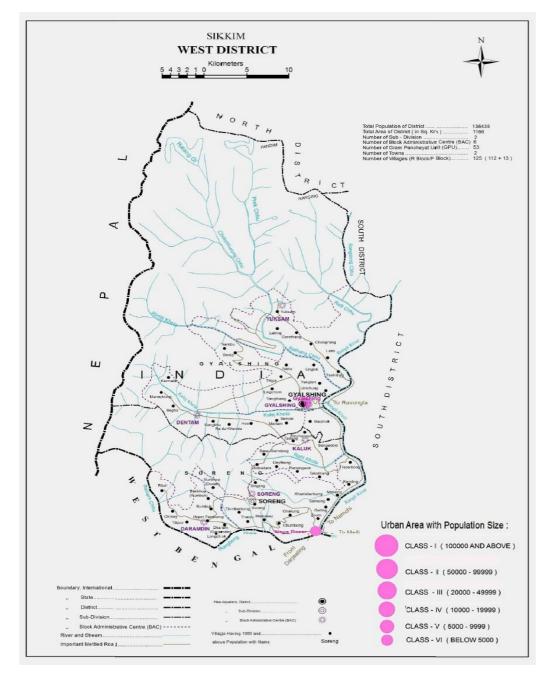
District Environment Plan for West District

State of Sikkim



Source: Census, 2011



Office of District Administration District Collector, West District District Administrative Centre, Rabdenste, West Sikkim E-Mail: collectorwest@gmail.com

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District Profile

West District of Sikkim lies between 27°27'55" North latitudes and 88°88'36" East

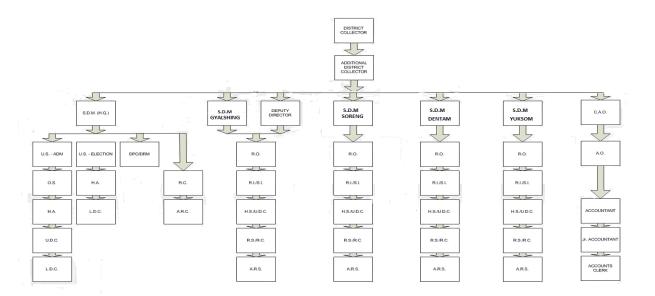
Longitudes. It is the second largest district in the Indian state of Sikkim with an area of 1,166 sq km. The headquarters of the district is at Gyalshing, also known as Geyzing. The town is connected to the capital Gangtok by a metalled road. Geyzing is also connected to the West Bengal towns of Darjeeling and Kalimpong via Jorethang. The town has a large Nepali population, and the Nepali language is the predominant language of the region. The other language spoken here are Bhutia, Lepcha, Limbu, Newari, Rai, Gurung, Mangar, Sherpa, Tamang, Sunwar etc. The town is situated at an altitude of about 6,500 feet (1,900 m). The town enjoys a temperate climate for most of the year and snow sometimes falls in the vicinity. Other important towns include Pelling, Yuksom and Dentam. The district shares its borders with South Sikkim and North Sikkim in the east and north respectively and with the state of West Bengal in the south. It also has an international border with Nepal to its west.

The district is a favourite for the trekkers due to the high elevations. Here economy is mainly agrarian, despite most of the land being unfit for cultivation owing to the precipitous and rocky slopes.

a. District Administrative Set-up

The West District with its head quarter at Gyalshing is headed by the District collector who is in charge of the overall administration of the district and co-ordinates the functioning of all other state government department departments and PSUs within the district.

The office of the District collector has several sections which are supervised by various officers of the rank of Sub-Divisional Magistrates and Deputy Director. The District collector is supported by the Additional District Collector who looks after certain sections of the Collectorate.



b. Natural Resources: River Systems : Rathang Chu, Rimbi Khola, Relli Chu, Kalej Khola, Reshi Khola are the major rivers of the West District. All of the above rivers flow from west to east direction

and drain into Rangit River which flows along the eastern boundary of the district. Another Important river Ramam Khola flows along the southern boundary of the district which merges with Rangit River at Nayabazar in West Sikkim. Rangit river from the confluence of Rathang Chu and Kayam Chu flows for 42 kms before it merges with Teesta.

