसी मात्रा के माध्यम से या निर्यात करके पुनर्चक्रित सामग्री की ऐसी मात्रा के माध्यम से न्यूनतम उपयोग की बाध्यता को पूरा करना होगा।

क्र.सं.	बैटरी का प्रकार	किसी बैटरी के कुल शुष्क भार में से पुनर्चक्रित सामग्रियों का न्यूनतम उपयोग (प्रतिशत में)				
		2027-28	2028-29	2029-30	2030-31 और उसके बाद	
1.	पोर्टेबल	5	10	15	20	
2.	इलैक्ट्रिक वाहन	5	10	15	20	
		2024-25	2025-26	2026-27	2027-28 और उसके बाद	
3.	मोटरयान	35	35	40	40	
4.	औद्योगिक	35	35	40	40	

(15) उत्पादक इन नियमों के अधीन आज्ञापक किए गए रजिस्ट्रीकरण के बिना किसी अन्य इकाई के साथ ब्यौहार नहीं करेगा।

5. उपभोक्ता के कृत्य – (1) उपभोक्ता का यह उत्तरदायित्व होगा कि:-

 अपशिष्ट बैटरी को अन्य अपशिष्ट प्रवाहों विशेष रूप से मिश्रित अपशिष्ट, घरेलू अपशिष्ट प्रवाहों से पृथक करके बाहर करना; ii. सुनिश्चित करना कि अपशिष्ट बैटरी को, इसके संग्रहण या नवीनीकरण या पुनर्चक्रण में लगी किसी इकाई को देकर पर्यावरण के अनुकूल रीति से उनका निपटान किया जाता है;

6. **लोक अपशिष्ट प्रबंधन प्राधिकरणों के कृत्य - (1)** लोक अपशिष्ट प्रबंधन प्राधिकरण संग्रहित की गई अपशिष्ट बैटरी को, उनकी ओर से कार्यरत उत्पादकों या अभिकरणों, या ऐसी इकाई जो उन अपशिष्ट बैटरी का नवीनीकरण या पुनर्चक्रण की दृष्टि से नवीनीकरण/पुनर्चक्रण में लगी हैं या उनका पुनर्चक्रण या नवीनीकरण स्वयं करती हैं, को सौंपेगा।

 त. संग्रहण, पृथक्करण और शोधन में सम्मिलित इकाईयों के कृत्य – (1) संग्रहण, पृथक्करण और शोधन में सम्मिलित निकायों का यह उत्तरदायित्व होगा कि वे अपशिष्ट बैटरी को रजिस्ट्रीकृत नवीनकरणकर्ता/ पुनर्चक्रणकर्ता को सौंप दें;
 (2) इस इकाई का उत्तरदायित्व होगा :-

- यह सुनिश्चित करे कि सुविधा केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विहित मानकों या मार्गदर्शक सिद्धांतों के अनुसार है;
- иह सुनिश्चित करे कि यह केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विहित मार्गदर्शक सिद्धांतों के अनुसार कोई कार्यकलाप करता है;

8. **नवीकरणकर्ता के कृत्य – (1)** सभी नवीकरणकर्ता केंद्रीकृत पोर्टल पर संबंधित राज्य प्रदूषण नियंत्रण बोर्ड से रजिस्टर होंगे। रजिस्ट्रीकरण का प्रमाण-पत्र प्ररूप 2(ख) के अनुसार पोर्टल का उपयोग करके जारी किया जाएगा।

- (2) यह नवीकरणकर्ता का उत्तरदायित्व होगा कि :
 - i. एक बारगी रजिस्ट्रीकरण प्रदान करने के लिए संबंधित राज्य प्रदूषण नियंत्रण बोर्ड को प्ररूप-2 में आवेदन करे;
 - ii. यह सुनिश्चित करे कि यह केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विहित मार्गदर्शक सिद्धांतों के अनुसार कोई कार्यकलाप करता है;
 - iii. यह सुनिश्चित करे कि इकाई के किसी कार्यकलाप से उत्पन्न परिसंकटमय अपशिष्ट को परिसंकटमय और अन्य अपशिष्ट (प्रबंधन और सीमा पार संचलन) नियम, 2016 के उपबंधों के अनुसार प्रबंधित किया जाए;
 - iv. यह सुनिश्चित करे कि संभलाई और नवीकरण कार्यकलापों के दौरान उत्पन्न अन्य अपशिष्ट को ठोस अपशिष्ट प्रबंधन नियम, 2016 और प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 जैसे विद्यमान विनियमों के अनुसार प्रबंधित किया जाए;
 - v. यह सुनिश्चित करें कि नवीकरण प्रक्रियाएं और सुविधाएं केंद्रीय प्रदूषण नियंत्रण बोर्ड के मानकों या मार्गदर्शक सिद्धांतों का अनुपालन करती हैं;
 - vi. यह सुनिश्चित करें कि अपशिष्ट बैटरी संग्रहित साधित्र को हटा दिया जाता है यदि बैटरी किसी उपकरण में लगी है।

(3) नवीकरणकर्ता विभिन्न उत्पादकों/इकाईयों से संग्रहित/प्राप्त उपयोग की गई बैटरी की मात्रा, नवीकृत मात्रा, नवीकरण के पश्चात उत्पन्न ठोस अपशिष्ट/प्लास्टिक अपशिष्ट सहित परिसंकटमय और/या अन्य अपशिष्ट की मात्रा और विद्यमान नियमों के अनुसार ऐसी मात्रा के निपटान से संबंधित सूचना प्ररूप 4 में तिमाही विवरणी के रूप में प्रस्तुत करेंगे और तिमाही विवरणी तिमाही के अंत के उत्तरवर्ती मास के अंत तक फाइल की जाएगी।

(4) अपशिष्ट बैटरी के नवीकरण में सम्मिलित ईकाइयों द्वारा प्रसंस्कृत अपशिष्ट बैटरी की कुल मात्रा तिमाही आधार पर केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विकसित केंद्रीकृत पोर्टल के साथ-साथ ईकाइयों की वेबसाइटों पर भी उपलब्ध कराई जाएगी।

(5) नवीकरणकर्ता इन नियमों के अधीन आज्ञापक बनाए गए रजिस्ट्रीकरण के बिना किसी अन्य इकाई के साथ ब्यौहार नहीं करेगा।

9. **पुनर्चक्रणकर्ता के कृत्य – (1)** सभी पुनर्चक्रणकर्ता ऑनलाइन पोर्टल पर संबंधित राज्य प्रदूषण नियंत्रण बोर्ड से रजिस्टर होंगे। रजिस्ट्रीकरण का प्रमाण-पत्र प्ररूप 2(ख) के अनुसार पोर्टल का उपयोग करके जारी किया जाएगा।

- (2) यह पुनर्चक्रणकर्ता का उत्तरदायित्व होगा कि :
 - i. एक बारगी रजिस्ट्रीकरण प्रदान करने के लिए संबंधित राज्य प्रदूषण नियंत्रण बोर्ड को प्ररूप-2 में आवेदन करे;
 - ii. यह सुनिश्चित करें कि यह केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विहित मार्गदर्शक सिद्धांतों के अनुसार कोई कार्यकलाप करता है;
 - यह सुनिश्चित करें कि इकाई के किसी कार्यकलाप से उत्पन्न परिसंकटमय अपशिष्ट को परिसंकटमय और अन्य अपशिष्ट (प्रबंधन और सीमा पार संचलन) नियम, 2016 के उपबंधों के अनुसार प्रबंधित किया जाए;
 - iv. यह सुनिश्चित करें कि संभलाई और नवीनीकरण कार्यकलापों के दौरान उत्पन्न अन्य अपशिष्ट को विद्यमान विनियमों जैसे कि ठोस अपशिष्ट प्रबंधन नियम, 2016, प्लास्टिक अपशिष्ट प्रबंधन नियम, 2016 और ई-अपशिष्ट (प्रबंधन) नियम, 2016 के अनुसार प्रबंधित किया जाए।
 - v. सुनिश्चित करें कि पुनर्चकरण प्रक्रियाएं और सुविधाएं केंद्रीय प्रदूषण नियंत्रण बोर्ड के मानकों या मार्गदर्शक सिद्धांतों का अनुपालन करें।
 - vi. सुनिश्चित करें कि अपशिष्ट बैटरी को संग्रहित साधित्र से हटा दिया जाएगा यदि बैटरी किसी उपकरण में लगी है।

(3) पुनर्चक्रणकर्ता, विभिन्न उत्पादकों/इकाइयों से संग्रहित/प्राप्त अपशिष्ट बैटरी की मात्रा, पुनर्चक्रित मात्राओं, नियम 10 के उप नियम (4) के अधीन पुनर्प्राप्ति लक्ष्यों के अनुसार सामग्री-वार पुनर्प्राप्ति प्रतिशतता के अनुपालन, पुनर्चक्रण के पश्चात उत्पन्न ठोस अपशिष्ट/प्लास्टिक अपशिष्ट सहित परिसंकटमय और/या अन्य अपशिष्ट की मात्रा और विद्यमान नियमों के अनुसार ऐसी मात्रा से संबंधित सूचना प्ररूप 4 में तिमाही विवरणी के रूप में प्रस्तुत करेगा और यह तिमाही विवरण, तिमाही के अंत के उत्तरवर्ती मास के अंत तक फाइल की जाएगी।

(4) अपशिष्ट बैटरी के पुनर्चक्रण में सम्मिलित इकाइयों द्वारा प्रसंस्कृत अपशिष्ट बैटरी की कुल मात्रा तिमाही आधार पर, केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा विकसित केंद्रीकृत पोर्टल और इकाइयों की वेबसाइटों पर भी उपलब्ध कराई जाएगी।

(5) नवीकरणकर्ता इन नियमों के अधीन आज्ञापक बनाए गए रजिस्ट्रीकरण के बिना किसी अन्य इकाई के साथ ब्यौहार नहीं करेगा।

10. अपशिष्ट बैटरी के लिए प्रमाण पत्र का उपबंध - (1) इन नियमों के अधीन रजिस्ट्रीकृत अपशिष्ट बैटरी के नवीनीकरण और/या पुनर्चक्रण में सम्मिलित इकाइयां, अपशिष्ट बैटरी प्रसंस्करण के लिए प्रमाण पत्र प्रदान करेंगी।

(2) किसी भी दशा में, इकाई द्वारा पुनर्चक्रित या नवीनीकृत की गई अपशिष्ट बैटरी की मात्रा, इकाई की संस्थापित क्षमता से अधिक नहीं होगी। ये प्रमाणपत्र, श्रेणी-वार अपशिष्ट बैटरी के लिए होंगे और इनमें इकाई का जीएसटी डेटा सम्मिलित होगा।

(3) रजिस्ट्रीकृत इकाइयों द्वारा प्रदान किया गया अपशिष्ट बैटरी के लिए प्रमाण पत्र, नवीनीकृत/पुनर्चक्रित बैटरी के प्रकार और मात्रा के लिए प्रदान किया जाएगा और ईपीआर बाध्यताओं को पूरा करने के लिए प्रयुक्त किया जा सकता है। केंद्रीय प्रदूषण नियंत्रण बोर्ड, ऑनलाइन पोर्टल पर ऐसे प्रमाण पत्र जारी करने की व्यवस्था करेगा।

(4) पुनर्प्राप्ति का न्यूनतम प्रतिशत लक्ष्य, बैटरी के शुष्क भार में सभी पुनर्प्राप्त सामग्रियों के कुल भार का प्रतिशत है और पुनर्चक्रणकर्ताओं के लिए नीचे दी गई सारणी में उल्लिखित बैटरी सामग्री की न्यूनतम पुनर्प्राप्ति का लक्ष्य आज्ञापक किया जाएगा।

क्र.सं.	बैटरी का प्रकार	वर्ष के लिए पुनर्प्राप्ति लक्ष्य (%)			
		2024-25	2025-26	2026-27 और उसके बाद से	
1.	पोर्टेबल	70	80	90	
2.	मोटर यान	55	60	60	

3.	औद्योगिक	55	60	60
4.	विद्युत यान	70	80	90

टिप्पण : अधिकतम पुनर्प्राप्ति का लक्ष्य,बैटरी में गैर-पुनर्प्राप्ति योग्य परिसंकटमय सामग्री की मात्रा के प्रतिशत के अध्यधीन है। इसका अर्थ, अपशिष्ट बैटरी में मौजूद परिसंकटमय सामग्री के समान प्रतिशत के पुनर्प्राप्ति लक्ष्य में कमी करना होगा।

(5) नियम 15 के अधीन गठित समिति द्वारा तकनीकी और वैज्ञानिक प्रगति तथा अपशिष्ट प्रबंधन में उभर रही नई प्रौद्योगिकियों के आलोक में पुनर्प्राप्त बैटरी सामग्रियों के न्यूनतम स्तरों का पुन: अवलोकन करने के लिए प्रत्येक चार वर्ष में एक बार पुनर्प्राप्ति लक्ष्य की पुनर्विलोकित किया जा सकता है और समिति इस संबंध में पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को सिफारिश करेगी।

(6) ईपीआर प्रमाण पत्र, केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा केंद्रीकृत ऑनलाइन पोर्टल के माध्यम से पुनर्चक्रित या नवीनीकृत मात्राओं के आधार पर तैयार किए जाएंगे और पुनर्चक्रणकर्ताओं या नवीनीकरणकर्ताओं को सौंपे जाएंगे। पुनर्चक्रणकर्ता या नवीनीकरणकर्ता, अपशिष्ट बैटरी के बदले में उत्पादकों को सौंपे गए ईपीआर प्रमाण पत्र बेच सकते हैं।

(7) पुनर्चक्रणकर्ताओं और नवीनीकरणकर्ताओं के लिए ईपीआर प्रमाण पत्र विनिर्दिष्ट वर्ष के लिए सामग्री पुन:प्राप्ति लक्ष्यों की पूर्ति प्रतिशतता और घरेलू या आयातित जैसे बैटरी के भौगोलिक स्रोत प्रसंस्कृत बैटरी के भार के आधार पर सृजित किए जाएंगे।

(8) पुनर्चक्रणकर्ताओं के लिए ईपीआर प्रमाणपत्रों का अनुमान लगाने के लिए निम्नलिखित सूत्र का प्रयोग किया जाएगा:

ईपीआर प्रमाण पत्र (किलोग्राम) = (प्रतिशत में बैटरी सामग्री की वास्तविक पुन:प्राप्ति/प्रतिशत में बैटरी के प्रकार के विनिर्दिष्ट वर्ष के लिए पुन:प्राप्ति लक्ष्य) x प्रसंस्कृत बैटरी की मात्रा (किलो) x (1-क)

टिप्पण :

क = घरेलू रूप से उत्पन्न अपशिष्ट बैटरी के लिए 0;

क = परिसंकटमय और अन्य अपशिष्ट (प्रबंधन और सीमापारीय संचलन) नियम, 2016 के अधीन अनुमत आयात के माध्यम से प्राप्त अपशिष्ट बैटरी के लिए 0.2

(9) प्रवर्गों में अधिशेष ईपीआर प्रमाणपत्रों का उपयोग केवल उसी प्रवर्ग की बैटरी के लिए ऑफ़-सेटिंग, अग्रनयन और विक्रय के लिए किया जा सकता है।

(i) पुनर्चक्रण के अधीन अधिशेष ईपीआर प्रमाणपत्र का पुनर्चक्रण के लिए उपयोग किया जा सकता है। नवीनीकरण के अधीन अधिशेष का पुनर्चक्रण के लिए उपयोग नहीं किया जा सकता है।

(10) उत्पादक उसी श्रेणी की बैटरी के अन्य उत्पादकों से अधिशेष ईपीआर प्रमाण पत्र खरीदकर एक प्रवर्ग के अधीन अपने ईपीआर बाध्यता को पूरा कर सकता है।

(11) उत्पादक ईपीआर प्रमाण पत्र खरीद सकता है, जो चालू वर्ष के अपने ईपीआर दायित्व और पूर्ववर्ती वर्षों के किसी शेष दायित्व और वर्तमान वर्ष के दायित्व को 10% तक सीमित है।

(12) जैसे ही उत्पादक ईपीआर प्रमाण पत्र खरीदता है, वह स्वत: ही उसके दायित्व के संदर्भ में समायोजित हो जाएगा।

(i) समायोजन में पूर्वतर दायित्व को प्राथमिकता दी जाएगी।

(ii) ईपीआर बाध्यताओं को पूरा करने के लिए उत्पादक द्वारा उपयोग किए गए ईपीआर प्रमाणपत्रों का पुन: आदान-प्रदान नहीं किया जाएगा। (13) ऐसे सभी संव्यवहारों को अभिलिखित किया जाएगा और ऑनलाइन पोर्टल पर तिमाही विवरणियां भरते समय नवीनीकरणकर्ताओं या पुनर्चक्रणकर्ताओं द्वारा प्रस्तुत किया जाएगा।

(14) उत्पादक की बाध्यताओं को पूरा करने के लिए नवीनीकरणकर्ता या पुनर्चक्रणकर्ता द्वारा सृजित ईपीआर प्रमाण पत्र सात वर्ष की अवधि के लिए विधिमात्र होंगे।

