MA

ADC/CTM/CEO(ZP)/DRO/DDPO
for necessary action as per rule

D.C. Panchkula.
11.5.2023

Regional Office, Panchkula Region
Haryana State Pollution Control Board
SCO 115-116, 1st Floor, Sector -25, Panchkula
Website - www.hspcb.gov.in E-Mail - hspcbropkl@gmail.com

MC-III

HSPCB/PKL/2023/186 **Dated:** 10/5/23

कार्यालय उपायुक्त पंचकूला
शाखा का नाम : आर.के.ई. शाखा
डायरी न. ......
प्राप्ति की ... 2022/650
प्राप्त करने वाले कर्मचारी
के पूर्ण हस्ताक्षर 15/5/23

To

The Deputy Commissioner,
Panchkula.

Sub: Regarding submission of District Environment Plan.

Please find enclosed herewith the copy of compiled District Environment Plan prepared by this office with the request to forward the same to Director, Environment & Climate Change Department,Haryana under intimation to the Chairman, HSPCB, Panchkula so that State Environment Plan can be prepared.

Regional Officer
Panchkula Region

District Environment Management Plan, Panchkula, 2021

Haryana State Pollution Control Board, Panchkula Region

District Environment Management Plan, Panchkula, 2021

Index

Background (Brief about NGT order and its directions)

In the process of development, the issues confronting today are achieving desired development for economic or social reasons on one hand and safeguarding the environment and maintaining good quality of life on the other. While taking up developmental activities, the assimilative capacities of the environmental components i.e. air; water and land to various types of pollution are rarely considered. Also, lack of proper land use controls resulting in poor land use compatibility. The developmental activities being haphazard and un-controlled are leading to overuse, congestion, incompatible land use and poor living conditions. The problems of environmental pollution are becoming complex and are creating high risk environment.

- Conventionally, the environmental pollution problems are solved by introducing environmental management techniques such as control of pollution at source, providing of sewage treatment facilities etc. However, environmental risks are not being controlled completely by such solutions.
- The environmental aspects are to be induced into each of the developmental activities at the planning stage itself and are to be well co-ordinate and balanced.
- Presently, the environmental aspects are not usually considered while preparing master plans or regional plans and the process is skewed towards developmental needs. For all developmental activities, a crucial input is land and depending on the activity specific land use is decided. The environmentally related land use such as trade and industry, housing construction, mining etc. is likely to have some impact on the environment. These land uses need proper planning and integration as some of the activities have interdependencies such as industry with transport, housing etc.

Besides this Climate change is now affecting every country on every continent. It is disrupting national economies and affecting lives, costing people, communities and countries dearly today and even more tomorrow. Weather patterns are changing, sea levels are rising, weather events are becoming more extreme and green house gas

Emissions are now at their highest levels in history. Without action, the world's average surface temperature is likely to surpass 3 degrees centigrade this century. The poorest and most vulnerable people are being affected the most.

- Affordable, scalable solutions are now available to enable countries to leap frog to cleaner, more resilient economies. The pace of change is quickening as more people are turning to renewable energy and a range of other measures that will reduce emissions and increase adaptation efforts. Climate change, however, is a global challenge that does not respect national borders. It is an issue that requires solutions that need to be coordinated at the international level to help developing countries move toward alow-carbon economy.

- To strengthen the global response to the threat of climate change, countries adopted the Paris Agreement at the Paris Agreement at the COP21 in Paris, which went into force in November of 2016. In the agreement, all countries agreed to work to limit global temperature rise towel below 2 degrees centigrade. As of April 2018, 175 parties had ratified the Paris Agreement and10 developing countries had submitted their first iteration of their national adaptation plans for responding to climate change. In this light the decentralized Climate Change Mitigation and Adaptation planning is required. Conservation of Bio-diversity and wetlands are an integral part of environment planning. The rational effort he biological diversity planning is basically it underpins ecosystem functioning and the provision of ecosystem service essential for human well-being.

- It provides for food security, human health, the provision of clean air and water; it contributes to local livelihoods, and economic development, and is essential for the achievement of the Millennium Development Goals, including poverty reduction.

Objectives

The Objectives of District Environment and Management Plan (DEMP) are given below:

1. To ensure conservation of environment and natural resources at district level.
2. Restore ecological balance.
3. To achieve the Sustainable Development Goals and district level targets within the prescribed time line.
4. To ensure sustainability at district level following the principle so fre source efficiency.
5. To ensure decentralized micro level planning, execution and monitoring regarding environment conservation.
6. To incorporate all facets of environmental conservation in micro level planning.
7. To harness active participation of all stake holders in planned environment conservation actions.
8. Assess, Mitigate and monitor adverse impacts of various pollution sources at district level.
9. Capacity building of stakeholder, department, agencies, organizations and individuals at district level to understand and implement micro level environmental conservation actions.
10. To harness inter-departmental coordination for implementation of action plans.
11. To develop local knowledge centers and expertise for developing environmental conservation strategies at district level.
12. To develop and implement micro monitoring system at district level.

NGT Directions

a. Hon'ble NGT in last one year has issued several directions in various matters which have been based on status brought out by the CPCB on their website and status reports filed before the Tribunal

b. The directions issued by the Tribunal which are to be executed on pan-India basis

c. Hon'ble National Green Tribunal (NGT) has ordered Pan-India Directions on various issues relating to environment management and these are to be executed by the Central and State Governments and concerned institutions. Further, the Directions are required to be executed at District Level covering all cities, towns and villages.

The role and responsibilities of enforcement are with District Collectors /Magistrates, Pollution Control Boards, Municipal Bodies, Public Health Engineering Departments and others.

The present state level execution and monitoring mechanism on various State and Central Government's Schemes are monitored by Chief Ministers/ Chief Secretaries with DMs/DCs.

d. Various Directions of NGT to be covered in District Environment Management Plan(DEMP) are given in Annexure No.-I.

Issues Requiring Actions

As per the directions of the Hon'ble NGT, DMs/DCs through District Level Committees are required to act on the following issues:

a) **Waste Management**

a. Municipal Solid Waste (MSW) including remediation of legacy waste dumpsites.

b. Plastic waste management

c. Bio-medical waste management

d. Construction and emollition waste

e. Hazardous Waste Management

f. E-waste Management

b) Maintaining ambient **air quality in Jurisdiction of Panchkula District** where levels of PM_{10} and $PM_{2.5}$ are exceeding.

c) **Industries to comply with Water** (Prevention and Control of Pollution) **Act, 1974** ensuring proper functioning of Waste Water treatment plants (ETPs/STPs). Environment Compensation (EC) on "Polluter Pays" Principle is required to be imposed to utilize for restoration of environment.

d) Ensure cities, towns and villages provide **proper sewage management facilities** in a time-bound manner or else will be liable to pay EC in case of default and further required to ensure **utilization of treated sewage for** non- potable purpose.

e) For conservation and protection of water sources, undertake **Rejuvenation of water bodies, conserving ground water** and promote **rain water harvesting.**

f) Setting up of monitoring mechanism by HSPCB, Panchkula Region on;

   I. **Hazardous Waste Management**/un-authorized disposal etc;

   II. **E-waste Management** particularly prohibiting un-authorized dismantling/reprocessing of E-waste etc.

g) Environmental Management at **Railway siding locations.**

h) Environmental Management in **Dairies.**

The details on each issue may be referred in the respective orders of the Tribunal listed in **Annexure No.-I.**

Monitoring execution of DEMP Protocol/Mechanism of monitorinssg

Hon'ble Tribunal has directed District Magistrates (in Order dated 15.07.2019 in O.A No.713/2017) to monitor the progress of execution of the mentioned issues on monthly basis and provide feed-back to the Chief Secretary on monthly basis. It was also directed to setup Special Task Forces represented by Legal Services Authority and other Departments to be involved in monitoring.

District Profile:

Physiographic & Demography

According to the 2011 Census of India, the people of the city are mainly Punjabi Hindu, with substantial Sikh and Muslim minorities.