West Sikkim has a wide network of stream and rivers which are well distributed throughout the district. Rathong Glacier is an important source of water in the district. The district also has many lakes and wetlands. 32 lakes have been identified and documented out of which Khecheopalri Lake , Karthok Lake , Samiti Lake , Laxmi Pokhari are the prominent ones. Khecheoplari Lake has cultural , religious , ecological significance and is one of the most important wetland and bird area of Sikkim.

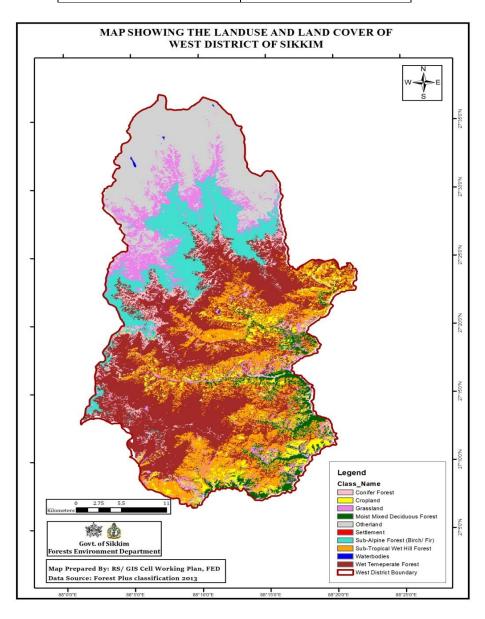
West District has a geographical area of 1166 Ha. according to 2019 assessment 246.85 Ha. is covered by Very Dense Forest. 363.03 Ha. is covered by Moderately Dense Forest and 164.02 Ha. is under Open Forest , making at cumulative total of 773.90 Ha under Forest Cover , which is 66.37% of the geographical area. The major forest types In the district is as follows :

c. Geography & Demography: West district is the second largest (1166 sq. km.) in area but in term of population it is the third highest (136,435) with (77.39) per cent of literacy rate it stands at the fourth rank. West district also has the third highest proportion of scheduled caste (5,935) and second highest Scheduled Tribes (57,817) population. West district has an urban population 5,248 which is 3.42 % of its total population. The table shows decadal change in population for West District.

| 1. | Area | 116600 Hectors |
|-----|------------------------------------|-----------------------|
| 2. | Population | 136,435 (2011 cencus) |
| 3. | Rural Population | 131187 |
| 4. | Urban Population | 5248 |
| 5. | Decadal Growth Rate | 10.69% |
| 6. | Decadal variation urban population | 187.72% |
| 7. | Decadal variation rural population | 8.03% |
| 8. | Sex Ratio | 942 |
| 9. | Scheduled Cast Population | 5935 |
| 10. | Scheduled Tribe Population | 57817 |
| 11. | Literacy Rate | 77.39% |

d. Land-use pattern:

| 116600 Hectares |
|-----------------|
| 83473 Hectares |
| 16600 Hectares |
| 29600 Hectares |
| 2054 Hectares |
| |



6

e. Climate: West District comes under Eastern Himalayan Region (II) Agro climatic zone. In summers the average temperature hovers between 17oC to 27oC and winter temperatures across the district have a range of 02 °C to 21 °C. The district experiences occasional hailstones whereas landslides are a common occurrence in the district especially during the monsoon season. The district experiences about 1963.7mm of rainfall under the influence of S-W monsoon from June to September. 199.6mm of rainfall due to N-E monsoon from October – December , 184.17mm during the winter months of January-March and 711mm during the summers April to May. Average annual rainfall is about 3000mm. The higher elevation areas of the district experiences snowfall, with some of the mountain peaks remains snow covered for most parts of the year.

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

(i) Solid Waste Management

| SI. No. | Urban Local bodies | No of Wards | No of Households | Population | Solid Waste Generated per day |
|------------|---|----------------|---------------------|------------|-------------------------------------|
| 1 | Municipal corporations (Nagar Nigam or Mahanagar Palika) | - | - | - | - |
| 2 | Municipalities (Nagar Palikas) | - | - | - | - |
| 3 | Nagar Panchayats (Town area Councils) | 5 | 881 | 4013* | 3.5 TPD |

a. Current status related to Solid Waste management:

*As per annual report 2020-21

| S1. | Local Bodies | No of Village | No of | Population | Solid Waste |
|-----|-------------------------------|---------------------|-------------|------------|---------------|
| No. | | panchay ats /Blocks | Househol ds | | Generated per |
| | | | | | day |
| | | | | | |
| 1 | Block /Taluk / Mandal Tehsils | 10 | 24,646 | 121,764** | 11.987 TPD |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 2 | Village/Gram Panchayats | 348/61 | | | |
| | | | | | |