11. केंद्रीय प्रदूषण नियंत्रण बोर्ड के कृत्य

(1) केंद्रीय प्रदूषण नियंत्रण बोर्डऑनलाइन पोर्टल प्ररूप 1 (ख) के माध्यम से उत्पादकों को रजिस्टर करेगा;

(2) केंद्रीय प्रदूषण नियंत्रण बोर्ड, रजिस्ट्रीकरण के लिए आवेदनों के साथ-साथ विवरणियों पर कार्यवाही करने के लिए फीस अवधारित कर सकता है।

(3) पूर्ण आवेदन जमा करने के दो सप्ताह के भीतर किया जाएगा।

(4) उत्पादक का रजिस्ट्रीकरण पांच वर्ष तक की अवधि के लिए विधिमान्य होगा;

(5) केंद्रीय प्रदूषण नियंत्रण बोर्ड, राज्य प्रदूषण नियंत्रण बोर्ड के साथ उत्पादक की ईपीआर योजना के साथ-साथ उत्पादकों के रजिस्ट्रीकरण ब्यौरे साझा करेगा;

(6) केंद्रीय प्रदूषण नियंत्रण बोर्ड जमा किए गए प्ररूप 1(क) के आधार पर रजिस्ट्रीकरण का नवीनीकरण करेगा;

(7) केंद्रीय प्रदूषण नियंत्रण बोर्ड सुनवाई का युक्तियुक्त अवसर देने के पश्चात् अनुसूची II के अनुसार ईपीआर बाध्यताओं का अनुपालन न करने के मामले में रजिस्ट्रीकरण को निलंबित और/या रद्द कर देगा, और/या पर्यावरणीय क्षतिपूर्ति लगायेगा;

(8) केंद्रीय प्रदूषण नियंत्रण बोर्ड उत्पादकों द्वारा इन नियमों का अनुपालन सुनिश्चित करेगा, जिसमें दूरस्थ अनुबंधों के माध्यम से बैटरी की आपूर्ति करने वाले भी सम्मिलित हैं;

(9) केंद्रीय प्रदूषण नियंत्रण बोर्ड यह सुनिश्चित करेगा कि रजिस्ट्रीकरण या नवीनीकरण तभी किया जाता है जब वह इन नियमों के अधीन अन्यथा निलंबित और/या रद्द नहीं किया गया है और दो सप्ताह के भीतर आपत्ति न होने पर यह जारी समझा जाएगा;

(10) केंद्रीय प्रदूषण नियंत्रण बोर्ड स्वयं या किसी अभिहित अभिकरण के माध्यम से निरीक्षण और आवधिक लेखापरीक्षा के माध्यम से उत्पादकों द्वारा अनुपालन का सत्यापन करेगा।

(i) केंद्रीय प्रदूषण नियंत्रण बोर्ड, यथा अपेक्षित, निरीक्षण और आवधिक लेखापरीक्षा के माध्यम से अपशिष्ट बैटरी के नवीनीकरण/पुनर्चक्रण में सम्मिलित इकाइयों द्वारा अनुपालन को भी सत्यापित कर सकता है।

(ii) ईपीआर दायित्वों सहित इन नियमों के अधीन उल्लंघनों और बाध्यताओं को पूरा न करने के लिए कार्रवाई, नियम 13 के अनुसार होगी।

(iii) राज्य/संघ राज्य क्षेत्र में संचालित इकाइयों के मामले में, केंद्रीय प्रदूषण नियंत्रण बोर्ड, यदि अपेक्षित हो, राज्य प्रदूषण नियंत्रण बोर्ड को कार्रवाई करने का निदेश दे सकता है;

(11) केंद्रीय प्रदूषण नियंत्रण बोर्ड, स्वयं या अभिहित अभिकरण द्वारा इन नियमों के अधीन रजिस्ट्रीकृत इकाई की जीएसटीएन पोर्टल से जानकारी का उपयोग करने सहित आंकडों की लेखा परीक्षा करेगा;

(12) केंद्रीय प्रदूषण नियंत्रण बोर्ड नियमों के अधीन रजिस्ट्रीकृत इकाई द्वारा इन नियमों के उल्लंघन के मामले में उत्पादकों के रजिस्ट्रीकरण को निलंबित और/या रद्द करेगा, और/या पर्यावरणीय क्षतिपूर्ति लगाएगा; (13) उत्पादकों के रजिस्ट्रीकरण को निलंबित करने या रद्द करने के संबंध में केंद्रीय प्रदूषण नियंत्रण बोर्ड के आदेश के विरूद्ध की गई अपील पर कार्रवाई का अधिकार पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के पास है और अपील प्रस्तुत करने के पश्चात् 45 दिनों के भीतर इसका निपटान कर दिया जाएगा।

(14) पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय में संयुक्त सचिव या समतुल्य अधिकारी को अपीली प्राधिकारी के रूप में अभिहित किया जाएगा।

(i) अपीलार्थी द्वारा अभिहित अपीली प्राधिकारी को लिखित रूप में अपील की जाएगी और आदेश के पारित होने की तारीख से तीस दिनों के भीतर उस आदेश की एक प्रति के साथ अपील की जाएगी जिसके विरूद्ध अपील की गई है।

(15) केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा पुनर्चक्रकों या नवीनीकरणकर्ताओं के रजिस्ट्रीकरण के निलंबन और/या रद्द करने के संबंध में राज्य प्रदूषण नियंत्रण बोर्ड के आदेश के विरूद्ध पुनर्चक्रक या नवीनीकरणकर्ता द्वारा की गई अपील का निपटान अपील की प्राप्ति के तीस दिनों के भीतर किया जाएगा;

(16) केंद्रीय प्रदूषण नियंत्रण बोर्ड में सदस्य सचिव को अपीली प्राधिकारी के रूप में अभिहित किया जाएगा।

(i) अपीलार्थी द्वारा अभिहित अपीली प्राधिकारी को लिखित रूप में अपील की जाएगी और आदेश के पारित होने की तारीख से तीस दिनों के भीतर उस आदेश की एक प्रति के साथ अपील की जाएगी जिसके विरूद्ध अपील की गई है।

(17) केंद्रीय प्रदूषण नियंत्रण बोर्ड अपशिष्ट बैटरी के संग्रहण, भंडारण, परिवहन, नवीनीकरण और पुनर्चक्रण को पर्यावरण अनुकूल प्रक्रियाओं के लिए मार्ग दर्शक सिद्धांत जारी करेगा;

(18) केंद्रीय प्रदूषण नियंत्रण बोर्ड प्रत्येक वर्ष राज्य प्रदूषण नियंत्रण बोर्ड से प्राप्त आंकड़ों को संकलित और प्रकाशित करेगा;

(19) केंद्रीय प्रदूषण नियंत्रण बोर्ड ऑनलाइन पोर्टल पर ईपीआर प्रमाणपत्रों के आदान-प्रदान के लिए प्रणाली तैयार करेगा।

(20) केंद्रीय प्रदूषण नियंत्रण बोर्ड उन उत्पादकों की सूची प्रकाशित करेगा जो वार्षिक आधार पर ईपीआर लक्ष्यों और बाध्यताओं को पूरा करने में असफल रहे हैं;

(21) केंद्रीय प्रदूषण नियंत्रण बोर्ड ईपीआर योजनाओं और उत्पादकों की वार्षिक विवरणी को साझा करेगा;

(22) केंद्रीय प्रदूषण नियंत्रण बोर्ड इन नियमों के अधीन बाध्यताओं की पूर्ति में पणधारियों के बीच नियमित संवाद सुनिश्चित करने के लिए एक तंत्र स्थापित करेगा।

(23) केंद्रीय प्रदूषण नियंत्रण बोर्ड इन नियमों के प्रभावी कार्यान्वयन के लिए नियम 15 के अनुसार एक कार्यान्वयन समिति का गठन करेगा और इसे मजबूत बनाने के लिए सिफारिशें करेगा।

(i) समिति अपनी रिपोर्ट और सिफारिशें पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को प्रस्तुत करने के लिए छह मास में कम से कम एक बार बैठक करेगी;

(24) केंद्रीय प्रदूषण नियंत्रण बोर्ड विशेष रूप से बैटरी सामग्री की पुन:प्राप्ति पर नियम 10 के उपनियम (4) के बाबत तकनीकी-आर्थिक व्यवहार्यता और साध्येता के लिए अपशिष्ट बैटरी प्रबंधन से संबंधित प्रौद्योगिकियों का पुनर्विलोकन करेगा।

(25) केंद्रीय प्रदूषण नियंत्रण बोर्ड अपशिष्ट बैटरी के नवीनीकरण और पुनर्चक्रण के संबंध में प्रौद्योगिकियों और मानकों के बारे में मार्गदर्शक सिद्धांत जारी करेगा; (26) केंद्रीय प्रदूषण नियंत्रण बोर्ड तकनीकी और वाणिज्यिक व्यवहार्यता के आधार पर पुनर्चक्रण से बैटरी सामग्री की पुन:प्राप्ति के संबंध में पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को सिफारिश करेगा;

12. राज्य प्रदूषण नियंत्रण बोर्ड के कृत्य - (1) राज्य प्रदूषण नियंत्रण बोर्ड ऑनलाइन प्ररूप 2 (ख) के माध्यम से नवीनीकरण और पुनर्चक्रण में सम्मिलित इकाई को रजिस्टर करेगा।

रजिस्ट्रीकरण के लिए उपबंध विस्तारित उत्पादक उत्तरदायित्व पोर्टल पर किया जाएगा और राज्य प्रदूषण नियंत्रण बोर्ड या एक अनिहित अभिकरण के माध्यम से अपनी अधिकारिता में निरीक्षण और आवधिक लेखा परीक्षा के माध्यम से अपशिष्ट बैटरी के नवीनीकरण और पुनर्चक्रण में सम्मिलित इकाई के अनुपालन को सत्यापित करेगा, जैसा उचित समझा जाए,

(2) यदि अपशिष्ट बैटरी के नवीनीकरण या पुनर्चक्रण में सम्मिलित इकाई द्वारा प्रदान की गई जानकारी मिथ्या पाई जाती है, तो राज्य प्रदूषण नियंत्रण बोर्ड नियम 13 के अधीन कार्रवाई सहित सुनवाई का युक्तियुक्त अवसर देने के पश्चात् पांच वर्ष की अवधि के लिए रजिस्ट्रीकरण को निलंबित और / या रद्व कर देगा।

(3) राज्य प्रदूषण नियंत्रण बोर्ड वार्षिक आधार पर अपने विस्तारित उत्पादक उत्तरदायित्व बाध्यताओं को पूरा नहीं करने वाली इकाइयों की सूची बनाएगा और उसे प्रकाशित करेगा।

(i) राज्य प्रदूषण नियंत्रण बोर्ड अपशिष्ट बैटरी के नवीनीकरण या पुनर्चक्रण में सम्मिलित इकाइयों द्वारा प्रस्तुत की गई तिमाही रिपोर्टों को केंद्रीय प्रदूषण नियंत्रण बोर्ड को संकलित और अग्रेषित करेगा और ऑनलाइन प्रकाशित करेगा।

(4) राज्य प्रदूषण नियंत्रण बोर्ड इन नियमों के अधीन बाध्यताओं की पूर्ति में सम्मिलित संबंधित पणधारियों के बीच नियमित संवाद सुनिश्चित करेगा।

(5) राज्य प्रदूषण नियंत्रण बोर्ड इन नियमों के प्रभावी कार्यान्वयन के संबंध में प्रत्येक वर्ष 30 जून तक केंद्रीय प्रदूषण नियंत्रण बोर्ड को वार्षिक रिपोर्ट प्रस्तुत करेगा।

13. उल्लंघन पर कार्रवाई और पर्यावरणीय क्षतिपूर्ति का अधिरोपण – (1) प्रदूषक क्षतिपूर्ति सिद्धांत के आधार पर निम्नलिखित कार्यकलापों के लिए पर्यावरणीय क्षतिपूर्ति भी लगाई जाएगी:

- i. इन नियमों के अधीन आज्ञापक रजिस्ट्रीकरण के बिना गतिविधियों को संचालित करने वाली संस्थाएं;
- ii. इन नियमों के अधीन रजिस्ट्रीकृत इकाइयों द्वारा मिथ्या जानकारी प्रदान करना/ भौतिक तथ्यों को जानबूझकर छिपाना;
- iii. इन नियमों के अधीन रजिस्ट्रीकृत इकाइओं द्वारा कूटरचित जाली/छलसाधन किए गए दस्तावेज़ प्रस्तुत करना;
- iv. अपशिष्ट बैटरी के उचित प्रबंधन का अनुपालन नहीं करने के संबंध में संग्रह, पृथक्करण और शोधन में लगी इकाइयों।

(2) इन कार्यकलापों को, अपवंचन या उल्लंघन की दशा में या तो स्वयं इकाई द्वारा या बाध्यताओं के अपवंचन या उल्लंघन में किसी बाध्य इकाई की मदद करने पर, सुनवाई का अवसर देने के पश्चात्, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 15 उपबंधों के अधीन भी निपटाया जा सकता है।

(3) केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा नियम 15 के अधीन गठित कार्यान्वयन समिति इन नियमों के अधीन बाध्यताओं को पूरा न करने की स्थिति में, अपशिष्ट बैटरी के नवीनीकरण और पुनर्चक्रण में सम्मिलित उत्पादकों और इकाइयों से पर्यावरण क्षतिपूर्ति का अधिरोपण और संग्रहण करने के लिए मार्गदर्शक सिद्धांत तैयार करेगी और सिफारिश करेगी।

(i) ऐसी पर्यावरणीय क्षतिपूर्ति को प्रभावी करने के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को अनुशंसित मार्गदर्शक सिद्धांत प्रस्तुत किए जाएंगे । (4) इन नियमों में उपवर्णित अपने ईपीआर लक्ष्यों, उत्तरदायित्वों और बाध्यताओं को पूरा न करने के बाबत में काम कर रहे उत्पादकों पर केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा पर्यावरण क्षतिपूर्ति उद्गृहीत की जाएगी;

(5) पर्यावरणीय क्षतिपूर्ति संबंधित राज्य प्रदूषण नियंत्रण बोर्ड द्वारा अपशिष्ट बैटरी के नवीनीकरण या पुनर्चक्रण में सम्मिलित इकाइयों के साथ-साथ संग्रहण, पृथक्करण और शोधन में सम्मिलित उन इकाइयों पर उद्गृहीत की जाएगी, उनकी अधिकारिता में इन नियमों के अधीन उपवर्णित अपने उत्तरदायित्वों और बाध्यताओं को पूरा करने में असफल रहे हैं। यदि राज्य प्रदूषण नियंत्रण बोर्ड साठ दिन में कार्रवाई नहीं करता है, तो केंद्रीय प्रदूषण नियंत्रण बोर्ड राज्य प्रदूषण नियंत्रण बोर्ड को निर्देश जारी करेगा।

(6) पर्यावरणीय क्षतिपूर्ति का भुगतान इन नियमों के अधीन उपवर्णित ईपीआर बाध्यता के उत्पादकों को मुक्त नहीं करेगा।

(i) किसी विशेष वर्ष के लिए पूर्ण न की गई ईपीआर बाध्यता अगले वर्ष के लिए तीन वर्षों की अवधि के लिए अग्रेषित की जाएगी।

(ii) यदि ईपीआर दायित्व की कमी को पश्चात्वर्ती वर्षों में तीन वर्षों के अंदर पूर्ण किया जाता है, तो उद्ग्रहीत पर्यावरणीय क्षतिपूर्ति को नीचे दिए गए अनुसार उत्पादकों को वापस कर दिया जाएगा:

- 1. पर्यावरणीय क्षतिपूर्ति उद्गहण करने के एक वर्ष के भीतर : 75% वापस
- 2. दो वर्ष के भीतर: 60% वापस
- 3. तीन वर्ष के भीतर: 40% वापस

(7) पर्यावरणीय क्षतिपूर्ति देय होने के 3 वर्ष पूरे होने के पश्चात्, पूरी पर्यावरणीय क्षतिपूर्ति रकम समपहत कर ली जाएगी। यह व्यवस्था पश्चात् के वर्षों में भी संबंधित इकाइयों द्वारा अपशिष्ट बैटरी के संग्रहण और नवीनीकरण/पुनर्चक्रण के लिए अनुज्ञा देगी।

(8) पर्यावरण क्षतिपूर्ति के अधीन संग्रहित निधि को केंद्रीय प्रदूषण नियंत्रण बोर्डया राज्य प्रदूषण नियंत्रण बोर्ड द्वारा एक अलग निलम्ब लेखा में रखा जाएगा।

(i) संग्रहित निधियों धनराशि का उपयोग ऐसी संग्रहित न की गई और गैर-पुनर्नवीनीकरण या नवीनीकृत अपशिष्ट बैटरी के संग्रहण और नवीनीकरण या पुनर्चक्रण में किया जाएगा, जिसके लिए पर्यावरणीय क्षतिपूर्ति अधिरोपित की जाती है।

(ii) केन्द्रीय सरकार के अनुमोदन के लिए कार्यान्वयन समिति द्वारा अपशिष्ट बैटरी प्रबंधन के लिए निधियों के उपयोग के तौर-तरीकों की सिफारिश की जाएगी।

