

DISTRICT ENVIRONMENT PLAN – PATIALA

**PATIALA
(Punjab)**



District Administration - Patiala

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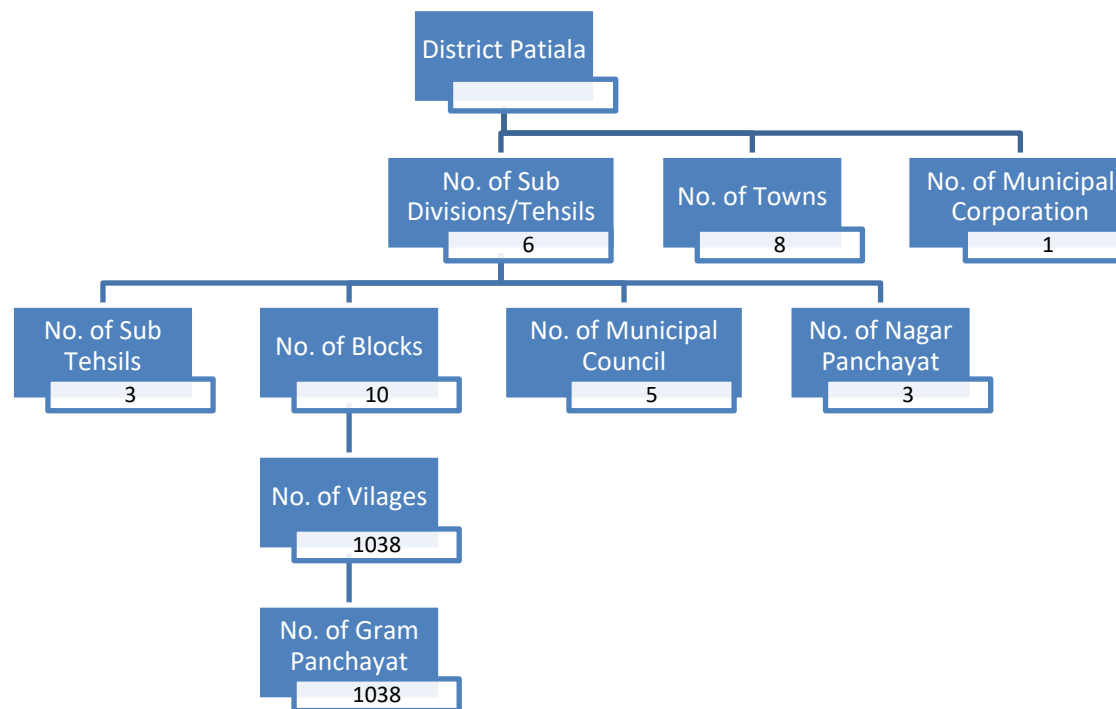
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1. DISTRICT PROFILE

Patiala district is one of the famous princely states of erstwhile Punjab. Forming the south-eastern part of the state, it lies between 29°49' and 30°47' north latitude, 75°58' and 76°54' east longitude. It is surrounded by the districts of Fatehgarh Sahib & Rupnagar and the Union Territory of Chandigarh in the north, Sangrur district in the west, Ambala and Kurukshetra districts of neighbouring state of Haryana in the east and Kaithal district of Haryana in the south. It is important city located in Malwa region of South Eastern part of Punjab. The city is well connected by roads and is located at a distance of about 75 km towards southwest from Chandigarh. It lies 25 km away from the Grand Trunk Road (i.e. National Highway-1) and is about 250 km from National Capital Delhi.

(i) District Administrative Set-up



(ii) Local Institutions

In District Patiala, there are total 6 Sub-Divisions/Tehsils, 8 towns & 01 Municipal Corporation. There are 3 Sub-Tehsil, 10 Blocks, 05 Municipal Council and 3 Nagar Panchayat. There are total 1038 Villages in the District & have 1038 Gram Panchayats.

(iii) Natural Resources

Water bodies

- **River Ghaggar**

River Ghaggar is passing through Patiala District. River Ghaggar originates from Sirmour Hills in Himachal Pradesh, flows through the Morni Hills in Haryana. Enters into the State of Punjab near Village Mubarakpur, Distt.Mohali. After passing through District Mohali, District Patiala and District Sangrur, it passes through State of Haryana and then enters into District Mansa of Punjab. The river Ghaggar and the drains, meeting with river, are non-perennial and carry surface run off from fields filling in their catchment area during rainy season. However, sewage / sullage of some of the cities, towns and village situated along the river Ghaggar and other drains is also discharged into the river directly or indirectly through drains/choe etc.

The River Ghaggar enters the District Patiala near Chatbir Zoo passing through the part of Rajpura, Shamboo, Ghanaur, Devigarh, Samana, Patran and leaves the District Patiala near Khanauri. The main drains meeting with River Ghaggar in District Patiala are Pachisdara drain near village Sarala, Mirapur Choe near Village Bhunerheri, Patiala Nadi near Village Rattanheri and Sagarpara drain near Village Sagra.

The details of the major drains passing through District Patiala and meeting with River Ghaggar are as under:-

- **Paschisdara Drain**

This drain is coming from District Mohali enters in District Patiala near Dhakansu and meets with River Ghaggar near Village Sarala Khurdat the coordinates 30.305197 and 76.627918. The outlet of STP Rajpura (7 MLD) falls into this drain at Rajpura - Ambala Road before meeting with river Ghaggar.

- **Patiala Nadi**

This nadi originates in District Fatehgarh Sahib near Balongi, Mohali, where, it is known as Patiala-Ki-Rao. The sewage/ sullage of village Bras, Cholti Kheri, Chawla Hotel, Behlolpur, Panjoli Khurd, Panjoli Kalan, Panjola, Mullanpur, Behtana, Jhinjra, Jago falls in Patiala-Ki-Rao. However, the quantity of sewage/ sullage of these villages is quite less and the Nadi is almost dry when it passes on the backside of Focal Point, Patiala. It has 2 no. outlets of Urban Estate, Patiala at the crossing of Patiala-Rajpura Road followed by outlet discharging untreated sewage of Sanaur. The Choti Nadi which carries untreated sewage of residential areas of Patiala joins Patiala Nadi behind Moti Mahal area.

- **Sirhind Choe**

This drain enters in Patiala from Distt. Fatehgarh Sahib and the Nabha drain, which carries sewage / sullage of Nabha & Bhadson Town and MES, Nabha falls in this drain in District Sangrur.

- **Sagarpara Drain**

This drain enters in District Patiala from Haryana and meets with Ghaggar near Village Sagra (29.8975741, 76.169735). No wastewater of District Patiala discharges in the said drain and the drain carries wastewater of Haryana State.

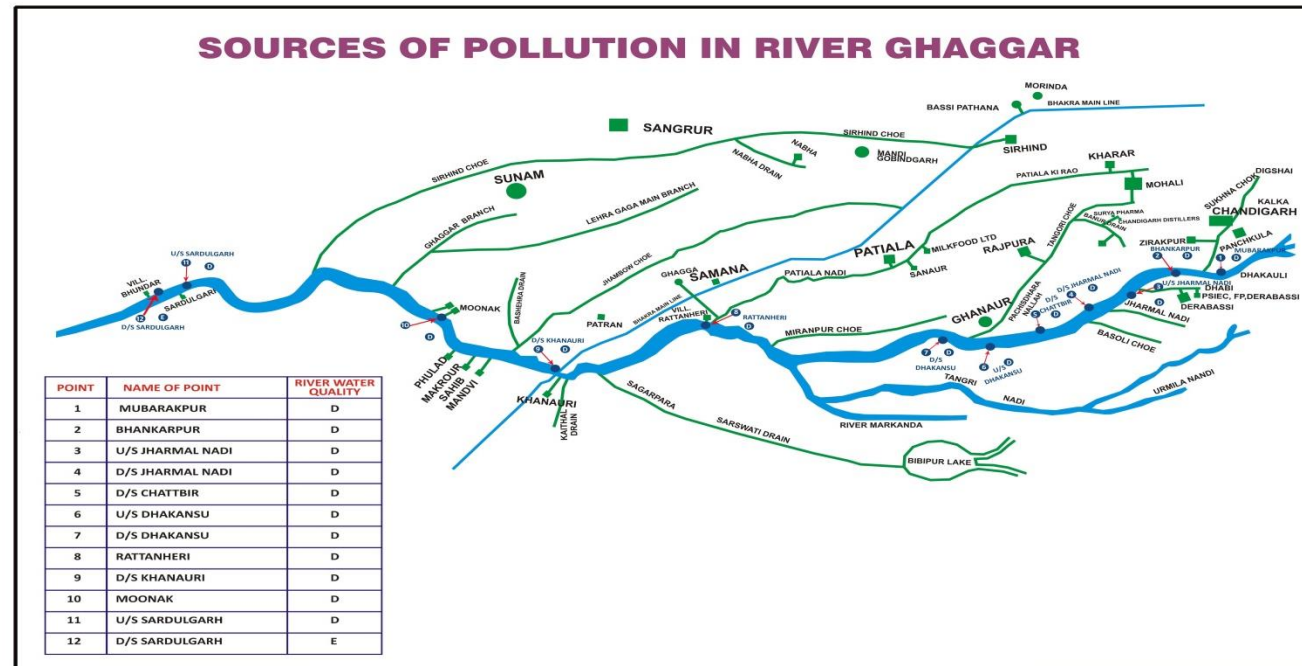
- **Other drains**

✓ A drain passing through Patiala city and carrying untreated sewage of the city passes through the Village Main area, where it is called Jacob drain. In jacob drain, there are outlets of the sewage/ sullage of Bir Colony, village Shermajra, Khusropur Basti and treated sewage from STP of 46 MTD capacity before Village Main. In Jacob drain, the sewage/ sullage of Vill. Main, Vill. Daroula & Darouli is also being discharged. This Jacob drain joins Patiala Nadi at Village Dharouli. Patiala Nadi carrying all these effluents joins river Ghaggar near Village Rattanheri (30.078934, 76.243909).

- ✓ A drain called Model Town drain carrying sewage/ sullage of Village Hassanpur, Seona, Ranjit Nagar (Village Seona), Kabir Dass Nagar, Ranjit Nagar (Bhadson Road), Sarabha Nagar (2 no. outlets) Vill. Ablowal, Babu Singh Colony, Yadwindra Enclave, Village Dhamomajra (2 no. outlets), Mallomajra, Bhakra Enclave (Sangrur Road), Hajimajra joins jacob drain near Vill. Main.

The identification of various pollution sources of pollution including sullage/sewage of villages, sewage of towns, industrial sources and any other source and mapping of the pollution source in River Ghaggar was carried out by Punjab Pollution Control Board.

The map of River Ghaggar showing the water quality at various points. The water quality of river Ghaggar at the entry point in District Patiala at Chatbir as well as leaving District Patiala at Khanauri is D, which means the water qualifies for best use for propagation for wildlife and fisheries as per criteria prescribed by CPCB.



- **Availability of water resources**

The major source is ground water. However as per CGWA report, the ground water development in 5 blocks of the District has been categorized as over exploited and 3 blocks i.e. Patran, Sanaur & Patiala has been categorized as notified block. The net annual ground water availability of District is 137193ham.

- **Forest coverage**

The Detail of Forest area of District Patiala is as under:

| Sr. no. | Category of area | Ownership | Area in Ha |
|---|----------------------|------------------|----------------|
| 1. | Protected Forest | Govt., of Punjab | 2287.73 |
| 2. | Un-classed Forest | Govt., of Punjab | 294.22 |
| 3. | Reserve Forests | NIL | NIL |
| Total Block Forest | | | 2581.95 |
| Strips Forest (Protected Forest) | | | |
| 4. | Road Strips (P.F) | Govt., of Punjab | 3864.49 |
| 5. | Railway Strips (P.F) | Govt., of Punjab | 510.6 |
| 6. | Canal Strips (P.F.) | Govt. of Punjab | 3286.91 |
| 7. | Drain (P.F.) | Govt. of Punjab | 810.85 |
| Total Strips Forest (Protected Forest) | | | 8472.85 |
| Total Forest Area | | | 11054.8 |

(iv) Geography & Demography

| Sr. No. | Title | District Patiala | Punjab State |
|---------|----------------------|------------------|--------------|
| 1) | Area (Sq Km) | 3,222 | 50,362 |
| 2) | Population (in Lakh) | 18.96 | 277.04 |

| Sr. No. | Title | District Patiala | Punjab State |
|---------|---|------------------|--------------|
| 3) | Rural Population (in Lakh) | 10.57 | 173.2 |
| 4) | Urban Population (In Lakh) | 7.5 | 103.84 |
| 5) | % Increase in Population (2001-2011) Decinneeal Growth rate | 19.6 | 13.55 |
| 6) | Density of Population (per Sq km) | 589 | 550 |
| 7) | Literacy % | 75.3 | 76.7 |
| 8) | Sex Ration (Females per thousand) | 891 | 893 |

The total area of District Patiala is 3222 km having population 18.96 lakhs. The rural population of District Patiala is 10.57 lakh and urban population of District Patiala is 7.75 Lakh. The literacy rate of District Patiala is 75.3.

(v) Land-use pattern

| Sr. No. | Title | Data of District Patiala (2020-21) |
|---------|--|------------------------------------|
| 1) | Total Geographical Area (in Ha) | 322299 |
| 2) | Area under Forest (in Ha) | 12414 |
| 3) | Net Area Sown (In Ha) | 2,57,893 |
| 4) | Gross Cropped Area (in Ha) | 5,13,789 |
| 5) | Total Area irrigated (in Ha) | 2,57,425 |
| 6) | % of Net Area irrigated to Total area sown | 99.81% |

The total Geographical Area of District Patiala is 322299 km. The Net area sown is 2,57,893hectare & irrigated is 2,57,425 hectare. The gross cropped area is 5,13,789of District Patiala as per financial year 2020-21. The total reserved forest area of district Patiala is Nil.