** As per annual report 2020-21

a. Identification of gaps and Action plan:

| S. No. | Action points For villages / blocks/ town municipalities / City corporations | Identificatio n of gap | Action Plan | agencies | Timeline for completion of action plan |
|--------|--|---|---|----------|--|
| 1. | Segregation | | | | |
| (i) | waste at source | Waste segregation | awarenessfor further refinement of the process | | Continuous process |
| 2. | Sweeping | | | | |
| (i) | Manual Sweeping | Gaps have not been seen currently. | Continuation of current practice | | Continuous process |

| S. No. | Action points For villages / blocks/ town municipalities / City corporations | Identificatio n of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|--------|--|--|--|---|--|
| (ii) | Mechanical Road Sweeping & Collection | Not available. | Sweeping is done manually in town areas | Urban Development Department | Continuous process |
| 3 | Waste Collection | | | | |
| (i) | 100% collectionof solid waste | 85.71% | Prepared and Notified vide Govt. of Sikkim Gazette Notification no. 4/UD&HD dated 29/04/2019 | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |
| (ii) | Arrangement for door to door collection | 100% | Specified in the action plan. | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |
| (iii) | Waste Collection trolleys with separate compartments | 5 nos. are available at the moment | | Urban Development Department, Rural Development Department, | Continuous process |

| (iv) | Mini Collection Trucks with separate compartments | Current ly no trucks of such specific ations are availabl e | Procurement list has been submitted to UDD. Govt. of Sikkim | District Administration, Block Administrative Centres, Gram Panchayat Units. Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | |
|------|---|---|---|---|-----------------------|
| (v) | Waste Deposition centres (for domestic hazardous wastes) | Improper segregatio n due to lack of awareness leads to admixing of DHW in solid waste. | Specified in the action plan. SPCB-Sikkim has donated separated labeled DHW collection bins to authorities for use during waste collection. | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |
| 4. | Waste Transport | | | | |
| (i) | Review existing infrastructure for waste Transport. | 09 vehicles for Geyzing Nagar Panchayat. Inventorisat ion for BACs & GPUs under progress | Specified in the action plan. | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |

| (ii) | Bulk Waste Trucks | Nil | BW generators are not available in the district. Most of the local vegetable market/Bazaar/mandis leftovers are collected by local people as animal feed. | | Continuous process |
|-------|--|--|--|---|-----------------------|
| (iii) | Waste Transfer points | 1 | Specified in the action plan. | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |
| 5 | Waste Treatment and Disposal | | | | |
| (i) | Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement a s per Rules) | No BW generators in the district currently | Shall be installed if necessary after survey and identification | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, Gram Panchayat Units. | |

| (ii) Wet-waste No Specified in the Management: facilit plan. Under SBN | action Urban |
|---|-------------------------|
| I Monogomonti I togelet I mon Lindon VDM | |
| | |
| Facility(ies) fory forMission Phase I | 1 / |
| central comp blocks of the sta | 1 |
| Biomethanation osting under the proces | A |
| / Composting of has setting up comm | - |
| wets waste. been compost pits | Administration, |
| set up. | Block |
| | Administrative |
| | Centres |
| (iii) Dry-Waste Yes. Specified in the | |
| Management: plan. | Development |
| Material Recyclable wast | e is Department, |
| Recovery for transported to R | ekart Rural Development |
| dry-waste Solutions. | Department, |
| fraction The Rural Devel | lopment District |
| Department has | |
| 2 Divisions in th | |
| and 4 GPUs Der | |
| Gyalshing, Man | |
| and Soreng as m | |
| villages for com | |
| to the directions | |
| Hon'ble NGT in | |
| matter of 606/20 | |
| Setting up of RF | |
| blocks is under | |
| Selection of RD | |
| for the state is u | |
| process by UDD | |
| of Sikkim | , 00/1. |
| | Urban |
| (iv) Disposal of Dumpsite Under process. inertand non- located at The Rural Develo | |
| | 1 1 |
| recyclable Sipsu. Department has s | A |
| wastes: SanitaryCurrentlyDivisions in the dLandfillthe Stateand 4 GPUs Dent | <u>^</u> |
| | |
| Governmen Gyalshing, Mang t is under and Soreng as mo | |
| | |
| process to villages for comp | nance to |
| convert the the directions of I | Hon´ble |
| same into a NGT in the matte | |
| sanitary londfill | |
| landfill fooility RRC in all 32 blo | |
| facility state is under pro- | |
| (v) Remediation of yes Selection of | Bio- Urban |
| historic / legacy mining firm | for Development |
| dumpsite remediation | under Department |
| · | |
| process | |
| process | |

