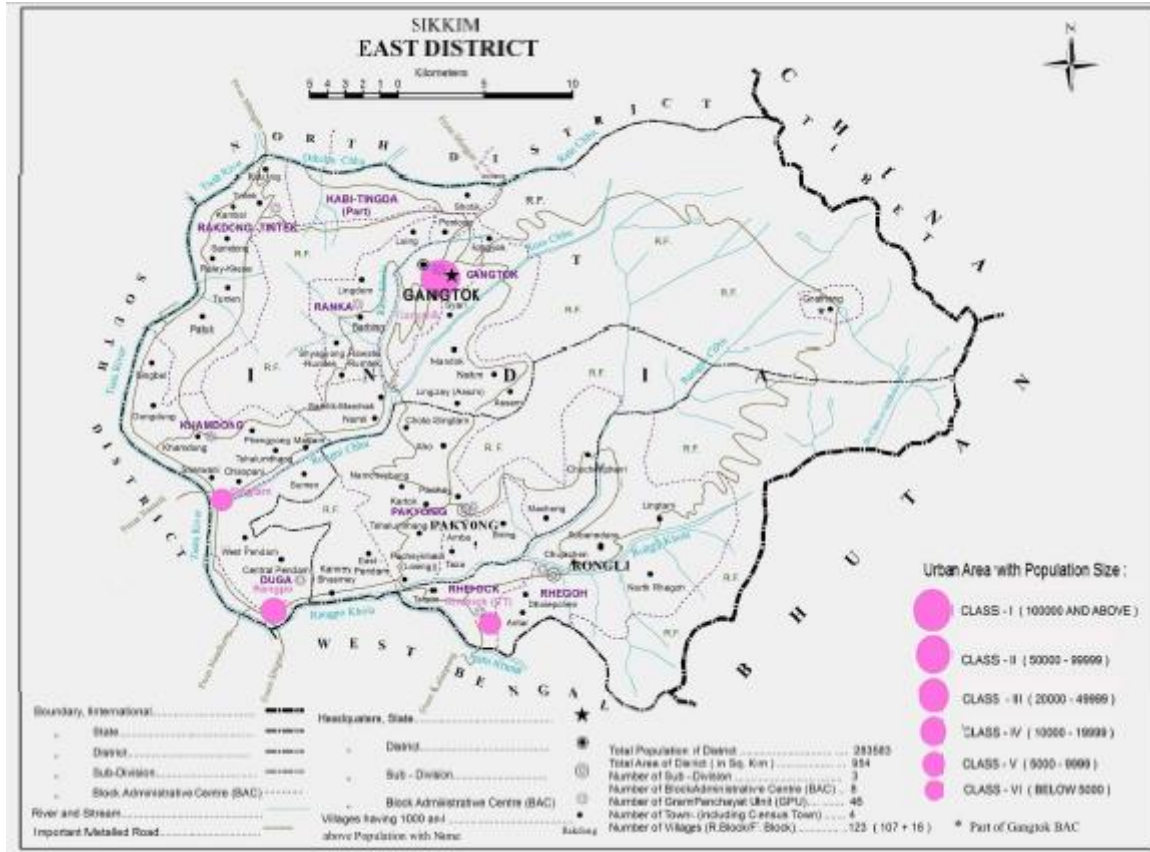


**DISTRICT ENVIRONMENT PLAN  
EAST DISTRICT  
STATE OF SIKKIM**



**Office of District Administration  
District Collector, East District  
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## **District Profile**

Gangtok is a bustling, friendly hill station and the capital of the state and well as the district headquarter of the East district. Geographically, East district occupies the south-east corner of the state. East district is surrounded by North District in the Northern side and South & West districts in the western side. East district occupies an area of 964 km<sup>2</sup> and is the second smallest district area wise in the state. It is located at topographical location of Latitude – 27° 25' North to 27°11' North and Longitude – 88° 53' East to 88°26' 10" East. The district is considered to be a very sensitive area sharing boarder with People's Republic of China and Bhutan. It is the hub of all state level administrative activity too.

Not much is known about the early history of the East District. A very little whatever we get from different sources gives a glimpse of beginning which takes us back to the time of the construction of the hermitic Gangtok monastery in 1716. Gangtok remained a small hamlet until the construction of the Enchey Monastery. The construction of Enchey monastery in 1840 made Gangtok a pilgrimage center. Gangtok came into importance after an English conquest in mid-19th century in response to a hostage crisis. After the defeat of the Tibetans by the British, Gangtok became a major stopover in the trade between Tibet and British India at the end of the 19th century. Most of the roads in the area was built during this time. In 1894, Thutob Namgyal, the Chogyal (king) of Sikkim, shifted the capital from Tumlong to Gangtok, increasing the city's importance. East district became the centre for all administrative and social activities with shifting of capital. A new grand palace along with other state buildings was built in the new capital. Following India's independence in 1947, Sikkim became a nation-state with Gangtok as its capital. Sikkim came under the suzerainty of India, with the condition that it would retain its independence, by the treaty signed between the Chogyal (King of Sikkim) and the then Indian Prime Minister Jawaharlal Nehru. This pact gave the India control of external affairs of Sikkim. Trade between India and Tibet continued to flourish through the Nathula and Jeleppla passes, offshoots of the ancient Silk Road near Gangtok. These border passes were sealed after the Sino- Indian War in 1962, and the trade came to a halt. The Nathula pass was finally opened for limited trade in 2006, fuelling hopes of economic boom. In 1975, after years of political uncertainty and struggle, including riots, the monarchy was abrogated and Sikkim became India's twenty-second state, with Gangtok as its capital after a referendum.