(9) इन मार्गदर्शक सिद्धांतों के अधीन उपवर्णित बाध्यताओं की पूर्ति न करने पर पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 15 के उपबंधों के अधीन दंडात्मक कार्रवाई की जाएगी।

14. केंद्रीकृत ऑनलाइन पोर्टल – (1) केंद्रीय प्रदूषण नियंत्रण बोर्ड इन नियमों के प्रारंभ के छह मास के भीतर रजिस्ट्रीकरण के साथ-साथ उत्पादकों, पुनर्चक्रणकर्ताओं और अपशिष्ट बैटरी के नवीनीकरणकर्ताओं द्वारा विवरण फाईल करने के लिए एक ऑनलाइन प्रणाली स्थापित करेगा।

(2) ऐसी प्रणाली एक तंत्र सुनिश्चित करेगी जिसमें उत्पादकों के ईपीआर बाध्यताओं के अनुसार अपशिष्ट बैटरी की बकाया सामग्री परिलक्षित होती है। यह अपशिष्ट बैटरी के नवीनीकरण और पुनर्चक्रण में सम्मिलित उत्पादकों और इकाइयों के लेखा परीक्षा से संबंधित ब्यौरे भी दर्शाएगा। (3) राज्य प्रदूषण नियंत्रण बोर्ड उत्पादकों के रजिस्ट्रीकरण के लिए उपयोग किए जाने वाले केंद्रीय प्रदूषण नियंत्रण बोर्ड के वेब पोर्टल का उपयोग भी अपशिष्ट बैटरी के नवीनीकरण और पुनर्चक्रण में सम्मिलित इकाइयों को रजिस्ट्रीकृत करने हेतु करेगा।

(4) इन नियमों के कार्यान्वयन से संबंधित आदेशों और मार्गदर्शक सिद्धांतों के संबंध में वेब पोर्टल एकल बिंदु आंकड़ा संग्रह के रूप में कार्य करेगा।

(5) उत्पादक, ऑनलाइन पोर्टल के विकास की सुविधा प्रदान कर सकते हैं।

15. **कार्यान्वयन के लिए समिति – (1)** इन नियमों के प्रभावी कार्यान्वयन के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को उपायों की सिफारिश करने के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड के अध्यक्ष की अध्यक्षता में केंद्रीय सरकार द्वारा एक समिति का गठन किया जाएगा।

(2) यह समितिइन नियमों के कार्यान्वयन की मानीटरी करेगी और कठिनाइयों को दूर करने के लिए आवश्यक उपाय भी करेगी।

(3) इस समितिको ऑनलाइन पोर्टल के विकास और संचालन के मार्गदर्शन और पर्यवेक्षण का भी काम सौंपा जाएगा।

(4) इन नियमों के साथ संलग्न प्ररूपों में कोई संशोधन केंद्रीय सरकार के अनुमोदन से समिति द्वारा किया जा सकता है।

(5) इस समिति में इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी मंत्रालय, उद्योग और आंतरिक व्यापार संवर्धन विभाग, आवास और शहरी कार्य मंत्रालय, सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय, नवीन और नवीकरणीय ऊर्जा मंत्रालय, रसायन और पेट्रो केमिकल्स विभाग, केंद्रीय प्रदूषण नियंत्रण बोर्ड, राज्य प्रदूषण नियंत्रण बोर्ड, राष्ट्रीय पर्यावरण इंजीनियरिंग अनुसंधान संस्थान जैसे संगठनों के प्रतिनिधि और पणधारियों जैसे उत्पादकों, पुनर्चक्रणकर्ताओं और नवीनीकरणकर्ताओं का प्रतिनिधित्व करने वाले संगमों, और समिति के अध्यक्ष द्वारा आमंत्रित कोई अन्य पणधारी सम्मिलित होंगे।

[फा. सं. 12/36/2019-एचएसएमडी]

नरेश पाल गंगवार, अपर सचिव

अनुसूची-l

निषेध और लेबलिंग अपेक्षाएं

1. बैटरी में भारी धातु की मात्रा संबंधी निषेध

- एक बैटरी जिसके भार में 0.0005% (5 पीपीएम) तक पारा शामिल है को केवल 2025 तक उपयोग में ला सकते हैं;
- एक बैटरी जिसके भार में 0.002% (2000 पीपीएम) तक कैडमियम होता है, को केवल उपयोग में ला सकते है।
- पैरा ग्राफ (1) (i) भार में <2% पारा तत्व के साथ बटन जिंक सिल्वर आक्साइड बैटरी और <2% पारा तत्व के साथ बटन जिंक एयर बैटरी पर लागू नहीं होगा।
- पैराग्राफ (1) (i) में दिया गया प्रतिबंध निम्नलिखित उपयोग के लिए पोर्टेबल बैटरी पर लागू नहीं होगा:

क. आपातस्थिति प्रकाश व्यवस्था सहित आपातस्थिति और चेतावनी प्रणाली;

ख. चिकित्सा उपकरण

2. लेबल लगाने की आवश्यकता

क. उत्पादक यह सुनिश्चित करेंगे कि सभी बैटरी या बैटरी पैक भारतीय मानक ब्यूरों द्वारा निर्धारित मानकों के अनुसार अपेक्षित लेबलिंग आवश्यकताओं के साथ उचित रूप से चिह्ति हैं। ख. सभी अपेक्षित लेबल और प्रतीकों को प्रत्यक्ष रूप से, स्पष्टता से और अमिट रूप से मुद्रित किया जाना चाहिए।

ग. कोई भी व्यक्ति किसी भी बैटरी या बैटरी पैक को तब तक बाजार में प्रस्तुत नही करेगा जब तक बैटरी या बैटरी पैक के सबसे बड़े भाग के कम से कम 3% क्षेत्र में (अधिकतम आकार 5 सेमी.x5 सेमी. तक) चित्र 1 में दर्शाये गए 'क्रॉस चिन्ह वाले पहियादार कूड़ेदान का निशान' नही लगाया हो। बेलनाकार बैटरी के मामले में, क्रास चिन्ह वाले पहियादार कूड़ेदान का निशान बैटरी या बैटरी पैक की सतह पर कम से कम 1.5% क्षेत्र में लगाया जाएगा, अधिकतम आकार 5 सेमी. X5 सेमी. तक।

घ. जहां बैटरी या बैटरी पैक का आकार ऐसा है कि क्रास चिन्ह वाले पहियादार कूड़ेदान का निशान 0.5 x0.5 सेमी. से कम हो, वहां बैटरी या बैटरी पैक पर निशान लगाने की आश्यकता नही है किंतु पैकेजिंग पर कम से कम 1x1 सेमी. माप का क्रास चिन्ह वाले पहियादार कूड़ेदान का निशान अंकित किया जाएगा।

ड. कोई भी व्यक्ति बाजार में पारा, कैडमियम या लेड़ वाली बैटरी या बटन सेल तब तक प्रस्तुत नही कर सकता जब तक उस पर संबंधित रासायनिक चिन्ह ''एचजी'', ''सीडी'' और ''पीबी'' अंकित नही किया गया हो। भारी धातु का प्रतीक निम्नलिखित रूप से होगा:-

(i) चित्र 1 में दिखाए गए प्रतीक के नीचे मुद्रित किया जाना चाहिए; और

(ii) क्रास चिन्ह वाले पहियेदार कूड़ेदान के प्रतीक के आकार के कम से कम एक चौथाई क्षेत्र को कवर करें।



चित्र I. क्रास चिन्ह वाला पहियेदार कूड़ेदान का प्रतीक

सीडी एचजी पीबी

चित्र II<u>:</u> भारी धातु प्रतीक

अनुसूची-II

विस्तारित उत्पादक उत्तरदायित्व के लिए लक्ष्य

(i) यदि एक नये उत्पादक के द्वारा इन नियमों के प्रकाशित होने के बाद के वर्षों में बैटरी को बाजार में प्रस्तुत करने के मामले में संबंधित प्रकार के बैटरी के ईपीआर लक्ष्य विभिन्न प्रकार की बैटरी के लिए लागू होंगे, जो नीचे दी गई तालिकाओं में उल्लिखित बैटरी के औसत जीवन के आधार पर होगा। (ii) ईपीआर लक्ष्य में नीचे दी गई तालिका में उल्लिखित संग्रह लक्ष्य और संबंधित वर्ष के ईपीआर संग्रह लक्ष्य के 100% पुनर्चक्रण और/या नवीनीकरण लक्ष्य शामिल होंगे।

(iii) अपशिष्ट बैटरी के पुनर्चक्रण का अर्थ है लेड़, निकल, लिथियम, निकल, कोबाल्ट, प्लास्टिक, रबर, ग्लास इत्यादि जैसी बैटरी सामग्री का पुनर्चक्रण।

(iv) उत्पादक के लिए ईपीआर लक्ष्य प्रत्येक प्रकार की वहनीय बैटरी, मोटरयान, औद्योगिक और विद्युत यान बैटरी के भीतर बैटरी ,जैसे लेड़ एसिड, ली-आयन, निकल कैडमियम, जिंक आधारित बैटरिया आदि) के प्रकार के लिए विशिष्ट होगा।

(v) उत्पादक अपने ईपीआर दायित्व को पुनर्चक्रणकर्ताओं/नवीनीकरणकर्ताओं द्वारा उपलब्ध कराए गए ईपीआर प्रमाण पत्र के माध्यम से पूरा करेगा। पुनर्चक्रणकताओं/नवीनीकरणकर्ताओं के साथ ईपीआर प्रमाण-पत्रों की अनुपलब्धता के मामले में, उत्पादक के पास संग्रह की भी जिम्मेदारी होगी।

सं.	अनुपालन चक्र	वर्ष	अनिवार्य रूप से अपशिष्ट बैटरी	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य
			संग्रह लक्ष्य और संग्रह लक्ष्य के	और प्रत्येक दस वर्ष के चक्र के लिए
			नवीनीकरण/पुनर्चक्रण का 100%	100% नवीनीकरण और/या
			(भार)	पुनर्चक्रण लक्ष्य
(i)	2022-23	2022-23	वर्ष 2017-18 में बाजार में प्रस्तुत	दस वर्ष के अनुपालन चक्र के दौरान
	2031-32		बैटरी की मात्रा का कम से कम	बाजार में रखी गयी बैटरी के संदर्भ
			50%	में दस वर्ष के अनुपालन चक्र (10 वें
(ii)		2023-	वर्ष 2018-19 में बाजार में प्रस्तुत	वर्ष के अंत) तक 100% अपशिष्ट
		2024	बैटरी की मात्रा का कम से कम	बैटरी का संग्रह और 100%
			60%	नवीनीकरण/पुनर्चक्रण अनिवार्य
(iii)	-	2024-	वर्ष 2019-20 में बाजार में प्रस्तुत	होगा।
		2025	बैटरी की मात्रा का कम से कम	तथापि, अगले अनुपालन चक्र के
			70%	लिए दस वर्ष के चक्र के दौरान प्रति
(iv)		2025-2026	वर्ष 2020-21 में बाजार में रखी	वर्ष बाजार में रखी गई बैटरी की
			गई बैटरी की मात्रा का न्यूनतम	औसत मात्रा का 60% तक आगे
			70%1	बढ़ाया जा सकता है।
(v)		2026-2027	वर्ष 2021-22 में बाजार में रखी	
(•)			गई बैटरी की मात्रा का न्यूनतम	
			70%1	
	-	2027.20		
(vi)		2027-28	वर्ष 2022-23 में बाजार में रखी	
			गई बैटरी की मात्रा का न्यूनतम	
			70%1	
(vii)		2028-29	वर्ष 2023-24 में बाजार में रखी	
			गई बैटरी की मात्रा न्यूनतम 70%	
			मात्रा।	

(vi) उपभोक्ता इलेक्ट्रानिक्स में उपयोग की गई वहनीय बैटरी के लिए जो पुन:आवेशनीय हैं:

(viii)		2029-30	वर्ष 2024-25 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(ix)		2030-31	वर्ष 2025-26 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(x)		2031-32	वर्ष 2026-27 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(xi)	वर्ष 2032-33 से 2041-42, और आगे		5 ^{वें} पूर्ववर्ती वित्तीय वर्ष (अर्थात 2027-28) और उसके बाद बाजार में रखी गई बैटरी की न्यूनतम मात्रा का 70%।	दस वर्ष के अनुपालन चक्र के दौरान बाजार में रखी गई बैटरी के संदर्भ में दस वर्ष के अनुपालन चक्र (10 ^व वर्ष के अंत) के अंत तक 100% अपशिष्ट बैटरी का संग्रह और 100% नवीनीकरण/ पुनर्चक्रण अनिवार्य होगा। तथापि, अगले अनुपालन चक्र के लिए दस वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत मात्रा का 60% तक आगे बढ़ाया जा सकता है।

(vii) उपभोक्ता इलेक्ट्रानिक्स में इस्तेमाल होने वालों जो फिर से रिचार्ज करने के लायक हैं, को छोड़कर वहनीय बैटरी के लिए :

सं.	अनुपालन चक्र	वर्ष	अपशिष्ट बैटरी संग्रह लक्ष्य और लक्ष्य के नवीनीकरण / पुनर्चक्रण का 100% (भार)	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य, और हर दस वर्ष के चक्र के लिए 100% नवीनीकरण और/या रीसाइक्लिंग लक्ष्य (भार)
(i)	2025-26 से 2034-35तक	2025-2026	वर्ष 2022-23 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 50%।	दस वर्ष के अनुपालन चक्र के दौरान बाजार में रखी बैटरी के संदर्भ में दस
(ii)		2026-2027	वर्ष 2023-24 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 60%।	वर्ष के अनुपालन चक्र (10 वें वर्ष के अंत) के अंत तक 100% अपशिष्ट
(iii)		2027-2028	वर्ष 2024-25 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	बैटरी का संग्रह और 100% नवीनीकरण / पुनर्चक्रण अनिवार्य होगा।
(iv)		2028-2029	वर्ष 2025-26 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	तथापि, अगले अनुपालन चक्र के
(v)		2029-2030	वर्ष 2026-27 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	लिए दस वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत मात्रा का 60% तक आगे
(vi)		2030-2031	वर्ष 2027-28 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	बढ़ाया जा सकता है ।

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(vii)		2031-2032	वर्ष 2028-29 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(viii)		2032-2033	वर्ष 2029-30 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(ix)		2033-2034	वर्ष 2030-31 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(x)		2034-2035	वर्ष 2031-32 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(xi)	वर्ष 2035-36 से	2035-2036	तीसरे पूर्ववर्ती वित्तीय वर्ष (यानी	
	2044-45 तक,	और उसके बाद	2032-33) और उसके बाद बाजार में	बाजार में रखी बैटरी के संदर्भ में दस
	और उसके बाद		रखी गई बैटरी की न्यूनतम मात्रा का	वर्ष के अनुपालन चक्र (10 वें वर्ष के
			70%	अंत) के अंत तक 100% अपशिष्ट
				बैटरी का संग्रह और 100%
				नवीनीकरण / पुनर्चक्रण अनिवार्य
				होगा ।
				तथापि, अगले अनुपालन चक्र के
				लिए दस वर्ष के चक्र के दौरान प्रति
				वर्ष बाजार में रखी गई बैटरी की
				औसत मात्रा का 60% तक आगे
				बढ़ाया जा सकता है।

(viii) मोटरयान बैटरी के लिए

सं.	अनुपालन चक्र	वर्ष	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य और संग्रह लक्ष्य के नवीनीकरण / पुनर्चक्रण का 100%	लक्ष्य, और हर सात वर्ष के चक्र के लिए 100% नवीनीकरण और/या
			(भार)	पुनर्चक्रण लक्ष्य (भार)
(i)	वर्ष 2022-23 से	2022-2023	वर्ष 2019-20 में बाजार में रखी गई	
	2028-29		बैटरी की मात्रा का न्यूनतम 30%।	बाजार में रखी गई बैटरी के संदर्भ में सात वर्ष के अनुपालन चक्र (7 ^{वें} वर्ष
(ii)		2023-2024	वर्ष का न्यूनतम 2020-21 में बाजार	के अंत) के अंत तक 100% बेकार
			में बैटरी की मात्रा का न्यूनतम 50%।	बैटरी का संग्रह और
(iii)		2024-2025	वर्ष 2021-22 में बाजार में रखी गई	, and a second se
			बैटरी बैटरी की मात्रा का न्यूनतम 70%।	तथापि, अगले अनुपालन चक्र के
(iv)	1	2025-2026	वर्ष 2022-23 में बाजार में रखी गई	लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की
			बैटरी की मात्रा का न्यूनतम 90%।	औसत मात्रा का 20% तक आगे
(v)	1	2026-2027	वर्ष 2023-24 में बाजार में रखी गई	बढ़ाया जा सकता है।
			बैटरी की मात्रा का न्यूनतम 90% ।	
(vi)		2027-2028	वर्ष 2024-25 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 90%।	