| | Involvement of NGOs | Yes | Khangchendzonga Conservation Committee (KCC) have been involved with assisting the Department of Forest & Environment Department to ensure that all plastic waste in the Khangchendzonga National Park is accounted for. They have also set up RRCs for the solid waste management in Yuksom. | Development Department, Rural Development Department, | Continuous Process |
|--------|---|---|--|---|-----------------------|
| (vii) | EPR of Producers: Linkage with Producers / Brand Owners | Till date no plastic waste collection centre has set up by brand owners in the district or has submitted proposal of such kind. | 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 | Urban Development Department, Rural Development Department, District Administration, Block Administrative Centres, State Pollution Control Board- Sikkim. | Continuous process |
| (viii) | Authorisation of Waste Pickers | Yes | with MEO, Geyzing, Nayabazar-Jorethang & Namchi. | Urban Development Department, Rural Development Department, Block Administrative Centres | Completed |
| (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 | Urban Development | Completed |

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

| Sl. No. | | Estimated quantity of Plastic Waste Generated per day |
|------------|---|--|
| 1 | Municipal corporations (Nagar Nigam or Mahanagar Palika) | |
| 2 | Municipalities (Nagar Palikas) | |
| 3 | Nagar panchayats (Town area Councils) | 15.06 kg/day |

| SL. No. | Local Bodies | Plastic Waste Generated per day |
|------------|-------------------------------|---------------------------------|
| 2 | Block /Taluk / Mandal Tehsils | Not provided |
| 3 | Village/Gram Panchayats | Not provided |

b) Identification of gaps and Action plan:

| S.No. | Action points For village panchayats/ blocks/ municipalities / corporations | Identificati on of gap | Action plan | Agencies Responsible | Target timefor Complianc e |
|-------|--|--|---|---|-------------------------------------|
| 1. | Door to Door collection of dry waste including PW | 100% | | 1 | Continuous process. |
| 2. | PW at Waste | All dry waste is trasported dumpsite located in Sipsu. • material recovery | use of plastic carry Bags have been notified in Urban and rural | Department, Rural Development Department, Forest & Environment | Continuous process. |

| | fooility | quantity of Administration |
|---------------|-----------------------------|--|
| Recovery | facility | quantityofplasticsisBlockAdministrative |
| Facility | available | generated fromCentres, |
| | • Involvemen | |
| | t of | packaging Gram Panchayat material of Units. |
| | informal | |
| | sector / | consumer goods. |
| | NGO | Ban on burning of waste has |
| | initiated | |
| | and under | been notified. |
| | | Ban on use of |
| | process | packaged during |
| | • Register | water in |
| | ing | government |
| | waste | function/ |
| | pickers | meetings have |
| | under | been notified. |
| | process | Ban on Sale and |
| | Linkage | Use of |
| | with Rekart | Styrofoam |
| | | products/cutlery |
| | Solutions | has been |
| | Pvt. Ltd. | notified. |
| | • Till date no | |
| | plastic | |
| | waste | |
| | collection | |
| | centre has | |
| | | |
| | 1 | |
| | brand . | |
| | owners in | |
| | the district | |
| | or has | |
| | submitted | |
| | proposal of | |
| | such kind. | |
| 3. | Till date no | The SPCB- Urban Development |
| PW collection | plastic waste | Sikkim has Department, |
| Centres | - | initiated Rural Development |
| | collection | registration of Department |
| | centre has set | single use |
| | up by brand | plastic |
| | owners in the | manufacturers |
| | district or has | |
| | submitted | and producers |
| | proposal for | in the state as |
| | EPR of such | per the new |
| | kind to the | SOP prepared |
| | | by CPCB. |
| | authorities. | Licensing |
| | | authorities |
| | | have been |

| | Continuous process | SPCB-Sikkim in coordination with UDD, RDD, MSME, Krishi Vigyan Kendra and District Authorities. Street plays conducted, videos and jingles have also be released by SPCB-Sikkim Located at west | Department, Rural Development Department, Forest & Environment Department District Administration, Block Administrative Centres, Gram Panchayat Units. | Continuous process |
|--|-----------------------|---|--|-----------------------|
| S. Access to Plastic Waste Disposal Facilities | 1 05 | Bengal. Recycling | Department, Rural Development Department | |

(iii) C&D Waste Management

a. Current status related to C & D Waste

| Details of Data Requirement | Present Status |
|--|----------------|
| Total C & D waste generation in MT per day (As per | Not available |

| data from Municipal Corporations / Municipalities) | |
|---|----|
| Does the District has access to C&D waste recycling facility? | No |

b. Identification of gaps and Action plan

| S. No. | | 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 generatorswho 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.