### **a. District Administrative Set-up**

For the administrative purpose, East Sikkim has been divided into 4 Sub-Divisions. However, because of the decentralization policy of the State government, the sub-district units were further divided into smaller units called Block Administrative Centre (BAC) vide Notification No. 628/RM&DD/P, dated 12.2.2007. The newly created Block Administrative Centers (BACs) are declared as the "grassroots unit" of developmental activities of the state and their territorial jurisdictions are fixed vide Notification No. 60/RM&DD/P, dated 20.02.2007 superseding earlier Notifications of 12.2.2007. Previously there were only 08 BACs which are later on extended to 10

### **b. Local Institutions**

Scenic beauty, colorful orchids and glorious monuments make Gangtok a fairyland attraction. Gangtok is a popular place with tourist heading on treks. Along with its natural and cultural bounties the city is dotted with beautiful monasteries and other architectural wonders. Some of these monasteries delight us with their interesting stories and beautiful artistry. Just like its magical appeal, the city is admired for its regional specialties, cleanliness, organization, beautiful maintenance and tobacco free zone. From handicrafts to handlooms to jewellery and lots more, the city has its own unique touch, which captivates the attention of every visitor. M.G Marg situated at the heart of Gangtok is the first town in the country to be declared as litter and spit free town.

As the headquarter of East district, Gangtok has all the head offices of different departments including Raj Bhawan, Mintokgang (Residence of the Chief Minister), the State Secretariat, High Court of Sikkim, which is India's smallest high court in terms of area and population of jurisdiction, the Police Headquarter are also located in Gangtok. Rongyek jail, the only jail in the state is also located in Gangtok.

### **c. Natural Resources**

In the East District out of the total geographic area (964 sq km), 679 sq km of area is covered by forest which is 71.17 percent of the total geographic area. Very dense forest occupies 162 sq km of the total geographic area, 396 sq km is occupied by the dense forest and 121 sq km is occupied by the open forest. The major physiographic units are hill, valley and slope. The major drainage systems in East district are Teesta, Rangpo Chhu and DikChhu.

**River System:** Major rivers in the East district are Teesta or Teesta and Rangeet. Teesta can be called as Ganga of the state of Sikkim as most of the Sikkim's settlements are found along the banks of this river. The Teesta comes out as a snout from the Zemu glacier above Lachen Gompha. The Lhonk stream from the north joins it. Another stream Lachung rises from Pauhunri and meets the Teesta at Chumthang. The minor rivers in the district are Rani Khola, Busuk Khola, Rishi Khola and Ratey Chu.

Till 10,000 feet, there are terraced farmlands in which the Rice, Maize, Barley and Millet are grown. Cardamoms, Oranges, Apples, Potatoes and Ginger are grown in abundance. Orchids also abound in areas with moderate altitudes. They are the pride of Sikkim and there are about 600 species. They come in a wide variety of colours and sizes. The most popular orchids are Cymbidiums, Vanda, Cattaleya, Hookeriana, Farmeri, Dendrobium, Amoenum.

In the temperate zone, the flora consists of Oak, Chestnut, Maple, Birch, Alder, Magnolia and Silver Fir. There are about 35 species of Rhododendrons found above the height of 10,000 feet. When Rhododendron flowers between the month of April and May, it is a sight to behold with hillsides becoming shrouded in colour. At the treeless altitudes above 14,000 feet curious types of flowers in colours of blue, red, violet blossom during summers just a few inches above the ground. The stones and rocks also get coloured by lichens and mosses in amorphous pattern. The diversity in the plant world is complemented by a similar variety in the animal kingdom. Amongst the mammals of Sikkim are the rare Snow Leopard, Himalayan Black Bear, Red panda, Musk Deer, Blue Sheep, Shapi, Common Langur, Leopard Cat, and the Flying Squirrel.

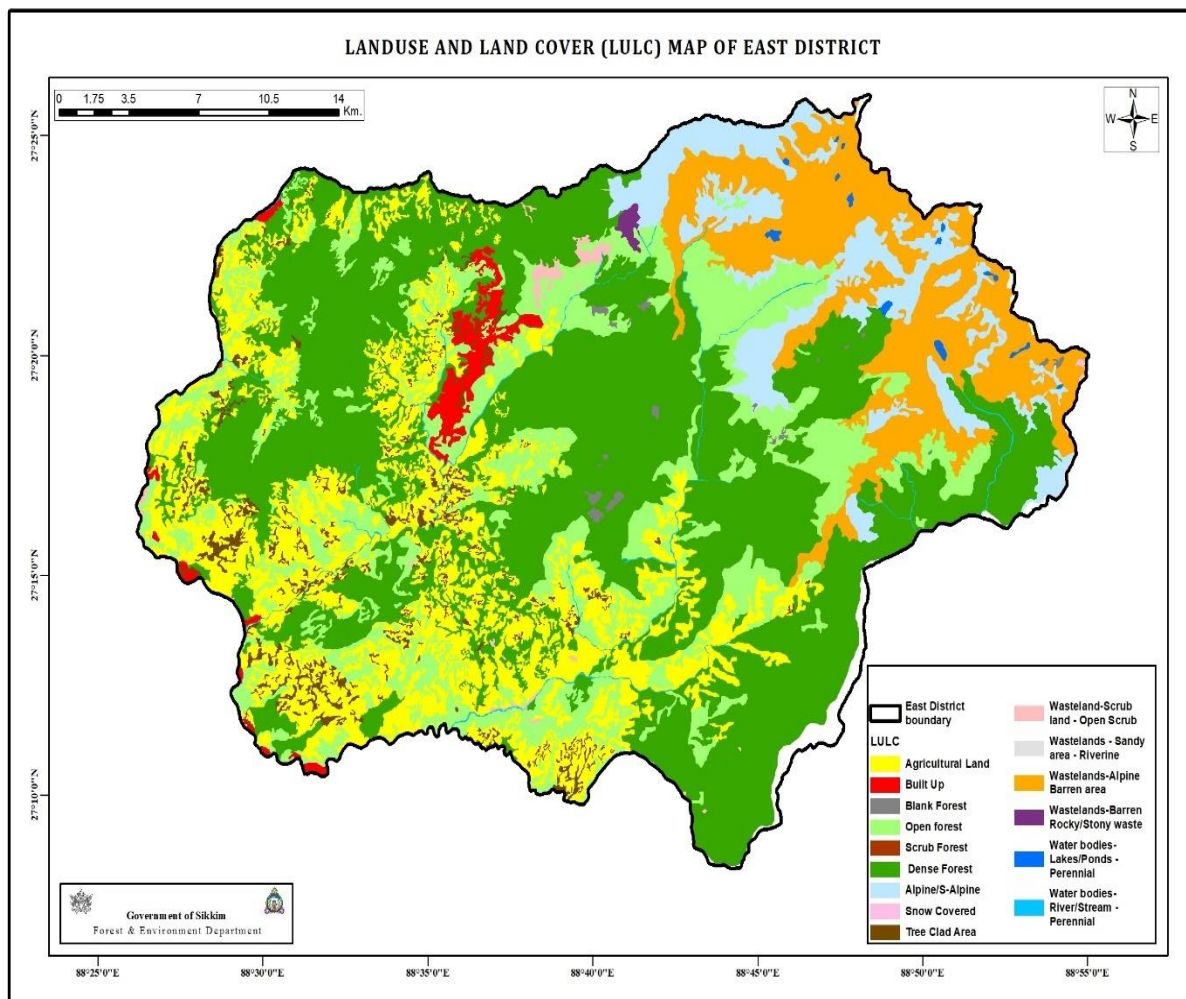
There are three Protected Areas in East District: Pangolakha wildlife sanctuary, Fambonglho wildlife sanctuary and Kyongnosla Alpine sanctuary.