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(vii)		2028-2029	वर्ष 2025-26 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 90%।	
(viii)	वर्ष 2029-30 से	2029-2030	तीसरे पूर्ववर्ती वित्तीय वर्ष (अर्थात	सात वर्ष के अनुपालन के दौरान
	2035-36 तक,	और उसके बाद	2026-27) और उसके बाद बाजार में	बाजार में रखी गई बैटरी के संदर्भ में
	2000 00 जाए, और उसके बाद		रखी गई बैटरी की न्यूनतम 90%	सात वर्ष के अनुपालन चक्र (7 ^{वें} वर्ष
			मात्रा	के अंत) के अंत तक 100% बेकार
				बैटरी का संग्रह और 100%
				नवीनीकरण / पुनर्चक्रण अनिवार्य
				होगा।
				तथापि, अगले अनुपालन चक्र के
				लिए सात वर्ष के चक्र के दौरान प्रति
				वर्ष बाजार में रखी गई बैटरी की
				औसत मात्रा का 20% तक आगे
				बढ़ाया जा सकता है।

(ix) औद्योगिक बैटरी के लिए:

सं.	अनुपालन चक्र	वर्ष	और संग्रह लक्ष्य के नवीनीकरण / पुनर्चक्रण का 100%	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य, और हर सात वर्ष के चक्र के लिए 100% नवीनीकरण और/या पुनर्चक्रण लक्ष्य (भार)
(i)	वर्ष 2022-23 से 2028-29	2022-2023	वर्ष 2019-20 में बाजार में रखी गई बैटरी की मात्रा है का न्यूनतम 40%।	सात वर्ष के अपनुपालन चक्र के दौरान बाजार में रखी गई बैटरी के संदर्भ में सात वर्ष के अनुपालन चक्र (7 ^{वें} वर्ष के
(ii)		2023-2024	वर्ष 2020-21 में बाजार में बैटरी की मात्रा का न्यूनतम 50%।	का सग्रह और 100% नवीनीकरण / पुनर्चक्रण अनिवार्य होगा ।
(iii)		2024-2025	बैटरी की मात्रा का न्यूनतम 60%।	तथापि, अगले अनुपालन चक्र के लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत मात्रा का 60% तक आगे बढ़ाया जा
(iv)		2025-2026	2022-23 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	सकता है।
(v)		2026-2027	वर्ष 2023-24 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	

(vi)		वर्ष 2024-25 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(vii)		वर्ष 2025-26 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(viii)	उसके ताट	2026-27) और उसके बाद बाजारमें रखी गई बैटरी की मात्रा का न्यूनतम 70%	सात वर्ष के अनुपालन चक्र के दौरान बाजार में रखी गई बैटरी के संदर्भ में सात वर्ष के अनुपालन चक्र (7 ^{वें} वर्ष के अंत) के अंत तक 100% बेकार बैटरी का संग्रह और 100% नवीनीकरण / पुनर्चक्रण अनिवार्य होगा। तथापि, अगले अनुपालन चक्र के लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत मात्रा का 60% तक आगे बढ़ाया जा सकता है।

(x) ई-रिक्शा (तीन पहिया वाहनों) की विद्युत यान की (ईवी) बैटरी के लिए:

सं.	अनुपालन चक्र	वर्ष	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य	अनिवार्य अपशिष्ट बैटरी संग्रह
			और संग्रह लक्ष्य के नवीनीकरण /	लक्ष्य, और हर सात वर्ष के चक्र के
			पुनर्चक्रण का 100%	लिए 100% नवीनीकरण और/या
			(भार)	पुनर्चक्रण लक्ष्य
				(भार)
(i)	वर्ष 2024-25 से	2024-2025	वर्ष 2021-22 में बाजार में रखी गई	
	2030-31 तक		 बैटरी की मात्रा का न्यूनतम 70%।	दौरान बाजार में रखी गई बैटरी के
				संदर्भ में सात वर्ष के अनुपालन चक्र
	-	0005 0000		(7 ^{वें} वर्ष के अंत) के अंत तक 100%
(ii)		2025-2026	वर्ष 2022-23 में बाजार में रखी गई	बेकार बैटरी का संग्रह और 100%
			बैटरी की मात्रा का न्यूनतम 70%।	नवीनीकरण / पुनर्चक्रण अनिवार्य
				होगा।
(iii)		2026-2027	वर्ष 2023-24 में बाजार में रखी गई	तथापि, अगले अनुपालन चक्र के
			 बैटरी की मात्रा का न्यूनतम 70%।	लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी
(iv)	-	2027-2028	वर्ष 2024-25 में बाजार में रखी गई	की औसत मात्रा का 60% तक आगे
(1V)			× ·	बढ़ाया जा सकता है।
			बैटरी की मात्रा का न्यूनतम 70%।	
(v)	-	2028-2029		
(*)				
			बैटरी की मात्रा का न्यूनतम 70%।	

(vi)		2029-2030	वर्ष 2026-27 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(vii)	-	2030-2031	वर्ष 2027-28 में बाजार में रखी गई	
			बैटरी की मात्रा का न्यूनतम 70%।	
(viii)	2031-32 2037-	2031-2032 और उसके बाद	तीसरे पूर्ववर्ती वित्तीय वर्ष (यानी 2028-29) और उसके बाद बाजार	
	38 तक और आगे	७तापः भाष	में रखी गई बैटरी की न्यूनतम 70% मात्रा	संदर्भ में सान नर्भ के अन्मालन नक
				बेकार बैटरी का संग्रह और 100% नवीनीकरण / पुनर्चक्रण अनिवार्य
				होगा। तथापि, अगले अनुपालन चक्र के
				लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी
				की औसत मात्रा का 60% तक आगे बढ़ाया जा सकता है।

(xi) दोपहिया वाहनों के विद्युत यान (ईवी) बैटरी के लिए:

सं.	अनुपालन चक्र	वर्ष	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य और संग्रह लक्ष्य के नवीनीकरण / पुनर्चक्रण का 100% (भार)	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य, और हर सात वर्ष के चक्र के लिए 100% नवीनीकरण और / या पुनर्चक्रण लक्ष्य (भार)
(i)	वर्ष 2026-27 से 2032-33 तक	2026-2027	वर्ष 2022-23 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	सात वर्ष के अनुपालन चक्र के दौरान बाजार में रखी गई बैटरी के संदर्भ में सात वर्ष के अनुपालन चक्र (7वें वर्ष के संस्कर के संस्कर 400% केन्स्र
(ii)		2027-2028	वर्ष 2023-24 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	के अंत) के अंत तक 100% बेकार बैटरी का संग्रह और 100% नवीनीकरण / पुनर्चक्रण अनिवार्य होगा।
(iii)		2028-2029	वर्ष 2024-25 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	तथापि, अगले अनुपालन चक्र के लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत
(iv)		2029-2030	वर्ष 2025-26 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	मात्रा का 60% तक आगे बढ़ाया जा सकता है।
(v)		2030-2031	वर्ष 2026-27 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(vi)		2031-2032	वर्ष 2027-28 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम	

(vii)	-	2032-2033	70%। वर्ष 2028-29 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	
(viii)		वर्ष 2033-2034 और उसके बाद	चौथे वित्तीय वर्ष (अर्थात 2029- 30) और उसके बाद बाजारमें रखी गई बैटरी की न्यूनतम मात्रा का 70%	सात वर्ष के अनुपालन चक्र के दौरान बाजार में रखी गई बैटरी के संदर्भ में सात वर्ष के अनुपालन चक्र (7 ^{वें} वर्ष के अंत) के अंत तक 100% बेकार बैटरी का संग्रह और 100% नवीनीकरण/ पुनर्चक्रण अनिवार्य होगा। तथापि, अगले अनुपालन चक्र के लिए सात वर्ष के चक्र के दौरान प्रति वर्ष बाजार में रखी गई बैटरी की औसत मात्रा का 60% तक आगे बढ़ाया जा सकता है।

(xii) चार पहिया वाहनों से युक्त विद्युत यान (ईवी) बैटरी के लिए:

सं.	अनुपालन चक्र	वर्ष	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य और संग्रह लक्ष्य के नवीनीकरण / पुनर्चक्रण का 100% (भार)	अनिवार्य अपशिष्ट बैटरी संग्रह लक्ष्य, और प्रत्येक चौदह वर्ष के चक्र के लिए 100% नवीनीकरण और/या पुनर्चक्रण लक्ष्य (भार)
(i)	2029-30 से 2042-43 तक	2029-2030	वर्ष 2021-22 में बाजार में रखी गई बैटरी की मात्रा का न्यूनतम 70%।	चौदह वर्षीय अनुपालन चक्र के दौरान बाजार में रखी बैटरी के संदर्भ में 14वें अनुपालन चक्र के
(ii)		2030-2031	वर्ष 2022-23 में बाजार में रखी बैटरी की मात्रा का कम से कम 70% भाग	अंत में (14वें वर्ष के अंत में) बैटरी का 100% संग्रह एवं 100% नवीनीकरण/पुनर्चक्रण अनिवार्य होगा।
(iii)		2031-2032	वर्ष 2023-24 में बाजार में रखी बैटरी की मात्रा का कम से कम 70% भाग	फिर भी,चौदह वर्षीय चक्र के दौरान बाजार में प्रतिवर्ष रखी गई बैटरी की औसत मात्रा का 20% अगले अनुपालन चक्र में आगे ले जाया जा सकता है।
(iv)		2032-2033	वर्ष 2024-25 में बाजार में रखी बैटरी की मात्रा का कम से कम 70% भाग	ગાવા ગા લગલા હા
(v)		2033-2034	वर्ष 2025-26 में बाजार में रखी बैटरी की मात्रा का कम से कम 70% भाग	

(vi)		2034-2035	वर्ष 2026-27 में बाजार में रखी बैटरी की मात्रा का कम से कम	
(vii)	-	2035-2036	70% भाग वर्ष 2027-28 में बाजार में रखी बैटरी की मात्रा का कम से कम	
			70% भाग	
(viii)	-	2036-2037	वर्ष 2028-29 में बाजार में रखी बैटरी की मात्रा का कम से कम	
	-		70% भाग	
(ix)		2037-2038	वर्ष 2029-30 में बाजार में रखी बैटरी की मात्रा का कम से कम	
			70% भाग	
(x)		2038-2039	वर्ष 2030-31 में बाजार में रखी बैटरी की मात्रा का कम से कम	
	-		70% भाग	
(xi)		2039-2040	वर्ष 2031-32 में बाजार में रखी बैटरी की मात्रा का कम से कम	
	-		80% भाग	
(xii)		2040-2041	वर्ष 2032-33 में बाजार में रखी बैटरी की मात्रा का कम से कम	
	-		70% भाग	
(xiii)		2041-2042	वर्ष 2033-34 में बाजार में रखी बैटरी की मात्रा का कम से कम	
	-		70% भाग	
(xiv)		2042-2043	वर्ष 2034-35 में बाजार में रखी बैटरी की मात्रा का कम से कम	
			70% भाग	
(viii)	2043-44 से 2056-57 तक	2043-2044 और उससे आगे	8वें पूर्ववर्ती वित्तीय वर्ष (2035- 36) में और उससे आगे बाजार में रखी बैटरी की मात्रा का कम से कम 70% भाग	संदर्भ में 14वें अनुपालन चक्र के अंत में (14वें वर्ष के अंत में) बैटरी
				का 100% संग्रह एवं 100% नवीनीकरण/पुनर्चक्रण अनिवार्य होगा।
				फिर भी,चौदह वर्षीय चक्र के दौरान बाजार में प्रतिवर्ष रखी गई
				दारान बाजार म प्रातवेष रखा गइ बैटरी की औसत मात्रा का 20%
				अगले अनुपालन चक्र में आगे ले जाया जा सकता है।

प्रपत्र 1 (क)

(नियम 4 देखें)

(पंजीकरण के अनुदान/नवीकरण के लिए उत्पादक द्वारा प्रस्तुत किया जाने वाला आवेदन)

1.	उत्पादक का नाम	
2.	उत्पादक का पंजीकृत पता, वेबसाइट एड्रेस	
	एवं संपर्क ब्यौरा	
3.	अधिकृत व्यक्ति (यों) का/के नाम और ईमेल,	
	लैंडलाइन दूरभाष नंबर और मोबाइल नं. के	
	साथ पूरा पता	
4.	जीएसटी सं.	
5.	टिन सं.	
6.	बाजार में रखी बैटरी के ब्रांड नाम के साथ	प्रकार के अनुसार सूची
	उनके प्रकार	
		क. वहनीय बैटरी
		ख. मोटरयान बैटरी
		ग. ईवी बैटरी
		घ. औद्योगिक बैटरी

सामान्य निबंधन एवं शर्तें:

- पंजीकृत संस्था पर्यावरण (संरक्षण) अधिनियम 1986 के प्रावधानों एवं उसके अधीन बनाए गए नियमों का पालन करेगी।
- ii. अनुमोदित ईपीआर प्रपत्र में किसी भी परिवर्तन की सूचना केंद्रीय प्रदूषण नियंत्रण बोर्ड को दी जानी चाहिए।

स्थान :

दिनांक :

अधिकृत व्यक्ति के हस्ताक्षर

प्रपत्र 1 (ख)

नियम 11 देखें

[केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा उत्पादक का पंजीकरण प्रदान करने का प्रारूप]

संदर्भ: पंजीकरण के लिए आपकी आवेदन संख्या दिनांक

पंजीकरण संख्या

मैसर्सको एतद्वारा की अपशिष्ट बैटरी प्रबंधन नियम, 2022 के प्रावधानों के अनुसार अपशिष्ट बैटरी के उत्पादक के रूप में पंजीकरण प्रदान किया जाता है। पंजीकरण जारी करने की तिथि सेवर्ष की अवधि के लिए वैध रहेगा। अपशिष्ट बैटरी प्रबंधन नियमों, 2022 के प्रावधान (प्रावधानों) का किसी भी तरह का उल्लंघन, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) के दंडात्मक प्रावधान को आकर्षित करेगा।

> (सदस्य सचिव) केन्द्रीय प्रदूषण नियंत्रण बोर्ड

दिनांक: स्थान:

प्रपत्र -1 (ग)

(नियम 4 देखें)

[निर्माता द्वारा ईपीआर योजना प्रस्तुतिकरण का प्रारूप]

1	उत्पादक का नाम	
2	उत्पादक का पंजीकृत पता, वेबसाइट एड्रेस	
	एवं संपर्क ब्यौरा	
3	अधिकृत व्यक्ति (यों) का/के नाम और ईमेल,	
	लैंडलाइन दूरभाष नंबर और मोबाइल नं. के	
	साथ पूरा पता	
4	जीएसटी सं.	
5	टिन सं.	
6	बैटरी के शुष्क भार के साथ कुल भार के	बैटरी के प्रकार के अनुसार शुष्क भार के साथ कुल भार में
	रूप में मात्रा के साथ ब्रांड नाम (नामों)	मात्रा
	सहित बाजार में रखी बैटरी का प्रकार	
		क. वहनीय बैटरी
		ख. मोटरयान बैटरी
		ग. ईवी बैटरी
		घ. औद्योगिक बैटरी

स्थान :

दिनांक :

अधिकृत व्यक्ति के हस्ताक्षर

प्रपत्र – 2 (क)

(नियम 8 और 9 देखें)

[एकबारगी पंजीकरण की स्वीकृति के लिए पुनर्चक्रणकर्ता/नवीकरणकर्ता द्वारा प्रस्तुत किए जाने वाला आवेदन-पत्र]

पुनर्चक्रणकर्ता का नाम	
पंजीकृत पता एवं वेबसाइट एड्रेस	
दूरभाष नं. (लैंडलाइन और मोबाइल)	
ई मेल	
अधिकृत व्यक्ति (यों) का नाम	
अधिकृत व्यक्ति (यों) का ईमेल	
अधिकृत व्यक्ति (यों) का मोबाइल नं.	
जीएसटी सं.	
सहमति वैधता	क. वायु अधिनियम 1981 के अधीन तक वैध -
	ख. जल अधिनियम 1974 के अधीन तक वैध -
परिसंकटमय अपशिष्ट (प्रबंधन और हथालन)	- तक वैध
नियमावली, 2016 के नियम 6 के अधीन प्राधिकरण	

की वैधता	
जिला उद्योग केन्द्र के साथ पंजीकरण के प्रमाणीकरण	- तक वैध
की वैधता	
(एमटीए) में पुनर्चक्रण इकाई(यों) की क्षमता	क. संस्थापित
	ख. संचालन (पिछले तीन वर्षों का ब्यौरा)

अधिकृत व्यक्ति के हस्ताक्षर

स्थान : दिनांक :

प्रपत्र 2 (ख)

(नियम 12 देखें)

[राज्य प्रदूषण नियंत्रण बोर्ड द्वारा पुनर्चक्रणकर्ता/नवीकरणकर्ता को पंजीकरण प्रदान करने के लिए प्रपत्र]

संदर्भ: पंजीकरण के लिए आपकी आवेदन संख्या

दिनांक

पंजीकरण संख्या

मैसर्सको एतद्वारा अपशिष्ट बैटरी प्रबंधन नियम, 2022 के प्रावधानों के अनुसार अपशिष्ट बैटरी के पुनचर्क्रण और/या नवीनीकरण के लिए पंजीकरण प्रदान किया दिया जाता है।

पंजीकरण जारी करने की तिथि सेवर्षों की अवधि के लिए वैध होगा।

अपशिष्ट बैटरी प्रबंधन नियमों, 2022 के प्रावधान (प्रावधानों) का किसी भी तरह का उल्लंघन, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) के दंडात्मक प्रावधान को आकर्षित करेगा।