(iii) Biomedical Waste Management

a. Current Status related to biomedical waste

| Inventory of BMW in the District | Quantity |
|---|--------------|
| Total no. of Bedded Healthcare Facilities | 8 |
| Total no. of non-bedded HCF | 47 |
| No. of HCFs authorized by SPCBs/PCCs | 55 |
| No of Common Biomedical Waste Treatment and Disposal Facilities (CBWTFs) | nil |
| Capacity of CBWTFs | NA |
| No. of Deep burials for BMW if any | 30 nos. |
| Quantity of biomedical waste generated per day | 41.32 kg/day |
| Quantity of biomedical waste treated per day | 41.32 kg/day |

b. Identification of gaps and Action plan:

| No. | blocks/town | Identification of Gaps | Action Plan | agency | Timeline for completion of action plan |
|-----|---|---------------------------|------------------|--------------------------------|--|
| 1. | Inventory and Identification of Healthcare Facilities | No | prepared by SPCB | Health & Family Welfare, | Completed. The same shall be updated in the future if any changes occur. |

| 2. | Adequacy of facilities to treat | No gaps.BMW | Proposal for CHWTSDF and | Department of Health & | |
|----|---------------------------------|---------------------|-----------------------------|---------------------------|------------|
| | | generated in all | | | |
| | biomedical waste | HCFs undergo | CBWTF is in | Family | |
| | | captive treatment | process. 90% | Welfare, | |
| | | within the facility | payment for Land | Department of | |
| | | itself | Acquisition | Commerce & | |
| | | | completed. | Industries | |
| | | | | SPCB – Sikkim | |
| 3. | Tracking of BMW | No como | Commenting all DMW | | Continuous |
| з. | Tracking of Divi w | No gaps | Currently all BMW | | process |
| | | | generated in mers | Family | process |
| | | | undergo captive | | |
| | | | treatment within the | wenale, | |
| | | | facility itself. The | | |
| | | | implementation of | | |
| | | | Barcode system is | | |
| | | | currently not | | |
| | | | required. The same | | |
| | | | shall be | | |
| | | | implemented once | | |
| | | | the CBWTF is | | |
| | | | established & | | |
| | | | operational | | |
| 4. | | No gaps | | Department of | Continuous |
| | education of healthcare | | | | process |
| | staff | | 0 | Family | |
| | | | conducted for all | Welfare, | |
| | | | | SPCB – | |
| | | | to ensure proper | Sikkim | |
| | | | management of | | |
| | | | BMW in the HCFs | | |
| | | | including | | |
| | | | COVID19 waste | - | |
| 5. | | Whether adequate | Fund allocation has | | |
| | | funds is allocated | | | process |
| | | to Govt. HCFs for | Action plan | Family | |
| | | BMW management | | Welfare, | |
| | | by the State Govt.? | | | |
| 6. | Compliance to Rules by | Committee formed | Specified in Action | Department of | Continuous |
| | HCFs and CBWTFs | | | | process |
| | | | ▲ | Family | <u> </u> |
| | | | | Welfare | |
| | | | | | |
| - | District Log 1 | | | Demonto de C | Continues |
| 7. | District Level | Committee formed | | Department of | |
| | Monitoring Committee | U | committee and | | process |
| | | | advisory body | Family | |
| | | | notified by State | Welfare | |
| | | | Government | | |
| L | | | | | 1 |

| 8. | Wastewater Treatment | Required | action plan has been communicated to implementing | Department of Health & Family Welfare | Continuous process |
|----|-------------------------|----------|--|--|-----------------------|
| | | | department | | |