### **d. Geography & Demography**

East district is a part of the Eastern Himalayas and exhibits identical geological features as in other parts of the Eastern Himalayas. Five geological units encountered in the district are Kanchenjunga gneiss, Darjeeling gneiss, Chungthang schists and gneiss, Lingtse granite gneiss and Daling group of rocks consisting of Phyllite, Slates, Quartzites and Schist of Pre-Cambrian age. Quaternary deposits of alluvium are sporadically developed along the streams and rivers. Due to different sets of structural disturbance numerous fractures, faults, joints, folds etc. have developed in the rocks occurring in the district.

According to the 2011 census East Sikkim district has a population of 281,293 out of which 150260 are males and 131033 are females which constitute 45.3 % of the total population of the state of Sikkim. The district has a population density of 295 inhabitants per square kilometer (760 /sq mi). East District has a sex ratio of 872 females for every 1000 males, and a literacy rate of 84.67%. The district is a land of diverse culture and tradition; people in East District are constituted by Nepali, Bhutia and Lepcha communities. Nepali is the predominant language in the region.

**e. Land-use Pattern**



**f. Climate:**

The climate of the district has been roughly divided into the tropical, temperature and alpine zones. For most of the period in a year, the climate is cold and humid as rainfall occurs in each month. The area experiences a heavy rainfall due to its proximity to the Bay of Bengal. The general trend of decrease in temperature with increase in altitude holds good everywhere. Pre-monsoon rain occurs in April-May and monsoon (south-west) operates normally from the month of May and continues up to early October.

## 2.0 Indicative Gap Analysis and Action Plans for complying with Waste Management Rules

### (i) Solid Waste Management

#### a. Current status related to solid Waste management

	Urban Local bodies	No of Wards	No of Households	Population	Solid Waste Generated per day
1.	Gangtok Municipal Corporation	17		1,00,286	50 TPD
2.	Singtam Nagar Panchayat	5		5,868	2.5 TPD
3.	Rangpo Nagar Panchayat	5		10,450	10 TPD

	Local Bodies	No of Village panchayats/ Blocks	No of Households	Population	Solid Waste Generated per day
2	Block/Taluk/ Mandal Tehsils	10			
3	Village/Gram Panchayats	51			

#### b. Identification of gaps and Action plan:

S.No.	Action points for villages / blocks/town municipalities /City corporations	Identification of gap	Action Plan	Responsible agencies	Timeline for completion of action plan
<b>1.</b>	<b>Segregation</b>				
(i)	Segregation of waste at source	Segregation at source practiced by some households and other waste generators. Ensuring Segregation at source at all point generation source is necessary.	Action plan to achieve segregation at source. Awareness programs, incentives, etc. maybe considered	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchayat Units	Continuous process
<b>2</b>	<b>Sweeping</b>				
(i)	Manual Sweeping	Gaps have not been seen currently.	Continuation of current practice	Urban Development Department, Rural Development Department, District Administration,	Continuous process

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				Block Administrative Centres, Gram Panchayat Units	
(ii)	Mechanical Road Sweeping & Collection	Not practiced currently in the state	Sweeping is done manually in town areas	Action not required	Not Applicable
<b>3</b>	<b>Waste Collection</b>				
(i)	100% collection of solid waste	80% in Gangtok. 100% in Rangpo Nagar Panchayat 92% in Singtam Nagar Panchayat	Prepared and notified vide Govt. of Sikkim Gazette Notification no.4/UD&HD dated 29.04.2019	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchyat Units	Continuous process
(ii)	Arrangement for door-to-door collection	80% in Gangtok Municipal Corporation,  100% in Rangpo Nagar Panchayat,  92% in Singtam Nagar Panchayat	Specified in the action plan.	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchyat Units	Continuous process
(iii)	Waste Collection trolleys with separate compartments	Required. 10 nos for Gangtok, 4 nos. for Rangpo & 3 nos. for Singtam	Procurement list has been submitted to UDD. Govt. of Sikkim	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchyat Units	Continuous process
(iv)	Mini Collection Trucks with separate compartments	Required. 5nos for Gangtok, 1 no. for Rangpo & 1 no. for Singtam	Procurement list has been submitted to UDD. Govt. of Sikkim	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchayat Units	Continuous process



