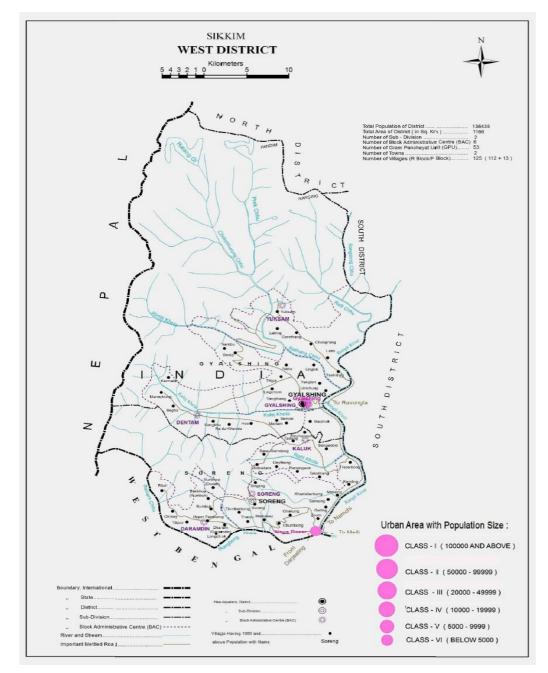
# **District Environment Plan for West District**

### 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

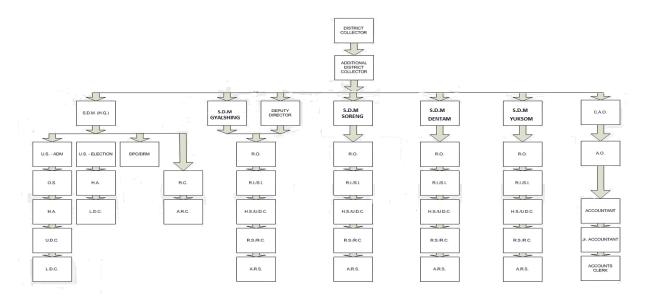
Longitudes. It is the second largest district in the Indian state of Sikkim with an area of 1,166 sq km. The headquarters of the district is at Gyalshing, also known as Geyzing. The town is connected to the capital Gangtok by a metalled road. Geyzing is also connected to the West Bengal towns of Darjeeling 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.

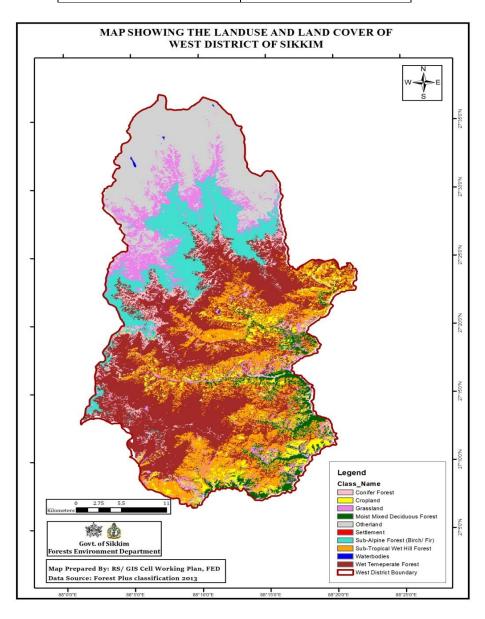
West District has a geographical area of 1166 Ha. according to 2019 assessment 246.85 Ha. is covered by Very Dense Forest. 363.03 Ha. is covered by Moderately Dense Forest and 164.02 Ha. is under Open Forest , making at cumulative total of 773.90 Ha under Forest Cover , which is 66.37% of the geographical 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	<b>A</b>
/ 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	<b>A</b>
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
	<ul> <li>Linkage</li> </ul>	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	<b>Responsible</b> 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
			<b>▲</b>	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		<ul> <li>All HW generated in the state is transported to :</li> <li>1. West Bengal Waste Management Ltd., Haldia, West Bengal for incineration;</li> <li>2. Calcom Cement, Assam for co-processing; and</li> <li>3. Kundu Refinery, West Begal for recycling</li> </ul>	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 :	<b>F</b>	
			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 <b>NIL</b> 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	<b>Responsible</b> 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
<ul> <li>Operated by SPCB / State Govt / Central govt./ PSU agency :</li> </ul>	
- 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	<b>Responsible</b> 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 <sup>2</sup>
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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