(vi) Climate

Patiala's climate is classified as warm and temperate. In winter, there is much less rainfall than in summer. This climate is considered to be Cwa according to the Köppen-Geiger climate classification. The average annual temperature is 23.7 °C | 74.6 °F in Patiala. In a year, the rainfall is 934 mm | 36.8 inch. The yearly data of climate of district Patiala is as under:-

| | January | February | March | April | May | June | July | August | September | October | November | December |
|----------------------------------|-----------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Avg. Temperature °C (°F) | 12.2 °C (54) °F | 15.5 °C (59.9) °F | 21 °C (69.8) °F | 27.8 °C (82) °F | 31.8 °C (89.2) °F | 32.2 °C (90) °F | 29.5 °C (85) °F | 28.3 °C (83) °F | 27.2 °C (81) °F | 24.5 °C (76.1) °F | 19.5 °C (67.1) °F | 14.2 °C (57.6) °F |
| Min. Temperature °C (°F) | 7 °C (44.5) °F | 9.6 °C (49.3) °F | 14 °C (57.2) °F | 19.6 °C (67.4) °F | 23.9 °C (75) °F | 26.3 °C (79.3) °F | 26 °C (78.7) °F | 25.3 °C (77.5) °F | 23.1 °C (73.6) °F | 18.1 °C (64.6) °F | 13.1 °C (55.7) °F | 8.4 °C (47.1) °F |
| Max. Temperature °C (°F) | 18.3 °C (65) °F | 21.8 °C (71.2) °F | 28.1 °C (82.6) °F | 35.5 °C (95.9) °F | 39.1 °C (102.4) °F | 37.9 °C (100.3) °F | 33.5 °C (92.2) °F | 32.1 °C (89.8) °F | 31.8 °C (89.2) °F | 31.3 °C (88.3) °F | 26.7 °C (80) °F | 21 °C (69.8) °F |
| Precipitation / Rainfall mm (in) | 43 (1.7) | 58 (2.3) | 46 (1.8) | 28 (1.1) | 33 (1.3) | 95 (3.7) | 240 (9.4) | 228 (9) | 117 (4.6) | 22 (0.9) | 6 (0.2) | 18 (0.7) |
| Humidity(%) | 76% | 68% | 54% | 32% | 32% | 48% | 76% | 82% | 77% | 58% | 57% | 68% |
| Rainy days (d) | 3 | 4 | 4 | 4 | 6 | 9 | 17 | 17 | 9 | 2 | 1 | 1 |
| avg. Sun hours (hours) | 7.5 | 9.2 | 10.5 | 11.5 | 12.2 | 11.7 | 9.8 | 9.5 | 9.5 | 10.1 | 9.4 | 8.3 |

ACTION PLAN

2. WASTE MANAGEMENT PLAN

(i) Solid Waste Management

(a) Current status related to solid Waste management

| Sr. No. | Urban Local bodies | No of Wards | No of Households | Population | Solid Waste Generated (MT per day) |
|---------|--------------------|-------------|------------------|------------|------------------------------------|
| 1. | Patiala (M Corp) | 60 | 97918 | 489590 | 135 |
| 2. | Rajpura (MC) | 31 | 25000 | 92301 | 26 |
| 3. | Nabha (MC) | 23 | 13624 | 67972 | 25 |
| 4. | Samana (MC) | 21 | 13016 | 54072 | 13 |
| 5. | Patran (MC) | 17 | 6597 | 27963 | 7 |
| 6. | Sanaur (MC) | 15 | 5200 | 26000 | 5 |
| 7. | Ghagga (NP) | 13 | 1908 | 10162 | 2 |
| 8. | Ghanaur (NP) | 11 | 1414 | 6987 | 0.7 |
| 9. | Bhadson (NP) | 11 | 1480 | 7260 | 1 |
| | Total | 202 | 166157 | 782307 | 214.7 |

| Sr. No. | Local Bodies | No of Village Panchayats /Blocks | No of Households | Population | Solid Waste Generated per day (MT) |
|---------|---------------------------|----------------------------------|------------------|------------|------------------------------------|
| 1. | No of Villages Panchayats | 1038/ 10 | 241661 | 1208308 | 332 |

(b) Identification of gaps and Action plan:

| Sr. No. | Action points For villages /blocks/ town municipalities / City corporations | Identification of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|-----------|---|---|--|---------------------------------------|--|
| 1. | Segregation | | | | |
| I. | Municipal Corporation Patiala | According to previous survey report,100%source segregation was achieved. but certain pockets of city have fallen back into old habits of mixing waste. Hence, there is a fresh gap of approx 10% in source segregation. | To Sustain 100% waste Segregation, renewed behavioral change, IEC activities shall be carried out intensively among these households to Ensure waste segregation at source. | Hari Bhari Recyclable Pvt Ltd Patiala | 31-03-2022 |
| II. | Municipal Council Rajpura | 88 % segregation achieved. | Required infrastructure has been put in place, Only Door to door awareness regarding source segregation and home composting is being done to achieve target. | EO Rajpura | 30.11.2021 |
| III. | Municipal Council Nabha | 55 % segregation achieved | Being processing facility is located far away from one major part of city, which led to non-sustaining of source segregation. MC Nabha has processed tender to purchase 6 e-tippers and 3 TATA Ace to overcome this problem. Further, a mechanical composter has also be purchased to achieve the target within timelines. | EO Nabha | 31.12.2021 |
| IV. | Municipal Council Samana | 70 % segregation achieved | Door to door awareness ®ular follow up is going on, Fund and infrastructure available. | EO Samana | 30.11.2021 |

| Sr. No. | Action points For villages /blocks/ town municipalities / City corporations | Identification of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|---------|---|---|--|----------------------|--|
| V. | Municipal Council Patran | 70 % segregation achieved | Composter has been purchased recently, 47 Rickshaw and 4 Tata Ace are put in place. Infrastructure is available. Door to door awareness & regular follow up is going on. | EO Patran | 30.11.2021 |
| VI. | Municipal Council Sanaur | 68 % segregation achieved | Door to door awareness & regular follow up is going on, Fund and infrastructure available. | EO Sanour | 30.11.2021 |
| VII. | Nagar Panchayat Ghagga | 75 % segregation achieved | Being processing facility is located far away from one major part of city, which led to non-sustaining of source segregation. NP Ghagga has now purchased One tata Ace to overcome this problem. | EO Ghagga | 30.11.2021 |
| VIII. | Nagar Panchayat Ghanaur | 95 % segregation achieved | Door to door awareness & regular follow up is going on, Fund and infrastructure available. | EO Ghanour | 31.10.2021 |
| IX. | Nagar Panchayat Bhadson | 100 % segregation achieved No Gap | Door to door awareness & regular follow up is going on, Funds and infrastructure available. | EO Bhadson | NA |
| X. | Villages Panchayat (1038) | Segregation not being done in maximum villages. | Yet to prepare. | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs |

| | | | | | | |
|------------|-------------------------------|---|---|------------|--|--|
| | | | | | | By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 2. | Sweeping | | | | | |
| (i) | Manual Sweeping | | | | | |
| I. | Municipal Corporation Patiala | 100% sweeping being done by 954 sweepers | Proper checking & ensuring the compliance to prevent any lapse. | MCP | | Regular Activity and is being complied with. |
| II. | Municipal Council Rajpura | 100% sweeping being done, no gap | Daily sweeping | EO Rajpura | | Regular Activity and is being complied with. |
| III. | Municipal Council Nabha | 100% sweeping being done, no gap | Daily sweeping | EO Nabha | | Regular Activity and is being complied with. |
| IV. | Municipal Council Samana | 100% sweeping being done, no gap | Daily sweeping | EO Samana | | Regular Activity and is being complied with. |
| V. | Municipal Council Patran | 100% sweeping being done, no gap | Daily sweeping | EO Patran | | Regular Activity and is being complied with. |
| VI. | Municipal Council Sanaur | 100% sweeping being done, no gap | Daily sweeping | EO Sanour | | Regular Activity and is being complied with. |
| VII. | Nagar Panchayat Ghagga | 100% sweeping being done, no gap | Daily sweeping | EO Ghagga | | Regular Activity and is being complied with. |
| VIII. | Nagar Panchayat Ghanaur | 100% sweeping being done, no gap | Daily sweeping | EO Ghanour | | Regular Activity and is being complied with. |
| IX. | Nagar Panchayat Bhadson | 100% sweeping being done, no gap | Daily sweeping | EO Bhadson | | Regular Activity and is being complied with. |
| X. | Villages Panchayat (1038) | 25% sweeping being done. 75% road is not Covered. | More manpower is being deployed. | DDPO | | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |

| Sr. No. | Action points For villages /blocks/ town municipalities / City corporations | Identification of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|----------|--|---|---|--|---|
| (ii) | Mechanical Road Sweeping and Collection | | | | |
| (i) | MCP | 2 Mechanical Sweeping Machines required. | Funds requested from National Clean Air Programme. | MCP | 31.12.2021 |
| (ii) | M.C. Rajpura | Already operating mechanical sweeping machine. No extra machine is required. Hence, No gap. | Daily Sweeping | EO Rajpura | Activity Completed. |
| | Rest of the ULBs in District Patiala are small in size and manual sweeping is sufficient to control dust emissions generated from the roads, hence, no mechanical sweeper is required. | | | | |
| 3 | Waste Collection | | | | |
| (i) | 100% collection of solid waste | <p>➤Waste Collection in MCP and Municipal Councils/ Nagar Panchayats is 100 % i.e. no gap.</p> <p>➤Villages Arrangements are to be provided in villages panchayats (1038) = Not adequate arrangements</p> | <p>At Present Door to door collection is being done both by formal & informal Sector 100 % waste collection is being done. Efforts are being made to keep the waste collection at 100 %.</p> <p>Action plan is yet to be prepared</p> | MCP and Department of Urban Development | <p>Regular Activity and is being complied with.</p> <p>Villages Panchayats (1038) = Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs</p> |
| (ii) | Arrangement for door to door collection | <ul style="list-style-type: none"> MCP:- 200 Rickshaw Rehri, 56 Motorized vehicle and 350 waste pickers. | <ul style="list-style-type: none"> MCP:- For door to door collection the agreement with Hari Bhari Recyclable Pvt Ltd | <ul style="list-style-type: none"> MCP: Hari Bhari Recyclable | Regular Activity and is being complied with. |

| | | | | | |
|--|--|--|--|--|---|
| | | <ul style="list-style-type: none"> • M.C. Rajpura: - One hundred and nineteen Rickshaw Rehris, 7 tractors trollies have been placed for Door to Door Collection. -To ensure effective Door to Door segregated collection, 150 more Rickshaw Rehris are to be purchased. • .Municipal Council Nabha:- Sixty four Rickshaw Rehris have been purchased, Apart from One ULB owned Tractor Trolly , 5 Tractor Trollies are arranged on outsource basis. Apart from these , 3 Tata Ace and 6 e.rickshaw yet required • Municipal Council Samana:- Fifty Rickshaw Rehris and 8 tata Ace have been purchased for Door to Door Collection. • Municipal Council Patran:- Fourty Rickshaw Rehris and 4 tata Ace have been purchased for Door to Door Collection. • Municipal Council, Sanaur:- Twenty Seven Rickshaw Rehris have been purchased for Door to Door Collection. • Nagar Panchayat Ghagga:- | <p>Patiala has already been made.</p> <ul style="list-style-type: none"> • M.C. Rajpura:-To ensure effective Door to Door segregated collection, 150 more Rickshaw Rehris are to be purchased. • Municipal Council Nabha: Being processing facility is located far away from one major part of city, which led to non-sustaining of source segregation. MC Nabha has processed tender on to purchase 6 e rickshaws and 3 TATA Ace to overcome this problem. • Rest of the ULBs have made sufficient arrangements for door to door collection. | <p>Pvt Ltd Patiala.</p> <ul style="list-style-type: none"> • EOs of respective ULBs | <p>MC Rajpura : Purchase of Rickshaw Rehris : 31.12.2021</p> <p>MC Nabha : Purchase of Tata Ace and e.rickshaw : 31.12.2021</p> |
|--|--|--|--|--|---|

| | | | | | |
|-------|--|---|--|--|---|
| | | <p>Thirteen Rickshaw Rehris and 1 tata Ace have been purchased for Door to Door Collection.</p> <ul style="list-style-type: none"> • Nagar Panchayat Ghanaur:- Twelve Rickshaw Rehris have been purchased for Door to Door Collection. • Nagar Panchayat Bhadson:- Twelve Rickshaw Rehris , Two Tata ACE, have been purchased for Door to Door Collection. <p>Thus, no gap in door to door collection for all the ULBs.</p> <p>Arrangement for Villages Panchayats (1038) = Not adequate</p> | <ul style="list-style-type: none"> • Villages Panchayats (1038) = Transport and waste transfer points are being arranged. <p>Action plan is yet to be prepared for arrangements of D to D collection</p> | | <p>Villages Panchayats (1038) = Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs</p> |
| (iii) | Waste Collection trolleys with separate Compartments | <ul style="list-style-type: none"> • MCP : 4 tractor trolleys available with separate compartments. No Gap • MC Rajpura : Required 07 Available 07 • MC Nabha Required 06 Available 06 | Efforts are being made to keep on 100 % waste collection. | <ul style="list-style-type: none"> • MCP: Hari Bhari Recyclable Pvt Ltd Patiala. • EOs of respective | Activity Completed |

| | | | | | |
|------|---|---|--|---|---|
| | | <ul style="list-style-type: none"> NP Bhadson : Required 01 Available 01 NP Ghagga : Required 01 Available 01 NP Ghanaur : Required 0 Available 0 MC Patran : Required 03 Available 03 MC Samana : Required 05 Available 05 MC Sanaur : Required 03 Available 03 Villages Panchayats (1038) = Not adequate | <p>Villages Panchayats (1038) =</p> <ul style="list-style-type: none"> Total no. compartment wise solid Waste Collection trolleys/rikshaws required = 4175 | ULBs | <p>Villages Panchayats (1038) =</p> <ul style="list-style-type: none"> Time target for arranging vehicles. = 30.06.2025 By 30.06.22 = 596 Vehicles By 31.12.22 = 596 Vehicles By 30.06.23 = 596 Vehicles By 31.12.23 = 596 Vehicles By 30.06.24 = 596 Vehicles By 31.12.24 = 596 Vehicles By 30.06.25 = 599 Vehicles Source of fund. = State Level. |
| (iv) | Mini Collection Trucks with separate compartments | <ul style="list-style-type: none"> MCP : 5 Mini collection trucks available i.e. 3 for wet waste and 2 for dry waste. MC Samana Required 08 Available 08 Patran: Required 04 Available 04 Ghagga Required 01 Available 01 | <ul style="list-style-type: none"> Mini Trucks are regularly being used for transportation of solid waste. | <ul style="list-style-type: none"> MCP: Hari Bhari Recyclable Pvt Ltd Patiala. EOs of respective ULBs DDPO | Activity completed |

| | | | | | |
|-------|---|--|--|---------------------------------------|--|
| | | <ul style="list-style-type: none"> • Bhadson: Required 02 Available 02 • MC/NP Rajpura, Ghanaur, Sanaur and Nabha do not require Mini Trucks. • Villages Panchayats (1038) = Not Required | <ul style="list-style-type: none"> • Waste shall be collected in the Village Panchayats with the help of trolleys and Rickshaw with separate compartment. | | Not Applicable |
| (v) | Waste Deposition centers (WDC) (for domestic hazardous wastes) | | | | |
| I. | Municipal Corporation Patiala | Required = 7 Installed = 7 | At Present 7 centers are installed to collect domestic hazardous waste at 7 MRF centers. Proper checking & ensuring to prevent any lapse. | Hari Bhari Recyclable Pvt Ltd Patiala | Activity Completed |
| II. | Municipal Council Rajpura | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Rajpura | Activity Completed |
| III. | Municipal Council Nabha | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Nabha | Activity Completed |
| IV. | Municipal Council Samana | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Samana | Activity Completed |
| V. | Municipal Council Patran | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Patran | Activity Completed |
| VI. | Municipal Council Sanaur | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Sanour | Activity Completed |
| VII. | Nagar Panchayat Ghagga | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Ghagga | Activity Completed |
| VIII. | Nagar Panchayat Ghanaur | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Ghanour | Activity Completed |
| IX. | Nagar Panchayat Bhadson | Required = 1 Installed = 1 | Waste deposition centre is operated efficiently. | EO Bhadson | Activity Completed |
| X. | Villages Panchayat (1038) | Required=1038 Installed=0 | Action plan is yet to be prepared along-with solid Waste Management. | DDPO& XEN Panchayati Raj | Villages Panchayats (1038) = Preparation of action plan 31.03.2022 |