In 2011, Panchkula had 48,772 households in the city, with a population of 211,355, of which male and female were 111,731 and 99,624 respectively.

Government and politics

The city is a part of the Ambala Lok Sabha constituency represented by BJP's Rattan Lal Kataria, and Panchkula state assembly constituency, represented by BJP's Gian Chand Gupta since 2019.

City administration

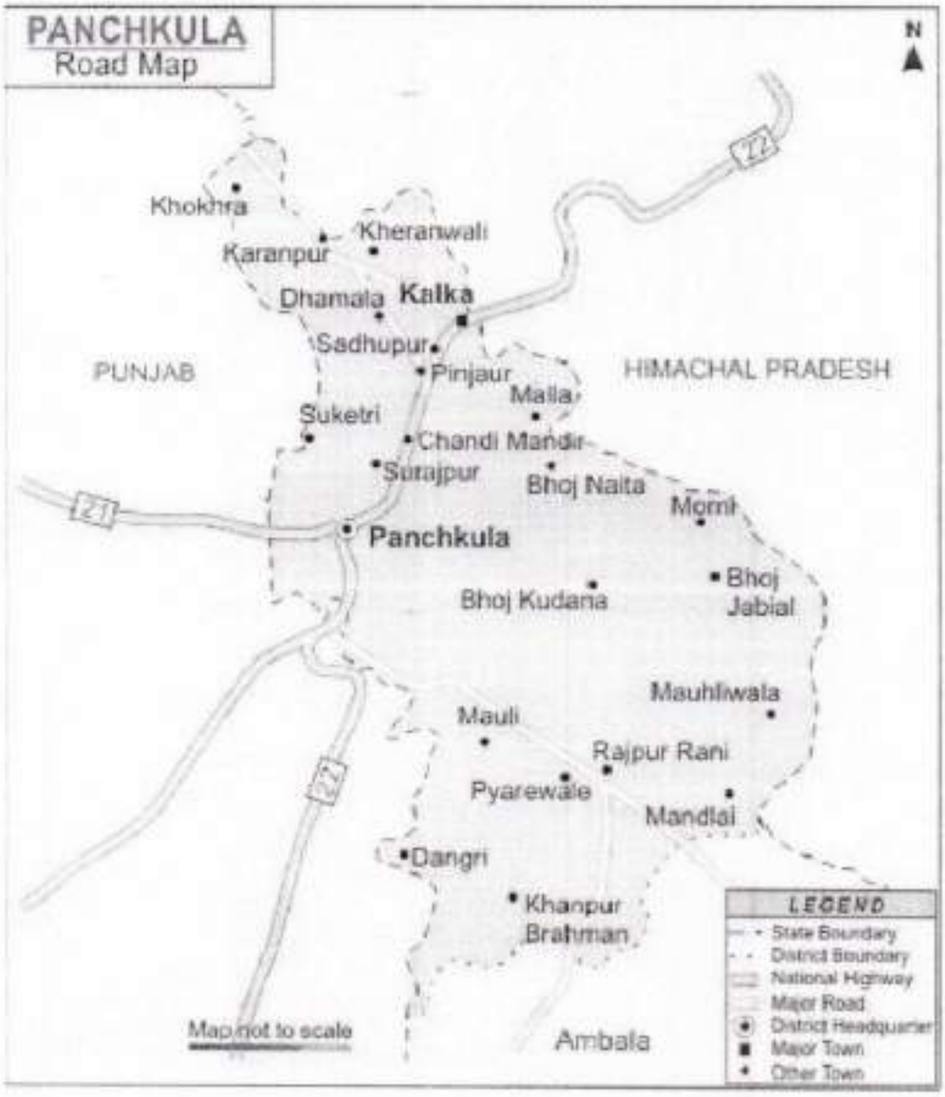
Panchkula municipality is governed under the Haryana Municipal Act, 1973. According to the 2011 Census, Panchkula is governed by a municipal council, but it has since upgraded to the status of a municipal corporation. The population of the municipality, as per Census 2011, is 210,175

In July 2020, the Panchkula Municipal Corporation was bifurcated, with Kalka and Pinjore separating from the corporation and getting their own municipal council status. The city is divided into 20 wards for the purpose of administration, and is built over an area of 32.6 square km.

Geography:

Generally, the slope of the district is from north east to south west and in this direction, most of the rivers/streams rain-fed torrents flow down and spread much gravel and pebbles in their beds. Only the Sirsa river, in Kalka Tehsil flows towards the north-west. The soils in the district are mainly light loam.

The underground water in the district is generally fresh and suitable for domestic and irrigation purposes. The underground water level is generally high in the southern parts and low in north and north-east which is hilly tract. The district lies in the Himalayas boundary fault zones and earthquakes of moderate to high intensity have occurred in the past


PANCHKULA
Road Map
N
Khokhra
Karanpur
Kheranwali
Dhamala
Kalka
Sadhupur
Pinjaur
Malla
Suketri
Chandi Mandir
Surajpur
Bhoj Nalta
Momi
Panchkula
Bhoj Kudana
Bhoj Jabial
Mauhliwala
Mauli
Rajpur Rani
Pyarewale
Mandlai
Dangri
Khanpur Brahman
PUNJAB
HIMACHAL PRADESH
Ambala
Map not to scale
LEGEND
State Boundary
District Boundary
National Highway
Major Road
District Headquarter
Major Town
Other Town

The Climate

Panchkula district has a sub-tropical continental monsoon climate having, hot summers, cool winters, good monsoon rainfall. It has great variation in temperature (-1 °C to 43 °C). Sometimes winter frost occurs during December and January. The district also receives winter rains from the western disturbance. The rainfall is mostly received in the monsoon. Morni hills constitute the highest point of the district as well as of Haryana. The Ghaggar is the only perennial river, which is very shallow outside of the monsoons.

Economy:

Panchkula IT Park (also known as Haryana State Industrial and Infrastructural Development Corporation Technology Park) is the state of art infrastructure to facilitate information technology in the city. It spreads over 74 acres developed by HSIIDC situated in sector 22 on foothills of Shivalik Hills or outer Himalayas and on the banks of Ghaggar River. It is well connected to Delhi, Haryana, Punjab and Himachal Pradesh.

Tourism

There are various tourist attractions in and around Panchkula including:

Patiala temple, constructed 1840 AD by Maharaja of Patiala, within the Mansa Devi temple complex in Panchkula.

Mata Mansa Devi Mandir is one of the most prominent temples in North India and is dedicated to Goddess Mansa Devi, a form of Shakti.

8th and 11th century AD.

Nada Sahib is a Sikh Gurudwara in the Panchkula district of the Indian state of Haryana. Situated on the banks of the Ghaggar-Hakra River in the Sivalik Hills.

Morni, the hill resort at Morni Hills, an offshoot of the Shivalik Hills, are about 45 kilometers (28 mi) from the city. The hills were named for Queen Morni, who is said to have ruled this city.

Pinjore Gardens, also known as Yadavindra Gardens, are about 20 km (12 mi) from the city, and cover a total area of 100 hectares (250 acres). The work of creating the gardens began in the seventeenth century. Pinjore Gardens is the venue for an annual mango festival. The garden houses a mini zoo, historic places, Japanese garden, nursery and a number of picnic spots. According to Hindu theology, the Pandava brothers rested in Pinjore during their exile.

National Cactus and Succulent Botanical Garden and Research Centre a 7 acres (2.8 ha) cactus garden in the center of Panchkula, was established in 1987, and is known for its rare and endangered species of Indian succulent plants.

Kaushalya Dam is an earth-filled barrage dam on Kaushalya river in Pinjore. It is an important wetland that is home to many endangered migratory birds.

Kaushalya Dam

Bir Shikargah Wildlife Sanctuary, Khol Hi-Raitan Wildlife Sanctuary, Pheasant Breeding Centre, Morni, Jatayu Conservation Breeding Centre, Pinjore, Pheasant Breeding Centre, Berwala.

Sports

Panchkula has its own Sports Complex in Sector 3 includes Tau Devi Lal Cricket Stadium, Panchkula Golf Course, Olympic Athletic Track and other multi-purpose facilities for sports.