> (सदस्य सचिव) राज्य प्रदूषण नियंत्रण बोर्ड (हस्ताक्षर एवं पदनाम)

स्थान:

दिनांक:

प्रपत्र 3

(नियम 4 देखें)

[अगले वित्तीय वर्ष के जून के 30वें दिन तक उत्पादक द्वारा प्रस्तुत की जाने वाली वार्षिक विवरणी]

1.	उत्पादक का नाम						
2.	उत्पादक का पंजीकृत पता, वेबसाइट						
	एड्रेस और संपर्क विवरण						
3.	अधिकृत व्यक्ति (यों) का/(के) नाम और						
	ईमेल, लैंडलाइन दूरभाष नं. और						
	मोबाइल नं. के साथ पूरा पता						
4.	वित्तीय वर्ष जिसमें विवरणी दाखिल	क्रम सं.	बैटरी	का	बेची गई बैटरी की मा	त्रा	

25

1							
	की जाती है, में बेची गई बैटरी की	प्रका	र न	नं.	कुल भार	बैटरी सामग्री	
	संख्या का ब्यौरा					का शुष्क भार	
		1					
		2					
		-					
		3					
		4					
5.	बैटरी के शुष्क भार के साथ कुल भार	प्रकार के अनुसार बै	टरी के शुष्	क भार	के साथ कुल भ	गर में मात्रा	
	के रूप में मात्रा के साथ ब्रांड नाम						
	(नामों) सहित बाजार में रखी बैटरी का	क वहनीय बैटर	री				
	प्रकार	ख मोटरयान बै	टरी				
		ग ईवी बैटरी					
		घ औद्योगिक बैटरी					
6.	ईपीआर दायित्वों का ब्यौरा और	1. ईपीआर द	ायित्व				
	संगृहीत तथा नवीनीकृत/पुनर्चक्रित	2. नवीनीकत/पनर्चक्रित बैटरी सामग्री का भार					
	बैटरियो जिनकी विवरणी दाखिल की	ल की 3. पुन:प्राप्त बैटरी सामग्री का वजन 4. निपटान का ब्यौरा					
	जा रही है						
7.	ईपीआर प्रमाणपत्रों का ब्यौरा	पुनर्चक्रणकर्ता/नवीन		र्ग-वार प्र	गमाण पत्रों की	। संख्या	

अधिकृत व्यक्ति के हस्ताक्षर

स्थान : दिनांक :

प्रपत्र 4

(नियम 8 और 9 देखें)

[तिमाही की समाप्ति के बाद आगामी माह के अंत तक राज्य प्रदूषण नियंत्रण बोर्ड को पुनर्चक्रणकर्ता/नवीनीकरणकर्ता द्वारा प्रस्तुत की जाने वाली तिमाही रिपोर्ट]

1	पुनर्चक्रणकर्ता का नाम			
2	पंजीकृत पता			
3	ईमेल आईडी			
4	दूरभाष नं.			
5	अधिकृत व्यक्ति (यों) का/के नाम			
6	जीएसटी संख्या			
7	राज्य प्रदूषण नियंत्रण बोर्ड के साथ पंजीकरण संख्या			
8	(एमटीए) में पुनर्चक्रण इकाई (यों की क्षमता	क स्थापित ख संचालित (पिछले तीन वर्षों का	ब्यौरा)
9	उत्पादक (उत्पादकों) सहित विभिन्न निकायों से संग्रहीत अपशिष्ट बैटरी का ब् यौरा	क्रम सं. 1	बैटरी के प्रकार वहनीय	संख्या एवं भार में मात्रा के साथ पुनर्चक्रण/नवीनीकरण के लिए जिन संस्थाओं में बैटरी संग्रहीत की गई उनका विवरण

				1		r			1
		2		मोटरयान					
		3		विद्युत यान					
		4		औद्योगिक					
10	पुनर्चक्रित/नवीनीकृत अपशिष्ट					1			
	बैटरी का ब्यौरा	क्रम सं	बैत	री के प्रकार	पुनर्च	कित.	/नवीनीवृ	त बैटरी	की मात्रा
					सं.		कुल भार	कुल शुष्क भार	पुन:प्राप्त बैटरी सामग्री का
		1	वह	इनीय					कुल भार
		2		टरयान					
		3		द्युत यान					
		4		<u></u> द्योगिक					
11	पुनर्चक्रण /नवीनीकरण प्रक्रिया के दौरान उत्पादित और निपटान किए गए अपशिष्ट का ब्यौरा								
12	ईपीआर प्रमाणपत्र ब्यौरा	उत्पादक-	वार	जारी किए गए	र प्रमाण	ापत्रों	ं की संख्य	ग	

अधिकृत व्यक्ति के हस्ताक्षर

स्थान : दिनांक :

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 22nd August, 2022

S.O. 3984(E).—Whereas the Battery Waste Management Rules, 2020 was published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii), *vide* S.O. 770(E), dated the 20^{th} February, 2020 inviting objections and suggestions from all persons before the expiry of sixty days from the date on which copies of the Gazette containing the said draft provisions were made available to the public;

And, whereas all the objections and suggestions received have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1), clause (v) and clause (vii) of subsection (2) of section 3, sub-section (1), clause (c) and clause (d) of sub-section (2) of section 6, section 8, clause (b) of sub-section 2 of section 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Batteries (Management and Handling) Rules, 2001, except as respect things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely:-

1. Short title and commencement. - (1) These rules may be called the Battery Waste Management Rules, 2022.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. **Application.** – (1) These rules shall apply to, –(i) Producer, dealer, consumer, entities involved in collection, segregation, transportation, re-furbishment and recycling of Waste Battery;

(ii) all types of batteries regardless of chemistry, shape, volume, weight, material composition and use.

(2) These rules do not apply to Battery used in, -(i) equipment connected with the protection of the essential security interests including arms, ammunitions, war material and those intended specifically for military purposes;

(ii) equipment designed to be sent into space.

3. Definitions. - (1) In these rules, unless the context otherwise requires, -

(a) 'Act' means the Environment (Protection) Act, 1986 (29 of 1986);

(b) 'Automotive battery' means any Battery used only for automotive starter, lighting or ignition power;

(c) '**Battery'** means new or refurbished cell and/or Battery and/or their component, including accumulator, which is any source of electrical energy generated by direct conversion of chemical energy and includes disposable primary and/or secondary battery;

(d) '**Battery pack**' means any set or module of cells and/or Battery that are connected or encapsulated within an outer casing so as to form a complete unit that the end-user is not intended to split up or open;

(e) '**Battery materials**' means materials contained in the Battery include metals such as nickel, cobalt, lead, lithium, and other materials such as plastics, paper, etc.;

(f) 'Cell' means basic functional unit consisting of an assembly of electrodes, electrolyte, container, terminals and separators that is source of energy generated by direct conversion of chemical energy and incudes primary and/or secondary cell;

(g) 'Central Pollution Control Board' means the Central Pollution Control Board as constituted under sub-section (1) of section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(h) 'consumer' means end user of Battery;

(i) 'disposal' means any operation which does not lead to reuse, recovery, refurbishing or recycling and inter-alia include physico-chemical and/or biological treatment and/or deposition in secured landfill;

(j) 'Electric vehicle battery' means any Battery specifically designed to provide traction to hybrid and electric vehicles for road transport;

(k) 'End of Life battery' means Battery which have been used, completed its intended use and is not meant for refurbishment;

(1) 'Environmentally sound management' means management of Waste Battery in a manner to protect human health and environment against any adverse effects, which may result from any substance contained in Waste Battery. These may include refurbishment, and/or recycling;

(m) **'Extended Producer Responsibility'** means responsibility of any Producer of Battery for Environmentally sound management of Waste Battery;

(n) **'Extended Producer Responsibility Registration'** means a registration by Central Pollution Control Board of a Producer for Extended Producer Responsibility;

(o) 'Facility' means any location wherein the process incidental to the collection, storage, segregation, refurbishing, recycling disposal of Waste Battery is carried out;

(p) 'Form' means Forms appended to these rules;

(q) 'Hazardous waste' means hazardous waste as defined under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

(r) **'Industrial battery'** means any Battery designed for industrial uses, excluding Portable battery, Electric vehicle battery and Automotive battery. These may include sealed Battery (excluding potable battery); unsealed Battery (excluding automotive Battery) and energy storage system Battery;

(s) 'Manufacturer' means a person or an entity or a company as defined in the Companies Act, 2013 (18 of 2013) or a factory as in the Factories Act, 1948 (63 of 1948) which has facilities for manufacturing of Battery and/or its components;

(t) **'Portable battery'** means Battery that is sealed, less than five kilograms, not made for industrial purposes, electric vehicle or to be used as an Automotive Battery;

(u) **'Producer'** means an entity who engages in:

- (i) manufacture and sale of Battery including refurbished Battery, including in equipment, under its own brand; or
- (ii) sale of Battery including refurbished Battery, including in equipment, under its own brand produced by other manufacturers or suppliers; or
- (iii) import of Battery as well as equipment containing Battery;

(v) '**Public Waste Management Authorities**' for the purpose of these rules means Village Panchayat, Municipal Corporation, Municipality and agencies engaged on their behalf.

- (w) 'Recycler' means entity engaged in recycling of Waste Battery;
- (x) 'Refurbishment' means repairing, re-conditioning, re-purposing of used Battery for its second life;
- (y) 'Refurbisher' means entity engaged in refurbishment;
- (z) 'Schedule' means Schedule appended to these rules;

(za) **'State Pollution Control Board'** means the State Pollution Control Board constituted under Section 4 of Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and includes in relation to Union territory, the Pollution Control Committee;

(zb) 'Storage' means storage of Waste Battery;

(zc) 'Treatment' means an activity carried out on Waste Battery for recycling;

(zd) 'Used battery' means Battery and/or its components which have been used and have residual life and suitable for refurbishment;

(ze) 'Waste Battery' includes:

- Used and/or End of Life Battery and/or its components or spares or parts or consumables which may or may not be hazardous in nature;
- Pre-consumer Off-Spec Battery and its components or spares or parts or consumables;
- Battery whose date for appropriate use has expired;
- Battery which have been discarded by the user.

(2) Words and expressions not defined in these rules will have the same meaning as defined in the Environment (Protection) Act, 1986.

4. Functions of Producer. -(1) Producer shall have the obligation of Extended Producer Responsibility for the Battery that they introduce in the market to ensure the attainment of the recycling or refurbishing obligations.

(2) Producer shall meet the collection and recycling and/or refurbishment targets as mentioned in Schedule II for Battery made available in the market.

(3) Waste Battery collected by the Producer shall be sent for recycling or refurbishing and shall not be sent for landfilling or incineration.

(4) The person or an entity involved in manufacturing of Battery shall have to register through the online centralised portal as Producer in Form 1(A). The certificate of registration shall be issued in Form 1(B).

(5) Producer shall file for renewal of registration in Form 1(A) before sixty days of its expiry.

(6) Producer shall inform the Central Pollution Control Board of any changes to the information contained in the Extended Producer Responsibility Registration and of any permanent cessation as regards to the making available on the market of the Battery referred to in the Extended Producer Responsibility Registration.

(7) Producer shall provide Extended Producer Responsibility plan in the Form 1(C) to Central Pollution Control Board by 30^{th} June of every year for the Battery manufactured in the preceding financial year. It shall contain information on the quantity, weight of Battery along with the dry weight of Battery materials through the centralised portal.

(8) Producer shall submit an Extended Producer Responsibility Plan in Form 1(C) to Central Pollution Control Board for the Battery manufactured in FY 2022-23 within three months of the publication of these rules.

(9) In order to develop a separate waste stream for collection of Waste Battery for fulfilling Extended Producer Responsibility obligations, the Producer, may operate schemes such as deposit refund system or buy back or any other model.

(10) In order to meet the obligations of Extended Producer Responsibility, the Producer may engage itself or authorise any other entity for collection, recycling or refurbishment of Waste Battery. However, the obligations of meeting the Extended Producer Responsibility targets shall remain with the Producer.

(11) Producer shall file annual returns in Form 3 regarding the Waste Battery collected and recycled or refurbished towards fulfilling obligations under Extended Producer Responsibility with the Central Pollution Control Board and concerned State Pollution Control Board in Form 3 by 30th June of the next financial year. The details of the registered recyclers from whom the Extended Producer Responsibility certificates have been procured shall also be provided.

(12) It shall be the responsibility of a Producer to, -

- (i) adhere to prohibitions and labelling requirements as prescribed in Schedule I;
- (ii) ensure safe handling of Battery or Waste Battery such that no damage to human health and environment occurs.

(13) Producer shall bring to the notice of the Central Pollution Control Board or State Pollution Control Board of violations of these rules by any entity involved in handling and management of Waste Battery.

(14) Producer shall have the obligation with respect to the minimum use of domestically recycled materials in new Battery as per the Table below. The assessment of the minimum use of the recycled materials in Battery shall be in respect of the total dry weight of Battery. In case of imported Battery, the Producer shall have to meet the obligation of the minimum use by way of getting such quantity of recycled materials utilised by other businesses or by way of exporting such quantity of recycled materials.

		Minimum use of the recycled materials out of total dry weight of a Battery				
S.No.	Tune of Pottery		(in per	centage)		
5.INO.	Type of Battery	2027.28	2028-29	2020 20	2030-31 and	
		2027-28	2028-29	2029-30	onwards	
1.	Portable	5	10	15	20	
2.	Electric Vehicle	5	10	15	20	
		2024-25	2025-26	2026-27	2027-28 and onwards	
3.	Automotive	35	35	40	40	
4.	Industrial	35	35	40	40	

TABLE

(15) Producer shall not deal with any other entity not having registration mandated under these rules.

5. Functions of Consumer. - (1) It will be the responsibility of consumer, -

- (i) to discard Waste Battery separately from other waste streams especially from mixed waste, domestic waste streams;
- (ii) to ensure that Waste Battery are disposed off in an environment friendly manner by giving it to an entity engaged in collection or refurbishment or recycling;

6. Functions of Public Waste Management Authorities. -(1) Public Waste Management Authorities will hand over collected Waste Battery to the producers or agencies acting on their behalf or the entity engaged in refurbishment or recycling with a view to refurbishment or recycling of those Waste Battery or carry out their recycling or refurbishment themselves.

7. Functions of entity involved in collection, segregation and treatment. -(1) It shall be the responsibility of entities involved in collection, segregation and treatment to hand over Waste Battery to registered refurbisher or recycler;

(2) It shall be the responsibility of the entity to, -

- (i) ensure that a facility is in accordance with the standards or guidelines prescribed by the Central Pollution Control Board;
- (ii) carry out any activity in accordance with the guidelines prescribed by Central Pollution Control Board.

8. Functions of Refurbisher. – (1) All refurbishers shall register with State Pollution Control Board on the centralised portal. The certificate of registration shall be issued using the portal in Form 2(B).

(2) It shall be the responsibility of the Refurbisher to, -

- i. make an application in Form 2(A) to the State Pollution Control Board for grant of one-time registration;
- ii. ensure that it carries out any activity in accordance with the guidelines prescribed by Central Pollution Control Board;
- iii. ensure that hazardous waste generated from any activity of the entity is managed as per the provisions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016;
- iv. ensure that other waste generated during handling and refurbishing activities be managed as per the extant regulations such as Solid Waste Management Rules, 2016 and Plastic Waste Management Rules, 2016;
- v. ensure that refurbishment processes and facilities comply with the standards or guidelines prescribed by the Central Pollution Control Board;
- vi. ensure that the Waste Battery is removed from collected appliance if Battery is incorporated in an equipment.

(3) Refurbishers shall furnish quarterly returns in Form 4 regarding the information on quantity of used Battery collected or received from various producers or entities, refurbished quantities, quantity of hazardous and/or other waste including solid waste or plastic waste generated after refurbishment and disposal of such quantity as per extant rules and the quarterly return shall be filed by the end of the month succeeding the end of the quarter.

(4) The total quantity of Waste Battery processed by entities involved in refurbishment of Waste Battery, on quarterly basis, will be made available on the centralised portal developed by Central Pollution Control Board and on the websites of the entities.

(5) Refurbisher shall not deal with any other entity not having registration mandated under these rules.

9. Functions of Recycler. – (1) All recyclers shall register with the State Pollution Control Board through the online portal. The certificate of registration shall be issued in Form 2(B).

(2) It shall be the responsibility of the recycler to, –

- (i) make an application in Form 2(A) to the State Pollution Control Board for grant of one-time registration;
- (ii) ensure that it carries out any activity in accordance with the guidelines prescribed by Central Pollution Control Board;
- (iii) ensure that hazardous waste generated from any activity of the entity is managed as per the provisions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016;
- (iv) ensure that other waste generated during handling and recycling activities be managed as per the extant regulations such as Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Ewaste (Management) Rules, 2016;
- (v) ensure that recycling processes and facilities for Waste Battery comply with the standards or guidelines prescribed by Central Pollution Control Board;
- (vi) ensure that the Waste Battery is removed from collected appliance if Battery is incorporated in an equipment.