| | | | | | |
|----------|--------------------------------|---|--|---|--|
| | | | | | Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 4 | Waste Transport | | | | |
| (i) | Review existing infrastructure | <ul style="list-style-type: none"> • MCP- 5 trucks, 200 rickshaw rehri, 56 tata ace are available for transport and these vehicles are sufficient as per requirement. Hence there is no gap between requirement and availability. • Bhadson Required Vehicles: 15 Available vehicles: 15. • Rajpura: Required Vehicles: 276 Available 126. (Gap 150 Rickshaw Rehris) • Nabha Required Vehicles: 79 Available 70. (Gap 6 e.Rickshaws and 3 Tata Ace) | <ul style="list-style-type: none"> • MC Rajpura: To ensure effective Door to Door segregated/collection, 150 Rickshaw Rehris to be purchased. • MC Nabha:-Being processing facility is located far away from one major part of city, which led to non-sustaining of source segregation. MC Nabha has processed tender to purchase 6 e rickshaw and 3 TATA Ace to overcome this | <ul style="list-style-type: none"> • MCP – Zonta Infratech Private Limited Patiala • EOs of respective ULBs | <ul style="list-style-type: none"> • MC Rajpura – 31.12.2021 • MC Nabha – 31.12.2021 |

| | | | | | |
|-------|-----------------------|---|--|---|--------------------|
| | | <ul style="list-style-type: none"> • Samana : Required Vehicles: 63 Available vehicles: 63. • Patran: Required Vehicles: 47 Available vehicles: 47. • Sanaur: Required Vehicles: 30 Available vehicles: 30. • Ghagga: Required Vehicles: 15 Available vehicles: 15. • Ghanaur: Required Vehicles: 12 Available vehicles: 12. | problem. | | |
| (ii) | Bulk Waste Trucks | <p>MCP: 5 trucks available for transport. No Gap All the other ULBs do not require bulk waste truck.</p> | To ensure optimum utilization of bulk waste trucks. | <ul style="list-style-type: none"> • MCP – Zonta Infratech Private Limited Patiala • EOs of respective ULBs | Activity Completed |
| (iii) | Waste Transfer points | <ul style="list-style-type: none"> • MCP: 37 semi underground bin sites used as waste transfer points. • 5 are compactor sites • 13 semi underground sites are being identified for 40 more bins. Walls around them will also not be required since they will be underground sites | <ul style="list-style-type: none"> • MCP: 40 Bins to be Procured for 13 more sites, which are being identified. | <ul style="list-style-type: none"> • MCP | MCP:- 31.10.2022 |

| | | | | | |
|----------|--|--|---|--|---|
| | | <ul style="list-style-type: none"> • MC Rajpura: 0 • MC Nabha: 10 • MC Patran: 01 • MC Samana: 5 • MC Sanaur: 02 • MC Ghagga:0 • MC Bhadson:0 • NP Ghanaur: 0 <ul style="list-style-type: none"> • Villages Panchayat (1038) | <p>Efforts are being made at Nabha, Patran, Samana & Sanour to transfer the waste directly to the MRF and bio-remediation sites.</p> <ul style="list-style-type: none"> • Action plan is yet to be prepared along-with solid Waste Management. | <ul style="list-style-type: none"> • EOs of respective ULBs. <p>DDPO & XEN Panchayati Raj</p> | <p>31.10.2022</p> <p>Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs</p> |
| 5 | Waste Treatment and Disposal | | | | |
| (i) | <p>Wet-waste Management: On-site composting by bulk waste generators (Authority may decide on requirement as per Rules).</p> | <ul style="list-style-type: none"> • MCP: 15 BWG are identified 15 compost pits are available for processing of wet waste. • MC Rajpura BWGs identified 12 & onsite composting 12 • Bhadson: identified 01 & onsite composting 01 • Patran: : identified 01 & onsite composting 01 • Samana: : identified 09 & onsite composting 09 • Sanaur: : identified 07 & onsite composting 07 | | <ul style="list-style-type: none"> • MCP • EOs of respective ULBs | <ul style="list-style-type: none"> • MC Patiala :- Regular Activity |

| | | | | | |
|-------|--|---|---|------------|---|
| | | <ul style="list-style-type: none"> • Nabha: : identified 09 & onsite composting Nil • Ghanaur identified 01 & onsite composting 01 • No BWG identified at Ghagga | <ul style="list-style-type: none"> • MC Nabha is pursuing the generators for compliance. | | <ul style="list-style-type: none"> • MC Nabha:- 31.12.2021 |
| (ii) | Wet-waste Management: Facilities for central Bio-methanation/ Composting of wets waste. | | | | |
| I. | Municipal Corporation Patiala | 535 Compost pits constructed. functional and adequate | Efficient operation of the compost pits is being ensured. | MCP | Activity completed |
| II. | Municipal Council Rajpura | 150 Compost pits provided. functional and adequate | Efficient operation of the compost pits is being ensured. | EO Rajpura | Activity Completed |
| III. | Municipal Council Nabha | 73 Compost Pits Provided functional and One mechanical composter is placed . | Efficient operation of the compost pits and Mechanical Composter is being ensured. | EO Nabha | Activity Completed |
| IV. | Municipal Council Samana | 65 Compost pits Constructed and functional and adequate | Efficient operation of the compost pits is being ensured. | EO Samana | Activity Completed |
| V. | Municipal Council Patran | 8 Compost pits provided and One mechanical composter is placed. | Efficient operation of the compost pits and Mechanical Composter is being ensured. | EO Patran | Activity Completed |
| VI. | Municipal Council, Sanaur | 25 Compost pits are constructed and are adequate and functional as per norms. | Efficient operation of the compost pits is being ensured. | EO Sanour | Activity Completed |
| VII. | Nagar Panchayat Ghagga | 15 Compost pits provided. functional and are adequate | Efficient operation of the compost pits is being ensured. | EO Ghagga | Activity Completed |
| VIII. | Nagar Panchayat Ghanaur | 12 Compost pits Constructed and are adequate | Efficient operation of the compost pits is being ensured. | EO Ghanour | Activity Completed |
| IX. | Nagar Panchayat Bhadson | 24 Compost pits provided. functional and are adequate | Efficient operation of the compost pits is being ensured. | EO Bhadson | Activity Completed |
| X. | Villages Panchayat (1038) | Not Available | Plan yet to be prepared | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 |

| | | | | | |
|--|--|--|---|---|---|
| | | <ul style="list-style-type: none"> Ghanaur identified 01 & having agreement with authorized recycler for dry waste No BWG identified at Ghagga | | | |
| | | <p>MCP:- 7 MRF Centers are available for dry waste management in MCP. MRFs are sufficient as per the requirement there is no gap between requirement and availability.</p> <p>The details of the MRF Units provided by MCs/NPs Rajpura=07 Samana=01 Patran=01 Sanour=02 Nabha=02 Ghagga=01 Ghanour=02 Bhadson=02</p> <p>All the MCs/NPs have constructed adequate no. of MRF centers except MC Nabha and NP Ghanaur having a Gap of 01 MRF each.</p> | <p>MC Nabha, and NP Ghanour - The matter is being pursued with the competent authority.</p> | <ul style="list-style-type: none"> MCP EOs of respective ULBs | <p>MC Nabha and NP Ghanour – 31.12.2021.</p> |
| | | Villages Panchayat (1038) - Not Adequate | Plan yet to be prepared | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 |

| | | | | | |
|------|---|---|---|---|--|
| | | | | | By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 = 139 GPs By 30.06.24 = 146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs= |
| (iv) | Disposal of inert and non- recyclable wastes: Sanitary Landfill | <ul style="list-style-type: none"> • MCP = 1 (No Gap) • MCs Samana and Rajpura SLF Constructed, • SLF Under Construction at MC/NP Ghagga, Patran, Sanaur, Bhadson and Ghanaur. • Land is being Identified at MC Nabha | Efforts are being made by remaining MCs / NPs to complete the construction of the SLF at the earliest. | <ul style="list-style-type: none"> • MCP • EOs of respective ULBs | MC, Nabha : 31.01.2022 and remaining MCs / NPs 30.11.2021 |
| (v) | Remediation of historic / legacy dumpsite | | | | |
| i. | Municipal Corporation Patiala | 132000 ton waste is being remediated out of 176000 ton. | Trommels machines are installed for remediation of legacy waste and work is under process. | MCP | 31.05.2022 |
| ii. | Municipal Council Rajpura | Total legacy waste = 12000 MT Waste Remediated = 8000 MT Gap = 4000 MT | Efforts are being made to complete the remediation work at the earliest. | EO, Rajpura | 31.03.2022 |
| iii. | Municipal Council Nabha | The ULB has started remediation work for its legacy waste. Total legacy waste = 12000 MT Just Started Gap = 12000 MT | MC Nabha already installed machinery at dump site for remediation and work is in progress. Electricity connection has been also be provided by PSPCL. | EO, Nabha | 30.06.2022 |
| iv. | Municipal Council Samana | Total legacy waste = 6000 MT Waste Remediated = 4500 MT | Efforts are being made to complete the remediation work at the earliest. | EO, Samana | 31.03.2022 |

| | | | | | |
|-------|------------------------------|--|---|-------------|--|
| | | Gap = 1500 MT Remediation is under progress | | | |
| v. | Municipal Council Patran | Total legacy waste = 1750 MT Waste Remediated = 400 MT Gap = 1350 MT Remediation is under progress | Efforts are being made to complete the remediation work at the earliest. | EO, Patran | 31.03.2022 |
| vi. | Municipal Council, Sanaur | The ULB is yet to start remediation work for its legacy waste. Total legacy waste = 550 MT Gap = 100 % | MC Sanaur has already installed machinery at dump site for remediation and work is in progress. Electricity connection has been provided by PSPCL . | EO, Sanour | 31.03.2022 |
| vii. | Nagar Panchayat Ghagga | Total legacy waste = 1650 MT Waste Remediated = 350 MT Gap = 1300 MT | Efforts are being made to complete the remediation work at the earliest. | EO, Ghagga | 31.03.2022 |
| viii. | Nagar Panchayat Ghanaur | Total legacy waste = 200 MT Waste Remediated = 140 MT | Efforts are being made to complete the remediation work at the earliest. | EO, Ghanour | 31.03.2022 |
| ix. | Nagar Panchayat Bhadson | Total legacy waste = 200 MT Waste Remediated = 140 MT | Efforts are being made to complete the remediation work at the earliest. | EO, Bhadson | 31.03.2022 |
| x. | Villages Panchayat (1038) | Not Started | Due to large number of legacy Dumpsite site, scheme is yet to be prepared. | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs |

| | | | | | |
|-------|---|--|---|---|--|
| | | | | | By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| vi. | Involvement of NGOs | MCP and remaining ULBs - No Gap Villages Panchayat (1038) | MCP:- Power House Youth Club is motivating farmers to take away compost produced by Bio Remediation process for agriculture purpose. NGOs shall be identified for the purpose. | MCP EOs of respective ULBs DDPO | Regular Activity |
| vii. | EPR of Producers: Linkage with Producers / Brand Owners | MCP – No Gap Linkage with producer's/ brand owners is pending. Gap = 100 % | MCP:- Activity is being carried out by HariBhari company. Efforts are being made to complete the linkage at the earliest | MCP - HariBhari Recyclable Pvt Ltd Patiala EOs of respective ULBs | Regular Activity 30.06.2022 |
| viii. | Authorization of Waste Pickers | MCP - Total 350 waste picker is authorized by HariBhari Recyclable PvtLtd Patiala.(No Gap) MC Rajpura (119), Nabha (28), Samana (5), Sanaur (8) Ghagga (5) Patran (7) Ghanaur (1) Bhadson (2) have identified and authorized informal waste collectors. (No Gap). Villages Panchayat (1038) | As per requirement, authorization of waste pickers will be carried out. Not started yet | MCP – Hari Bhari Recyclable Pvt Ltd Patiala EOs of respective ULBs DDPO | Regular Activity Preparation of action plan 31.03.2022 Waste picker authorization by |

| | | | | | |
|-----|---|--|--|--|---|
| | | | | | 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| ix. | Preparation of own by-laws to comply with SWM Rules 2016 | MCP and All MCs/NPs prepared. (Adopted the Model SWM by-laws received from PMIDC). Villages Panchayat (1038) | MCP - Bye Laws are Notified vide notification no 5/105/2020-2 LG 4/1391(A) Dated 11-08-2020. yet to be prepared | MCP EOs of respective ULBs DDPO | Activity Completed. 31.03.2022 |
| x. | Removal of garbage vulnerable points(GVPs) | No gap, as activity Completed | MCP:- Transformed with smart semi underground bins Remaining 8 Municipal Council All the identified (GVPs) have been removed by the all MCs/NPs. | MCP EOs of respective ULBs | Activity Completed |
| xi. | Provision of greenbelt and boundary wall around solid waste dumping site. | MCP:- 300 ft long wall with iron sheets also constructed around dump site and green belt provided. No Gap. Remaining 08 MCs/NPs:- Boundary wall Completed= In 7Mcs (Bhadson, Ghagga, Ghanaur, Nabha, Patran, Rajpura and Samana) Boundary wall at MC Sanaur shall be constructed in consultation with Govt being site on lease) Green belt around Boundary wall=Provided by all ULBs. | No Action required. Remaining8 MCs/NPs Boundary wall at MC Sanaur shall be constructed in consultation with Govt being site on lease. | MCP EOs of respective ULBs | Activity Completed 31.12.2021 for MC, Sanaur. |

| Sr. No. | Action points For villages /blocks/ town municipalities / City corporations | Identification of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|---------|--|---|--|--|--|
| xii. | Providing compartments and GPS tracking in garbage carrying vehicles | MCP: - 56 Garbage collecting Vehicles and 5 trucks have been Compartmentalized and provided GPS Tracking system. Remaining 08 MCs/NPs:- All the 44 mechanical Vehicles have been provided compartments with GPS. No Gap. | Regular vigil is being kept through GPS Tracking. | MCP EOs of respective ULBs | Activity completed |
| xiii. | Stopping solid waste/ garbage being thrown in Ghaggar and Drains passing through Patiala city | No Gap | Awareness is being carried out in the public to stop the dumping of solid waste in river/Nallah. Challans are also issued to the violators by the MCP. Further, team of comprising Deptt. of Rural Development and Panchayat, PWSSB and Drainage is regularly keep check on the drains for dumping of any solid waste. | MCP, Drainage, Rural Development and Panchayat and PWSSB | Regular activity. |
| xiv. | Action Plan for Treatment of leachate generated from legacy waste dumpsite. (Directions of Hon'ble NGT in OA no. 606 of 2018 dated 22.07.2019, 28.02.2019, 14.12.2020) | MCP:- Effluent treatment plant is to be installed at legacy waste dump. MCs/NPs: No such arrangement has been provided so far. | MCP:- Proposal for installation of treatment plant is under consideration Remaining 08 MCs/NPs:- Leachate management will be done along with Bio-remediation of legacy waste. | MCP EOs of respective ULBs | MCP:- 30-06-2022 Department of Urban Development (for other ULBs):- • Treatment of leachate waste by 30.06.2022. |
| xv. | Best practices, including setting up of Control Rooms where citizens can upload photos of | No Gap | Swachhata app is widely used by citizens for complaints related to SWM/ SBM, It is resolved and monitored at ULB and state level | All Local bodies | Already in place |