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(v)	Waste Deposition centres (for domestic hazardous wastes)	Improper segregation due to lack of awareness leads to admixing of DHW in solid waste.	SPCB- Sikkim has donated separate labelled DHW collection bins to authorities for use during waste collection	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchayat Units	Continuous process
<b>4.</b>	<b>Waste Transport</b>				
(i)	Review existing infrastructure for waste Transport.	Mini collection Trucks, Waste Trolleys and Bulk waste trucks are required.	Procurement is required	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchayat Units	Continuous process
(ii)	Bulk Waste Trucks	Required. 1 no. for Gangtok, 1 no. for Rangpo & 1 no. for Singtam	More procurement is required	Urban Development Department	Continuous process
(iii)	Waste Transferpoints	Not available. Directly transfer to Waste Processing Facility (WPF).	Action not required	NA	NA
<b>5</b>	<b>Waste Treatment and Disposal</b>				
(i)	Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement as per Rules)	Bulk Waste generators are not present in most of the ULBs in the district except Gangtok	Compost plant of capacity 1TPD has been installed in Lal Bazaar (vegetable market) in Gangtok.	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchayat Units	Continuous process
(ii)	Wet-waste Management :Facilities) for central Biomethanation / Composting of wet waste.	Proper Management of WPF is required. Due to lack of segregation of waste from rural area, the WPF in Martam, East Sikkim is facing a lot of	50 TPD composting unit available at Martam, East Sikkim for Gangtok, Singtam & Rangpo. Specified in the action plan. Under SBM (G) Mission Phase II,	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres	Continuous process

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		difficulties. Proper compost cannot be carried out due to non biodegradable waste admixed with compostable material	all 32 blocks of the state are under the process of setting up community compost pits. Not required for ULBs in current scenario.		
(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction	Installed.	Specified in the action plan. Recyclable wastes are sent to West Bengal from Martam WPF. The Rural Development Department has selected 2 Divisions in the district and 4 GPUs Samlik Marchak, Martam Nazitam, Lingtam Phadamchen & AHo-Yangtam as model villages for compliance to the directions of Hon'ble NGT in the matter of 606/2018. Setting up of RRC in all blocks is under process. Selection of RDF firm for the state is under process by UDD, Govt. of Sikkim	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, Gram Panchyat Units	Continuous process

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(iv)	Disposal of inert and non-recyclable wastes: Sanitary Landfill	Proper Management of WPF is required. Due to lack of segregation of waste from rural area, the WPF in Martam, East Sikkim is facing a lot of difficulties. Proper compost cannot be carried out due to non biodegradable waste admixed with compostable material.	Specified in Action Plan	Urban Development Department, Rural Development Department	Continuous process
(v)	Remediation of historic / legacy dumpsite	Lack of proper segregation leads to lot of waste being disposed in landfill	Capped and scientific disposal site established. Biomining may be required in future.	Urban Development Department	Continuous process
(vi)	Involvement of NGOs	Initiated	Local NGOs such as Voyage Sikkim has been granted NOC by SPCB for collection for plastic waste on Household level in Gnagtok area. NGOs have also been involved in survey of Urban areas for data generation to ensure phasing out of SUPs	Urban Development Department, Rural Development Department	Continuous process
(vii)	EPR of Producers: Linkage with Producers /Brand Owners	Under process	The SPCB-Sikkim has initiated registration of single use plastic manufacturers and producers in the state as per the new SOP prepared by CPCB. Licensing authorities have been directed to prepare inventory of brand owners of authorized dealers. Many Producers has approached GMC for implementation of EPR.	Urban Development Department, Rural Development Department, District Administrative Block, Administrative Centres, SPCB-Sikkim.	Continuous process
(viii)	Authorization of Waste Pickers	Action Not required	Authorized waste pickers available. Registration done by ULBS for those working in	Urban Development Department	Continuous process

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			Martam WPF		
(ix)	Preparation of own by-laws to comply with SWM Rules 2016	Yes	Prepared and notified vide Govt. of Sikkim Gazette notification no. 5/UD&HD dated 29.04.2019.	In Progress	

Note: "State Policy and Strategy on Solid Waste (Action Plan)" and "Bye- laws of solid waste Management & Handling cleanliness and sanitation for urban sector in Sikkim" has been enclosed as Annexure I & II respectively

**(ii) Plastic Waste Management**

**(a) Current Status related to Plastic Waste Management**

	Urban Local bodies	Estimated quantity of Plastic Waste Generated per day
1	Gangtok Municipal Corporation	100 kg
2	Singtam Nagar Panchayat	55.47 kg
	Rangpo Nagar Panchayat	2.19 kg

	Local Bodies	Plastic Waste Generated per day
2	Block/Taluk/ Mandal Tehsils	Not Available
3	Village/Gram Panchayats	Not Available

**(b) Identification of gaps and Action plan:**

S.No	Action points for village Panchayats/blocks/municipalities/corporations	Identification of gap	Action Plan	Agencies Responsible	Target time for Compliance
1.	Door to Door collection of dry waste including PW	80% in Gangtok Municipal Corporation, 100% in Rangpo Nagar Panchayat, 92% in Singtam Nagar Panchayat	All recyclable plastic is sent to West Bengal as no recycling facility is available in the state. The Govt. of Sikkim vide Gazette notification no. 145 dated 8 <sup>th</sup> of July 1998 amended the Sikkim Trade License and Miscellaneous Provisions Rule 1985 wherein the use of plastic wrappers or bags for purchase of any goods or	Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units.	Continuous process.