Tau Devi Lal Cricket Stadium has a cricket stadium, badminton hall, football ground, athletic Track and accommodation facilities for the sportsperson.

Panchkula Golf Course was set up in 2003 over a 135-acres of land. This 18 hole golf course is located in sector 3 in the foothills of Shivalik Hills on the banks of Ghaggar River, just off

Chapter No. 2

Solid Waste Management

Introduction of Solid Waste

Due to rapid increase in the production and consumption processes, societies generate as well as reject solid materials regularly from various sectors – agricultural, commercial, domestic, industrial and institutional. In 2016, the Union Ministry of Environment, Forests and Climate Change came up with the new Solid Waste Management Rules (SWM). These rules are the sixth category of waste management rules and do not include plastic, e-waste, biomedical, hazardous and construction and demolition waste. Municipal Solid Wastes Management Rules, 2016 (MSW Rules) are applicable to every municipal authority responsible for collection, segregation, storage, transportation, processing and disposal of municipal solid waste.

Solid Waste Management

a. Current status related to solid Waste management

Sr. No.	Urban Local bodies	No of Wards	No of House holds	Population	Solid Waste Generated per day
1	Municipal corporation, Panchkula	20	79369	317467	90TPD 143 TPD Approx
2	Municipal Council kalka- Pinjore	31	37280	149122	30TPD
3	Nagar panchayats (Town area Councils)	-----	------	---------	----------

	Local Bodies	No of Village Panchayat Blocks	No of House holds	Population	Solid Waste Generated per day
1	Block/ Taluk/ Mandal Tehsils	4	30527	181452	21 TPD
2	Village/Gram Panchayats	135	30527	181452	21 TPD

b. Identification of gaps and Action plan:

Sr. No.	Action points For villages / blocks/town municipalities /City corporations	Identification of gap	Timeline for completion of Gap

1.	**Segregation**		
(i)	Segregation of waste at source	**MC Panchkula** 90% source segregation done	31.05.2023
		MC Kalka 80 % source segregation done	31.05.2023
		Rural Panchkula 50 % source segregation done	31.05.2023
	Sweeping		
(i)	Manual Sweeping		Regular activity

Sr. No.	Action points For villages / blocks/town municipalities /City corporations	Identification of gap	Timeline for completion of Gap
		Panchklula& Kalka	
		- 60% or length of road covered for regular sweeping - Gaps in manpower- **Nil** - Gap in availability of sweeping tools/equipment - **Nil** - Availability of suitable PPEs- **100%**	Regular activity
(i)	Mechanical Road Sweeping & Collection	3 Mechanical Sweeping are available with M.C, Panchkula.	Continuous
	Waste Collection	Panchkula & Kalka	
	100% collection of solid waste	Panchkula:100% Kalka:100%	Activity completed
(ii)	Arrangement for door to door collection	Panchkula:102 vehicles Kalka:57 vehicles	Activity completed
(iii)	Waste Collection	**MC Panchkula** 40 No Waste Collection Trolleys	Activity completed

	trolleys with separate compartments	32 Nos. Waste Collection Trolleys	
		MC Kalka 05 Available 05 Required	Activity completed
(iv)	Mini Collection Trucks with separate compartments	**MC Panchkula** 71 Available	Activity completed
		MC Kalka 30 Available	Activity completed
(v)	Waste Deposition centers (for domestic hazardous wastes)	**MC Panchkula** Not available	31.05.2023
		MC Kalka Not available	31.05.2023
(vi)	Village-Panchayat	**Gobardhan project undertaken in Village Rehore Barwala wherein cattle dung from 256 households is collected (5000 kg/day CAPACITY)** **Raw Bio gas generation-400 cum/day** **Purified Biogas generation-160 KG/day** **Bio Fertilizer/ manure production-2.1 MT/DAY**	31.05.2023
	Waste Transport		
	Review existing infrastructure for waste Transport.	**MC Panchkula** Adequate	Activity completed
		MC Kalka Adequate	Activity completed
	Bulk Waste Trucks	**MC Panchkula** 06 Available Procurement through GEM Portal.	Activity completed

		MC Kalka 02 Available Procurement through GEM Portal.	Activity completed
	Waste Transfer points	**MC Panchkula** 01 point	Activity completed
		MC Kalka 01 point	Activity completed
	Waste Treatment and Disposal		
(i)	Wet-waste Management :On-site composting by bulk waste generators(Authority may decide on requirement as per Rules)	**MC Panchkula** 54 Nos Total Bulk Waste generators 18 Numbers BWG Have on site Processing units	Activity completed
		MC Kalka 32 numbers Total Bulk Waste Generators 5 Numbers BWG Have on site Processing units	Activity completed
(ii)	Wet-waste Management: Facilities) for centra Bio methanation / Composting of wets waste.	**MC Panchkula** M/s Pooja Consultation the agency for all areas, Bio methanation Plant, Village-Jatwar, Ambala, Composting Center at Sector 12, Panchkula	Activity completed
		MC Kalka M/s Shayam Associates	Compost parts provided
(iii)	Dry-Waste Management: Material Recovery for dry-waste fraction	**MC Panchkula** 01 MRF provided	Activity completed
		MC Kalka 01 MRF provided	Activity completed
(iv)	Disposal of inert and non-recyclable wastes: Sanitary Landfill	Not Available	31.08.2023

(v)	Remediation of historic / legacy dumpsite	Started	1 Lakh MT legacy waste lifted Remaining by 31.12.2023
(vi)	Involvement of NGOs	Involvement of NGOs done for awareness activities	Regular activity
(vii)	EPR of Producers: Linkage with Producers /Brand Owners	Initiated	31.05.2023
(viii)	Authorization of Waste Pickers	Yes	Activity completed
(ix)	Preparation of own by-laws to comply with SWM Rules, 2016	Yes	Activity completed

Chapter 3

Plastic Waste Management

Introduction of Plastic Waste

Plastic products become an integral part of our daily life. That's why Plastic became menace worldwide as plastic polymer is produced at a massive scale worldwide. On an average, production of plastic crosses 150 Million tones globally per year. It has wide application in packaging, films, wrapping materials, shopping and garbage bags, fluid containers, clothing, toys, household and industrial products and building materials.

According to a report of Central Pollution Control Board CPCB (2017-18) has estimated that India generates approximately 9.4 Million tons per annum plastic waste, (which amounts to 26,000tonsof waste per day), and out of this approximately 5.6 Million tons per annum plastic waste is recycled (i.e.15, 600 tons of waste per day) and 3.8 Million tons per annum plastic waste is left uncollected or littered (9,400 tons of waste per day). The Government of India notified Plastic Waste Management (PWM) Rules, 2016 on 18th March, 2016. These rules were further amended and named as 'Plastic Waste Management (Amendment) Rules, 2018. These rules shall apply to every Waste Generator, Local Body, Gram Panchayat, Manufacturer, Importer, Producer and Brand Owner.