| | | | | | |
|--------|--|---|--|-------------------------------------|--|
| | garbage which may be looked into by the specified representatives of local bodies, at local level as well as State level. (Directions of Hon'ble NGT in OA no. 606 of 2018 dated 22.07.2019, 28.02.2019, 14.12.2020) | | both. | | |
| xvi. | CCTV cameras be installed at dumping sites. (Directions of Hon'ble NGT in OA no. 606 of 2018 dated 22.07.2019, 28.02.2019, 14.12.2020) | 100 % Gap | MCP:- Case for installation of CCTV has been sent for approval and will installed by 30-10-2021 Department of Urban Development (for other ULBs):- Proposal is under consideration. | All Local bodies | MCP:- 30-10-2021 Department of Urban Development (for other ULBs):- 30.11.2021 |
| xvii. | Installation of Piezometer at Dump Site. (Directions of Hon'ble NGT in OA no. 606 of 2018 dated 22.07.2019, 28.02.2019, 14.12.2020) | MCP : No Gap Remaining 8 MCs/NPs:- 5 MCs/NPs Ghagga, Ghanaur, Nabha, Patran, and Rajpura. have installed Piezometer at dump site and rest is yet to be provided. | MCP:- Installed at dumpsite Department of Urban Development (for other ULBs):- Installed by Ghagga, Ghanaur, Nabha, Patran, and Rajpura. Rest of ULBs will install by 30.11.2021 | MCP EOs of respective ULBs | MCP:- NA Department of Urban Development (for other ULBs):- 30.11.2021 |
| xviii. | Carcass should be utilized by adopting rendering process or incineration and priority may be given to carcass utilization by adopting rendering process. (Directions of Hon'ble NGT in OA no. 465/2019 dated 15.04.2021) | MCP= Carcasses will be sent to the rendering plant at Ludhiana. For the time being till the completion of plant, short time measure like proper boundary wall and green belt is being provided around carcass disposal sites. Other 08 MCs = All 08 ULBs are planning to make a cluster for | MCP:has installed the Carcass Utilization Plant at village Noorpur Bet (Hambran Road), Dist. Ludhiana. Trails of plant have been completed in the month of June 2021. Other 08 MCs :-Process of tie-up or project planning will | MCP ADC(UD) | MCP :- Tie-up with Municipal corporation Ludhiana for scientific disposal of animal carcasses Other 08 MCs :- Process of project planning will be |

| Sr. No. | Action points For villages /blocks/ town municipalities / City corporations | Identification of gap | Action Plan | Responsible agencies | Timeline for completion of action plan |
|---------|--|--|--|----------------------|--|
| | | scientific disposal of animal carcasses. | be achieved by 31.03.2022 | | achieved by 31.03.2022 |
| xix. | Carcass disposal to be done under the supervision Veterinary/Animal Husbandry Department of the State and the Local Bodies. (Directions of Hon'ble NGT in OA no. 465/2019 dated 15.04.2021 | No gap | Carcass disposal will be ensured under the supervision of veterinary doctors. | MCP | Regular activity |
| xx. | Management of waste water and solid waste by the unauthorized colonies/residential complex/commercial complex developed by Pvt. Colonizers. | Inadequate management of solid waste and liquid waste in these colonies. | The team has checked so far visited 33 such colonies. The work is huge and different department are involved for joint inspection. Hence, time is required upto 31.12.2021 for the complete for the identification work. | MCP&PDA | <p>MCP (Within Municipal Limit)</p> <ul style="list-style-type: none"> • Identification by 31.12.2021 • Management of solid waste collection = 31.03.2022. Segregation & treatment = 30.06.2022 Arrangement/ Agreement for dry waste = 30.06.2022 • Provision of STPs= 31.03.2022 <p>PDA/DDPO (Outside MC limit)</p> <ul style="list-style-type: none"> • Identification by 31.03.2022 • Management of solid waste collection = |

| | | | | | |
|--------|--|---|--|---|--|
| | | | | | 30.09.2022. Segregation & treatment = 31.03.2023 Arrangement/ Agreement for dry waste = 31.03.2023 • Provision of STPs= 31.03.2023 |
| xxi. | To prepare proposal / scheme for management of solid waste in the villages either in cluster form or independently in individual villages | Inadequate Management of solid waste in the villages. | Scheme is yet to be prepared. | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| xxii. | Information Education and Communication (IEC) activities in respectof solid waste. | No gap | The IEC activities in this regard are already being done by the concerned departments. Promoters and Residents are informed when the joint team visits their colonies and they are encouraged to follow the solid and liquid waste management rules. | All ULBs (Municipal Corporation, Municipal Council and Nagar panchayat) of the district & PDA | Regular Activity |
| xxiii. | Constitution of District Environment Committee in view of the constitution provisions under article 243 G, 241 W and 243 ZD read with scheduled 11, 12 & 15 of SWM | No gap | Constituted by the State Government. | State Government | Activity completed |

| | Rules, 2016. | | | | |
|--------|--|---|---|--|--|
| xxiv. | Management of carcass in rural area. | Inadequate management of carcass in rural area. | No. of carcasses existing = 625 No. of carcass provided liquid waste management = NIL | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| xxv. | Dry-Waste Management: Material Recovery for dry-waste fraction (RDF) | MCP : No Gap | MCP :HariBhari Recyclable Pvt Ltd collects catagorised dry waste which is being taken to 7 MRF Centers where it is being sent for recycling to scrap dealers. | MCP:- HariBhari Recyclable Pvt Ltd Patiala | Regular Activity |
| xxvi. | Solid waste management by MCP | 7 MRF center and 535 compost pits are functional for the treatment of solid waste management. | Adequate arrangement provided | MCP | Regular Activity |
| xxvii. | Management of Horticulture Waste in MCs. | MCP: Total 112 parks and Compost pits constructed in 43 parks. Centralized composting machine is installed at model town park for processing of horticulture waste of 69 parks. MC Rajpura 52 parks: Compost Pits 10 (Connecting all parks or temporary arrangements at small parks) MC Nabha: 3 parks: Compost pits 3, NP Ghagga 1 park : one | Adequate arrangement provided | MCP&ADC(UD) | Regular Activity |

| | | | | | |
|---------|--|--|--|------|------------|
| | | compost pit, MC Samana 2 parks : 2 Compost pits, MC Sanaur 1 park one compost pit, MC/NP Ghanaur, Bhadson and patran - there is no park. | | | |
| xxviii. | Management of solid waste generated from poultry farms | Identification of Poultry farms, their capacity, quantity of solid waste generated. | <ol style="list-style-type: none"> 1. Inspection of poultry farms & persuasion shall be carried out for making agreements with the farmers for proper disposal of bird droppings. 2. To make agreement with CBWTF for incineration of dead birds. 3. Installation of scrappers to collect the bird droppings regularly. 4. Compliance of guidelines framed by CPCB vide letter No. B-4032/PCI-SSI/Poultry/2015/13165 dated 20.10.2015. | PPCB | 31.03.2023 |

(ii) **Plastic waste Management**

(a) Current status related to Plastic waste management

| Sr. No. | Urban Local bodies | Estimated quantity of Plastic Waste Generated MT/per day |
|----------------|-------------------------------|---|
| 1. | Municipal Corporation Patiala | 10 |
| 2. | Municipal Council Rajpura | 2 |
| Sr. No. | Urban Local bodies | Estimated quantity of Plastic Waste Generated MT/per day |
| 3. | Municipal Council Nabha | 1.5 |
| 4. | Municipal Council Samana | 1.1 |
| 5. | Municipal Council Patran | 0.5 |
| 6. | Municipal Council, Sanaur | 0.4 |
| 7. | Nagar Panchayat Ghagga | 0.12 |
| 8. | Nagar Panchayat Ghanaur | 0.06 |
| 9. | Nagar Panchayat Bhadson | 0.07 |
| | Total | 15.75 |

| Sr. no. | Local Bodies | Estimated quantity of Plastic Waste Generated (in MTD) |
|----------------|----------------------------|---|
| 1 | Villages Panchayats (1038) | 25 |

(b) Identification of gaps and Action plan:

| S. No. | Action points For village panchayats/blocks/municipalities /corporations | Identification of gap | Action plan | Agencies Responsible | Target time for Compliance |
|--------|--|--|---|--|--|
| 1. | Door to Door collection of dry waste including PW | MCP - HariBhari is collecting segregated waste including plastic waste (No Gap). Remaining 8 MCs/NPs : There is No Gap in Door to Door Collection of waste including plastic waste. Although there is a gap of 20% in collection of waste in segregated form in all the MCs/ NPs. | MCP – Proper checking is being carried out to prevent any lapse Remaining 8 MCs/NPs:- To achieve the target of 100% source segregation | MCP - HariBhari Recyclable Pvt Ltd Patiala EOs of respective ULBs | MCP - Regular Activity. Remaining 8 MCs/NPs:- 31.12.2021 |
| | | Villages Panchayat (1038) =Not initiated | Plan will be prepared and implemented as per the timelines. | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 2. | Facilitate organized collection of plastic Waste at Waste transfer point or Material Recovery Facility | Adequate through Door to Door garbage Collection Rickshaw Rehri etc. • MCP : 200 Rickshaw Rehri, 56 Motorized | • MCP:- for organized collection the | • MCP : Hari Bhari | Activity completed |

| | | | | | |
|--|--|--|---|---|---|
| | | <p>vehicle and 350 waste pickers. No gap</p> <ul style="list-style-type: none"> • M.C. Rajpura :- 119 Rickshaw Rehris, 7 tractors trollies.. • MC, Nabha:- 64 Rickshaw Rehris. • MC, Samana:- 50 Rickshaw Rehris and 8 tata Ace. • MC, Patran:-40 Rickshaw Rehris and 4 tata Ace. • MC, Sanaur:- 27 Rickshaw Rehris. • NP Ghagga:- 13 Rickshaw Rehris and 1 tata Ace. • NP Ghanaur:- 12 Rickshaw Rehris. • NP Bhadson:- 12 Rickshaw Rehris , 2 Tata Ace <p>Arrangement for Villages Panchayats (1038) = Not adequate</p> | <p>agreement with Hari Bhari Recyclable Pvt Ltd Patiala has already been made.</p> <ul style="list-style-type: none"> • M.C. Rajpura: 150 more Rickshaw Rehris are to be purchased. • MC Nabha: Being processing facility is located far away from one major part of city, which led to non-sustaining of source segregation. MC Nabha has processed tender on to purchase 6 e rickshaws and 3 TATA Ace to overcome this problem. • Rest of the ULBs have made sufficient arrangements for organized collection of plastic waste. <p>Action plan is yet to be prepared</p> | <p>Recyclable Pvt Ltd.</p> <ul style="list-style-type: none"> • EOs of respective ULBs | <p>MC Rajpura : Purchase of Rickshaw Rehris : 31.12.2021 MC Nabha : Purchase of Tata Ace and e.rickshaw : 31.12.2021</p> <p>Villages Panchayats (1038) = Preparation of action plan 31.03.2022</p> |
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| | | | | | Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 3. | Plastic Waste collection Centres | <ul style="list-style-type: none"> MCP – 7 Material recovery facility center are available in MCP jurisdiction for Plastic waste Management. MRFs are sufficient as per the requirement and there is no gap between requirement and availability. Remaining 8 MCs/NPs : The details of the MRF Units provided by MCs/NPs Rajpura=07 Samana=01 Patran=01 Sanour=02 Nabha=02 Ghagga=01 Ghanour=02 Bhadson=02 <p>All the MCs/NPs have constructed adequate no. of MRF centers</p> | <ul style="list-style-type: none"> MCP - Proper checking being carrying out to prevent any lapse. MC Nabha, NP Ghanour The matter is being pursued with the competent authority.. | <ul style="list-style-type: none"> MCP - HariBhari Recyclable Pvt Ltd Patiala EO of respective ULBs | <p>MCP - Regular Activity.</p> <p>MC Nabha and NP Ghanaur 31.12.2021</p> |

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|----|---|--|--|----------------------------|--|
| | | except MC Nabha and NP Ghanaur having a Gap of 01 MRF each. Villages Panchayats (1038). | | • DDPO | 30.06.2024 for Implementation 200 MRF by 30.06.2022 200 MRF by 31.12.2022 200 MRF by 30.06.2023 200 MRF by 31.12.2023 238 MRF by 30.06.2024 |
| 4. | Awareness and education programs implementation | Regular Activities are done, Community facilitators and Motivators are deputed in all ULBs for door to door awareness. | Regular awareness, workshops and enforcement in markets, educational institutes and BWGs carried out by MCP and other MCs / NPs | MCP EOs of respective ULBs | Regular Activity |
| 5. | Access to Plastic Waste Disposal Facilities | No Gap | MCP - Linkage with Recyclers and Traders. .PMIDC has executed a contract with M/s MAX specialty Films regarding purchase/ collection of any kind of plastic garbage from the ULBs. PMIDC has also coordinated with PWD and Mandi Board to utilize plastic waste in construction of Roads. | MCP EOs of respective ULBs | Activity Completed |
| 6. | Plastic Industry Registration. Total no. of plastic unit required registration. Total no. of plastic unit obtained registration. (Directions of Hon'ble NGT in EA no. 13/2019 dated | Total no. of plastic unit required registration = 58 Total no. of plastic unit obtained registration = 51 | To pursue industry for obtaining registration | PPCB | Timeline for registration of the remaining units: 31.03.2022. |