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			<p>materials was prohibited.</p> <p>Trade license conditions states that no one should use plastic wrapping for goods being sold in the market. The Govt. of Sikkim vide notification number 25/Home/2016 dated 19.05.2016 directed that the packaged drinking water bottles may not be used in any Govt. meetings/functions in order to reduce plastic waste. The Govt. of Sikkim vide notification number 26/Home/2016 dated 19.05.2016 announced the ban on sale and use of disposable items made from Styrofoam throughout the State keeping in view its various ill effects to environment and human health. The Govt. of Sikkim vide Gazette notification no. 344 dated 9th of August 2019 imposed ban on sale and use of plastic having less than 50 micron thickness and SUP in all forms such as carry bags, pouches, cups, plates, spoons, straws and other use and throw items made of plastic.</p>		
2.	Facilitate organized collection of PW at Waste transfer point or Material Recovery Facility	<p>All dry waste is transported dumpsite located in Sipsu.</p> <ul style="list-style-type: none"> <li>• Material recovery facility available</li> <li>• Involvement of informal sector /NGO initiated and under process</li> </ul>	Action Plan and Bye laws are under process	Urban Development Department, Rural Development Department, Forest & Environment Department District	Continuous process.

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		<ul style="list-style-type: none"> <li>• Registering waste pickers completed</li> </ul> <p>Till date no plastic waste collection centre has set up brand owners in the district. Proposals for implementation of EPR has been received by GMC.</p> <ul style="list-style-type: none"> <li>• Availability of transfer points and material recovery facility</li> <li>• Involvement of informal sector /NGO.</li> <li>• Registering waste pickers</li> <li>• Linkage with PW recyclers</li> </ul> <p>Involvement of producers and brand-owners</p>		Administration, Block Administrative Centres, Gram Panchayat Units, Producers/Manufactures/Brand owners	
3.	PW collection Centres	Till date no plastic waste collection centre has set up brand owners in the district. Proposals for implementation of EPR has been received by GMC	Action Plan and Bye laws are under process	Urban Development Department, Rural Development Department	Continuous process
4.	Awareness and education programs implementation	Under process	Conducted by SPCB-Sikkim in coordination with UDD, RDD, MSME, Krishi Vigyan Kendra and District Authorities. Street plays conducted, videos and jingles have also been released by SPCB-Sikkim. Many NGOs have been involved in conducting survey for phasing out SUPs	Urban Development Department, Rural Development Department, Forest & Environment Department District Administration, Block Administrative Centres, Gram Panchayat Units.	Continuous process

District Environment Plan [East District]

5.	Access to Plastic Waste Disposal Facilities	Yes	Located at west Bengal. Recycling facilities for plastic waste has not been set up in the state	Urban Development Department, Rural Development Department	
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(iii) C&D Waste Management

▪ (a) Current Status related to C & D Waste Management

Details of Data Requirement	Present Status
Total C & D waste generation in MT per day (As per data from Municipal Corporations/Municipalities)	Not available
Does the District have access to C&D waste recycling facility?	No

(b) Identification of Gaps and Action Plan:

S. No.	Action points for blocks/town municipalities/City corporations	Identification of Gaps	Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Arrangement for separate collection of C & D waste to C & D waste deposition point.	NA	NA	NA	NA
2.	Whether local authority have fixed user fee on C&D waste and introduced permission system for bulk waste generators who generate more than 20 tons or more in one day or 300 tons per project in month?	NA	NA	NA	NA
3.	C&D recycling Facility	NA	NA	NA	NA
4.	Usage of recycled C&D waste in non- structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	NA	NA	NA	NA
5.	ICE on C & D waste management	NA	NA	NA	NA

**Note: Action plan on C&D waste has been prepared and is under process for approval. The details for the same shall be provided after final approval by the State Government.**

**(iv) Biomedical Waste Management****(a) Current Status related to Biomedical Waste**

<b>Inventory of BMW in the District</b>	<b>Quantity</b>
Total no. of Bedded Healthcare Facilities	10
Total no. of non-bedded HCF	96
No. of HCFs authorized by SPCBs/PCCs	106
No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs)	nil
Capacity of CBWTFs	Not available
No. of Deep burials for BMW if any	33
Quantity of biomedical waste generated per day	336.034 kg/day
Quantity of biomedical waste treated per day	a.34 /day

**(b) Identification of Gaps and Action Plan:**

<b>S. No.</b>	<b>Action points for blocks/town municipalities/City corporations</b>	<b>Identification of Gaps</b>	<b>Action Plan</b>	<b>Responsible agency</b>	<b>Timeline for completion of action plan</b>
1.	Inventory and Identification of Healthcare Facilities	Completed	Inventory has been prepared by SPCB and submitted to CPCB	Department of Health & Family Welfare, SPCB – Sikkim	Shall be updated as necessary
2.	Adequacy of facilities to treat biomedical waste	No gaps. BMW generated in all HCFs undergo captive treatment within the facility itself	Proposal for CHWTSDF and CBWTF is in process. 90% payment for Land Acquisition completed.	Department of Health & Family Welfare, Department of Commerce & Industries SPCB – Sikkim	
3.	Tracking of BMW	No gaps	Currently all BMW generated in HCFs undergo captive treatment within the facility itself. The implementation of Barcode system is currently not required. The same shall be implemented once the CBWTF is established & operational	Department of Health & Family Welfare,	Continuous process



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4.	Awareness and education of healthcare staff	No gaps	Capacity Building, awareness and training has been conducted for all healthcare workers to ensure proper management of BMW in the HCFs including COVID19 waste	Department of Health & Family Welfare, SPCB – Sikkim	Continuous process
5.	Adequacy of funds	Fund allocation has been specified in Action plan	Fund allocation has been specified in Action plan	Department of Health & Family Welfare.	Continuous process
6.	Compliance to Rules by HCFs and CBWTFs	Committee formed	Specified in Action plan	Department of Health & Family Welfare	Continuous process
7.	District Level Monitoring Committee	Committee formed along with Advisory body	Formation of the committee and advisory body notified by State Government	Department of Health & Family Welfare	Continuous process
8.	Wastewater Treatment	Required	Preparation of action plan has been communicated to implementing department. Installed for STNM hospital at Gangtok. Proposal for installation in other district hospitals have been initiated	Department of Health & Family Welfare	Continuous process