(ii) Plastic waste Management

(a) Current status related to Plastic waste management

	Urban Local bodies	Estimated quantity of Plastic Waste Generated per day
1	Municipal corporation, Panchkula	9.5 TPD
2	Municipal Council, Kalka Pinjore	3 TPD
3	Nagar panchayats(Town area Councils)	-----
	Local Bodies	Plastic Waste Generated per day
1	Block/Taluk/ Mandal Tehsils	7 TPD
2	Village/Gram Panchayats	7 TPD

(b) Identification of gaps and Action plan:

Sr. No.	Action points For village panchayats/blocks/municipalities /corporations	Identification of gap	Time line for completion of gap
1.	Door to Door collection of dry waste including PW	**MC Panchkula** 100% D2D Collection done Informal waste pickers	Activity completed
		MC Kalka 100% D2D Collection done by Informal waste pickers	Activity completed
2.	Facilitate or gained collection of PW at Waste transfer point or Material Recovery Facility	**MC Panchkula** 01 No MRF center, MDC-4, Panchkula	Activity completed
		MC Kalka Available	Activity completed
3.	PW collection Centers	**MC Panchkula** 01 Nos., MDC-4, Panchkula	Activity completed
		MC Kalka 01 No. Pinjore Himsikha	Activity completed
4.	Awareness and education programs implementation	**MC Panchkula** Intense awareness on Recycling of waste & channalise the dry waste to recycler by source segregation	Regular activity
		MC Kalka Intense awareness on Recycling of waste & channalise the dry waste to recycler by source segregation	Regular activity
5.	Access to Plastic Waste Disposal Facilities	**MC Panchkula** Outsourced, through an agency which reprocess through exclusion technology	Activity completed
		MC Kalka Outsourced, through an agency which reprocess through exclusion technology	Activity completed

Chapter4

Construction & Demolition Waste

Introduction of Construction & Demolition Waste

Safe and cost-effective management of construction & demolition wastes is a significant environmental challenge for modern society. Due to rapid urbanization is changing the nature of construction &demolition wastes management from a low priority, localized issue to a pervasive social and environmental problem with risks to public health and environment. Inadequately managed waste disposal has the potential to affect the health and environment. Construction and demolition waste" means waste comprising of building Materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure". The construction and demolition waste generated is about 530 million tonnes annually. The Ministry of Environment, Forest and Climate Change notified the Construction & Demolition Waste Management Rules, 2016 on 29 March 2016. The rules are an initiative to effectively tackle the issues of pollution and waste management.

(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 data from Municipal Corporations/Municipalities)	25 MT
Does the District has access to C&D waste recycling facility?	No facility exists as the City generates less than 25MT/Day of C&D Waste is being used in the low laying areas of MC limits

b. Identification of gaps and Action plan:

Sr. No.	Action points for blocks / town municipalities/ City corporations	Identification of Gaps	Timeline for completion of action plan
1.	Arrangement for separate collection of C&D waste to C&D waste deposition	**MC Panchkula** A separate tractor trolley has been deployed for collation of C&D waste	Activity completed

	point.	**MC Kalka** A separate tractor trolley has been deployed for collation of C&D waste	Activity completed
2.	Whether local authority have fixed user fee on C&D waste and Introduced permission system or bulk waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month?	**MC Panchkula** Yes, Implemented	Activity completed
		MC Kalka Bye-laws framed	Activity completed.
3.	C&D recycling Facility	**MC Panchkula** Not available	31.08.2023
		MC Kalka Not available	31.08.2023
4.	Usage of recycled C&D waste in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads	**MC Panchkula** Presently C&D Waste is being used in the low laying areas of MC limits	31.08.2023
		MC Kalka Presently C&D Waste is being used in the low laying areas of MC limits	31.08.2023
5.	ICE on C&D waste management		Regular activity

Chapter No. 5

Bio-medical Waste Management

Introduction of Bio-medical Waste Management

Biomedical waste is defined as "any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biological". The biomedical waste management and handling has been assuming increasing significance for the past few years. The responsibility of medical administrators as regards proper handling and disposal of this category of waste has now become a statutory requirement with the promulgation of Government of India.

Categories of Biomedical Waste

The rear eden defined categories (categorycodeNos.1to10) as follows:

a) Human an atomical waste:(tissues, organs, body parts)

b) Animal waste: (including animals used in research and waste originating from veterinary hospitals and animal houses).

c) Microbiological and biotechnology waste: (including waste from lab cultures, stocks or specimens of micro organisms, live or attenuated vaccines, wastes from production of biological etc.)

d) Waste sharps:(used/unused needles, syringes, lancets, scalpels, blades, glass etc.)

e) Discarded medicines and cytotoxic drugs.

f) Soiled wastes :(items contaminated with blood and body fluids, including cotton dressings, Linen, plaster casts, bedding etc.)

g) Solid wastes: (wastes generated from disposable items other than waste sharps such as tubing, catheters, i.v. sets, etc.)

h) Liquid waste:(waste generated from washing, cleaning, housekeeping and disinfection activities including these activities in labs).

i) Incineration ash:(from incineration of any biomedical waste)

j) Chemical waste: (chemicals used in production of biological and disinfection).

Biomedical Waste Management

a. Current Status related to bio medical waste

Inventory of BMW in the District	Quantity
Total no .of Bedded Health care Facilities	89
Total no. of non-bedded HCF	197
No. of HCFs authorized by SPCBs/PCCs	286
No of Common Biomedical Waste Treatment and Disposal Facilities(CBWTFs)	01
Capacity of CBWTFs	3600 kg/day
No. of Deep burials for BMW if any	01
Quantity of biomedical waste generated per day (including Covid-19 waste)	1978 kg/day
Quantity of biomedical waste treated per day (including Covid-19 waste)	1978 kg/day

b. Identification of gaps and Action plan:

S. No.	Action points	Gaps	Timeline for completion of gap
1.	Inventory and Identification of Health care Facilities	Inventory completed	Activity completed
2.	Adequacy of facilities to treat biomedical waste	Yes adequate	Activity completed
3.	Tracking of BMW	The bar Code system is 80% implemented	31.05.2023
4.	Awareness and education of health care staff	Quarterly training has been organized for all stakeholders	Activity completed
5.	Adequacy of funds	Adequate Funds are allocated to Government healthcare facilities for bio-Medical waste Management by State Govt.	Activity completed

6.	Compliance to Rules by HCFs and CBWTFs	District Level Special Task Force mechanism to Monitor compliance by Hospitals/HCFs.	Activity completed
7.	DistrictLevel Monitoring Committee	District Level Monitoring Committee has been constitute and meetings are being organised	Activity completed
8.	Waste water Treatment by HCFs	Effluent treatment plants installed by all tertiary healthcare centers and by all hospitals where terminal treatment of effluent by Govt. Hospital not available.	Activity completed

Introduction of Hazardous Waste

Hazardous waste is those that may contain toxic substance generated from industrial, hospital, some type of house hold waste. The improper handling, collection, treatment and disposal of hazardous waste material may cause substantial harm to human health or environment. Hazardous wastes can take the form of solids, liquids, sludges or contained gases and they are generated primarily by chemical production, manufacturing, and other industrial activities.

They may cause damage during inadequate storage, transportation, treatment or disposal operations. Improper hazardous-waste storage or disposal frequently contaminates surface and ground water supplies. People living in homes built near old and abandoned waste disposal sites may be in a particularly vulnerable position. Hazardous wastes are classified on the basis of their biological, chemical, and physical properties. These properties generate materials that are toxic, reactive, ignitable, corrosive, infectious, or radioactive.

(v) Hazardous Waste Management

a. Current Status related to Hazardous Waste Management

Details of Data Requirement	Present Status
No of Industries generating HW	130
Quantity of HW in the district	971.261 MT
(i) Quantity of Incinerable HW	103.4 MT
(ii)Quantity of land-fillable HW	308.391 MT
(iii)Quantity of Recyclable/ utilizable HW	559.47 MT
No of captive/common TSDF	Nil in District Panchkula. 01 no common TSDF established at Pali Faridabad for the state of Haryana
Contaminated Sites or probable Contaminated sites	01 number of probable contaminated site at Marranwala, Panchkula

b. Identification of gaps and action plan:

S. No.	Action points	Identification of Gaps	Time line for completion of gap
1.	Regulation of industries and facilities generating Hazardous Waste	All hazardous waste industries are identified and authorized by HSPCB	Activity completed
2.	Establishment of collection centers	Temporary collection centers available	Activity completed
3.	Training of workers involved in handling/recycling/ disposal of HW	Training workshop to held quarterly of all stake holders.	Regular activity
4.	Availability/Linkage with common TSDF or disposal facility	All the generators of HW have access to common TSDF in the State.	Activity completed
5.	Contaminated Sites	NIL	Activity completed

Introduction of E-Waste Management

Waste electrical and electronic equipment (WEEE) is becoming major threat to the whole world. Rapid growth of technology, up- gradation of technical innovations and a high rate up-gradation by exchanging old electronic items have led to one of the fastest growing waste in the world. Its toxic emissions mixed with virgin soil and air and causing harmful effects to the entire biota either directly or indirectly. Direct impacts include release of acids, toxic compounds including heavy metals, carcinogenic chemicals and in direct effects such as bio magnification of heavy metals. Many private firms are involved in collecting, dismantling, separation and exporting e-wastes for recyclers. However, strict regulations are currently being followed as on approval of such firms such as e-steward certification by Basel action network in US, they also involved in public awareness programs. E-Waste consists of end of electrical and electronic equipments and products such as: Refrigerator, Washing machines, Computers and Printers, Televisions, Mobiles, I-pods etc. The Ministry of Environment, Forest and Climate Change notified the E-Waste Management Rules, 2016 on 23 March 2016 in supersession of the e-waste (Management & Handling) Rules, 2011. The amendment in rules has been done with the objective of channelizing the E-waste generated in the country towards authorized dismantlers and recyclers in order to formalize the e-waste recycling sector. The collection targets under the provision of Extended Producer Responsibility (EPR) in the Rules have been revised and targets have been introduced for new producers who have started their sales operations recently.