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|----|--|--|--|----------------------------|--|
| | 08.01.2021) | | | | |
| 7. | Development and setting up of infrastructure for segregation, collection, storage, transportation, Processing, and disposal of Plastic Waste either on its own for by engaging agencies or producers. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | MCP and Other remaining 8 ULBs : No gap | <p>MCP:IPCA has been engaged for collection of Plastic Waste. Separate chamber has also available in 7 MRF Centers</p> <p>Department of Urban Development (for other ULBs):- Recyclabe Plastic waste is collected, transported and stored separately by all ULBs. Currently such plastic is being stored at MRF. Contract For channelization/ processing of both recyclable and non-recyclable plastic have been done with Max Specialty Films Pvt. Ltd. By remaining ULBs.</p> | MCP EOs of respective ULBs | <p>MCP: Activity Completed</p> <p>Department of Urban Development (for other 08 ULBs):- capacity of MRFs at MC Nabha, Ghagga, Bhadson and Ghanaur shall be enhance by 31.12.2021</p> |
| | | Villages Panchayats (1038) DDPO:- Inadequate disposal arrangement of plastic waste. | Plan will be prepared and implemented as per the timelines. | DDPO | <p>31.08.2028 For Implementation</p> <p>By 30.10.22 = 105 GPs By 30.10.23= 122 GPs By 30.10.24 = 135 GPs By 30.10.25 =139 GPs By 30.10.26 =146 GPs By 30.10.27 = 180 GPs By 30.10.28 = 211 GPs</p> |
| 8. | Framing of bye-laws incorporating the provisions of Plastic Waste Management Rules, 2016. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Yet to frame in rural areas. | <p>MCP& All MCs/NPs= Already framed.</p> <p>Rural Panchayats (1038) = yet to prepared</p> | MCP, ADC(UD)& DDPO | DDPO = 31.03.2022 |

| S. No. | Action points For village panchayats/blocks/municipalities /corporations | Identification of gap | Action plan | Agencies Responsible | Target time for Compliance |
|--------|---|---|--|---|---|
| 9. | Set up, operationalize and co-ordinate for Plastic Waste management in Rural area. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Inadequate Plastic Waste management in Ruralarea. | Awareness regarding it is being done to the Gram Panchyat for segregation, Collection and transportation. The same will be done with Compartmentalized Rischshaw and stored in the Extra Pit to be made | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 10. | Ban on non-recyclable single use polythene bags. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Ban on non-recyclable single use polythene bags | Ban has been already imposed by the State Govt., on sale, purchase, manufacturing and stock of plastic carry bags. The Ministry of Environment, forest And Climate change vide its notification dated 12.08.2021 has banned Single use plastic with effect from 1.07.2022. Further, the guidelines of the Centre and State Govt., regarding banning of single use plastic will be complied with. | ALL Local bodies/PPCB | The Ministry of Environment, forest And Climate change vide its notification dated 12.08.2021 has banned Single use plastic with effect from 1.07.2022. Further, the guidelines of the Centre and State Govt., regarding banning of single use plastic will be complied with. |
| 11. | Segregation, collection, storage, transportation of plastic waste and channelizing of recyclable plastic waste fraction to recycler having valid registration. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Arrangement for plastic waste disposal. | MCP: IPCA has been engaged for collection of Plastic Waste. Separate chamber has also available in 7 MRF Centers Department of Urban | MCP : IPCA / HariBhari Recyclable Private Ltd Company All Local bodies | Regular activity Department of Urban |

| | | | | | |
|-----|--|--|---|--------------------------------------|--|
| | | Villages Panchayats (1038) : Not Adequate | <p>Development (for other 8 ULBs):- Recyclable plastic waste is collected, transported and stored separately by all ULBs. Currently such plastic is being stored at MRF. Contract For channelization/ processing have been done with Max Specialty Films Pvt. Ltd. All the ULBs have made agreement with the agency</p> <p>Plan yet to be prepared.</p> | DDPO | <p>Development (for other 08 ULBs):- capacity of MRFs at MC Nabha, Ghagga, Bhadson and Ghanaur shall be enhance by 31.12.2021</p> <p>Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs</p> |
| 12. | Awareness to the waste generator to take steps to minimize the plastic waste and segregate plastic waste at source. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | No Gap | Awareness is being carried out on regular basis by engaging community facilitators and motivators | MCP& EOs of respective ULBs and DDPO | Regular activity |
| 13. | Encouragement to the education institute to take up waste management in their curriculum and create student project for | No gap | Already being followed and seminars are being organized. | DEO primary and secondary | Regular activity |

| | | | | | |
|-----|---|--|---|----------------------|--|
| | waste recycling. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | | | | |
| 14. | Directions to Gram Panchayat to perform functions such as ensuring segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Disposal of plastic waste in villages. | Instruction are already been given to Gram Panchayat Through BDPO's | DDPO | Preparation of action plan 31.03.2022 Implementation by 30.06.2025 By 30.06.22 = 105 GPs By 31.12.22 = 122 GPs By 30.06.23 = 135 GPs By 31.12.23 =139 GPs By 30.06.24 =146 GPs By 31.12.24 = 180 GPs By 30.06.25 = 211 GPs |
| 15. | Creating awareness among all stakeholders about their responsibilities, and ensuring that open burning of plastic waste does not take place. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | No gap | All stakeholders are being made aware regarding their responsibility. It is being ensured that open burning of plastic waste does not take place. Violators are challans. | All local bodies | Regular activity |
| 16. | To ensure proper plastic waste management, industries may be directed to explore the possibilities of use of such wastes in construction of roads. Further industries may also be directed to collaborate with different research institutes to explore such alternatives. (Directions of Hon'ble NGT in EA no. 13/2019 dated 08.01.2021) | Plastic waste use in construction of roads | Instructions will be given to the industries to explore such activities to department of industries who through research institutes | MCP, ADC(UD) and PWD | 31.12.2022 |

(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) | MCP – 10 MT Remaining 8 MCs/NPs - 9 MTD |
| (b) Does the District has access to C&D waste recycling facility? | Yes |

(b) Identification of gaps and Action plan:

| S. No. | Action points for blocks/town municipalities /City corporations | Identification of Gaps | Action Plan | Responsible agency | Timeline for completion of action plan |
|--------|---|---|--|---------------------------------|--|
| 1. | Arrangement for separate collection of C&D waste to C&D waste deposition point. | MCP and other MCs / NPs have provided separate collection sites and are adequate. • No Gaps | Not Required | ALL EOs of ULBs, MCP | Activity Completed |
| 2. | Whether local authority have fixed user fee on C&D waste and introduced permission system for bulk waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month. | MCP – No Gap MCs / NPs has not fixed user fee and permission system is yet to be introduced. | MCP – Patiala has fixed user fee on C& D waste which is Rs 500/- per ton Bye laws to be notified and fee to be fixed. | MCP & EOs of respective MCs/NPs | MCP – Activity Completed Remaining 8 MCs/NPs = 31.03.2022 |

| S. No. | Action points for blocks/ town municipalities /City corporations | Identification of Gaps | Action Plan | Responsible agency | Timeline for completion of action plan |
|--------|---|---|---|---------------------------------|--|
| 3. | C&D recycling Facility | MCP : 2 C&D crushing Machine are installed at Bishan Nagar and Focal Point. It is also being used for landfilling at low lying areas, to make footpaths etc | MCP : Efforts are being made to keep on complete utilization of the recycled C & D waste. | MCP & EOs of respective MCs/NPs | Activity Completed. |
| 4. | Usage of recycled C&D waste in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads | MCP - recycled C & D waste is being used in lower layers of road payments,in low lying areas for leveling. Remaining 8 MCs/NPs : Grinders purchased by all MCs / NPs | Remaining 8 MCs/NPs : To efficiently operate Grinders for recycling of C & D waste. | | |
| 5. | ICE on C&D waste management | No Gap. | Awareness is being carried out through media/ NGOs/ FM on regular basis. | MCP & EOs of respective MCs/NPs | Regular Activity |

(iv) Bio medical Waste Management

(a) Current Status related to biomedical waste

| Inventory of BMW in the District | Quantity |
|--|---|
| Total no. of Bedded Health care Facilities | 302 |
| Total no. of non-bedded HCF | 356 |
| No. of HCFs authorized by SPCBs/PCCs | 651 |
| Total No. of veterinary Hospitals/Dispensaries in the District Patiala | 167 |
| Total No. of veterinary Hospitals/Dispensaries connected with Common Biomedical treatment facility (CBWTF). | 9-Hospitals directly connected with CBWTF. 146-Hospitals/Dispensaries connected via nearest block level institutions |
| Total no. of veterinary Hospitals/ Dispensaries obtained the authorization of Punjab pollution Control Board | 155 |
| Total No. of veterinary Hospitals/Dispensaries adopted segregation of BMW through separate colour coded collections bins. | 155 |
| Total no. of veterinary Hospitals/Dispensaries complying with BMW Rules, 2016 and Maintaining record of Biomedical waste generation and its disposal to CBWTF. | 155 |
| No of Common Biomedical Waste Treatment and Disposal Facilities(CBWTFs) | 0 |
| Capacity of CBWTFs | 0 |
| No. of Deep burials for BMW if any | 0 |
| Quantity of bio medical waste generated per day | 634.55kg/day |
| Quantity of bio medical waste treated per day | 634.55kg/day |

(b) Identification of gaps and Action plan:

| Sr. No. | Action Points | Gaps | Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|---|---|----------------------------------|--|
| 1. | Inventory and Identification of Healthcare Facilities | <ul style="list-style-type: none"> Total HCFs identified (Bedded + non-bedded) = 658 HCFs authorized by the PPCB = 651. | Regular camps are being organized to pursue the HCFs to obtain the authorization. | PPCB | Regular activity |
| 2. | Adequacy of facilities to treat biomedical waste | No Gap. The CBWTF M/s Medicare Environments Pvt. Ltd at Ludhiana has been given responsibility for disposal of bio-medical waste generated in District Patiala. | Not required | PPCB | Activity completed |
| 3. | Tracking of Bio-Medical Waste | No Gap. Bar code system is implemented by all HCFs. | Not required | PPCB | Activity completed |
| 4. | Awareness and education of healthcare staff | No Gap Training has been organized for all stakeholders from time to time. One camp will be organized in a quarter. | Not required | PPCB and Health Department | Regular activity |
| 5. | Adequacy of Funds | No gap | Private HCFs = Funds available Govt., HCFs = Funds available | Civil Surgeon | Not Applicable |
| 6. | Compliance to Rules by HCFs and CBWTFs | No gap, to check the compliance regular monitoring is being done. | BMW Rules, 2016 are complied with except provisions of ETPs cum STPs | PPCB, HCFs and civil surgeon | Regular activity |
| 7. | District Level Monitoring Committee | District Level Monitoring Committee has been constituted | Meetings are taken on monthly basis District Environment Committee. | District Administration and PPCB | Regular Activity |
| 8. | Wastewater Treatment | <ul style="list-style-type: none"> Total HCFs Required ETP = 302 Total HCF install ETPs = 10 | HCFs are being pursued to install the ETP. The | PPCB | <ul style="list-style-type: none"> The timelines vide Board order no. 468 dated 31.08.2021 timeline has |

| | | | | | |
|----|---|---|---|-------------------|--|
| | | | meetings are being held with the association members. | | <p>been given as 31.03.2022.</p> <ul style="list-style-type: none"> The HCF will submit a Bank Guarantee to the Board as an assurance to submitted analysis results and installation of appropriate and adequate system to archived prescribed standards. In case sample fail to achieve the prescribed standard. |
| 9. | Disposal of radioactive materials. With the proliferation of radiotherapy, nuclear medicine, X Rays, CT Scans and other equipment's using radioactive materials. (Directions of Hon'ble NGT in OA no. 710 of 2017 dated 18.01.2021) | <p>Already Being Complied.</p> <ul style="list-style-type: none"> Most of the Hospitals now have provided the digital X-Ray, hence no such waste is generated from digital X-ray. The Hospitals which have not provided the digital x-ray machine have made the agreement with the authorized agency for the disposal of its waste. | Already Complied. Being | Health department | Activity Completed |

(v) Hazardous Waste Management

(a) Current Status related to Hazardous Waste Management

| Details of Data Requirement | Present Status |
|---|--|
| No of Industries generating HW | 119 |
| Quantity of HW in the district (MT/Annum) | 15280.33 |
| Quantity of Incinerable HW (MT/Annum) | 375.887 |
| Quantity of land-fillable HW(MT/Annum) | 1301.032 |
| Quantity of Recyclable/utilizable HW(MT/Annum) | Recyclable=5352.314 Utilizable=8251 |
| Nos. of captive/common TSDF | One common TSDF at NIMBUA, DeraBassi. |
| No of industries provided on site impervious facilities for temporary collection of hazardous waste | 119 |
| Contaminated Sites or probable contaminated sites | 0 |
| Monitoring of ground water of common TSDF. | No common TSDF falls in the District Ludhiana. |

(b) Identification of gaps and action plan:

| No. | Action points | Identification of Gaps | Action Plan | Responsible agency | Timeline for completion of action plan |
|-----|--|---|---|--------------------|--|
| 1. | Regulation of industries and facilities generating Hazardous Waste | <ul style="list-style-type: none"> Total industries identified =119 Authorized by the PPCB=119. No Gap | Regular camps are being organized to pursue the industries to obtain the authorization. Also, new hazardous waste generating industries are being identified after making field visits. | PPCB | Regular activity |

| | | | | | |
|----|---|--|---|-----------------------------|----------------------|
| 2. | Establishment of collection centres | No gap. | The industries generating hazardous waste have already provided individual impervious storage / collection facility in their premises for temporary storage of hazardous waste and have executed an agreement with TSDF and authorized recyclers for disposal of the same. However, a continuous follow up will be made to rule out unscientific disposal of hazardous waste by the industrial unit | PPCB | Regular activity |
| 3. | Training of workers involved in handling/recycling/disposal of HW | Industries generating HW already identified | The workers are being trained time to time. One training program will be provided in a quarter. | Department of Industries | Regular activity |
| 4. | Availability/Linkage with common TSDF or disposal facility | The industries generating HW have access to common TSDF in the State. No. of units identified linked with CTSDF = 119 | The industries generating HW have access to common TSDF in the State. | PPCB | Activity completed |
| 5. | Contaminated Sites | No Contaminated Site | No Contaminated Site | Local Bodies, DDPO and PPCB | No Contaminated Site |

(vi) E-Waste Management

(a) Current Status related to E-Waste Management

| Details of Data Requirement | Present Status |
|---|--|
| Inventory of E-Waste in MT/year | 1398 |
| Collection centers established by ULBs in the District | 0 |
| Collection centers established by Producers or their PROs | 2 |
| Nos. authorized E-Waste recyclers /Dismantler | 01 no. dismantler already established in the District Patiala (M/s Kumar Enterprises, Malerkotla Road, VIII. Dulladi, Teh. Nabha, Distt. Patiala). |