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

(v) Hazardous Waste Management

a. Current Status related to Hazardous Waste Management

[Major source of hazardous waste (HW) is industries and facilities located in the districts, who are required to be regulated under Water (P&CP) Act 174, Air (P&CP) Act 1981 and E(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]

| Details of Data Requirement | Present Status |
|---|----------------|
| No of Industries generating HW | NIL |
| Quantity of HW in the district | NIL |
| (i) Quantity of Incinerable HW | NIL |
| (ii) Quantity of land-fillable HW | NIL |
| (iii) Quantity of Recyclable / utilizable HW | NIL |
| 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 | | agency | Timeline for completion of action plan |
|-------|---|--|---|--------------------------|--|
| 1. | Regulation of industries and facilities generating Hazardous Waste | industries that may require authorisation is completed and online authorisation process has been initiated for Hydro Electric Power Plants, which are the only industries | require authorisation is completed and online authorisation | | Complied |
| 2. | Establishment of collection centres | | 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 Begal for recycling | SPCB-Sikkim, Occupier | Complied |

| 3. | Training of workers | None | The SPCB –Sikkim | SPCB- | Complied |
|----|-------------------------|------|----------------------|---------------|----------|
| | involved in handling / | | | Sikkim, | Complicu |
| | recycling / disposal of | | authorisation | SIKKIIII, | |
| | HW | | ensures that the | Department of | |
| | 11 // | | | Labour, | |
| | | | Emergency | | |
| | | | Response Procedure | Occupier | |
| | | | has been prepared | | |
| | | | by the occupier. It | | |
| | | | has also been | | |
| | | | specified in the | | |
| | | | Specific conditions | | |
| | | | of the authorisation | | |
| | | | 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 | | |
| | | | authorisation is | | |
| | | | verified in every | | |
| | | | inspection | | |
| | | | conducted by SPCB | | |
| | | | officials | | |
| 4 | A (1 -1-(1)(/ T · - 1 | N | | | C |
| | Availability / Linkage | | All HW generated in | SPCB-Sikkim, | Complied |
| | with common TSDF | | the state is | Occupier | |
| | or disposal facility | | transported to : | F | |
| | | | 1. West Bengal | | |
| | | | Waste Management | | |
| | | | Ltd., Haldia, West | | |
| | | | Bengal for | | |
| | | | incineration; | | |
| | | | memoranon, | | |
| | | | 2. Calcom Cement, | | |

| | | | Assam for co- processing; and 3. Kundu Refinery, West Bengal for recycling | | |
|----|--------------------|---------|---|-----------------|-------------------------|
| 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 |
|---|---|
| | Gyalshing Nagar Panchayat submitted NIL report of E-Waste during 2019-20 |
| Collection centers established by ULBs in | 1 Nos. |
| the District | |
| Collection centers established by Producers | NIL |
| or their PROs | |
| No authorized E-Waste recyclers/ | NIL |
| Dismantler | |

b. Identification of gaps and action plan:

| S. No. | Action points | Gaps in implementatio n | 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 collectionpoints | Till date no collection centre has been set up by producers in the district or has submitted proposal for EPR of such kind to the authorities | Only one(1) collection centre established by | Gylashing Nagar Panchayat. UDD. | |
| 3 | Linkage among Stakeholders to channelize E- Waste | Till date no collection centre has been set up by producers in the district or has submitted proposal for EPR of such kind to the authorities | in the state is transported to Authorized recycling centre, M/s J.S. Pigments located in West Bengal | District Administratio n (West) Gyalshing Nagar Panchayat. UDD. | |
| 4. | Regulation of Illegal E-Waste recycling / dismantling | No such action has been observed or reported till date. | Regular monitoring by District | DA | Regular activity. |
| 5 | Integration of informalsector | All e-waste generated in the state is collected and transported to authorized recycling facility. Informal sector for the same is not | IEC plan awaited from IT Department, Govt. of Sikkim. | UDD RDD | |

| | | practiced in the state. | | |
|---|-------------------------------|-------------------------|--|----------------------|
| 6 | Awareness and Education | None | | 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. | Nil |
| Operated by SPCB / State Govt / Central govt./ PSU agency : | |
| - Operated by Industry: | |
| Number of manual monitoring States operated by SPCBs | 01 at Pelling |
| Name of towns / cities which are failing to comply with national ambient air quality stations | None |
| No of air pollution industries | NIL |
| Prominent air polluting sources [Large | Vehicular Emission , Dust arising |
| Industry] / [Small Industry] / [Unpaved | from construction , Stone Crusher |
| Roads] / [Burning of Waste Stubble] / | Units , Hot Mix Plants , DG Sets. |
| [Brick Kiln] / [Industrial Estate] / [Others] | |
| (Multiple selection) | |