**Note: Action Plan on Bio-Medical Waste Management for the State of Sikkim (2019) has been attached as Annexure III**

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**(v) Hazardous Waste Management****(a) Current Status related to Hazardous Waste Management**

Major source of hazardous waste (HW) is pharmaceutical industries and facilities located in the district, who are required to be regulated under Water (P&CP) Act 1974, Air (P&CP) Act 1981 and Environment (P) Act, 1986 and the Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 and the rules notified thereof. Many commercial establishments like automobile repair shops, paint workshops, stores, etc. may also generate small quantities of hazardous waste. The district administration should be aware of the type of hazardous waste generation in their district and adequacy of facilities for safe handling and disposal within or outside District. Linkage of district administration with common TSDFs in the State is necessary to establish system for safe disposal of domestic hazardous waste. However, since no CHWTSDF has been established in the state, the SPCB-Sikkim has initiated agreements & facilitated transport & disposal of HW generated in the state to TSDF & recycling plants in West Bengal and Cement Plants in Assam & Meghalaya.

## a. HW details

<b>Details of Data Requirement</b>	<b>Present Status</b>
No of Industries generating HW	29
Quantity of HW in the district	
(i)Quantity of Incinerable HW	1543.67 MT
(ii)Quantity of land-fillable HW	Nil
(iii)Quantity of Recyclable/ utilizable HW	17.4 KL
No of captive/common TSDF	Nil
Contaminated Sites or probable Contaminated sites	Nil

**(b) Identification of Gaps and Action Plan:**

S.No	Action points	Identification of Gaps	Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Regulation of industries and facilities generating Hazardous Waste	Completed	NA	SPCB	Complied
2.	Establishment of collection centers	none	All HW generated in the state is transported to: 1. West Bengal Waste Management Ltd., Haldia, West Bengal for incineration; 2. Calcom Cement, Assam for co-processing; and 3. Kundu Refinery, West Bengal for recycling	SPCB-Sikkim, Occupier	Complied
3.	Training of workers involved in handling / recycling / disposal of HW	None	The SPCB –Sikkim during grant of authorization ensures that the Emergency Response Procedure has been prepared by the occupier.  It has also been specified in the Specific conditions of the authorization to ensure safety of the people handling HW, procure spillage kits and provide PPEs.  Compliance to the provisions of the Hazardous Waste (Management & Transboundary Movement) Rules, 2016 and authorization is verified in every inspection conducted by SPCB officials	SPCB-Sikkim, Department of Labour, Occupier	Complied

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4.	Availability / Linkage with common TSDF or disposal facility	No gaps.	All HW generated in the state is transported to: 1. West Bengal Waste Management Ltd., Haldia, West Bengal for incineration; 2. Calcom Cement, Assam for co-processing; and 3. Kundu Refinery, West Bengal for recycling	SPCB-Sikkim, Occupier	Complied
5.	Contaminated Sites	No gaps	No area in the State of Sikkim has been listed in the 112 Contaminated sites and 168 Probable contaminated sites in the country	SPCB-Sikkim	Action not necessary

**(vi) E-Waste Management****(a) Current Status related to E-Waste Management**

Details of Data Requirement	Present Status
Inventory of E-Waste	<b>5921 nos. in 2020-21</b>
Collection centers established by ULBs in the District	1
Collection centers established by Producers or their PROs	2 under verification by SPCB
No authorized E-Waste recyclers /Dismantler	None in the state. Sent to J.S. Pigments, West Bengal.

**(b) Identification of Gaps and Action Plan:**

S. No.	Action points	Gaps in implementation	Action Plan	Responsible agency	Timeline for completion of Action Plan
1	Inventory / Generation of E-Waste / Bulk-waste generators	Inventory preparation has been delayed as many of the bulk consumers do not provide information	Information Education & Communication (IEC) Plan from Information Technology Department is awaited for completion of inventory.	Information Technology Department With SPCB.	
2	E-Waste collection points	Till date 2 collection centres has been set up by producers through PROs in the district for implementation of EPR. Verification of the same is under process with SPCB	Licensing authorities have been directed to prepare inventory of authorized dealers in order to implement the ERP provisions of the E-waste Management Rules, 2016.	Gangtok Municipal Council & Rangpo, Singtam Nagar Panchayat. UDD.	
3	Linkage among Stakeholders to channelize E-Waste	Till date 2 collection centres has been set up by producers through PROs in the district for implementation of EPR. Verification of the same is under process with SPCB	All e-waste generated in the state is transported to Authorized recycling centre, M/s J.S. Pigments located in West Bengal currently	Gangtok Municipal Council & Rangpo, Singtam Nagar Panchayat. UDD.	

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4.	Regulation of Illegal E-Waste recycling /dismantling	No such action has been observed or reported till date.	Regular monitoring by District Administration/UDD/RDD/SPCB	DA UDD RDD SPCB	Regular activity.
5	Integration of informal sector	All e-waste generated in the state is collected and transported to authorized recycling facility. Informal sector for the same is not practiced in the state.	IEC plan awaited from IT Department, Govt. of Sikkim.	UDD RDD	
6	Awareness and Education	None	Conducted by SPCB-Sikkim in coordination with UDD, RDD, MSME, NIELIT, Krishi Vigyan Kendra and District Authorities.	DA UDD RDD SPCB	Regular activity.