(b) Identification of gaps and action plan:

| Sr. No. | Action Points | Gaps in implementation | Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|----------------|---|---|--|-----------------------------|---|
| 1. | Inventory / Generation of E-Waste / Bulk-waste generators | Inventorization of E-Waste in the District. Inventory of bulk waste generators is under process. | Completion of inventory | PPCB | 31.10.2022 |
| 2. | E-Waste collection points | Availability of E-Waste collection points / call centres / kiosks in villages – Blocks//towns/ cities is not adequate | Identification /registering E-Waste collection centres in association with Producers – their PROs or Recyclers | MCP, All MCs /NPs and GMDIC | 31.10.2022 |

| | | | | | |
|----------------|---|--|---|--------------------------------|---|
| 3. | Linkage among Stakeholders dechannelize-Waste | Linkage among stakeholders is being done. | Work under progress | MCP, All MCs /NPs and GMDIC | 31.10.2022 |
| Sr. No. | Action Points | Gaps in implementation | Action Plan | Responsible Agency | Timeline for completion of Action Plan |
| 4. | Regulation of Illegal E-Waste recycling / dismantling | Yet to be initiated | Surprise visits will be made to identify illegal e-waste recyclers / dismantlers | District Administration & PPCB | 31.12.2022 |
| 5. | Integration of informal sector | Being done | Being prepared. | District Administration & PPCB | 31.10.2022 |
| 6. | Awareness and Education | Regular activity | Quarterly Special workshops and awareness campaigns through Producers/PROs will be carried out. | District Administration & PPCB | Regular Activity |
| 7. | Identification of Producers who have not obtained, EPR Authorization (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | This is a continuous activity and will be followed. | This is a continuous activity and will be followed. | SPCBs/ PCCs/Custom department | Regular activity |
| 8. | Verification of quantity of e-waste collected by producers(Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | This is a continuous Activity. All the EPR Authorised Producers will be verified per year | This is a continuous Activity. All the EPR Authorised Producers will be verified per year. | PPCB | Regular activity |
| 9. | Verification of systems provided by producers for collection and channelization of e-waste. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | This is a continuous Activity. All the EPR Authorised Producers will be verified per year. | This is a continuous activity. All the EPR Authorised Producers will be verified per year. | PPCB | Regular activity |
| 10. | Verification of facilities of dismantlers and recyclers for their infrastructure | This is a continuous activity. All the dismantlers/recyclers | This is a continuous activity. All the | PPCB | Regular activity |

| | | | | | |
|----------------|--|---|--|---|---|
| | and records. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | will be verified per year. | dismantlers/recyclers will be verified per year. | | |
| Sr. No. | Action Points | Gaps in implementation | Action Plan | Responsible Agency | Timeline for completion of Action Plan |
| 11. | Checking of informal trading, dismantling, and recycling of waste. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | Regular activity | Quarterly drive will be carried out checking of this activity. | District Administration/PPCB | Regular activity |
| 12. | Facilitate collection and disposal of e-waste. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | Regular activity | Mechanism for collection and for incentivizing setting up of recycling facilities will be complied with. | District Administration/PPCB | Regular activity |
| 13. | Governance frame work for monitoring compliance. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | Regular Monitoring will be carried out to check the compliance. | Regular Monitoring will be carried out to check the compliance. | District administration/PPCB. | Regular activity |
| 14. | Capacity building at district level. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | Workshops/seminars to educate functionaries is being run on regular basis. | District Administration, PPCB & Local bodies. | Regular activity |
| 15. | IEC plan be firmed up and executed. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | IEC plan has been prepared by state and being implemented in all ULBs widely. | District Administration, PPCB & Local bodies. | Regular activity |
| 16. | Strengthen system of enforcement. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | Status of enforcement of Byelaws reviewed periodically Hon'ble Deputy Commissioner-cum-Chairman of District Environment Committee. | District Administration, PPCB & Local bodies | Regular activity |

| | | | | | |
|-----|---|--|--|-----------------------|--|
| 17. | Allocation of proper space to the existing and upcoming industrial units for e-waste dismantling and recycling. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | State Government has already planned the focal points for industrial units. Proper space will allocate to the existing and upcoming industrial unit for E waste dismantling and recycling facility. | PSIEC | Already done |
| 18. | Recognition and registration of workers involved in dismantling and recycling, undertake industrial skill development activities for the workers involved in dismantling and recycling. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | Recognition and registration of workers involved in dismantling and recycling and industrial skill development activities for the workers involved in dismantling and recycling will be done on regular basis | Labour Department | Regular Activity |
| 19. | Annual monitoring to ensure health and safety of workers involved in such activities. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | No gap | Will be Ensured on Annual basis. | Director of Factories | Regular Activity |
| 20. | Separate waste deposition centers for domestic E-waste which helps in easy segregation of E-waste. (Directions of Hon'ble NGT in OA no. 512/2018 dated 15.01.2021) | Separate waste deposition centers for domestic E-waste | MCP:- Domestic hazardous waste deposition centers will be established with the each secondary collection point. Department of Urban Development (for other ULBs):- E-Waste deposition center is yet to be | All Local Bodies | MCP:- 31.12.2022 as same will be established with the secondary points and establishment of the compactor. For other ULBs :- 30.06.2023 |

| | | | | | |
|--|--|--|--------------------------|--|--|
| | | | established at each ULB. | | |
|--|--|--|--------------------------|--|--|

5. AIR QUALITY MANAGEMENT

(a) Current Status related to Air Quality Management

| Details of Data Requirement | Present Status |
|--|---|
| Number of Automatic Air Quality monitoring stations in the district. - Operated by SPCB / State Govt / Central govt./PSU agency: - Operated by Industry: | 1, (At Patiala city) 0 |
| Number of manual monitoring Stations operated by SPCBs | 5 |
| Name of towns/cities which are failing to comply with national ambient air quality stations | 01 (Patiala city) |
| Nos. of air polluting industries | 945 |
| No. of unit installed APCD | 945 |
| Status of Air Consent | Regular activity Total no. of industries requiring consent to operate under Air Act, 1981 Red = 145 Orange =1122 Green=180 Total no. of units having valid consent as on 30.09.2021 Red =108 Orange =824 Green=122 Timeline for grant of consents to the balance units not having valid consent. Red =31.03.2022 Orange = 30.06.2022 Green = 30.09.2022 |
| Prominent air polluting sources | Vehicular pollution, Road dust, burning of garbage and biomass, construction and demolition activities, industrial emissions. |

(b) Identification of gaps and action plan:

| Sr. No. | Action Points | Gap & Indicative Action Plan | Responsible Agency | Timeline for completion of Action Plan | | | | | | | | | | | | | | | |
|---------|---|---|--------------------|---|---------------------------------------|-----|-----------|------|-----|--------------------------------|-----|------|--|------|------|---|-----|--|------------|
| 1. | Identification of prominent air polluting sources? | <p>Following sources have been already identified as per Action Plan for Clean Air Patiala:-</p> <table border="1"> <tr> <td>1.</td> <td>Vehicular pollution</td> <td>48%</td> </tr> <tr> <td>2.</td> <td>Road dust</td> <td>27%</td> </tr> <tr> <td>3.</td> <td>Burning of garbage and biomass</td> <td>7 %</td> </tr> <tr> <td>4.</td> <td>construction and demolition activities</td> <td>12 %</td> </tr> <tr> <td>5.</td> <td>Industrial emissions</td> <td>4 %</td> </tr> </table> <p>Source Apportionment Study has already been carried out by IIT Delhi and the final report is awaited.</p> | 1. | Vehicular pollution | 48% | 2. | Road dust | 27% | 3. | Burning of garbage and biomass | 7 % | 4. | construction and demolition activities | 12 % | 5. | Industrial emissions | 4 % | MCP,PWD, Agriculture Department & PPCB | 31.10.2021 |
| 1. | Vehicular pollution | 48% | | | | | | | | | | | | | | | | | |
| 2. | Road dust | 27% | | | | | | | | | | | | | | | | | |
| 3. | Burning of garbage and biomass | 7 % | | | | | | | | | | | | | | | | | |
| 4. | construction and demolition activities | 12 % | | | | | | | | | | | | | | | | | |
| 5. | Industrial emissions | 4 % | | | | | | | | | | | | | | | | | |
| 2. | Ambient Air quality data? | <p>Ambient air quality is already being monitored. The annual average value of the year 2019 and 2020 is as under:</p> <table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Year</th> <th>PM₁₀ (µg/m³)</th> <th>AQI</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>2019</td> <td>113</td> <td>110</td> </tr> <tr> <td>2.</td> <td>2020</td> <td>93</td> <td>92</td> </tr> </tbody> </table> <p>The data of said stations is being uploaded on official website of PPCB on regular basis. Web link: ppcb.gov.in/en/air-quality</p> | Sr. no. | Year | PM ₁₀ (µg/m ³) | AQI | 1. | 2019 | 113 | 110 | 2. | 2020 | 93 | 92 | PPCB | Activity completed. Stations already working. | | | |
| Sr. no. | Year | PM ₁₀ (µg/m ³) | AQI | | | | | | | | | | | | | | | | |
| 1. | 2019 | 113 | 110 | | | | | | | | | | | | | | | | |
| 2. | 2020 | 93 | 92 | | | | | | | | | | | | | | | | |
| 3. | Setting up of Continuous Ambient Air Quality Monitoring Station | 1 CAAQMS already installed | PPCB | Activity completed | | | | | | | | | | | | | | | |
| 4. | District Level Action Plan for Air Pollution | Action plan to control air pollution already prepared and submitted to Hon'ble NGT. Online link is https://ppcb.punjab.gov.in/en/action-plans | PPCB | Action Plan Already prepared and will be implemented. | | | | | | | | | | | | | | | |
| 5. | Hotspots of air pollution in District | Major Hotspots are yet to be identified. Source Apportionment Study has already been carried out by IIT Delhi and the final report is awaited. | PPCB | 31.12.2021 | | | | | | | | | | | | | | | |

| Sr. No. | Action Points | Gap & Indicative Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|--|--|---|--|
| 6. | Awareness on Air Quality | Awareness in this regard is being done on regular basis. The data is also given in public domain for awareness to the public at official website of the PPCB. The web link of the same is https://ppcb.punjab.gov.in/en/air-quality | PPCB | Regular activity |
| 7. | Industries to be converted from coal to CNG | No such industry to be converted from Coal to CNG. Thus, no gap. | PPCB/DIC | Not Applicable |
| 8. | Conversion of Natural Draft Brick Kilns to Induced Draft Brick Kilns | <ul style="list-style-type: none"> Total BKO required to convert to ZIG ZAG = 119 Converted to ZIG Zag Technology= 119 Yet not converted = 0 | PPCB/DFSC | Activity Completed |
| 9. | Maintain pothole free roads / timely patchwork on roads | <p>MCP The patch work is a regular process. 0.9 Km out of 1.15 km of roads has been made pothole free up to 31-08-2021. Further work is in progress.</p> <p>PDA/PWD 20.58 km of road length made pothole free. Further, Patchwork of roads is continuous process. As and when potholes develop on roads the same are got repaired as soon as possible.</p> | MCP, PDA/PWD | Regular activity |
| 10. | Procurement of Mechanical sweeping machines | <ul style="list-style-type: none"> Proposal has been submitted by the MCP regarding procurement of 1 Mechanical Sweeping Machine and the same is under consideration of the authorities. | MCP | Time Target: 31.12.2021 |
| 11. | Plantation of trees along highways, drains, Nallahs in colonies and canals etc., | <ul style="list-style-type: none"> Plantation has already been done along the road sides in areas available as per the jurisdiction of respective authorities. | MCP, ADC (UD), PPCB | Regular activity |
| 12. | Greening of parks, open areas, community places, schools and housing societies | <ul style="list-style-type: none"> Plantation is regularly being done in the parks, open areas, community places, schools and housing societies as per the jurisdiction of respective authorities. | Drainage department, MCP, ADC(UD), PDA, and Forest department | Regular activity |

| | | | | |
|-----|---|---|-------------------------------|-------------------------|
| 13. | Kaccha/Brick Paved Roads to be made Pucca roads | MCP The 3.72 km out of 5 km (as per new targets) road work already completed upto 31.08-2021. Further work is in progress. ADC (UD) The Paved roads/kaccha roads are also converted into pakka road in each ULBs. | MCP/ ADC (UD) | 31.12.2021 |
| 14. | Existing roads requiring re-carpeting | Re-carpeting of the roads is continuous process. The roads are presently in good condition. The re-carpeting will be done as and when required. | MCP, ADC(UD), PWD, PDA, PSIEC | Regular activity |
| 15. | Public awareness campaign for control of vehicular emissions | The camps are being organized regular basis. Facebook, Twitter & Instagram is also being used to spread traffic awareness. | Traffic Police, Transport | Regular activity |
| 16. | Extensive drive against polluting vehicles | The extensive drive against polluting vehicles already initiated by the Police department. | Traffic Police | Regular activity |
| 17. | Prevention parking of vehicles in non-designated areas by enforcement actions | The extensive drive already initiated by the Police department to prevent parking of vehicles in non-designated areas and issuing challans to the violators. | Traffic Police | Regular activity |
| 18. | Phasing out commercial diesel vehicles more than 15 years old | Scheme under consideration. | Transport | Time Target: 31.12.2022 |
| 19. | Promotion of E-Vehicles | This is being done on regular basis. | Transport | Regular activity |
| 20. | Infrastructure development for additional of CNG based autos/taxis | Total 13 CNG station has been commissioned out of total 16 station and 3 are under process. | DFSC | 31.03.2022 |
| 21. | Control of open burning of bio-mass. | MCP 535 Number of pits constructed by the Municipal Corporation to manage the horticulture waste in Parks and green belts to control of open burning of bio mass in the city. ADC(UD) Regular monitoring is being done in each ULB. Further, | MCP and ADC(UD) and PDA | Regular activity |

| | | | | |
|-----|---|--|------------------------|---|
| | | adequate no. of pits are constructed in each ULB to control the burning of bio mass. PDA Presently, 23 pits are provided to ensure proper disposal of bio mass, biodegradable material from parks. | | |
| 22. | Dissemination of Air Quality Index by installing CAAQMS | Activity Completed. The web link of the same is as under:- https://ppcb.punjab.gov.in/en/air-quality http://cpcb.nic.in/automatic-monitoring-data/ | PPCB | One no. already installed in Patiala. Activity completed |
| 23. | Dissemination of Air Quality Index by installing display boards in the city | Activity Completed. The web link of the same is as under:- https://ppcb.punjab.gov.in/en/air-quality http://cpcb.nic.in/automatic-monitoring-data/ | PPCB | One no. already installed, in Patiala city. Activity completed |
| 24. | Quality Management Division(AQMD) at PPCB (HQ)Establishment of an Air | Work is under progress. | PPCB, | 31.12.2021 |
| 25. | Establishment helpline in each city as well as SPCB HQ | Head Office level Helpline number is 1800 120 3667 for whole of the state. | PPCB, Lab | Completed |
| 26. | Scope for public participation on remedial measures like plantations. (Directions of Hon'ble NGT in OA no. 360/2018 dated 05.07.2021) | Plantation and maintenance is being done by public participation mode. | Department of forest | Regular Activity |
| 27. | Carrying capacity and source apportionment study of non-attainment Cites. | Carrying capacity and Source apportionment study has been already carried out through 3 rd party (IIT Delhi) and the report is awaited. | PPCB | Source Apportionment Study = Completed and report is awaited and expected by 31.10.2021. Carrying Capacity = 30.04.2022 |
| 28. | For development of plantation along the highways. | The area alongside highways where plantation can be done is declared forest area. During suitable season for plantation PWD will coordinate with department of forest for plantation. | PWD & Deptt. of Forest | Time target: 31.03.2022 |

| | | | | |
|-----|---|--|------------------------|------------------------------|
| 29. | Steps to be taken for management of agriculture waste/residue | <ul style="list-style-type: none"> • Farmers awareness camps will be organized. • Mobile Van in each block will be launched for promoting in-situ management of rice stubble. • Insitu machinery have been provided to the farmers at subsidy as per the details as under: <ul style="list-style-type: none"> ✓ Happy seeder : 424 ✓ Super Seeder : 955 ✓ Paddy straw chopper : 300 ✓ Mulcher : 152 ✓ RMB Plough : 262 ✓ Zero Till Drill : 444 ✓ Super SMS : 576 ✓ Rotary Slasher : 11 ✓ Shrub Master : 3 ✓ Rotavator : 45 ✓ Baler: 16 ✓ Rake : 15 | Agriculture department | Seasonal / regular Activity. |
|-----|---|--|------------------------|------------------------------|