(3) Recyclers shall furnish the quarterly returns in Form 4 regarding the information on quantity of Waste Battery collected or received from various producers or entity, recycled quantities, compliance of material-wise recovery percentage as per recovery targets provided under sub-rule 4 of rule 10, quantity of hazardous and/or other waste including solid waste or plastic waste generated after recycling and of such quantity as per as per extant rules and the quarterly return shall be filed by the end of the month succeeding the end of the quarter.

(4) The total quantity of Waste Battery processed by entity involved in recycling of Waste Battery, on quarterly basis, will be made available on the portal developed by Central Pollution Control Board and on the websites of the entities.

(5) Refurbisher shall not deal with any other entity not having registration mandated under these rules.

10. Provision of Certificate for Waste Battery. – (1) Entities involved in refurbishment and/ or recycling of Waste Battery, registered under these rules shall provide certificate for Waste Battery processing.

(2) In no case, the amount of Waste Battery recycled or refurbished by the entity shall be more than installed capacity of the entity. These certificates will be for Waste Battery category-wise and shall include Goods and Services Tax data of the entity.

(3) The certificate for Waste Battery provided by registered entities shall be provided for the type and quantity of Battery refurbished or recycled and can be transacted for meeting Extended Producer Responsibility obligations. Central Pollution Control Board will provide for the issuance of such certificates on the online portal.

(4) Recovery of minimum percentage target is the percentage of total weight of all recovered materials out of dry weight of the Battery and recyclers shall be mandated for minimum recovery of Battery materials as mentioned in the Table below.

S.No.	Type of Battery	Recovery target for the year in percentage		
		2024-25	2025-26	2026-27 and onwards
1.	Portable	70	80	90
2.	Automotive	55	60	60
3.	Industrial	55	60	60
4.	Electric Vehicle	70	80	90

TABLE

Note : Maximum recovery target is subject to the percentage of non-recoverable hazardous material content in the Battery. It would mean the reduction of recovery target by the same percentage of the hazardous material present in the Waste Battery.

(5) The recovery target may be reviewed by the Committee constituted under rule 15 once every four years to revisit the minimum levels of recovered Battery materials in light of technical and scientific progress and emerging new technologies in waste management, and the Committee would recommend to Ministry of Environment, Forest and Climate Change in this regard.

(6) Extended Producer Responsibility certificates will be generated by Central Pollution Control Board through the centralised online portal based on the recycled or refurbished quantities and assigned to recyclers or refurbishers. The recyclers or refurbishers can sell the assigned Extended Producer Responsibility certificates to Producer in exchange of Waste Battery.

(7) Extended Producer Responsibility certificates for recyclers and refurbishers shall be generated based on weight of Battery processed, percentage fulfilment of material recovery targets for specified year and geographical source of Battery such as domestic or imported.

(8) The following formula shall be used to estimate the Extended Producer Responsibility certificates for recyclers:

Extended Producer Responsibility certificates (kg) = (Actual recovery of Battery materials in percentage / Recovery target for specified year of the Battery type in percentage) x quantity of Battery processed (kg) x (1-A).

Note: A=0 for Waste Battery generated domestically and A=0.2 for Waste Battery sourced through imports allowed under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

(9) Surplus Extended Producer Responsibility certificates in a category can only be used for off-setting, carry forward and sale for the same category of Battery.

(i) a surplus Extended Producer Responsibility certificate under recycling can be used for recycling. A surplus under refurbishing cannot be used for recycling.

(10) A Producer can meet its Extended Producer Responsibility obligation under a category by purchasing surplus Extended Producer Responsibility certificates from other producers of the same category of Battery.

(11) A Producer can purchase Extended Producer Responsibility certificates limited to its Extended Producer Responsibility liability of current year plus any leftover liability of preceding years plus ten percent of the current year liability.

(12) Extended Producer Responsibility certificates purchased by the Producer will be automatically adjusted against their liability.

- (i) priority in adjustment will be given to earlier liability;
- (ii) Extended Producer Responsibility certificates used by Producer to meet Extended Producer Responsibility obligations shall not be exchanged again.

(13) All such transactions shall be recorded and submitted by the refurbishers or recyclers on the online portal at the time of filing quarterly returns.

(14) Extended Producer Responsibility certificates generated by refurbisher or recycler shall be valid for a period of seven years for meeting the obligations of Producer.

11. Functions of Central Pollution Control Board. -(1) The Central Pollution Control Board shall register Producer through online portal in Form 1(B).

(2) The Central Pollution Control Board may determine the fee for processing of applications for registration as well as returns.

(3) The registration shall be done within two weeks from the submission of a completed application.

(4) The registration of Producer shall be valid for a period of five years.

(5) Central Pollution Control Board shall share Extended Producer Responsibility plan of the Producer and registration details of Producer with State Pollution Control Board.

(6) Central Pollution Control Board shall renew the registration upon submission of Form 1(A).

(7) Central Pollution Control Board shall suspend and/or cancel the registration, and/or impose Environmental Compensation, in case of non-compliance of Extended Producer Responsibility obligations as per Schedule II after giving reasonable opportunity of being heard.

(8) Central Pollution Control Board shall ensure compliance of these rules by Producer including those who supply Battery by means of distance contracts.

(9) Central Pollution Control Board shall ensure that registration or renewal is done unless otherwise suspended and/or cancelled under these rules and deemed to be issued if not objected within two weeks.

(10) Central Pollution Control Board or through a designated agency shall verify compliance by Producer through inspection and periodic audit.

- (i) Central Pollution Control Board, as required, can also verify compliance by entity involved in refurbishment or recycling of Waste Battery through inspection and periodic audit.
- (ii) the actions against violations and for non-fulfilment of obligations under these rules including Extended Producer Responsibility obligations shall be as per rule 13.
- (iii) in case of entity operating with a State or Union Territory, Central Pollution Control Board may, if required, direct State Pollution Control Board to take action.

(11) Central Pollution Control Board shall carry out audit of data, including using information from Goods and Services Tax Network portal, by itself or a designated agency, of the registered entity under these rules.

(12) Central Pollution Control Board shall suspend and/or cancel the registration of Producer, and/or impose Environmental Compensation in case of violation of these rules by the registered entity.

(13) Appeal made against the orders of Central Pollution Control Board regarding suspension or cancellation of registration of Producer lies with the Ministry of Environment, Forest and Climate Change and will be disposed off within forty-five days after the submission of the appeal.

(14) The Joint Secretary or the officer equivalent in the Ministry of Environment, Forest and Climate Change shall be designated as an Appellate Authority.

(i) the appeal shall be made by the appellant to the designated Appellate Authority in writing and accompanied with a copy of the order appealed against within thirty days from the date of passing of the order.

(15) Central Pollution Control Board shall dispose off an appeal made by the recycler or refurbisher against the order of State Pollution Control Board regarding suspension and /or cancellation of registration of recyclers or refurbishers within thirty days of the receipt of appeal.

(16) The Member Secretary in the Central Pollution Control Board would be designated as an Appellate Authority.

(i) the appeal shall be made by the appellant to the designated Appellate Authority in writing and accompanied with a copy of the order appealed against within thirty days from the date of passing of the order.

(17) Central Pollution Control Board shall issue guidelines for environmentally sound procedures of collection, storage, transportation, refurbishment, and recycling of Waste Battery.

(18) Central Pollution Control Board shall compile and publish the data received every year from the State Pollution Control Boards.

(19) Central Pollution Control Board shall develop mechanism for exchange of Extended Producer Responsibility certificates on the online portal.

(20) Central Pollution Control Board shall publish the list of Producers who have failed to meet Extended Producer Responsibility targets and obligations on an annual basis.

(21) Central Pollution Control Board shall share the Extended Producer Responsibility Plans and annual returns of Producers.

(22) Central Pollution Control Board will establish a mechanism to ensure a regular dialogue between stakeholders in the fulfilment of obligations under these rules.

(23) Central Pollution Control Board shall constitute an implementation Committee as per rule 15 for the effective implementation of these rules and make recommendations for making it robust.

(i) the Committee shall meet once in six months to submit its report and recommendations to Ministry of Environment, Forest and Climate Change.

(24) Central Pollution Control Board shall carry out review of technologies related to Waste Battery management for techno-economic viability and feasibility specifically with respect to sub-rule (4) of rule 10 on recovery of Battery materials.

(25) Central Pollution Control Board shall issue guidelines about technologies and standards with regard to refurbishment and recycling of Waste Battery.

(26) Central Pollution Control Board will recommend to Ministry of Environment, Forest and Climate Change with regard to the Battery material recovery from recycling based on technological and commercial viabilities.

12. Functions of State Pollution Control Board. - (1) The State Pollution Control Board shall register entity involved in refurbishing and recycling through online portal in Form 2(B).

(i) provision for registration shall be made on the Extended Producer Responsibility portal and the State Pollution Control Board or through a designated agency shall verify compliance of entity involved in refurbishing and recycling of Waste Battery through inspection and periodic audit, as deemed appropriate, in their jurisdiction.

(2) In case the information provided by the entity involved in refurbishment or recycling of Waste Battery is found to be false, the State Pollution Control Board shall suspend and/or cancel the registration up to a period of five years, after giving reasonable opportunity of being heard including actions under rule 13.

(3) The State Pollution Control Board shall bring out a list of entities not fulfilled their Extended Producer Responsibility obligations on annual basis and publish the same.

(i) the State Pollution Control Board shall compile and forward the quarterly reports submitted by entities involved in refurbishing or recycling of Waste Battery to Central Pollution Control Board and publish online.

(4) State Pollution Control Board will ensure a regular dialogue between relevant stakeholders involved in the fulfilment of obligations under these rules.

(5) State Pollution Control Board to submit annual report to Central Pollution Control Board by 30th June every year, regarding effective implementation of these rules.

13. Action on violations and imposition of Environmental Compensation. – (1) Environmental Compensation shall also be levied for the following activities based on polluter pays principle, –

- i. entities carrying out activities without registration as mandated under these rules;
- ii. providing false information / wilful concealment of material facts by the entities registered under these rules;
- iii. submission of forged/manipulated documents by the entities registered under these rules;
- iv. entities engaged in collection, segregation, and treatment in respect to not following sound handling of Waste Battery.

(2) These activities, may also be dealt with under the provisions of section 15 of the Environment (Protection) Act, 1986, in case of evasion or violation either by entity itself or help abet any obligated entity evade or violate obligations, after giving an opportunity of being heard.

(3) Committee for Implementation constituted by Central Pollution Control Board under rule 15 shall prepare and recommend guidelines for imposition and collection of Environmental Compensation from producers and entities involved in refurbishment and recycling of Waste Battery, in case of non-fulfilment of obligations under these rules.

(i) the recommended guidelines shall be submitted to Ministry of Environment, Forest and Climate Change for bringing into effect of such Environmental Compensation.

(4) Environmental Compensation shall be levied by Central Pollution Control Board on Producer operating with respect to non-fulfilment of their Extended Producer Responsibility targets, responsibilities and obligations set out in these rules.

(5) Environmental Compensation shall be levied by respective State Pollution Control Board on entities involved in refurbishment or recycling of Waste Battery as well as entities involved in collection, segregation and treatment, operating in their jurisdiction with respect to non-fulfillment of their responsibilities and obligations set out under these rules. In case, the State Pollution Control Board does not take action in sixty days, the Central Pollution Control Board shall issue directions to the State Pollution Control Board.

(6) Payment of Environmental Compensation shall not absolve Producer of Extended Producer Responsibility obligation set out under these rules.

- (i) the unfulfilled Extended Producer Responsibility obligation for a particular year will be carried forward to the next year for a period of three years.
- (ii) in case the shortfall of Extended Producer Responsibility obligation is addressed within subsequent years within three years, the Environmental Compensation levied shall be returned to the Producer as given below,
 - Within one year of levying of Environmental Compensation: 75 percent return;
 - Within two years: 60 percent return;
 - Within three years: 40 percent return.

(7) After completion of three years after Environmental Compensation getting due, the entire Environmental Compensation amount shall be forfeited, this arrangement shall allow for collection and refurbishment or recycling of Waste Battery by the concerned entities in later years as well.

(8) The funds collected under Environmental Compensation shall be kept in a separate escrow account by Central Pollution Control Board or State Pollution Control Board.

- (i) the funds collected shall be utilised in collection and refurbishing or recycling of uncollected and non-recycled or non-refurbished Waste Battery against which the Environmental Compensation is imposed.
- (ii) modalities for utilisation of the funds for Waste Battery management would be recommended by the Committee for Implementation for the approval of Central Government.

(9) Non-fulfilment of obligations set out under these guidelines will attract penal actions under the provisions of section 15 of the Environment (Protection) Act, 1986.

14. Centralised Online Portal. -(1) Central Pollution Control Board shall establish an online system for the registration and filing returns by producers, recyclers, and refurbishers of Waste Battery within six months of commencement of these rules.

(2) The system shall ensure a mechanism wherein the material balance of Waste Battery as per Extended Producer Responsibility obligations of Producers is reflected and it shall also reflect the details regarding the audit of the Producers and entities involved in refurbishing and recycling of Waste Battery.

(3) The State Pollution Control Board shall also use the web portal of Central Pollution Control Board used for registration of Producers, for registering entities involved in refurbishing and recycling of Waste Battery.

(4) The web portal would act as the single point data repository with respect to orders and guidelines related to implementation of these rules.

(5) Producer may facilitate the development of online portal.

15. Committee for Implementation. - (1) A Committee shall be constituted by the Central Government under chairpersonship of Chairman, Central Pollution Control Board to recommend measures to Ministry of Environment, Forest and Climate Change for effective implementation of these rules.

(2) The Committee shall monitor the implementation of these rules and also take such measures as required for removal of difficulties.

(3) The Committee shall also be tasked with the guiding and supervision of the development and operation of the online portal.

(4) Any modifications in the forms attached to these rules may be undertaken by the Committee with the approval of the Central Government.

(5) The Committee shall comprise of representatives from Ministry of Electronics and Information Technology, Department of Promotion of Industry and Internal Trade, Ministry of Housing and Urban Affairs, Ministry of Micro, Small and Medium Enterprise, Ministry of New and Renewable Energy, Department of Chemicals and Petrochemicals, Organisations such as Central Pollution Control Board, State Pollution Control Boards, National Environmental Engineering Research Institute and stakeholders such as associations representing producers, recyclers and refurbishers, and any other stakeholder as invited by the chair of the Committee.

[F. No. 12/36/2019-HSMD]

NARESH PAL GANGWAR, Addl. Secy.

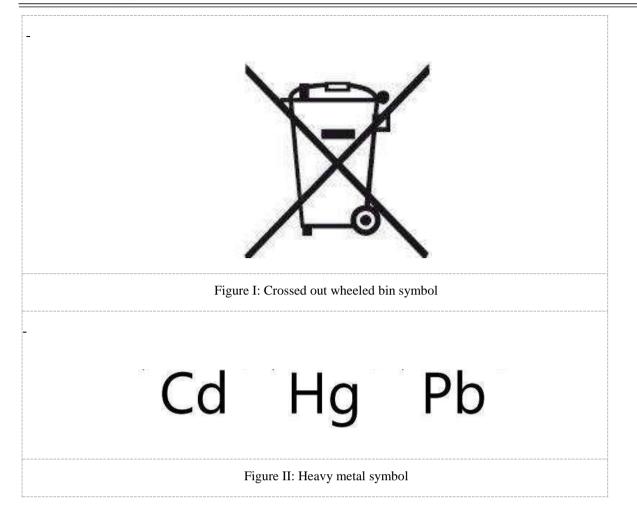
Schedule I Prohibitions and Labelling Requirements

1. Prohibitions on heavy metal content in the Battery

- (i) Battery that contains up to 0.0005% (5 ppm) of mercury by weight may only be placed till 2025;
- (ii) Battery that contains up to 0.002% (2000 ppm) of cadmium by weight may only be placed;
- (iii) paragraph (1)(i) shall not apply to button zinc silver oxide Battery with a mercury content < 2% and button zinc air Battery with a mercury content < 2% by weight.
- (iv) prohibition in paragraph (1)(ii) shall not apply to a portable Battery intended for use in, -
 - A. emergency and alarm systems, including emergency lighting;
 - B. medical equipment

2. Labelling requirements

- (i) producers shall ensure that all Battery or Battery packs are appropriately marked with requisite labelling requirements as per standards prescribed by Bureau of Indian Standards.
- (ii) all requisite labels and symbols shall be printed visibly, legibly and indelibly.
- (iii) no person shall place on the market any Battery or Battery pack unless it is marked with the "crossed out wheeled bin symbol" as shown in Figure I covering at least 3% of the area of the largest side of the Battery or Battery pack, up to a maximum size of 5 cm x 5 cm). In the case of cylindrical cells, the crossed out wheeled bin symbol shall cover at least 1.5% of the surface area of the Battery or Battery pack, up to a maximum size of 5 cm x 5 cm.
- (iV) where the size of the Battery or Battery pack is such that the crossed out wheeled bin symbol would be smaller than 0.5 cm x 0.5 cm, the Battery or Battery pack need not be marked but a crossed out wheeled bin symbol measuring at least 1 cm x 1 cm shall be printed on the packaging.
- (V) no person shall place on the market a Battery or a button cell containing mercury, cadmium or lead unless it is marked with the respective chemical symbol "Hg"; "Cd" or "Pb". The symbol of the heavy metal shall,
 - A. be printed beneath the symbol shown in Figure I; and
 - B. cover an area of at least one-quarter the size of the crossed out wheeled bin symbol as indicated below:



SCHEDULE II

Targets for Extended Producer Responsibility. - (i) In case of a new Producer introducing Battery in the market in the subsequent years after the publication of these rules, the Extended Producer Responsibility targets shall be applicable for different types of Battery, based on the average life of the Battery mentioned in the tables below for the respective types of Battery.