(vi) E-Waste Management

a. Current Status related to E-Waste Management

Details o Data Requirement	Present Status
Inventory of E-Waste in MT/year	**500 MT/Year**
Collection centers established by ULBs in the District	01 No. Community Centre, Sec-10, Panchkula
Collection centers established by Producers or their PROs	01 No. M/s Bharat Electronics Ltd, IA, Panchkula
No authorized E-Waste recyclers /Dismantler	01 number authorized dismantler in Panchkula District. 3600 TPA capacity

b. **Identification of gaps and action plan:**

Sr. No.	Action points	Gaps in implementation	Timeline for completion of gap
1	Inventory Generation of E-Waste / Bulk-waste generators	Inventory completed.	30/09/21
2	E-Waste collection points	01 No. Community Centre, Sec-11, Panchkula	Activity completed
3	Linkage among Stake holders to channelize E-Waste	No linkage	31.08.2023
4	Regulation of Illegal E-Waste recycling /dismantling	No Prevalence of informal trading, dismantling, and recycling of E-waste is in District	Activity completed
5	Integration of informal sector	No informal sector involved in handling e waste in Panchkula district	Activity completed
6	Awareness and Education	Awareness programmes to be conducted on all major events/gatherings/government functions to be held in district Panchkula.	Regular activity

Chapter 8

Water Quality Management

Introduction of Water Quality Management

Systematic management of water resources is necessary to ensure the required balance between development pressures and the safe guarding of the natural and built environment for future generations. The purpose of Water Quality Management Plan (WQMP) is to reduce discharge of pollutants into urban runoff from development projects by reducing or eliminating sources of pollutants, and managing site runoff volumes and flow rates through best Management Practices.

Strategies for Water Management

Ponds/water bodies may be identified at each city, town and village level and cleaned and not allowing sewage and solid waste disposal in such ponds. i. State Ground Water Board to ensure ground water quality testing particularly shallow hand pumps, and deep bore wells to check fitness for consumption. ii. Public notices may be issued for installation of bore wells without permission. Government and non-government buildings should install rain water harvesting systems in a time-bound manner.

:Conclusion Recommendations

i. SPCB/PCCs may under takes naps hot monitoring of ambient air quality in a phased manner covering all cities and towns for wider coverage. GRAP action should be initiated in case of deviations.

ii. Surveillance squads/task forces may be setup at Ward and Circle level to prohibit burning of garbage and other waste.

iii. Open parks, dilapi dated roads and other sources of dust pollution should be identified and actions be taken to prevent the suspension of dust from such sources.

Water Quality Management

Water Quality Monitoring

a. Current Status related to Water Quality Management

Details of Data Requirement	Present Status
Rivers	06 Nos
Length of Coastline(if any)	NIL
Nalas/Drains/Creeks meeting Rivers	37
Lakes/Ponds	163 Nos and 155.33 HECTARES
Total Quantity of sewage from towns and cities in District	165 MLD
Quantity of industrial waste water	03 MLD
Percentage of untreated sewage	45 %
Details of bore wells and number of permissions given for extraction of groundwater	400. Nil
Ground water polluted areas if any	NIL
Polluted river stretches if any	NIL

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

Sr. No	Action points	Gaps and Action Plan	Timeline for completion of action plan
1.	Inventory of water bodies	District level STF formed and inventory of water bodies completed	Activity completed
2.	Quality of water bodies in the district	Monthly monitoring of drains and rivers being carried out to assess quality of water bodies in the district.	Regular activity
3.	Hotspots of water contamination	No	Activity completed

4.	Protection of river/lake water front	37 nos. of sources of pollution identified whereby untreated sewage id discharged in the river Ghaggar through drains.	31.08.2023
5.	Inventory of sources of water pollution	37 nos. of sources of pollution identified whereby untreated sewage id discharged in the river Ghaggar through drains.	Activity completed
6.	Oil spill disaster management(for coastal districts)	Oil spill contingency plan prepared	Activity completed
7.	Protection of flood plains	No flood plains in Panchkula district	Activity completed
8.	Rejuvenation of ground water	Action plan for rain water harvesting implemented.	Activity completed
9.	Complaints redressal system	Complaints regarding water pollution are received on CM window portal and are promptly dealt with.	Activity completed

Chapter 9

Domestic Sewage Management

Introduction of Domestic Sewage Management

Domestic sewage is generated by domestic activities including toilet, bathroom, clothes washing and kitchen cleaning activities. This sewage water contains high levels of micro-organisms, chemicals (nutrients) and other contaminants capable of causing human illness and adversely impacting on the local environment.

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	02
No of Class-I towns and above	01
No of Towns STPs installed	03
No of Towns needing STPs	NIL
No of ULBs having partial underground Sewerage network	02
No of towns not having sewerage network	02
Total Quantity of Sewage generated in District From Class-II cities and above	165 MLD
Quantity of treated sewage flowing into Rivers(directly or indirectly)	91.25 MLD
Quantity of untreated or partially treated sewage(directly or indirectly)	73.75 MLD
Quantity of sewage flowing into lakes	NIL
Total available Treatment Capacity	91.25 MLD

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

Sr. No.	Action points	Gaps and Action Plan	Timeline for completion of action plan

1.	Sewage Treatment Plants (STPs)	Existing STPs not sufficient. 08 nos STP for rural Panchkula under AMRUT scheme under construction. STPs planned for Barwala town and Raipur rani town.	31/03/2024

2.	Underground sewerage network	Existing sewerage network of 39000 mts in Kalka town. Additional 4700 mts sewerage network required. Estimate for laying sewerage network submitted to higher authorities of PHED.	31/03/24

Chapter10

Industrial Waste Water Management

Introduction of Industrial Waste Water Management

Industrial waste water is one of the important and major pollution sources of Water. A huge amount of industrial waste water was discharged into rivers, lake & sand coastal areas. This resulted in serious pollution problems in the water environment and causes negative effects to the eco-system and human's life. There are many types of industrial waste water based on different industries and contaminants. Each sector produces its own particular combination of pollutants.

Industrial waste water management

a. Current Status related to Industrial Waste water Management

Number of Red, Orange, Green and White industries in the District	Total Industries = 667 Red category = 113 Orange category = 455 Green category = 74 White category = 25
No of Industries discharging wastewater	115
Total Quantity of industrial waste water generated	0.60 MLD
Quantity of treated industrial waste water discharged into Nalas/ Rivers	0.60 MLD
Common Effluent Treatment Facilities	01
No of Industries meeting Standards	98
No of Industries not meeting discharge Standards	06

b. Identification of gaps and action plan for industrial waste water:

S. No.	Action points	Gaps and Action Plan	Timeline For completion of GAP

1.	Compliance to discharge norms by Industries	Inspections of HSPCB and District level STF being carried out on monthly basis. Total industries inspected (Since Aug 2019)- Closure Action- Prosecution Action-	Regular activity
2.	Complaint Redressal system	Complaints being dealt through online CM window portal, complaints received through hard copy and through e-mail. Further complaints are also dealt through PM portal and Social media Grievances portal.	Regular activity

Chapter11

Introduction of Air Quality Management

Air quality affects our health, the livability of our cities and towns, and our environment. Air pollution, particularly from human activity, can cause health problems that affect the heart and lungs, and can cause cancer. Even short-term exposure to air pollution can cause health problems. Children, the elderly and people with existing heart and lung conditions are especially affected by air pollution.