**(vii) Air Quality Management:**

**(a) Current Status related to Air Quality Management**

Details of Data Requirement	Present Status
Number of Automatic Air Quality monitoring stations in the district. - Operated by SPCB / State Govt /Central govt./PSU agency: - Operated by Industry:	1 no. nearing completion by October 2021  Nil
Number of manual monitoring States operated by SPCBs	3 nos. at Gangtok, Rangpo & Singtam
Name of towns/cities which are failing to comply with national ambient air quality stations	None

No of air pollution industries	66 not including DG sets
Prominent air polluting sources [Large Industry] / [Small Industry] / [Unpaved Roads] / [Burning of Waste Stubble] / [Brick Kiln]/ [Industrial Estate]/[Others](Multiple selection)	Industrial units, Vehicular Emission, Dust arising from construction, Stone Crusher Units, Hot Mix Plants, DG Sets.

**(b) Identification of Gaps and Action Plan:**

S. No.	Action points	Indicative Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Identification of prominent air polluting sources?	Inventorization of air pollution source in the district.	SPCB in co-ordination with District Administration Forest & Environment Department	1 year.
2.	Ambient Air quality data?	Ambient air quality data available in the website: <a href="http://www.spcb.sikkim.gov.in">www.spcb.sikkim.gov.in</a>	SPCB	Regular activity.
3.	Setting up of Continuous Ambient Air Quality Monitoring Station	A CAAQMS station is nearing completion in Gangtok.	SPCB with District Administration	October, 2021
4.	District Level Action Plan for Air Pollution	District Level Action Plan shall be prepared as per the guidelines of CPCB and MoEF & CC.	SPCB in coordination with District Administration	1 Year
5.	Hotspots of air pollution in District	Burning of waste (agricultural & solid) has been banned vide Notification No. 191/FEWMD dated 05/01/2015. In case of non-compliances byelaws have been notified for imposition of fine from GPU level	SPCB in coordination with District Administration	1 Year
6.	Awareness on Air Quality	Air quality index of the State is readily available in the website: <a href="http://www.spcb.sikkim.gov.in">www.spcb.sikkim.gov.in</a> . Further planning shall be done for more awareness. Public Grievance Portal available at District Administration and SPCB website.	District Adm. & SPCB	Regular activity.

**(viii) Water Quality Management****Water Quality Monitoring****(a) Current Status related to Water Quality Management**

Details of Data Requirement	Present Status	
Rivers	Rangphap Chu	9.2405
		6.490092
		4.511739
	Dikling Khola	7.497241
	Pachey Khola	6.673768
	Ralong Khola East	5.354104
	Kue Chu	5.794536
	Nathang Chhu	9.039726
	Lungze Chhu	12.927966
	Rongni chu or Rani Khola	27.672551
	Taksam chu	13.814279
	Rora chu	18.738345
	Martam Khola	5.164812
	Sang Khola	6.63205
	Pagla Khola	4.342761
	Rangchang khola	6.665891
	Ghatte khola	5.075452
	Samdong Chu	5.101348
	Lay Khola	3.644772
	Rani Khola	5.569741
	Liyung Kyong Chhu	2.729298
	Malten Chhu	3.262861
	Richu Khola	4.214647
	Chhatrey Khola	2.906992
	Chhito Khola	2.467972
	Rare Chu	2.674665
	Navey Chhu	3.844672
	Rankey Chhu	3.090855
	Soge Chu	3.635955
	Subaney Khola	6.34347
	Hante Khola	5.445081
	Di Chhu Jaldhaka	8.663529
Lingtam Khola	3.675784	
Khari Khola	3.056301	
Chunabhatti Khola	4.038463	
Sawa Khola	3.235209	
Kali Khola	2.365582	



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	Kayong or Kali Khola	2.168032
	Rongdu Khola	4.057335
	Chhuba Khola	4.125814
	RE Chu	8.052638
	Ramitey or Mendu Khola	5.297199
	Yali Chu	6.676595
	Chhange Chu	2.437768
	Sano Chhange	2.547566
	Andheri Khola	5.382125
	Namphe Khola	1.597958
	Richu Khola	4.0074
	Ralong Khola	6.564159
	Selele Khola	3.543441
	Arithang Chu	2.14956
	Lah Chu	3.050999
	Bechulangpa Chu	1.361007
	Reshi Khola	4.052675
	Aksu Khola	2.651158
		1.974
		1.766696
		2.086253
		2.801224
	Chhange Khola	3.054628
	Thekabong Khola	3.795467
	Gop Chu	2.565411
	Buthang Khola	2.963485
	Simana Khola	3.580237
	Rishi Khola East Skm	8.903434
	Danak Khola East	4.200068
Length of Coastline (if any)	NA	
Nalas/Drains/Creeks meeting Rivers	13 (in Gangtok) Inventorization under process for other 2 ULBS	
Lakes/Ponds	234.2575	
Total Quantity of sewage from towns and cities in District	18.24 MLD	
Quantity of industrial waste water	1.776 MLD	
Percentage of untreated sewage	Information not available	
Details of bore wells and number of permissions given for extraction of ground water	11	
Ground water polluted areas if any	nil	
Polluted river stretches if any	Adarsh Gaon to Melli in the Melli-Chungthang polluted stretch. Namli to Singtam Stretch in Rani Chu Polluted stretch Adampool to Burtuk stretch in Maney khola Polluted stretch	

**(b) Identification of gaps and action plan for water quality monitoring:**

S. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeli ne for comple tion of action plan
1.	Inventory of water bodies	Inventory of water bodies is being monitored by Department of Forest & Environment. SPCB-Sikkim conducts regular monitoring of river water quality under the NWMP programme and the analyzed data is available in the SPCB website. River Rejuvenation Committee has been notified as the State Nodal agency to ensure compliance to the environmental norms and monitor the actions of the implementing departments. RRC is also undertaking the Inventorization of water bodies.	Department of Forest & Environment, SPCB-Sikkim, Department of Water Resources & River Development, Department of Public Health & Engineering	Continuous activity
2.	Quality of waterbodies in the district	Conducted by SPCB-Sikkim	SPCB-Sikkim	Continuous activity
3.	Hotspots of water contamination	RRC has been setup and report for delisting of the 4 identified river stretches has been submitted to the CPCB	Department of Forest & Environment, SPCB-Sikkim, Department of Water Resources & River Development	Continuous activity
4.	Protection of river/lake water front	Action plan prepared and bye laws have also been notified for implementation.	District Adm SPCB UDD RDD Forest & Environment.	Continuous activity
5.	Inventory of sources of water pollution	Prepared	Forest & Environment, SPCB	Continuous activity