6. WATER QUALITY MANAGEMENT

(a) Water Quality Monitoring

➤ Current Status related to Water Quality Management

| Details of Data Requirement | Present Status |
|--|--|
| Rivers | River Ghaggar |
| Length of Coastline (if any) | Coastline of River Ghaggar In District Patiala : 136.16 km (Vill. Tepla to U/s of Khanouri syphon) |
| Nalas/Drains/Creeks meeting Rivers | 4[Pachisdara, Patiala Nadi, Sagarpara (coming from Haryana) and Meerapur Choe] |
| Lakes/Ponds | Nil |
| Total Quantity of sewage from towns and cities in District | 137MLD |
| Quantity of industrial wastewater | 11.47MLD |
| Percentage of untreated sewage | 16.66% |

| | |
|---|--|
| Details of bore wells and number of permissions given for extraction of groundwater | 80034 and number of permissions = 61 (DAC = 18 CGWA= 43) |
| Ground water polluted are as if any | Nil |
| Polluted river stretches if any | River Ghaggar |

➤ Identification of gaps and action plan for water quality monitoring:

| Sr. No. | Action points | Gaps and Action Plan | Responsible agency | Timeline for completion of Action Plan |
|---------|---|--|--|--|
| 1. | Inventory of water bodies | The monitoring of rivers, drains are already being carried out and data is being maintained. | Deptt. of Water Resources / Deptt. of Rural Development & Panchayats | Regular activity |
| 2. | Quality of water bodies in the district | The monitoring of rivers, drains are already being carried out and data is being maintained and also discussed in periodic meeting of District Environment Committee. The information of water quality will be also uploaded on the official websites of SPCB & District Administration. The web link is https://ppcb.punjab.gov.in/en/water-quality | District Administration and PPCB | Regular activity |
| 3. | Hotspots of water contamination | Identified and given in the Ghaggar Action Plan web link is https://ppcb.punjab.gov.in/en/action-plans | PPCB, MCP, all MCs and DDPO | Regular activity |
| 4. | Protection of river/ lake water front | Awareness is being carried out in the public to stop the dumping of solid waste in river /Nallah. Challans are also issued to the violators | MCP & Department of urban development. | Regular activity |
| 5. | Inventory of sources of water pollution | The sources are already identified and detail of the same is given in Ghaggar Action Plan. The Web link of the same is https://ppcb.punjab.gov.in/en/action-plans | MCP, DDPO & Department of urban development | Activity Completed |
| 6. | Oil spill disaster management (for coastal districts) | Not applicable | Not applicable | Not applicable |
| 7. | Protection of flood plains | Plan Prepared | Drainage Department | Plan Prepared. The concerned department regularly observes and protects the flood plains |

| | | | | |
|----|------------------------------|--|------------|--|
| | | | | bye constructing river draining works. |
| 8. | Rejuvenation of ground water | Master Plan to Artificial Recharge to Ground Water in India-2020 has already been prepared vide which it has been suggested number of recharge shafts, farm Ponds and Rooftop Rain water harvesting structures in different District and the link for the Master Plan is http://cgwb.gov.in/Master%20Plan%20to%20GW%20Recharge%202020.pdf | CGWA/PWRDA | Regular Activity |
| 9. | Complaints redressal system | Mobile App/Online Complaint redressal system already developed. The web link is https://connect.punjab.gov.in/grievance/save | PPCB | Activity Completed |

(b) Domestic Sewage

➤ Identification of gaps and action plan for treatment of domestic sewage

| Details of Data Requirement | Present Status |
|---|----------------------------|
| No of Class-II towns | 5 |
| No of Class-I towns | 3 |
| No of Towns STPs installed | 8 |
| No of Towns needing STPs | 5 |
| No of ULBs having partial underground sewerage network | 5 |
| No of towns not having sewerage network | 0 |
| Total Quantity of Sewage generated in District from Class II cities and above | 137 MLD |
| Quantity of treated sewage flowing into Rivers(directly or indirectly) | 100MLD |
| Quantity of untreated or partially treated sewage(directly or indirectly) | 22MLD |
| Total available Treatment Capacity | 115MLD in District Patiala |

➤ Identification of gaps and action plan for treatment of domestic sewage:

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action plan |
|---------|-------------------------------|---|--------------------|--|
| 1. | Sewage Treatment Plants(STPs) | Patiala-I (Shermajra) STP of capacity 46 MLD has already installed and in operation. | MC, Patiala | Activity Completed |
| | | Patiala-II (Ablowal) STP of capacity 10 MLD has already installed and in operation. | MC, Patiala | Activity Completed |
| | | Patiala-III (PUDA) STP of capacity 13 MLD has already installed and in operation. | PUDA | Activity Completed |
| | | Patiala (Shermajra) STP of capacity 15 MLD has already installed and in operation. | MC, Patiala | Activity Completed |
| | | MES, Patiala STP of capacity 6 MLD is under construction and 80 % work has already been completed. | MES | 31.12.2021 |
| | | Rajpura STP of capacity 7 MLD & 10 MLD have already installed and in operation. | PWSSB | Activity Completed |
| | | Samana STP of capacity 10 MLD has already installed and in operation. | PWSSB | Activity Completed |
| | | Patran STP of capacity 4 MLD has already installed and in operation. | PWSSB | Activity Completed |
| | | Nabha STP of capacity 12 MLD is under construction. | PWSSB | 31.12.2022 |
| | | Sanour STP of capacity 4 MLD is yet to start. Tender has been allotted & covered under rejuvenation of chotti & baddi nadi project. | PWSSB | 31.12.2022 |

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|----|---|---|------------------|---|
| | | <p>Patran=70% Ghagga=0 % Rajpura=92 %</p> <p>The DPR for remaining work has been prepared to complete pending work.</p> | | |
| 3. | Setting up of real time water quality monitoring system to monitor the quality of water | One RTWQMS for River Ghaggar has already been installed and working. | PPCB | Activity completed |
| 4. | <p>Operation and Maintenance of STPs</p> <p>(i)Arranging funds for operation and maintenance of STPs to ensuring regular operation and maintenance of STPs in a professional manner</p> | Completed, No Gap. | MCP, PDA & PWSSB | MCP, PDA & PWSSB has informed that funds have been tied up. |
| | (ii)Providing proper in-house laboratory facilities at each STP for maintaining record of characteristics of analysis of untreated as well as treated waste water | Completed | MCP, PDA & PWSSB | <p>STP Patiala-I (Shermajra) (46 MLD & 15 MLD) – Provided</p> <p>STP Patiala-II (Ablawal) (10 MLD) – Common Lab Provided with Shermajra</p> <p>STP Patiala-III (PUDA) (13 MLD) – Provided</p> <p>STP Rajpura (7 MLD & 10 MLD) – Common Lab Provided</p> <p>STP Samana (10 MLD) – Provided</p> <p>STP Patran (4 MLD) –Provided</p> <p>STP PSIEC, Focal Point, Nabha (2.5 MLD) – Not Provided</p> <p>Total STPs = 8</p> <p>Lab Provided = 7</p> <p>Lab Not provided = 1 as small STPs</p> |

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|--|---|--|--|
| 5. | Provision of necessary treatment facilities in village ponds so that no untreated or polluted water enters river directly or indirectly through various drains or creeks. (i)Finalization of appropriate technology | <ul style="list-style-type: none"> No. of village ponds for which work has been completed:- 41 No. of villages where work is under progress= 04 No. of villages where work is yet to be started = 18 | DDPO & Xen Panchayati Raj | Within Three Month from the Date of receipt of Funds |
| | (ii)Arrangement of Funds for treatment technology in various villages identified in the Action Plan | <ul style="list-style-type: none"> No. of village ponds for which funds treatment technology arranged: 22 The work for arrangements of funds for the remaining village is under process. | DDPO & Xen Panchayati Raj | Within Three Month from the Date of receipt of Funds |
| | (iii)Reuse of water for agriculture purpose in villages. | <ul style="list-style-type: none"> No. of village ponds for which irrigation scheme has been implemented: - NIL Progress for the remaining villages: work is under progress under the MGNREGA Scheme. | DDPO, Soil conservation department & Xen Panchayati Raj. | Within Three Month from the Date of receipt of Funds |
| | (iv)Proper operation and maintenance of treatment facilities installed in village ponds | <p>A. No. of village ponds for which operation and maintenance of treatment facilities installed:41</p> <p>B. Progress for the remaining villages for remaining villages work is under progress under the MGNREGA Scheme</p> | DDPO | Within Three Month from the Date of receipt of Funds |
| 6. | (i)Checking of health indices of the in-habitants & maintaining database. | Camps are organized on monthly basis | The Department of Health and Family Welfare | Regular activity |
| | (ii)Holding awareness camps in the catchment area of River Sutlej to make the public aware regarding water borne diseases | | | |

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|--|---|--|--|
| 7. | (i) Measurement of flow at different locations of River Ghaggar & drains. | The flow is being monitored on monthly basis by the drainage department. | Department of water resources, | Regular activity |
| | (ii) To stop unauthorized discharge in the drains. | Regular survey is being done by the concerned departments to stop unauthorized discharge in the drains. | Department of water resources, MCP and DDPO. | Regular activity |
| 8. | Setting up of additional water bodies/water harvesting structures | Action plan for setting up of additional water bodies/water harvesting structure is yet to be prepared. | MCP and EOs of respective MCs/NPs | 31.03.2022 |
| 9. | Guidelines for control of pollution and enforcement of Environmental Norms in marriage halls, banquet halls, party venues etc. along with consent management system. (Directions of Hon'ble NGT in OA no. 400/2017 dated 04.02.2021) | Being implemented as per guidelines framed by CPCB | PPCB | 31.12.2022 |
| 10. | Installation of ETP in all big units (marriage halls, banquet halls, party venues etc) which are not connected with the sewer lines. (Directions of Hon'ble NGT in OA no. 400/2017 dated 04.02.2021) | <ul style="list-style-type: none"> • Total marriage palace (outside city limits) : 82 • ETP / STP installed : 3 • ETP / STP yet to be installed : 79 The directions regarding installation of ETPs / STPs are being implemented as per guidelines framed by CPCB | PPCB | 31.12.2022 |
| 11. | All the units having kitchen should have proper ducting arrangement. The units | Being implemented as per guidelines framed by CPCB | PPCB | 31.12.2022 |

| | | | | |
|-----|--|---|-------------------------|---------------------------------------|
| | using DG sets must have the proper stack height. (Directions of Hon'ble NGT in OA no. 400/2017 dated 04.02.2021) | | | |
| 12. | The local authorities/corporations should carry out inventory of the dairy farms and gaushalas. (Directions of Hon'ble NGT in OA no. 400/2017 dated 04.02.2021) | Being prepared. | All Local Bodies | 30.06.2022 |
| 13. | The local bodies/municipal corporations shall publish a public notice in newspapers and on their website for registration of dairy farms and gaushalas as per municipal law. (Directions of Hon'ble NGT in OA no. 400/2017 dated 04.02.2021) | The Public notice will be given in the Newspaper and on the website of local body for registration of dairy farms and gaushalas | All Local Bodies | Timeline for registration= 31.12.2022 |
| 14. | The District Collectors of all the Districts are directed to constitute monitoring committees to monitor the Extraction of Ground Water by the individuals for commercial purposes. (Directions of Hon'bleNGT in OA no. 176/2015 dated 20.07.2020) | Such Committees will be constituted | District Administration | 31.12.2021 |

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|--|---|--|
| 15. | There must be no general permission for withdrawal of ground water, particularly to any commercial entity, without environment impact assessment of such activity on individual Assessment units in cumulative terms covering carrying capacity aspects by an expert committee. (Directions of Hon'ble NGT in OA no. 176/2015 dated 20.07.2020) | Noted for compliance and will be assured. | All local bodies & DDPO | Regular activity |
| 16. | All Overexploited, Critical & Sensitive (OCS) assessment units must undergo water mapping. (Directions of Hon'ble NGT in OA no. 176/2015 dated 20.07.2020) | Water mapping of all the OCS assessment units has been carried out as per the guidelines of GOI as per GEC-2015 Methodology by taking Block as a Unit of Assessment. The data of years 2015-19 has been taken for assessing the same recently. | Water Resources | Activity Completed |
| 17. | Water Management Plans need to be prepared for all OCS assessment units in the country based on the mapping data, starting with Overexploited blocks. (Directions of Hon'ble NGT in OA no. 176/2015 dated 20.07.2020) | Punjab Government has engaged M/s Mekorot, National Water Company of Israel to formulate the Water Conservation and Management Master Plan for the State of Punjab and their final recommendations is likely to be submitted by December 2021. | Water Resources (Ground water cum NHP wing) and PWRDA | 31.03.2022 |
| 18. | The Water Management Plans, data on water availability or scarcity and | Noted for compliance and will be assured. | PWRDA | 31.03.2022 |

| | | | | |
|-----|---|--|----------------------------------|--------------------|
| | policy of CGWA must be uploaded on its website for transparency and public involvement. (Directions of Hon'ble NGT in OA no. 176/2015 dated 20.07.2020) | | | |
| 19. | The District Magistrates have been directed to take up one pond per village for its rejuvenation, this year. (Directions of Hon'ble NGT in OA no. 325/2015 dated 18.11.2020) | Till date 90 ponds have been rejuvenated/restored and rest 208 will be restored upto 31.12.2022. | DDPO | 31.08.2022 |
| 20. | Active efforts be made in close coordination with technical bodies to tap excess runoff of rivers/canals during rainfall season to recharge old water bodies and retain water in new ponds to be constructed specifically for the purpose (Directions of Hon'ble NGT in OA no. 325/2015 dated 18.11.2020) | A proposal will be prepared in coordination with technical bodies to tap excess run of rivers / canals to rainfall season to recharge old water bodies and to retain water in new ponds. | Irrigation / Drainage department | 31.12.2026 |
| 21. | Maintenance of E Flow of the rivers. (Directions of Hon'ble NGT in OA no. 325/2015 dated 18.11.2020) | Already Being Maintained | Drainage Department | Completed |
| 22. | Land owning agencies must ensure that every | Already implemented | Drainage Department | Activity Completed |

| | | | | |
|-----|---|---|---|---|
| | water body has unique ID for its identification. There should be retagging of the water bodies to prevent encroachment. (Directions of Hon'ble NGT in OA no. 496/2016 dated 22.01.2021) | | | |
| 23. | Awareness among public to set up Rainwater Harvesting System and about its utility should be enhanced. (Directions of Hon'ble NGT in OA no. 496/2016 dated 22.01.2021) | Public announcements done regarding rain water harvesting time to time by all ULBs. | Local Bodies | Regular Activity |
| 24. | Installation of STP will be mandatory for all residential apartments/group housing societies where groundwater requirement is more than 20 m3/day for getting NOCs. (Directions of Hon'ble NGT in OA no. 496/2016 dated 22.01.2021) | Directions being already followed. | PDA/MCP/Department of urban development | Regular Activity |
| 25. | Comprehensive plan to install flow meters at various locations to carry out daily real time monitoring of the city's water supply network. (Directions of Hon'ble NGT in OA no. 496/2016 dated 22.01.2021) | Directions will be followed. Time line for Preparation of plan = 31.03.2022. | PWSSB | Time line for Preparation of plan = 31.03.2022. Time line for implementation of plan = 30.09.2022. |