Air quality management refers to all the activities a regulatory authority undertakes to help protect human health and the environment from the harmful effects of air pollution. There is a continuous review and assessment of goals and strategies based on their effectiveness. All parts of this process are informed by **scientific research** that provides air quality managers with essential understanding of how pollutants are emitted, transported and transformed in the air and their effects on human health and the environment.

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:	01 number CAAQMS installed at HQ HSPCB Sector-6 Panchkula
Number of manual monitoring States operated by SPCBs	02 number (One commercial location and one residential location). Monitoring done pre Diwali and Post Diwali annually.
Name of towns/cities which are failing to comply with national ambient air quality stations	NIL

No of air pollution industries	210
Prominent air polluting sources [Large Industry] / [Small Industry] / [Un paved Roads] / [Burning of Waste Stubble] / [Brick Kiln]/ [Industrial Estate]/[Others](Multiple selection)	No major/large air pollution industry in Panchkula district. However small air pollution industries and brick kiln major source of air pollution.

b. Identification of gaps and action plan:

S. No.	Action points	Indicative Action Plan	Time line for completion of action plan
1.	Identification of prominent air polluting sources?	inventory of air pollution sources in District including hot spots or areas of concern pertaining to air pollution in association with SPCBs carried out	Activity completed
2.	Ambient Air quality data?	01 number CAAQMS installed at HQ HSPCB Sector-6 Panchkula	Activity completed
3.	Setting up of Continuous Ambient Air Quality Monitoring Station	01 number CAAQMS installed at HQ HSPCB Sector-6 Panchkula .	Activity completed
4.	District Level Action Plan for Air Pollution	Hotspots of air pollution identified. Mitigation plan of air pollution at the hotspots under preparation. Promotion of usage of cycles for transport facilitated through e cycles vending stations.	31.05.2023
5.	Hot spots of air pollution in District	03 Hotspots of air pollution identified. Mitigation plan of air pollution at the hotspots under preparation	Action plan submitted by M.C PKL, BDPO, Pinjore & NHAI.

6.	Awareness on Air Quality	Display of data by the 01 number CAAQMS by way of LED screen underway. Public complaints regarding air pollution being dealt by CM window complaints portal as well as SAMEER app and received through hard copy.	Regular activity performed by HSPCB.

Chapter 12

Mining Activity Management

Status of Industrial Mining Activity Management in the District (Graphical representation may be included)

The Boulder, Gravel and Sand are one of the most important construction materials. These minerals are found deposited in river bed as well as adjoining areas. These aggregates of raw materials are used in the highest volume on earth after water. Therefore, it is the need of hour that mining of these aggregates should be carried out in a scientific and environment friendly manner.

The important river/ stream of district are Ghaggar, Tangri, Begna and Sirsa river etc.
Boulder, Gravel and Sand (Minor Minerals) finding use as construction material are found in the river bed areas. The mineral deposits are found in river bed areas as well as outside river bed areas of concerned villages of the districts Panchkula. All rivers in the district Panchkula are seasonal rivers. The water released in river during rainy season bring huge quantity of Boulder, Gravel and Sand which gets deposits in the river bed area. The flood plains also have huge deposits of Boulder, Gravel and Sand up to a depth of 10-12 meter.

Mineral Concession in respect of minor minerals are granted as per the provisions of the State Rules, framed by the State Government in exercise of powers conferred under section 15 of the Mines and Minerals (D&R) Act, 1957.

The mineral concessions in the Haryana are being granted in the form of "Mining Contract" or "Mining Lease" through competitive bidding process. The Mining Contracts are granted for a minimum period of 07 years and maximum period of 10 years. Whereas the Mining Leases are granted for a minimum period of 10 years and maximum period of 20 years. In district Panchkula mineral concessions are/were granted in the form of Mining contacts for the period varying between 7 to 10 years. The contracts are being granted through open auction/ e-auction mode. The Mineral concessions are being granted subject to condition that actual mining operation shall be allowed only after environment Clearance is/are obtained from the competent authority as per requirement of EIA Notification dated 14.09.2206 of the MoEF & CC, GoI.

The mineral concession holders are required to prepare a detailed "Mining Plan" for their specific project through Registered Qualified Person and get in approved from authorized officer of the State Government. The exhaustive mining plan are prepared inter alia giving details of mineral reserves, method of mining, extent of proposed mining and other related details. These are the projects specific details. Based on these details itself the project

proponents/ mineral concession holders obtains environmental clearances.

The river bed areas apart from other related condition for mining are allowed to excavate minerals (Boulder, Gravel or Sand) to ensure safety of rivers bed structures and the adjoining areas on the following specific conditions:

(i) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;

(ii) There shall be maintained an un-mined block of 50 meters width after every block of 1000 meters over which mining is undertaken or at such distance as may be directed by the Director or any officer authorized by him;

(iii) The maximum depth of mining in the river-bed shall not exceed three meters measured from the un-mined bed level at any point in time with proper bench formation;

(iv) Mining shall be restricted within the central 3/4th width of the river/ rivulet;

The above said conditions have been decided after detailed discussions and recommendations of the PWD (B & R) department and Irrigation department, Haryana.

As the mining in river bed remains restricted in the Central 3/4th part of the river bed, the area left on both side of the river bank not only ensures the safety of banks (bank cutting due to water stream) but also ensures that in the central part of river, water stream flows smoothly during rains and process of river meandering does not occur.

The light weight excavator/JCBs are being deployed to remove mineral from river bed up to maximum depth of 03-meter layer from general level of the bed. The mining in the river bed are undertaken in mechanized manner. At times the RQPs do refers the excavation in river bed mining through excavators as "Semi Mechanized Mining".

The mineral excavated is directly loaded in the vehicles/dumpers and the vehicle owners and drivers take away the mineral directly to the stone crushers or screening plants or consumers. In certain cases, mineral concession holders stacks mineral on the river bank in case are not able to sell the material on actual mining itself.

During last 10 years the production of minor minerals excavated are tabulated as below: -

Year	Boulder/Gravel/ Bajri/ Sand
2011-2012	NIL
2012-2013	NIL
2013-2014	NIL
2014-2015	NIL
2015-2016	NIL
2016-2017	680956
2017-2018	1243280
2018-2019	2277440
2019-2020	1033750

2020-2021	1193505
Total	64,28,931
Average Per yr.	**642893**

Sr. No.	Mining Unit/Block Location	Area (In Hect.)	Period (In yrs)	Name of Minor Minerals	Status of Granted of Mineral Concession	Annual Capacity as per EC/Mining Plant/TOR in lakh MT.	Present Status
River bed Mining Areas							
1	Charnia	30.55	10	Boulder, Gravel, Sand	Yes	1400000 MT	Running
2	Rattewali	45.00	7	Boulder, Gravel, Sand	Yes	1900000 MT	Running
3	Sukhdarshanpur	37.38	7	Boulder, Gravel, Sand	Yes	1450000 MT	Running
4	Mandlai-2	10.60	7	Boulder, Gravel, Sand	No	-	Not Working/EC/CTO awaited
5	Naggal Block B-15	27.99	10	Boulder, Gravel, Sand	No	-	Not Working/EC/CTO awaited
6	Gorkhnath	12.94	7	Boulder, Gravel, Sand	No	582300 MT	Terminated
7	Kiratpur	13.40	7	Boulder, Gravel, Sand	No	603000 MT	Terminated
8	Gobindpur	28.40	10	Boulder, Gravel, Sand	No	1278000 MT	Terminated
9	Narainpur	32.63	7	Boulder, Gravel, Sand	No	1468350 MT	Revoked
10	Mandlai	13.20	10	Boulder, Gravel, Sand	No	792000 MT	Revoked
11	Manak Tabra	14.48	9	Boulder, Gravel, Sand	No	675390 MT	Terminated
12	Karanpur	17.05	9	Boulder, Gravel, Sand	No	360000 MT	Terminated
13	Kot	31.59	10	Boulder, Gravel, Sand	No	-	Terminated
14	Shamtoo-2	45.00	10	Boulder, Gravel, Sand	No	-	Terminated
15	Natwal	48.18	9	Boulder, Gravel, Sand	No	-	Terminated
16	Shamtoo-1	46.50	9	Boulder, Gravel, Sand	No	-	Terminated
17	Basawal Block	20.00	9	Boulder, Gravel, Sand	No	-	Terminated
18	Khatauli Block	24.15	9	Boulder, Gravel, Sand	No	-	Terminated