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6.	Oil spill disaster management (for coastal districts)	N/A	N/A	N/A
7.	Protection of flood plains	N/A	N/A	N/A
8.	Rejuvenation of groundwater	Ground water abstraction for domestic purposes is not practiced in the district. Industrial units who have installed borewells have obtained NOC from Central Ground Water Authority (CGWA)	Department of Forest & Environment, Department of Water Resources & River Development, CGWA	Continuous activity
9	Complaint redressal system	Available at District Administration and SPCB-website	District Adm & SPCB	Continuous activity

**(ix) Domestic Sewage****(a) Current Status related to Treatment of Domestic Sewage**

Details of Data Requirement	Present Status
No of Class-II towns and above	NIL
No of Class-I towns and above	1
No of Towns STPs installed	3
No of Towns needing STPs	1 - Gangtok Zone III
No of ULBs having partial underground Sewerage network	3
No of towns not having sewerage network	NIL
Total Quantity of Sewage generated in District From Class II cities and above	18.24
Quantity of treated sewage flowing into Rivers (directly or indirectly)	18.24
Quantity of untreated or partially treated sewage(directly or indirectly)	NIL
Quantity of sewage flowing into lakes	NIL
Total available Treatment Capacity	b.52 LD

**(b) Identification of Gaps and Action Plan for Treatment of Domestic Sewage:**

S. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Sewage Treatment Plants (STPs)	STPs have been setup in all 3 ULBs of the District. 1 additional STP Gangtok Zone II is under commissioning and is to be completed by December, 2022	Public Health & Engineering Department	2022
2.	Underground sewerage network	Available. The PHE department is in process of ensuring all household and commercial establishments are connected to sewerage networks or have installed septic tanks.	Public Health & Engineering Department	

**Note: Action Plan prepared by PHE department enclosed as Annexure IV**

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**(x) Industrial Waste Water Management****(a) Current Status related to Industrial Wastewater Management**

Number of Red, Orange, Green and White industries in the District	Red – 4 (HEP) 1 (Brewery) Orange- 33
No of Industries discharging wastewater	34
Total Quantity of industrial waste water generated	1.079 MLD
Quantity of treated industrial waste water discharged into Nalas/ Rivers	Nil
Common Effluent Treatment Facilities	Nil
No of Industries meeting Standards	34
No of Industries not meeting discharge Standards	34

**(b) Identification of Gaps and Action Plan for Industrial Waste Water:**

S. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Compliance to discharge norms by Industries	Industrial units namely pharmaceutical industries have installed Online Continuous Effluent Monitoring System as per the directions of the SPCB so that real time compliance to pollution parameters can be verified remotely. Industries of various categories are inspected by SPCB on timely basis as specified by the CPCB category wise viz Red, orange, green. Zero liquid discharge is to be maintained in all water based industries in the state. CCTV is installed in all storm water outlets of the pharmaceutical industries and footage is submitted to SPCB on weekly basis. Third Party Environmental Monitoring is on conducted	Dept. of Forest & Environment, SPCB	Continuous activity

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		quarterly basis by NABL accredited laboratories under supervision of SPCB and the reports are submitted as well.		
2.	Complaint redressal system	Available at District Adm website and SPCB Sikkim Website.	District Adm & SPCB-Sikkim	Continuous activity

**(xi) Mining Activity Management plan**

**(a) Current Status related to Mining Activity Management**

Details of Data Requirement	Existing Mining operations
Type of Mining Activity	Temporary collection of loose boulders, sand & stone
No of licensed Mining operations in the district	70
% Area covered under mining in the district	
Area of Sand Mining	
Area of sand Mining	River reserves

**(b) Identification of Gaps and Action Plan:**

S. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeline for completion
1.	Monitoring of Mining activity	District Expert Appraisal Committee has been formed	Department of Mines & Geology	Continuous activity
2.	Inventory of illegal mining if any mining	Action plan to identify illegal sand and other mining activity in the district through surveillance, patrolling and enforcement. District Level task Force may be constituted for control of illegal mining activity	Department of Mines & Geology	
3.	Environment compliance by Mining industry	Action plan for periodic verification of compliance to environmental conditions stipulated by SPCBs/PCC, MoEF & C, Department of mines etc. SPCBs/PCC may be involved in this activity.	Department of Mines & Geology	

**(xii) Noise Pollution Management Plan****(a) Current Status related to Noise Pollution Management**

Details of Data Requirement	Measurable Outcome
No. of noise measuring devices available with various agencies in district	SPCB Sikkim – 3 nos

**(b) Identification of Gaps and Action Plan:**

S. No.	Action points	Gaps and Action Plan	Responsible Agency	Timeline for completion of action plan
1.	Availability of Sound/Noise Level Meters.	Procurement of Sound/noise level meters in process	District Administration, Police Department & SPCB-Sikkim	3 months
2.	Ambient Noise Level monitoring.	Various sensitive zones such as protected areas, hospitals, etc., have been declared as silent zones Noise monitoring during festival season is conducted by SPCB-Sikkim	UDD, District Administration, Police Department & SPCB-Sikkim	6 months
3.	Signboards in Noise zones	District administration may ensure that adequate number of sign boards installed at sensitive zones in towns / cities in towns and cities. An action plan may be prepared by district authority.	District Administration	
4.	Complaint redressing system	Redressal portal has been set up in District Adm & SPCB website	UDD, District Administration, Police Department & SPCB-Sikkim	

**Note: State Action Plan for Control of Noise pollution enclosed as annexure**

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