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|--|--|--|
| 26. | Control of illegal extraction of groundwater. (Directions of Hon'ble NGT in OA no. 496/2016 dated 22.01.2021) | Inspections are being made to control illegal extraction of ground water. | All Local Bodies | Regular Activity |
| 27. | Review of District Environmental Plan activities at different levels of District Heads and District Magistrate. (Directions of Hon'ble NGT in OA no. 360/2018 dated 05.07.2021) | The Activities of District Environmental Plan will be reviewed on monthly basis by the District Heads and at the level of District Magistrate Patiala. | District Heads of concerned departments and District Administration. | <ul style="list-style-type: none"> Monthly Meetings shall be taken by District Head of concerned department for the review of activities of this plan and nodal officer of concerned department will submit the reports to the District Environment Committee and PPCB on monthly basis. Monthly Meetings shall be taken by the District Administration along-with District Environment Committee. |
| 28. | Appointment of Nodal officer with contact number | All the departments have appointment the Nodal officer and list is attached as Annexure-X | All concerned departments | Completed |
| 29. | Preparation of operational manual of STPs for the effective and efficient operation of the STPs of the state. | It is under preparation. | PPCB | Time target: 31.10.2021 |
| 30. | Enhancement of capacity of existing ponds/ water bodies and creating of | A. Existing Ponds(Total) = 1345 B. No. of Ponds whose Capacity has been | DDPO & Xen Panchayati Raj | Timeline: 31.10.2023 |

| | | | | |
|-----|---|--|---|---|
| | new water harvesting structures. | enhanced = 335 C. New ponds = 2 Source of Funds above activities: Gram Panchayat Fund, 14th & 15th Finance Commission, MGNrega, MPLAD Scheme RDO(S) 28 The ponds contains both wastewater and rain water. | | |
| 31. | Usage of treated sewage for sprinkling purposes for sweeping of roads to control dust pollution. | Being used for sprinkling purposes and also used for sweeping of roads in various areas by MCP and other MCs/NPs & PDA. | MCP and EOs of respective MCs/NPs and PDA | Regular activity |
| 32. | Mapping of the rivers and flood plain zones in the catchment area of rivers of the State. | The mapping has already been done by the Drainage Department in an electronic file. | Drainage Department | Completed |
| 33. | Utilization of STPs sludge | STP sludge is used by the farmers as manure. | MCP and EOs of respective MCs/NPs and PDA | Regular activity |
| 34. | Framing policy for the management of highly contaminated Feecal sludge generated from the rural areas. | Progress achieved: State level policy matter and time target for framing of policy will be informed after taking up matter at higher level. | DDPO | Policy will be framed by 30.04.2022. Implementation = 30.04.2025 |
| 35. | The projects being developed for supply of canal water to the inhabitants of the cities/villages may be completed in a time bound manner. | The project for supply of the canal water to 316 villages has been taken up and for the same, two no. Water Treatment Plants (Mandouli, Pabra, Distt. Patiala) will be constructed and 491 Km D.I transmission line will be laid in this project. Work of both Water Treatment Plants in progress and 263 Km. D.I transmission line have been laid in both clusters. Overall 45% works have been completed. The Design Build work will be completed upto 26-01-2023. Budgetary Provision (i) Capex Cost is to be funded by World Bank & Jal Jeevan Mission on 50:50 basis. | Department of Water Supply and Sanitation | Project completion by 26.01.2023 |

| | | | | |
|-----|--|---|--|--|
| | | (ii) Project will be operated by the Contractor for 10 years. | | |
| 36. | Reuse of treated effluent through existing STPs (OA no. 496/2016 dated 22.01.2021) | <ul style="list-style-type: none"> • STPs where Irrigation schemes have been completed and working = 3 Samana (10 MLD), Patran (4MLD) & Rajpura (10 MLD). • Irrigation schemes are yet to provided/work under process = 5 <ol style="list-style-type: none"> 1. STP Shermajra (46 MLD & 15 MLD): - Estimates are being prepared. Final Estimate will be submitted after allocation of funds. 2. STP Ablowal (10 MLD): Project feasibility report has been submitted and estimate will be prepared after allocation of funds. 3. STP PUDA (13 MLD): The PDA is utilizing the entire treated water for construction/sprinkling and sweeping of roads in the Urban Estate area. 4. STP Rajpura (10 MLD): Project feasibility report has been submitted and estimate will be prepared after allocation of funds. | Department of Soil conservation, PWSSB | <p>STP Shermajra (46 MLD & 15 MLD): - Project will complete by 31.12.2023 (Within two years after allocation of the funds).</p> <p>STP Ablowal (10 MLD): - Project will complete by 31.12.2022 (Within one & half year after allocation of the funds).</p> <p>STP Rajpura (10 MLD): Project will complete by 31.12.2022 (Within one & half year after allocation of the funds).</p> |
| 37. | Reuse of treated effluent through proposed STPs (New STPs) (OA no. 496/2016 dated 22.01.2021) | <ol style="list-style-type: none"> 1. STP Bhadson (3 MLD): Preliminary Survey has been done and STP is yet to constructed. 2. STP Nabha (12 MLD): Preliminary Survey has been done and STP is yet to constructed. 3. STP Ghanour (2 MLD): Preliminary Survey has been done and STP is yet to constructed. 4. STP Sanour (4 MLD): STP was undertaken alongwith rejuvenation project of Chotti & Baddi Nadi of Patiala being implemented by PDA. | Department of Soil Conservation / PDA | <p>STP Bhadson (3 MLD): 31.12.2023</p> <p>STP Nabha (12 MLD): 31.12.2023</p> <p>STP Ghanour (2 MLD): 28.06.2024</p> <p>STP Sanour (4 MLD): 31.10.2022.</p> |

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|--|--|----------------------------------|--|
| 38. | Installation, operation & maintenance of online continuous effluent monitoring system with flow meter as well as CCTV cameras for the existing STPs. | Total STPs=8 CCTV Provided = 8 OCEMS Provided=5 (except STP Samana, Patran & Rajpura 10 MLD) | MCP, PDA, PWSSB | <ul style="list-style-type: none"> • STP Samana (10 MLD):31.12.2021 • STP Patran (4 MLD): 31.12.2021 • STP Rajpura (10 MLD): 31.12.2021 |
| 39. | Activity w.r.t. In-situ remediation technology to be provided in the drains carrying untreated sewage. | MCP has installed STP plant having capacity 46 MLD, 10 MLD and 15 MLD in the different area and All the sewerage water being treated by these STPs. Other MCs / NPs : Proposal Yet to prepare | MCP EOs of respective MCs/NPs | 31.03.2022 |

7. INDUSTRIAL WASTE WATER MANAGEMENT

(a) Current Status related to Industrial Waste water Management

| | |
|--|--|
| Number of Red, Orange, Green and White industries in the District | Red Category unit=151, Orange Category unit =1124, Green Category unit=181 and White Category unit = 18 |
| No. of Industries discharging wastewater (generating trade effluent) | 100 i. No. of industries installed captive ETP = 81, ii. No. of industries joined CETP =19 |
| Status of Water Consent | <ul style="list-style-type: none"> • Regular activity • Total no. of industries requiring consent to operate under Water Act, 1974 <ul style="list-style-type: none"> ✓ Red = 151 ✓ Orange =998 ✓ Green=158 • Total no. of units having valid consent as on 30.09.2021 <ul style="list-style-type: none"> ✓ Red = 124 ✓ Orange =780 ✓ Green=105 |

| | |
|---|---|
| | <ul style="list-style-type: none"> • Timeline for grant of consents to the balance units not having valid consent. ✓ Red = 31.03.2022 ✓ Orange = 30.06.2022 ✓ Green= 30.09.2022 |
| Total Quantity of industrial wastewater generated | 11.80MLD |
| Quantity of treated industrial wastewater discharged into Nalas/ Rivers | Nil |
| Common Effluent Treatment Facilities | Nil |
| No. of Industries meeting Standards | It is a regular activity and PPCB is monitoring the industries including inspections and samplings. Around 10% units are randomly inspected per month. |
| No. of Industries not meeting discharge Standards | It is a regular activity and PPCB is monitoring the industries including inspections and samplings. |

(b) Identification of gaps and action plan for industrial wastewater:

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|---|--------------------|--|
| 1. | Compliance to discharge norms by Industries | Necessary action is being taken against the industries not meeting the standards. | PPCB | Regular activity |
| 2. | Complaint redressal system | Online compliant portal already developed. Web link: publicgrievancepb.gov.in | PPCB | Activity complied |
| 3. | Installation of Online Continuous Monitoring System by 17 categories highly polluting industries. | OCEMS already installed. | PPCB | OCEMS installed |
| 4. | Installation of Electromagnetic flow meters at inlet and outlet of ETP. | The water polluting industrial units have already installed the EMF meters. However, inspections will be made to check its functioning and records being maintained by the said industries. | PPCB | 30.04.2022 |
| 5. | Inspection of units to check compliance | Inspection already being made | PPCB | Regular activity |

8. MINING ACTIVITY MANAGEMENT PLAN

(a) Current Status related to Mining Activity Management

| | |
|--|---|
| Details of Data Requirement | No mining activity is carried out in the jurisdiction of District Patiala |
| Type of Mining Activity | NA |
| No of licensed Mining operations in the District | NA |
| % Area covered under mining in the District | NA |
| Area of Sand Mining | NA |
| Area of sand Mining | No mining activity is carried out in the jurisdiction of district Patiala |

(b) Identification of gaps and action plan:

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|---|-------------------------------|--|
| 1. | Monitoring of Mining activity | No mining activity is carried out in the jurisdiction of District Patiala | Department of water resources | - |
| 2. | Inventory of illegal mining if any mining | No mining activity is carried out in the jurisdiction of District Patiala | Department of water resources | - |
| 3. | Environment compliance by Mining industry | No mining activity is carried out in the jurisdiction of District Patiala | Department of water resources | - |

9. 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 | No of analyzer available = 1 (With PPCB) |

(b) Identification of gaps and action plan:

| Sr. No. | Action Points | Gaps and Action Plan | Responsible Agency | Timeline for completion of Action Plan |
|---------|---|---|---|--|
| 1. | Availability of Sound/Noise Level Meters. | <ul style="list-style-type: none"> Total No. of analyzers required : 27 Total Nos. of analyzers available = 01 Balance noise analyzers are required by Police Department: 26 i.e. one meter to each SHO. | PPCB and Police Department | 30.06.2022 |
| 2. | Ambient Noise Level monitoring | Yet to install | PPCB | 31.12.2022 |
| 3. | Sign boards in Noise zones | Sign boards are installed at sensitive zones. However, sign boards in other areas are yet to install | ULBs | 30.06.2022 |
| 4. | Complaint redressing system | Public complaint redressal system already established in the district. | District Administration, Police Department and PPCB | Activity Completed. |
| 5. | Checking of pressure horn of vehicles | Regular checking of vehicle is being done by the police department and PPCB. | Police Department & PPCB | Regular activity. |

List of Nodal Officers (Annexure-X)

List of the Nodal Officers of the stakeholder Departments

| Sr. No. | Name of the Department | Nodal Officer Name | Designation | Mobile No. | Email ID |
|---------|--|--|--|-----------------------------|--|
| 1. | Municipal Corporation, Patiala | Ms. Vineet Kumar, IAS | Commissioner Municipal Corporation, Patiala | 84277-74331 | cmc_patiala@yahoo.com |
| 2. | PDA | Sh. Anuj Sehgal | Executive Engineer | 94631-89488 | de_civilpda@rediffmail.com |
| 3. | Local Government, Department. | Sh. Gautam Jain, IAS | Additional Deputy Commissioner (UD) Patiala | 99581-22047 | adcupatiala@yahoo.com |
| 4. | Punjab Pollution Control Board | Er. Navtresh Singla | Environmental Engineer, Regional Office Patiala | 81466-62528 | eero_patiala@yahoo.com |
| 5. | Regional Transport Authority, Patiala | Sh. Sham Lal | Assistant Transport Officer | 99142-23294 | rtapatiala4@gmail.com |
| 6. | Police Deptt. Patiala | Sh. Rajesh Sanehi | DSP, Traffic Patiala | 79862-52918 | dsptrafficptl@gmail.com |
| 7. | Distt. Development and Panchayat Officer, Patiala (DDPO) | Sh. SurinderDhillon | DDPO | 98142-61000 | ddpopatiala@gmail.com |
| 8. | District Soil Conservation Officer, Department of Soil & Water Conservation, Patiala | Sh. Keshav Kumar | DSCO | 94172-84738 | dscopatiala@gmail.com |
| 9. | Superintending Engineer, Punjab Water Supply & Sewerage Board, Patiala | Sh. Rajeev Kapoor, Sh. Sabjit Singh | Executive Engineer (Divison-1), Executive Engineer (Divison-2) | 98153-06344, 97792-28223 | eep1.pwssb@punjab.gov.in eepwssd2pta@gmail.com |

| Sr. No. | Name of the Department | Nodal Officer Name | Designation | Mobile No. | Email ID |
|---------|---|----------------------------|-------------------------------|-------------|--|
| 10. | PWD (B&R), Patiala | Er. Tarsem Raj | Executive Engineer | 98554-41451 | eecwd1ptlpwdpb@gmail.com |
| 11. | Department of Water Resources & Drainage, Patiala | Sh. Ramandeep Bains | Executive Engineer | 98880-08800 | eedrainage@gmail.com |
| 12. | Agriculture Department, Patiala | Sh. Jaswinder Singh Grewal | CAO | 97792-13097 | caopatiala@gmail.com |
| 13. | Forest Department, Patiala | Ms. Vidya Sagari R.U | DFO Patiala | 94129-27063 | patialadfo@gmail.com |
| 14. | PSIEC, Patiala | Sh. Harmanjot Singh | SDE | 75082-54766 | harmansidhu08@gmail.com |
| 15. | District Food & Civil Supply Officer, DFSC, Patiala | Sh. Roopreet Sidhu | DFSO Patiala | 98760-72078 | dfsopatiala@gmail.com |
| 16. | Education Department | Ms. Harinder Kaur | DEO Secondary | 97810-51502 | deose.patiala@punjabeducation.gov.in |
| 17. | Health Department | Dr. Parveen Puri | Assistant Civil Surgeon | 92161-24254 | cmo.patiala@gmail.com |
| 18. | Animal Husbandry, | Dr. Gurcharan Singh | DDAH | 97811-13137 | ddahpatiala@gmail.com |
| 19. | Labour Department Patiala | Sh. Jagpreet Singh, | Assistant Labour Commissioner | 98155-15255 | jpscheema87@gmail.com |
| 20. | Director of Factories Patiala | Sh. Narinderpal Singh, | Director of Factories | 97812-70230 | adfopatiala82@gmail.com |