Mining Activity Management plan

a. Current Status related to Mining Activity Management

Details of Data Requirement **Existing Mining operations**

Type of Mining Activity Name of mines –

1. Tirupati Roadways, Vill. Rattewali, Distt. Panchkula.—Boulder Sand and Gravel Mine.
2. Shri Ganesh Royalty Company, Boulder Gravels and Sand Mining at Charnia Block/PKL-4, Vill. Karanpur, Johluwala, Distt. Panchkula — Boulder Sand and Gravel Mine.
3. Shiv Enterprises, Khasra No. 55 min., 48 min., Sukhdarshanpur Block, Vill. Shyamtoo and Sukhdarshanpur, Distt. Panchkula —Boulder Sand and Gravel Mine
4. Shree Balaji Mines and Minerals, Village Mandlai, Distt. Panchkula — Boulder Sand and Gravel Mine
5. R.M. Secure Services Pvt. Ltd., Alipur, Barwala, Panchkula—Sand Mine.

No of licenced Mining operations

In the District 05

% Area covered under mining in

the District 15 %

Area of Sand Mining 31.08 hectares

Area of sand Mining River Bed

b. Identification of gaps and action plan:

Sr. No.	Action points	Gaps and Action Plan	Time line for completion
1.	Monitoring of Mining activity	District level Task force committee in place to monitor mining activity in district=No gap. NA	
2.	Inventory of illegal mining if any	mining Through surveillance, patrolling and enforcement. District Level task Force is constituted for Control of illegal mining activity=No gap. NA.	
3.	Environment compliance by Mining industry	06 monthly compliance report reviewed and inspection of mines done to verify the conditions of EC granted.=No gap. NA	

Chapter 13

Noise Pollution Management

Introduction of Noise Pollution Management

Noise pollution is generally defined as regular exposure to elevated sound levels that may lead to adverse effects in humans or other living organisms. According to the World Health Organization, sound levels less than 75 dB are not damaging to living organisms, regardless of how long or consistent the exposure is.

Main Sources of Noise Pollution are:

- Traffic noise.
- Industrial noise.
- Construction sites.

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	1. 02 no. noise monitoring device-HSPCB. 2. 10 nos. noise monitoring devices being procured by Police department. (Target date 31/12/21)

b. Identification of gaps and action plan:

Sr. No.	Action points	Gaps and Action Plan	Timeline for completion of action plan
1.	Availability of Sound/Noise Level Meters.	1. 02 no. noise monitoring device-HSPCB. 2. 10 nos. noise monitoring devices being procured by Police department.	31.08.2023
2.	Ambient Noise Level monitoring.	02 noise monitoring devices are available	31.05.2023

3.	Sign boards in Noise zones	District administration to ensure that adequate number of sign boards installed at sensitive zones in towns / cities in towns and cities.	Activity completed
4.	Complaint redressing system	Complaints being dealt through online CM window portal, complaints received through hard copy and through e-mail. Further complaints are also dealt through PM portal and Social media Grievances portal.	Activity completed

THE ENVIRONMENTAL IMPACT OF POULTRY

The main aim of the animal production is to produce animal proteins of high value in a sustainable manner. However, sustainability is not easy to define. It is a complex phenomenon, which includes integration of economic, social, and environmental dimensions of the certain production, within a given socio-economic context. In this respect, poultry production meets first two dimensions- it provides affordable dietary item for consumers and profit for producers. It additionally generates up and downstream investment opportunities and it contributes to the development of the local economy. However, with the concentration of poultry production and increase in operation size, considerable environmental problems have occurred. During the last several decades, the environmental impact of the poultry production has received an ever-growing attention. Nowadays, producers are under heavy pressure, from different fronts, to minimize the impact of their production on the environment and to adopt welfare friendly practices. The major challenges which will affect animal production in the future, will likely deal with the environment.

Introduction

During the last several decades, sustainable development has become one of the most important developmental priorities worldwide. Sustainable development is possible only if an integration of three different dimensions - economic, social and environmental is achieved. As poultry production provides an affordable dietary item of a good quality for consumers and profit for producers. Additionally it generates up and downstream investment opportunities and it

contributes to the development of the local economy. Therefore, one can say that it clearly meets first two dimensions (economic and social) of sustainability. However, intensification, concentration, and an increase in operation size, have been coupled with some detrimental environmental consequences. Poultry is increasingly seen as a production that is not environmentally friendly and treated either as a pressure, or as a driving force.

As a result, producers are nowadays under intense pressure, from different fronts, to minimize the impact of their production on environment.

Poultry production as a polluter

Driven by economic efficiency, poultry production, like everything else in market economy, has been significantly developed and changed over the last several decades.

Global poultry population has grown manifolds and due to the increase in operational size, the concentration, and the intensification of poultry production, its off-site impacts have been considerably increased. Consequently, the public's perception of farmers is changing, and the public is less and less tolerant to those negative impacts. As a result, environmental regulation is increasingly developing and poultry producers have to comply with it. What always should be bear in mind is that people, not animals, are the ones who pollute, ignoring environmental constraints when managing their operations. Poultry production adversely affects the environment in numerous ways -through poor management of manure and litter, waste streams from processing plants (blood, bones, feathers, etc), birds' carcasses, dust, insects, odour, etc.

Furthermore, intensive poultry production is held responsible for the emission of green house gasses, acidification, and eutrophication.

The environmental impact of poultry production depends on numerous factors, among which are farm size, production system, diet composition, type of bedding used, etc. It is well known that, if properly managed, waste generated in the poultry production, especially manure and litter, could be a valuable resource, i.e. it could be used as fertilizer, soil conditioner, animal feed, or energy source.

However, thanks to the large amount of waste generated (which exceed crop fertilizer requirements), content of harmful elements (such as heavy metals, pesticide residues,

pathogens, pharmaceuticals, etc.), and/or unwisely management, poultry waste is often polluter instead of the valuable resource.

Thus, producers have to search for environmentally sound ways of waste disposal, which inevitably affects their income. Interest in using poultry manure and litter as a soil fertilizer for crop production has emerged in parallel with rising interest in alternative agricultural production systems,. Poultry litter contains significant amounts of nutrients essential for plant growth. Its chemical composition can vary widely depending on the type and category of poultry, type and quantity of bedding used, environmental conditions in the facility, feed source, handling of manure, etc.

From an ecological viewpoint, organic amendments offer some advantages if compared to mineral fertilizers. In addition to nutrient supply, they improve soil structure, control erosion, and improve water-holding capacity. However, there are also some disadvantages, as unpleasant odours, high content of inorganic phosphorus, which exceeds the needs of plants, release of volatile and reactive organic compounds into the air, etc. The alternative use of poultry waste, as animal feed or as a source of energy, is rather limited due to contaminants and high moisture content. Farmers have to be aware of all these advantages and disadvantages in order to be able to find and adopt acceptable and sustainable solutions.

Conclusion

Since environmental burdens depend, to great extent, on chosen management practices, one can say that poultry industry will not threaten the environment only if both economically and environmentally acceptable management practices are applied. Unfortunately, it is still not the case and there are still many issues, related to environmental impact of poultry production, which have to be solved in the future (together with health and animal welfare issues). Unfortunately, existing scientific knowledge is sufficient for problem recognition, however it is still not capable of presenting a final solution.