(ii) The Extended Producer Responsibility target shall include the collection targets mentioned in the tables below and 100% recycling and/or refurbishment target of Extended Producer Responsibility collection target of the respective year.

(iii) The recycling of Waste Battery means recycling of Battery materials such as lead, nickel, lithium, nickel, cobalt, plastics, rubber, glass, etc.

(iv) Extended Producer Responsibility target for the Producer shall be specific to the kind of Battery (viz. Lead acid, Li-Ion, Nickel Cadmium, Zinc based Battery, etc.) within each type of Battery- portable, automotive, industrial and electric vehicle Battery.

(v) Producer will meet their Extended Producer Responsibility obligation through the Extended Producer Responsibility certificate made available by recycler or refurbisher. In case of non-availability of Extended Producer Responsibility certificates with recyclers or refurbishes, the Producer shall have the responsibility of collection as well.

(vi) For portable Battery used in consumer electronics which are rechargeable:

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every ten year cycle (Weight)
(i)	2022-23 to 2031- 32	2022-2023	Minimum 50% of the quantity of Battery placed in the market in 2017-18.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of
(ii)		2023-2024	Minimum 60% of the quantity of Battery placed in the market in 2018-19.	10th year) against the Battery placed in the market during ten year compliance cycle.
(iii)		2024-2025	Minimum 70% of the quantity of Battery placed in the market in 2019-2020.	However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the ten year cycle to the next compliance cycle.
(iv)		2025-2026	Minimum 70% of the quantity of Battery placed in the market in 2020-21.	
(v)		2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	
(vi)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	
(vii)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(viii)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(ix)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(x)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	

(xi)	2032-33 to 2041- 42, and onwards	2032-33 and onwards	Battery placed in the market in	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of 10 th year) against the Battery placed
				in the market during ten year compliance cycle.
				However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the ten year
				cycle to the next compliance cycle.

(vii) For portable Battery except those used in consumer electronics which are rechargeable:

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	MandatoryWasteBatterycollectiontarget,and100% refurbishmentand/orrecyclingtarget for every tenyear cycle(Weight)
(i)	2025-26 till 2034-35	2025-2026	Minimum 50% of the quantity of Battery placed in the market in 2022- 23.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of
(ii)		2026-2027	Minimum 60% of the quantity of Battery placed in the market in 2023- 24.	10th year) against the Battery placed in the market during ten year compliance cycle. However, there may be a carry forward of up to 60% of the average
(iii)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	quantity of Battery placed in the market per year during the ten year cycle to the next compliance cycle.
(iv)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(v)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vi)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(vii)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2028- 29.	

(viii)	2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2029- 30.	
(ix)	2033-2034	Minimum 70% of the quantity of Battery placed in the market in 2030- 31.	
(x)	2034-2035	Minimum 70% of the quantity of Battery placed in the market in 2031- 32.	
(xi)	2035-2036 and onwards	Minimum 70% of the quantity of Battery placed in the market in 3rd preceding financial year (i.e. 2032- 33) and onwards	and of 100% of refurbishment or

(viii) For automotive Battery:

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2022-23 till 2028- 29	2022-2023	Minimum 30% of the quantity of Battery placed in the market in 2019-20.	•
(ii)		2023-2024	Minimum 50% of the quantity of Battery placed in the market in 2020-21.	cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle.
(iii)		2024-2025	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	However, there may be a carr forward of up to 20% of th average quantity of Battery place in the market per year during th
(iv)		2025-2026	Minimum 90% of the quantity of Battery placed in the market in 2022-23.	seven year cycle to the next compliance cycle.

(v)		2026-2027	Minimum 90% of the quantity of Battery placed in the market in 2023-24.	
(vi)		2027-2028	Minimum 90% of the quantity of Battery placed in the market in 2024-25.	
(vii)		2028-2029	Minimum 90% of the quantity of Battery placed in the market in 2025-26.	
(viii)	2029-30 till 2035- 36, and onwards	2029-2030 and onwards	Minimum 90% of the quantity of Battery placed in the market in 3rd preceding financial year (i.e. 2026- 27) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 20% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

(ix) For Industrial Battery:

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2022-23 till 2028-29	2022-2023		Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end
(ii)		2023-2024	Minimum 50% of the quantity of Battery placed in the market in 2020-21.	of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry
(iii)		2024-2025	Minimum 60% of the quantity of Battery placed in the market in 2021-22.	forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance

(iv)	2025-2026	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	cycle.
(v)	2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(vi)	2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(vii)	2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(viii)	2029-2030 and onwards		Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

(x) For Electric Vehicles (EV) Battery of E-rickshaw (three wheelers):

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2024-25 till 2030-31	2024-2025	· · ·	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle
(ii)		2025-2026	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	(end of 7th year) against the Battery placed in the market during seven year compliance cycle.

(iii)		2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the
(iv)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	seven year cycle to the next compliance cycle.
(v)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(vi)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vii)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(viii)	2031-32 till 2037-38 and onwards	2031-2032 and onwards	Minimum 70% of the quantity of Battery placed in the market in the 3rd preceding financial year (i.e. 2028-29) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle.
				However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

(xi) For Electric Vehicles (EV) Battery of two wheelers:

No.	Compliance cycle		collection target and 100% of refurbishment or recycling of the collection target	
(i)	2026-27 till 2032-33	2026-2027	1	Collection of 100% Waste Battery and of 100% of refurbishment /recycling shall be mandatory by end of seven year compliance
(ii)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle.

(iii)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next
(iv)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	compliance cycle.
(v)	-	2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vi)	-	2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(vii)		2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2028-29.	
(viii)		2033-2034 and onwards	Minimum 70% of the quantity of Battery placed in the market in the 4th preceding financial year (i.e. 2029-30) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle.
				However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

(xii) For Electric Vehicles (EV) Battery comprising of four wheelers:

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every fourteen year cycle (Weight)
(i)	2029-30 till 2042-43	2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	-

(ii)	2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	cycle (end of 14th year) against the Battery placed in the market during fourteen year compliance cycle. However, there may be a carry
(iii)	2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	forward of up to 60% of the average quantity of Battery placed in the market per year during the fourteen year cycle to the next compliance cycle.
(iv)	2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(v)	2033-2034	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(vi)	2034-2035	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vii)	2035-2036	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(viii)	2036-2037	Minimum 70% of the quantity of Battery placed in the market in 2028-29.	
(ix)	2037-2038	Minimum 70% of the quantity of Battery placed in the market in 2029-30.	
(x)	2038-2039	Minimum 70% of the quantity of Battery placed in the market in 2030-31.	
(xi)	2039-2040	Minimum 80% of the quantity of Battery placed in the market in 2031-32.	
(xii)	2040-2041	Minimum 70% of the quantity of Battery placed in the market in 2032-33.	

(xiii)		2041-2042	Minimum 70% of the quantity of Battery placed in the market in 2033-34.	
(xiv)		2042-2043	Minimum 70% of the quantity of Battery placed in the market in 2034-35.	
(viii)	2043-44 till 2056-57	2043-2044 and onwards	Minimum 70% of the quantity of Battery placed in the market in the 8th preceding financial year (i.e. 2035-36) and onwards	and of 100% of refurbishment or

Form 1(A) (see rule 4) [Application to be submitted for grant or renewal of registration as a Producer]

1.	Name of Producer	
2.	Registered address of Producer, website address and contact details	
3.	Name of the authorised person(s) and full address with e-mail, landline telephone number and mobile number	
4.	GST No.	
5.	TIN No.	

6.	Type(s) of Battery placed in the market with List as per the type: brand name(s)
	 a. Portable Battery b. Automotive Battery c. EV Battery d. Industrial Battery

General Terms and Conditions:

- i. The registered entity shall comply with provisions of the Environment (Protection) Act 1986 and the rules made thereunder;
- ii. Any change in the approved Extended Producer Responsibility form should be informed to Central Pollution Control Board.

Place:

Date:

Signature of the authorised person:

dt.

Form 1(B)

(see rule 11)

[Format for grant of registration to Producer by Central Pollution Control Board]

Ref.: Your application number for registration

Registration No.:....

M/s------ is hereby granted registration as Producer of Waste Battery in line with provisions under Battery Waste Management Rules, 2022. The registration shall be valid for a period of years from date of issue. Any violation of the provision(s) of the Battery Waste Management Rules, 2022 will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

(Member Secretary) Central Pollution Control Board

Date:

Place:

Form 1 (C)

(see rule 4)

[Format for submission of Extended Producer Responsibility plan by the Producer]

1.	Name of Producer
	Registered address of Producer, website address and contact details

3.	Name of the authorised person(s) and full address with e-mail, landline telephone number and mobile number
4.	GST No.
5.	TIN No.
6.	Type(s) of Battery placed in the market with brand name(s) along wise: Quantities in total weight wise: with the quantities in total weight as well as dry weight of Battery a. Portable Battery a. Portable Battery b. Automotive Battery b. Automotive Battery d. Industrial Battery

Date:

Place:

Signature of the authorised person:

Form 2(A) (see rule 8 and 9)

[Application to be submitted by recycler or refurbisher for grant of one time registration]

1.	Name of the recycler		
2.	Registered address and website address		
3.	Phone No.(landline and mobile)		
4.	Email ID		
5.	Authorised person(s) Name		
6.	Authorised person(s) Email ID		
7.	Authorised person Mobile No.		
8.	GST No.		
9.	Consent Validity	a. b.	Under Air Act, 1981; Valid up to – Under Water Act, 1974; Valid up to –
10.	Validity of Authorisation under rule 6 of the Hazardous Wastes (Management and Handling) Rules, 2016	Valid up	9 to -
11.	Validity of certification of registration with District Industries Centre	Valid up	o to –

12. Capacity of recycling unit(s) in (MTA)

a. Installed

b. Operating(details of last three years)

Signature of the authorised person

Place:

Date:

Form 2(B)

(see rule 12)

[Format for grant of registration to recycler or refurbisher by State Pollution Control Boards]

Ref.: Your application number for registration

dt.

Registration No.:....

M/s----- is hereby granted registration for recycling and/or refurbishment of Waste Battery in line with provisions under Battery Waste Management Rules, 2022.

The registration shall be valid for a period of years from date of issue.

Any violation of the provision(s) of the Battery Waste Management Rules, 2022 will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

(Member Secretary)

State Pollution Control Board

(Signature and designation)

Date: Place:

Form 3 (see rule 4) [Annual returns to be submitted by Producer by 30th day of June of the following financial year]

1.	Name of Producer							
2.	Registered address of Producer,							
	website address and							
	contact details							
3.	Name of the authorised person(s)							
	and full address with e-mail,							
	landline telephone number and							
	mobile number							
4.	Details of numbers of Battery	Sl.No.	Type of	Quantity of Battery sold				
	sold during the financial year of		Battery	No.	Total weight	Dry weight of Battery material		
	which the return is being filed	1.						
		2.						
		3.						
		4.						
5.	Type(s) of Battery placed in the	Quantiti	es in total wei	ight as we	ell as dry weight	of Battery type-wise:		
	market with brand name(s) along							
	with the quantities in total							
	weight as well as dry weight of	a.	Portable Batt	ery				
	Battery	b.	Automotive 1	•				

THE GAZETTE OF INDIA : EXTRAORDINARY

Signature of the authorised person:

	c. EV Batteryd. Industrial Battery
Responsibility obligation(s) and the Battery collected and refurbished or recycled for which	 Extended Producer Responsibility obligation(s), Weight of Battery material refurbished or recycled Weight of Battery material recovered Details of disposal
Details of Extended Producer Responsibility certificates	No. of certificates recycler or refurbisher-wise

Place: Date:

Form 4

(see rule 8 and 9) [Quarterly return to be submitted by recycler or refurbisher to State Pollution Control Boards by end of the month succeeding the end of the quarter]

1.	Name of the recycler							
2.	Registered address							
3	Email Id							
4	Phone No.							
5	Name of authorized person (s)							
6.	GST Number							
7.	Registration No. With State Pollution Control Board							
8	Capacity of recycling unit(s) in (MTA)	a. b.	Installed Operating(details	of last	t three yea	rs)		
9	Details of Waste Battery collected from different entities including producer(s)	S.No.	Type of Battery	are co	ollected for	r recyclin	g or ref	the Battery furbishment and weight
		1	Portable					
		2	Automotive					
		3	Electric Vehicle					
		4	Industrial					
10.	Details of Waste Battery recycled or refurbished	·S. No.	Type of Battery	Quantity of Battery recycled or refurbished				
				No.	Total weight	Total dry weight		weight of material s red
		1.	Portable					

	2.	Automotive			
	3.	Electric Vehicle			
	4.	Industrial			
Details of waste generated and dispose during recycling or refurbishin operations					
Extended Producer Responsibilit certificate details	y No. of c	ertificates issued pr	roduce	er-wise	

Place:

Date:

Signature of the authorised person

[Published In the Gazette of India, Part-II, Section-3, Sub-section (ii)] Ministry of Environment, Forest and Climate Change

NOTIFICATION

New Delhi, the 29th March, 2016

G.S.R. 317(E).-Whereas the Municipal Solid Wastes (Management and Handling) Rules, 2000 published vide notification number S.O. 908(E), dated the 25th September, 2000 by the Government of India in the erstwhile Ministry of Environment and Forests, provided a regulatory frame work for management of Municipal Solid Waste generated in the urban area of the country;

And whereas, to make these rules more effective and to improve the collection, segregation, recycling, treatment and disposal of solid waste in an environmentally sound manner, the Central Government reviewed the existing rules and it was considered necessary to revise the existing rules with a emphasis on the roles and accountability of waste generators and various stakeholders, give thrust to segregation, recovery, reuse, recycle at source, address in detail the management of construction and demolition waste.

And whereas, the draft rules, namely, the Solid Waste Management Rules, 2015 with a separate chapter on construction and demolition waste were published by the Central Government in the Ministry of Environment, Forest and Climate Change vide G.S.R. 451 (E), datedthe 3rd June, 2015 inviting objections or suggestions from the public within sixty days from the date of publication of the said notification;

And Whereas, the objections or suggestions received within the stipulated period were duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 6, 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Municipal Solid Wastes (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government hereby notifies the following rules for Management of Construction and Demolition Waste –

1. Short title and commencement.-(1) These rules shall be called the Construction and Demolition Waste Management Rules, 2016.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. Application.-The rules shall apply to every waste resulting from construction, re-modeling, repair and demolition of any civil structure of individual or organisation or authority who generates construction and demolition waste such as building materials, debris, rubble.

3. Definitions –(1) In these rules, unless the context otherwise requires,-

(a) "ACT' means the Environment (Protection) Act, 1986 (29 of 1986);

(b) "construction" means the process of erecting of building or built facility or other structure, or

building of infrastructure including alteration in these entities,;

- (c) "**construction and demolition waste**" means the waste comprising of building materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure;
- (d) **"de-construction"** means a planned selective demolition in which salvage, re-use and recycling of the demolished structure is maximized;
- (e) "demolition" means breaking down or tearing down buildings and other structures either manually or using mechanical force (by various equipment) or by implosion using explosives.

(f) "form" means a Form annexed to these rules;

- (g) "local authority" means an urban local authority with different nomenclature such as municipal corporation, municipality, nagarpalika, nagarnigam, nagarpanchayat, municipal council including notified area committee and not limited to or any other local authority constituted under the relevant statutes such as gram panchayat, where the management of construction and demolition waste is entrusted to such agency;
- (h) "schedule" means a schedule annexed to these rules;
- (i) "service provider' means authorities who provide services like water, sewerage, electricity, telephone, roads, drainage etc. often generate construction and demolition waste during their activities, which includes excavation, demolition and civil work;
- (j) "waste generator" means any person or association of persons or institution, residential and commercial establishments including Indian Railways, Airport, Port and Harbour and Defence establishments who undertakes construction of or demolition of any civil structure which generate construction and demolition waste.

(2) Words and expressions used but not defined herein shall have the same meaning defined in the ACT.

(4) Duties of the waste generator -

(1) Every waste generator shall prima-facie be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated, as directed or notified by the concerned local authority in consonance with these rules.

(2) The generator shall ensure that other waste (such as solid waste) does not get mixed with this waste and is stored and disposed separately.

(3) Waste generators who generate more than 20 tons or more in one day or <u>300</u> tons per project in a month shall segregate the waste into four streams such as concrete, soil, steel, wood and plastics, bricks and mortar and shall submit waste management plan and get appropriate approvals from the local authority before starting construction or demolition or remodeling work and keep the concerned

authorities informed regarding the relevant activities from the planning stage to the implementation stage and this should be on project to project basis.

(4) Every waste generator shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre so made by the local body or handover it to the authorised processing facilities of construction and demolition waste; and ensure that there is no littering or deposition of construction and demolition waste so as to prevent obstruction to the traffic or the public or drains.