b. Identification of gaps and action plan:

| S. No. | Action points | Indicative Action Plan | Responsi ble agency | Timeline for completionof action plan |
|--------|---|---|---|---|
| 1. | Identification of prominent air polluting sources? | Inventorisation 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 : <u>www.spcb.sikkim.gov.in</u> | SPCB | Regular activity. |
| 3. | Setting up of Continuous Ambient Air Quality Monitoring Station | | District Administration | 1 Year. |
| 4. | forAir Pollution | District Level Action Plan shall be prepared as per the guidelines of CPCB and MoEF&CC. | SPCB in consultation with District Administration | 1 Year |
| 5. | 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 : <u>www.spcb.sikkim.gov.in</u> further planning shall be done for more awareness. | 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 | | 3.902825 |
| | | 4.102349 |
| | | 3.19664 |
| | Rani Khola West | 4.721164 |
| | Riyong Khola West | 11.699194 |
| | Ribdi Khola West | 5.134036 |
| | | 5.235226 |
| | | 4.479806 |
| | Kali Khola West | 6.904465 |
| | Lingsur Khola West | 8.393374 |
| | Pale Khola West | 8.087139 |
| | Rangsang Khola West | 5.503003 |
| | Hi Khola West | 6.465309 |
| | Dentam Khola West | 8.38344 |
| | Bega Khola West | 6.593134 |
| | Simchar Khola West | 6.869404 |
| | Sigeng Khola West | 2.87873 |
| | | 1.931377 |
| | | 2.335269 |
| | | 2.134619 |
| | Pareng Khola West | 2.477253 |

| Mardom Khola West | 3.576297 |
|-------------------------------|-----------|
| Pharik Khola West | 3.934741 |
| Barmo Khola West | 3.768423 |
| Lungman Khola West | 5.563501 |
| Thar Khola West | 4.990884 |
| Chhamam Chhu West | 7.479933 |
| Pongmirang Chhu West | 8.498266 |
| Phamrung Chhu West | 7.536994 |
| Dhap Chhu West | 5.594141 |
| Yangsa Chhu West | 7.372909 |
| Heri Khola West | 4.947928 |
| Nambu Khola West | 4.606338 |
| Taphel Khola | 2.471671 |
| Chisung Khola | 2.075887 |
| Prek Chu | 18.671229 |
| Choktsering Chu | 6.926286 |
| Rungji Chhu | 6.1178 |
| Koklung Chhu | 7.224099 |
| Reli Chhu | 8.129047 |
| Rungdung Khola | 2.261764 |
| Dadar Khola | 2.735261 |
| Ledo Khola | 4.548425 |
| Chokchurang Chu | 10.104184 |
| Tikip Chuu or Tikibla Chhu | 9.077016 |

| | Rishi Khola West Skm | 15.164426 | |
|--|--|--|--|
| | Bholujhoreni Chhu | 6.876574 | |
| | Gomathang Chhu West | 11.127628 | |
| | Simpok Khola | 9.102377 | |
| | | 4.646668 | |
| | | 5.36257 | |
| | Nar Khola West | 5.786 | |
| | Source: Survey of India | Toposheet. | |
| | | | |
| | | | |
| Length of Coastline (if any) | N/A | | |
| Nalas/ Drains/Creeks meeting Rivers | Not Available | | |
| Lakes / Ponds | 55 nos of lakes and ponds with total area of 139.8917 ha | | |
| | | | |
| Total Quantity of sewage from towns and cities in District | Information not availabl | e | |
| Quantity of industrial wastewater | Nil | | |
| Percentage of untreated sewage | Information not availabl | e | |
| Details of bore wells and number | | | |
| of permissions given for extraction of groundwater | Nil | | |
| Groundwater polluted areas if any | NA | | |
| Polluted river stretches if any | Triveni. As per the | (appx 50km) NHPC Dam site to CPCB standard for having Bio mand more than 3mg/Ltr. Hence V category. | |

| S. No. | Action points | Gaps and Action Plan | Responsibl eagency | Timeline for completion 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 Inventorisation 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 water bodies in the district | Conducted by SPCB-Sikkim | SPCB-Sikkim | Continuous activity |
| 3. | Hotspots of water contamination | report for demonsing of the | 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 | Continuous activity |
| 5. | Inventory of sources of water pollution | Prepared | Forest & Environment, SPCB | Continuous activity |