Farmers must be aware of ways in which their production threatens environment. Only thus, they will be able to find and adopt solutions that will provide both profitability and sustainability of poultry production

Sr. No.	Action Point	Implementing Department/Agency	Timeline
1	Compliance of poultry farms to Environment	Animal Husbandry department and HSPB is	Regular Activities

	department notification dated 29.05.2013 and Jan, 2022 of CPCB	regularly doing inspection of poultry farms of Panchkula district and strictly monitoring the poultry guidelines implemented by poultry farms	
2	Policy for covering of all Poultry Farms in the consent management of HSPCB (more than 5000 birds)	There are 15 poultry farms in Panchkula District who are having birds more than 1.0 Lacs and having valid CTO from the Board now HSPCB is in process to cover the rest poultry farms in consent management as per latest guidelines issued by CPCB.	31.05.2023

E Vehicle Policy

The vehicular population in Haryana has been increasing rapidly over the last decade. The vehicles driven on traditional fuels are the major source of environmental pollution and thereby are health hazards. Hence, this necessitates the exploration of alternative energy sources.

Electric vehicles are gaining popularity across the globe. Due to fast depletion of fossil fuels, the automotive industry is also shifting from traditional fuel based technology to eco-friendly technologies. Govt. of India has launched The Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME Scheme) in 2015, under National Electric Mobility Mission Plan (NEMMP) with an aim to promote eco-friendly vehicles in the country. In this backdrop, it becomes imperative for the state government to come up with an electric vehicle policy.

The Haryana Electric Vehicle Policy 2021 (draft) focuses on following aspects of EV sector:

1. Manufacturing of Electric Vehicles, major components of EVs, batteries for EVs and charging infrastructure.
2. Infrastructure Augmentation for supporting EV adoption among citizens.
3. Fiscal Incentives to reduce cost of business.
4. Human Capital development.
5. Strengthening EV Connectivity.
6. Encourage and incentivize EV manufacturing and promote green automotive technology through policy interventions. This policy places a special emphasis on the creation of end-to-

end ecosystem for E-Mobility in the state and envisages at harnessing Haryana's inherent strength in automotive manufacturing sector for exploring opportunities in the EV manufacturing.

Objectives

1. To promote clean transportation by promotion of use of Electric Vehicles (EVs) in the State.
2. To encourage purchase and use of Electric Vehicles by giving incentives including exemptions in taxes, permit fee etc.
3. To increase feasibility of use of Electric Vehicles by setting up of a widespread and accessible charging infrastructure.
4. To make Haryana a global hub for development and manufacturing of Electric Vehicles (EVs), major components of EVs, batteries for EVs and charging infrastructure.
5. To attract manufacturers to set up their electric vehicles manufacturing units in the State.
6. To generate employment opportunities in the State.

Rural Environment Plan

1.	Population Rural	-	1,81,452
1.	Total No. Blocks	-	04
a.	Total No. of Gram Panchayats	-	128
a)	Total No. of Villages	-	165
I.	Total No. of Households	-	33321

SOLID WASTE MANAGEMENT

Total No. of Sheds	Completed	Functional	Completion Date
62	57 (5 sites under land dispute)	35	31.12.2021

Solid Waste generated–21TPD

SWM Sheds

Sr. No.	Block	Barwala	Morni	Pinjore	RaipurRani
1	Barwala-13 Morni- 01	Batour	Thapli	Garidan	RaipurRani
2	Pinjore-09 RaipurRani-12	Shyamtoo		Ramnagar	Mouli
3	Total-35	Sultanpur		Paploha	Natwal
4		Sunderpur		Goraknath	Hangola
5		Bhagwanpur		Chiken	Haripur
6		Manaktabra		Magniwala	Kakrali
7		Nayagaon		Kedarpur	Pyarewala
8		Kherwali Parwala		Ganespur Bhoriyan	Tibbi Majra
9		Bhareli		Kharkua	Kheri
10		Trilokpur			Bagwala
11		Tibbi			Golpura
12		Rehore			Tabar
13		Rattenwali			

LIQUID WASTE MANAGEMENT

Total	Completed	Functional	In Progress/Completion Date

32	27	27	05 Ponds (31.12.2021)

05 Pond System- Bhagwanpur & Batour Villages, Barwala.
03 Pond System- Natwal & Manaktabra Villages, RaipurRani.

PLASTIC WASTE MANAGEMENT

Plastic waste generated – 7 TPD

The firm- M/s Singla Plastic Industries, Patiala has been engaged by the Development & Panchayats Department for collecting raw waste plastic. The minimum lot of collection of the plastic mix is 3.00 MT.

GOBARDHAN

1. Village	-	Rehore
1. Total Households	-	256
(i)Total Population	-	1390
- Gram Panchayat Land	-	1 Acre
1. Biogas generation Capacity	-	400 cum/day
2. Biogas Generation	-	160 kg/day
3. Live Stock in Village	-	899
(a) Bio-fertiliser Production	-	2.10MT/day

Administrative approval has been accorded to the XEN,PR, Panchkula.

PLANTATION UNDER MGNREGS

S.No.	Block Name	Panchayat Name	No. of Saplings Sanctioned	No. of Saplings Planted till date	Expected Date of Completion
1	Pinjore	Kona	12100	11000	New date to be added
2	Morni	Manaktabra	12100	Nil	
3	Pinjore	Chicken	30250	Nil	
4	Pinjore	Mallah	24200	Nil	
5	Barwala	Bunga	12100	Nil	
6	Morni	Bhoj Jabyal/Ramsar	12100	0	
7	Morni	Uttron/Saryon	12100	0	
8	Morni	Darda/Churi	36300	10500	
			151250	21500	

Nursery Raising under MGNREGS

S.No.	Block Name	Panchayat Name	No of Plants /P. Bags Sanctioned	No of Plants Planted/P. Bags Prepared till date	Expected Date of Completion
1	Pinjore	Kona	50000	Nil	New date to be added
2	Pinjore	Chiken	30000	30000	
3	Pinjore	Mallah	24000	24000	
4	Barwala	Bunga	50000	50000	
5	Barwala	Mankatbra	30000	30000	
	Total		184000	134000	

JAL SHAKTI ABHIYAAN

Soak Pits					
		Target	Completed	In Progress	Target Date of Completion
1	Pinjore	298	59	8	New date to be added
2	Barwala	192	70	5	New date to be added
3	Morni	211	44	16	New date to be added
4	Raipur Rani	356	68	57	New date to be added
		1057	241	86	New date to be added

Renovation of Traditional Water Bodies/Ponds					
		Target	Completed	In Progress	Target Date of Completion
1	Pinjore	5	0	0	New date to be added
2	Barwala	9	2	4	New date to be added
3	Morni	7	0	0	New date to be added
4	Raipur Rani	7	2	2	New date to be added
		28	4	6	New date to be added

Roof Top Rain Water Harvesting Structures					
		Target	Completed	In Progress	Target Date of Completion
1	Pinjore	1	1	0	New date to be added
2	Barwala	1	0	1	New date to be added
3	Morni	1	0	0	New date to be added
4	Raipur Rani	2	0	0	New date to be added
		5	1	1	New date to be added

Plantation under Jal Shakti Abhiyan

Target: 128000
Achievement: 18600
Target Date of Completion: 31-8-2021

Electric Animal Crematorium

Animal crematorium is being set up in Khairwali Parwala Village, Block Barwala.
Executive Engineer will execute this work and administrative approval for the purpose has been accorded.
The official Landline No. of ZP Office has been declared as Helpline No.

Conclusion

Efforts have been made to make a District Environmental Plan in line with the model District Environment Plan of CPCB covering the topics given therein. The users of this Plan should- bear in mind that this plan is not a- substitute to Govt. rules and regulations but a skeletal framework with action points and roles and responsibilities of stake holders. These are only suggestive but not exhaustive.