(5) Every waste generator shall pay relevant charges for collection, transportation, processing and disposal as notified by the concerned authorities; Waste generators who generate more than 20 tons or more in one day or <u>300</u> tons per project in a month shall have to pay for the processing and disposal of construction and demolition waste generated by them, apart from the payment for storage, collection and transportation. The rate shall be fixed by the concerned local authority or any other authority designated by the State Government.

(5) Duties of service provider and their contractors -

(1) The service providers shall prepare within six months from the date of notification of these rules, a comprehensive waste management plan covering segregation, storage, collection, reuse, recycling, transportation and disposal of construction and demolition waste generated within their jurisdiction.

(2) The service providers shall remove all construction and demolition waste and clean the area every day, if possible, or depending upon the duration of the work, the quantity and type of waste generated, appropriate storage and collection, a reasonable timeframe shall be worked out in consultation with the concerned local authority.

(3) In case of the service providers have no logistics support to carry out the work specified in subrules (1) and (2), they shall tie up with the authorised agencies for removal of construction and demolition waste and pay the relevant charges as notified by the local authority.

(6) **Duties of local authority-**The local authority shall,-

(1) issue detailed directions with regard to proper management of construction and demolition waste within its jurisdiction in accordance with the provisions of these rules and the local authority shall seek detailed plan or undertaking as applicable, from generator of construction and demolition waste;

(2) chalk out stages, methodology and equipment, material involved in the overall activity and final clean up after completion of the construction and demolition ;

(3c) seek assistance from concerned authorities for safe disposal of construction and demolition waste contaminated with industrial hazardous or toxic material or nuclear waste if any;

(4) shall make arrangements and place appropriate containers for collection of waste and shall remove at regular intervals or when they are filled, either through own resources or by appointing private operators;

(5) shall get the collected waste transported to appropriate sites for processing and disposal either through own resources or by appointing private operators;

(6) shall give appropriate incentives to generator for salvaging, processing and or recycling preferably in-situ;

(7) shall examine and sanction the waste management plan of the generators within a period of one month or from the date of approval of building plan, whichever is earlier from the date of its submission;

(8) shall keep track of the generation of construction and demolition waste within its jurisdiction and establish a data base and update once in a year;

(9) shall device appropriate measures in consultation with expert institutions for management of construction and demolition waste generated including processing facility and for using the recycled products in the best possible manner;

(10) shall create a sustained system of information, education and communication for construction and demolition waste through collaboration with expert institutions and civil societies and also disseminate through their own website;

(11) shall make provision for giving incentives for use of material made out of construction and demolition waste in the construction activity including in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads.

(7) Criteria for storage, processing or recycling facilities for construction and demolition waste and application of construction and demolition waste and its products-

(1) The site for storage and processing or recycling facilities for construction and demolition waste shall be selected as per the criteria given in **Schedule I**;

(2) The operator of the facility as specified in sub- rules (1) shall apply in **Form I** for authorization from State Pollution Control Board or Pollution Control Committee.

(3) The operator of the facility shall submit the annual report to the State Pollution Control Board in **Form II.**

(3) Application of materials made from construction and demolition waste in operation of sanitary landfill shall be as per the criteria given in **Schedule II.**

(8) Duties of State Pollution Control Board or Pollution Control Committee-

(1) State Pollution Control Board or Pollution Control Committee shall monitor the implementation of these rules by the concerned local bodies and the competent authorities and the annual report shall be sent to the Central Pollution Control Board and the State Government or Union Territory or any other State level nodal agency identified by the State Government or Union Territory administration for generating State level comprehensive data. Such reports shall also contain the comments and suggestions of the State Pollution Control Board or Pollution Control Committee with respect to any comments or changes required;

(2) State Pollution Control Board or Pollution Control Committee shall grant authorization to construction and demolition waste processing facility in **Form-III** as specified under these rules after examining the application received in **Form I**;

(3) State Pollution Control Board or Pollution Control Committee shall prepare annual report in **Form IV** with special emphasis on the implementation status of compliance of these rules and forward report to Central Pollution Control Board before the 31stJuly for each financial year.

(9) Duties of State Government or Union Territory Administration-

(1) The Secretary in-charge of development in the State Government or Union territory administration shall prepare their policy document with respect to management of construction and demolition of waste in accordance with the provisions of these rules within one year from date of final notification of these rules.

(2) The concerned department in the State Government dealing with land shall be responsible for providing suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition waste.

(3) The Town and Country planning Department shall incorporate the site in the approved land use plan so that there is no disturbance to the processing facility on a long term basis.

(4) Procurement of materials made from construction and demolition waste shall be made mandatory to a certain percentage (say 10-20%) in municipal and Government contracts subject to strict quality control.

(10) Duties of the Central Pollution Control Board - (1) The Central Pollution Control Board shall,-

(a) prepare operational guidelines related to environmental management of construction and demolition waste management;

(b) analyze and collate the data received from the State Pollution Control Boards or Pollution Control Committee to review these rules from time to time;

(c) coordinate with all the State Pollution Control Board and Pollution Control Committees for any matter related to development of environmental standards;

(d) forward annual compliance report to Central Government before the 30thAugust for each financial year based on reports given by State Pollution Control Boards of Pollution Control Committees.

(11) **Duties of Bureau of Indian Standards and Indian Roads Congress** -The Bureau of Indian Standards and Indian Roads Congress shall be responsible for preparation of code of practices and standards for use of recycled materials and products of construction and demolition waste in respect of construction activities and the role of Indian Road Congress shall be specific to the standards and practices pertaining to construction of roads.

(12) Duties of the Central Government -

(1) The Ministry of Urban Development, and the Ministry of Rural Development, Ministry of Panchayat Raj, shall be responsible for facilitating local bodies in compliance of these rules;

(2) The Ministry of Environment, Forest and Climate Change shall be responsible for reviewing implementation of these rules as and when required.

13. Timeframe for implementation of the provisions of these rules -The timeline for implementation of these rules shall be as specified in **Schedule III:**

14. Accident reporting by the construction and demolition waste processing facilities-In case of any accident during construction and demolition waste processing or treatment or disposal facility, the officer in charge of the facility in the local authority or the operator of the facility shall report of the accident in **Form-V** to the local authority. Local body shall review and issue instruction if any, to the incharge of the facility.

Schedule I Criteria for Site Selection for Storage and Processing or Recycling Facilities for construction and demolition Waste [See Rule 7(1)]

- (1) The concerned department in the State Government dealing with land shall be responsible for providing suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition and hand over the sites to the concerned local authority for development, operation and maintenance, which shall ultimately be given to the operators by Competent Authority and wherever above Authority is not available, shall lie with the concerned local authority.
- (2) The Local authority shall co-ordinate (in consultation with Department of Urban Development of the State or the Union territory) with the concerned organizations for giving necessary approvals and clearances to the operators.
- (3) Construction and demolition waste shall be utilized in sanitary landfill for municipal solid waste of the city or region as mentioned at Schedule I of the rule. Residues from construction and demolition waste processing or recycling industries shall be land filled in the sanitary landfill for solid waste.
- (4) The processing or recycling shall be large enough to last for 20-25 years (project based on-site recycling facilities).
- (5) The processing or recycling site shall be away from habitation clusters, forest areas, water bodies, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.
- (6) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the

total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local authority in consultation with concerned State Pollution Control Board.

- (7) Processing or recycling site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles or other modes of transportation.
- (8) The approach and or internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
- (9) Provisions of weigh bridge to measure quantity of waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.
- (10) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided and Safety provisions including health inspections of workers at landfill sites shall be carried out made.
- (11) In order to prevent pollution from processing or recycling operations, the following provisions shall be made, namely:
 - (a) Provision of storm water drains to prevent stagnation of surface water;
 - (b) Provision of paved or concreted surface in selected areas in the processing or recycling facility for minimizing dust and damage to the site.
 - (c) Prevention of noise pollution from processing and recycling plant:
 - (d) provision for treatment of effluent if any, to meet the discharge norms as per Environment (Protection) Rules, 1986.

(12) Work Zone air quality at the Processing or Recycling site and ambient air quality at the vicinity shall be monitored.

(13) The measurement of ambient noise shall be done at the interface of the facility with the surrounding area, i.e., at plant boundary.

(14) The following projects shall be exempted from the norms of pollution from dust and noise as mentioned above:

For construction work, where at least 80 percent construction and demolition waste is recycled or reused in-situ and sufficient buffer area is available to protect the surrounding habitation from any adverse impact.

(15) A vegetative boundary shall be made around Processing or Recycling plant or site to strengthen the buffer zone.

Schedule II Application of materials made from construction and demolition waste and its products. [See Rule 7(3)]

Sl. No.	Parameters	Compliance Criteria
1	Drainage layer in leachate collection system at bottom of Sanitary Landfill Gas Collection Layer above the waste at top of Sanitary Landfill and Drainage Layer in top Cover System above Gas Collection Layer of Sanitary Landfill For capping of sanitary landfill or dumpsite, drainage layer at the top	Only crushed and graded hard material (stone, concrete etc.) shall be used having coarse sand size graded material (2mm – 4.75mm standard sieve size). Since the coarse sand particles will be angular in shape (and not rounded as for riverbed sand), protection layers of non-woven geo-textiles may be provided, wherever required, to prevent puncturing of adjacent layers or components.
2	Daily cover	 Fines from construction and demolition processed waste having size up to 2 mm shall be used for daily cover over the fresh waste. Use of construction and demolition fines as landfill cover shall be mandatory where such material is available. Fresh soil (sweet earth) shall not be used for such places and borrow-pits shall not be allowed. Exception – soil excavated during construction of the same landfill. During hot windy days in summer months, some fugitive dust problems may arise. These can be minimised by mixing with local soil wherever available for limited period.
3	Civil construction in a sanitary landfill	Non-structural applications, such as kerb stones, drain covers, paving blocks in pedestrian areas.

Schedule III Timeframe for Planning and Implementation [See Rule 13]

Sl. No.	Compliance Criteria	Cities with population of 01 million and above	Cities with population of 0.5-01 million	Cities with population of less than 0.5 million
	Formulation of policy by State Government	12 months	12 months	12 months
	Identification of sites for collection and processing facility	18 months	18 months	18 months
	Commissioning and implementation of the facility	18 months	24 months	36 months
4	Monitoring by SPCBs	3 times a year – once in 4 months	2 times a year – once in 6 months	•

*The time Schedule is effective from the date of notification of these rules.

FORM – I See [Rule 7 (2)] Application for obtaining authorisation

To,

The Member Secretary

_____Name of the local authority or Name of the agency : appointed by the municipal authority

Correspondence address	
Telephone No.	
Fax No.	
Nodal Officer and designation (Officer authorized	
by the competent authority or agency responsible for	
operation of processing or recycling or disposal facility)	
Authorisation applied for (Please tick mark)	Setting up of processing or recycling
	facility of construction and
	demolition waste
Detailed proposal of construction and demolition waste	
processing or recycling facility to include the following	
Location of site approved and allotted by the	
Competent Authority.	
Average quantity (in tons per day) and composition	
of construction and demolition waste to be handled	

at the specific site.	
Details of construction and demolition waste processing or recycling technology to be used.	
Quantity of construction and demolition waste to be processed per day.	
Site clearance from Prescribed Authority.	
Salient points of agreement between competent authority or local authority and operating agency (attach relevant document).	
Plan for utilization of recycled product.	
Expected amount of process rejects and plan for its disposal (e.g., sanitary landfill for solid waste).	
Measures to be taken for prevention and control of environmental pollution.	
Investment on project and expected returns.	
Measures to be taken for safety of workers working in the processing or recycling plant.	
Any preventive plan for accident during the collection, transportation and treatment including processing and recycling should be informed to the Competent Authority (Local Authority) or Prescribed Authority	
Date:	Signature of Nodal Officer

Form-II

See [Rule (7) (3)]

Format for Issue of Authorisation to the Operator

File No.:	
Date :	

To,

 Ref : Your application number ______Dt.

The ______ State Pollution Control Board or Pollution Control Committee after examining the proposal hereby authorizes ______ having their administrative office at ______ to set up and operate construction and demolition waste processing facility at ______ on the terms and conditions (including the standards to comply) attached to this authorisation letter.

1. The validity of this authorisation is till ______. After expiry of the validity period, renewal of authorisation is to be sought.

2. The ______ State Pollution Control Board or Pollution Control Committee may, at any time, for justifiable reason, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

3. Any violation of the provision of the construction and demolition Waste Management Rules, 2016 shall attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

Date: Place: (Member Secretary) State Pollution Control Board/ Pollution Control Committee

Form –III

See [Rule 8(2)]

Format of Annual Report to be submitted by Local Authority to the State Pollution Control Board

- (i) Name of the City or Town.....
- (ii) Population.....
- (iii) Name and address of local authority or competent authority

Telephone No :	
Fax :	
Email ID:	
Website:	

(iv) Name of In-charge or Nodal Officer dealing with construction and demolition wastes management with designation

1. Quantity and composition of construction and demolition waste including any deconstruction waste

(a) Total quantity of construction and demolition waste generated during the whole year in metric ton

Any figures for lean period and peak period generation per day Average generation of construction and demolition waste (TPD) Total quantity of construction and demolition waste collected per day Any Processing / Recycling Facility set up in the city Status of the facility

(b) Total quantity of construction and demolition waste processed / recycled (in metric ton) Non-structural concrete aggregate

i ton shueturur concrete uggregate		
Manufactured sand	:	
Ready-mix concrete (RMC)	:	
Paving blocks	:	
GSB	:	

Others, if any, please specify :

(c) Total quantity of Construction & Demolition waste disposed by land filling without processing (last option) or filling low lying areas

No of landfill sites used	:		
Area used	:		
Whether weigh-bridge:	Yes	No	
facility used for quantity estimate	mation?		

:

Whether construction and demolition waste used in sanitary landfill (for solid waste) as per (d) Schedule III

> Yes No

2. Storage facilities

(a) Area orlocation or plot or societies covered for collection of Construction and Demolition waste

(b) No. of large Projects (including roadways project) covered

(c) Whether Area or location or plot or societies collection is Practiced (if yes, whether done by Competent Authority or Local Authority or through Private Agency :

or Non-Governmental Organization) (1) 04

(d) Storage Bins				
(a) Storage Bills	•	Specifications (Shape & Size)	Existing Number	Proposed for future
(i) Containers or receptacle (Capacity)(ii) Others, please specify	:			
(e) Whether all storage bins/collection spots are				
attended for daily lifting	:	Yes	No	
 (e) Whether lifting of Construction & Demolitio Waste from Storage bins is manual or mech (please tick mark) please specify mode and equipment used 3. Transportation 	an :	iical Manual Mec (specify equipmer	nt)	
	E	Existing Actually R	Required/Propo	osed number
Truck :				
Truck-Hydraulic :				
Tractor-Trailer :				
Dumper-placers :				
Tricycle :				

Refuse-collector Others (Please specify)

4. Whether any proposal has been made to improve Construction and Demolition waste management practices

:

:

5. Have any efforts been made to involve PPP for processing of Construction & Demolition waste : If yes, what is (are) the technologies being used, such as:

Processing / recycling Steps taken Technology (Quantity to be processed)

Dry Process : Wet Process : Others, if any, Please specify :

6. What provisions are available to check unauthorized operations of:

Encroachment on river bank or wet bodies : Unauthorized filling of low line areas : Mixing with solid waste Encroachment in Parks, Footpaths etc. :

7. How many slums are provided with construction and demolition waste receptacles facilities:

:

8. Are municipal magistrates appointed

for taking penal action for non-compliance with these rules: Yes No [If yes, how many cases registered & settled during last three years (give year wise details)]

Dated: Commissioner

Signature of Municipal

Form -IV

See [Rule (8)(3)]

Format of Annual Report to be submitted by the State Pollution Control Board / Committees to the Central Pollution Control Board

To,

The Chairman, Central Pollution Control Board, PariveshBhawan, East Arjun Nagar, Delhi-110032

1.	Name of the State/Union territory :
2.	Name & address of the StatePollution Control Board/PollutionControl Committee:
3.	Number of municipal authorities responsible for management of municipal solid wastes in the State/Union territory under these rules :
4.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule III] : Please attach as Annexure-I
5.	A Summary Statement on progress made by municipal authorities in respect of implementation of Schedule IV : Please attach as Annexure-II

Date:

Place:

Chairman or the Member Secretary State Pollution Control Board/ Pollution Control Committee

:

Form –V See [Rule14] <u>Accident reporting</u>

1.	Date and time of accident :
2.	Sequence of events leading to accident :
3.	The type of construction and demolition waste involved in accident
4.	Assessment of the effects of the accidents a. on traffic, drainage system and the environment :
5.	Emergency measures taken :
6.	Steps taken to alleviate the effects a. of accidents :
7.	Steps taken to prevent the recurrence a. of such an accident :

8. Regular monthly health checkup of workers at

- a. Processing / recycling site shall be made
- 9. Any accident during the collection,
 - a. transportation and treatment including
 - b. processing and recycling should be informed
 - c. to the Competent Authority (Local Authority) or
 - d. Prescribed Authority

Date : Place: Authorized Signatory Designation

[18-6/2014-HSMD] Bishwanath Sinha, Joint Secretary