b. Identification of gaps and action plan for water quality monitoring:

| 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 | Practice of ground water abstraction for domestic and commercial purposes is not done in the district. | Department of Forest & Environment, Department of Water Resources & River Development, | Continuous activity |
| 9 | Complaints redressal system | Available at SPCB-website | SPCB-sikkim for pollution related complaints | Continuous activity |

ix) Domestic Sewage

a. Identification of gaps and action plan for 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 | Nil |
| No of Towns STPs installed | Nil |
| No of Towns needing STPs | 2 |
| No of ULBs having partial underground sewerage network | Nil |
| No of towns not having sewerage network | 2 |
| Total Quantity of Sewage generated in | Class II cities not present in the district. As |
| District from Class II cities and above | per 2011 census and assuming 100 lpcd average water consumption the estimated sewage generation in the district will be |

| | 10.91MLD. |
|--|---|
| Quantity of treated sewage flowing into | All households are required to construct a |
| Rivers (directly or indirectly) | septic tank for sewage management. In |
| | implementation of Swacch Bharat Mission |
| | Gramin Phase II, installation of septic tanks |
| | for individual households in 64 village are |
| | under process. |
| | NT / '1.11 |
| Quantity of untreated or partially treated | Not available |
| sewage (directly or indirectly) | |
| Quantity of sewage flowing into lakes | Nil |
| Total available Treatment Capacity | STPs have not been set up. Survey and |
| | investigation for the same under process. |

b. Identification of gaps and action plan for treatment of domestic sewage:

| S. No. | Action points | Gaps and Action Plan | Responsible agency | Timeline for completionof action plan |
|-----------|-----------------------------------|----------------------|--|---|
| 1. | Sewage Treatment Plants (STPs) | | Public Health & Engineering Department | 2028 |
| 2. | Underground sewerage network | | Public Health & Engineering Department | |

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

x) Industrial wastewater management

a. Current Status <u>related</u> to Industrial Wastewater Management

| Number of Red, Orange, Green and White industries in the | | | have | not | been |
|--|-----|--|------|-----|------|
| District | | | | | |
| No of Industries discharging wastewater | Nil | | | | |
| Total Quantity of industrial wastewater generated | Nil | | | | |
| Quantity of treated industrial wastewater discharged into nalas / Rivers | | | | | |
| Common Effluent Treatment Facilities | Nil | | | | |
| No of Industries meeting Standards | NA | | | | |
| No of Industries not meeting discharge Standards | NA | | | | |

b. **Identification of gaps and action plan for industrial wastewater:** till date no water based industries requiring effluent treatment plants have been established or are operating in the district.

xi) Mining Activity Management plan

a. Current Status related to Mining Activity Management

| Details of Data Requirement | Existing Mining operations |
|--|--|
| | Temporary collection of loose boulders, sand & stone |
| No of licensed Mining operations in the District | 12 |

| % Area covered under mining in | 0.0046% |
|--------------------------------|-------------------------|
| the District | |
| Area of Sand Mining | 0.05371 km ² |
| Area of sand Mining | River banks |

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 be formed | — | fContinuous activity |
| 2. | Inventory of illegal mining if any mining | illegal sand and other | | |
| 3. | Environment compliance by Mining industry | Action plan for periodic verification of compliance to environmental conditions stipulated by SPCBs/PCC, MoEF&CC department of mines etc. SPCBs/PCC may be involved in this activity . | Mines & Geology | |

xii) Noise Pollution Management plan

Current Status related to Noise Pollution Management

| Details of Data Requirement | Measurable Outcome |
|------------------------------------|--------------------|
| | |
| No. of noise measuring devices | |
| available with various agencies in | |
| district | |
| | |

b. Identification of gaps and action plan:

| S. | Action points | Gaps and Action Plan | 1 | | for |
|-----|--|---|--|---------------------------|-----|
| No. | | | agency | completion action plan | |
| 1. | Availability of Sound/Noise Level Meters. | e Procurement of Sound/noise level meters in process | District Administratio n, Police Department & SPCB-Sikkim | | |
| 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 | Administratio n, Police Department & | | |
| 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. | Administratio n | | |
| 4. | Complaint redressing system | Redressal portal has been set up in SPCB website | UDD, District Administratio n, Police Department & SPCB-Sikkim | | |

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

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