

# PROJECT OPERATIONAL MANUAL (POM)

## SECTION III

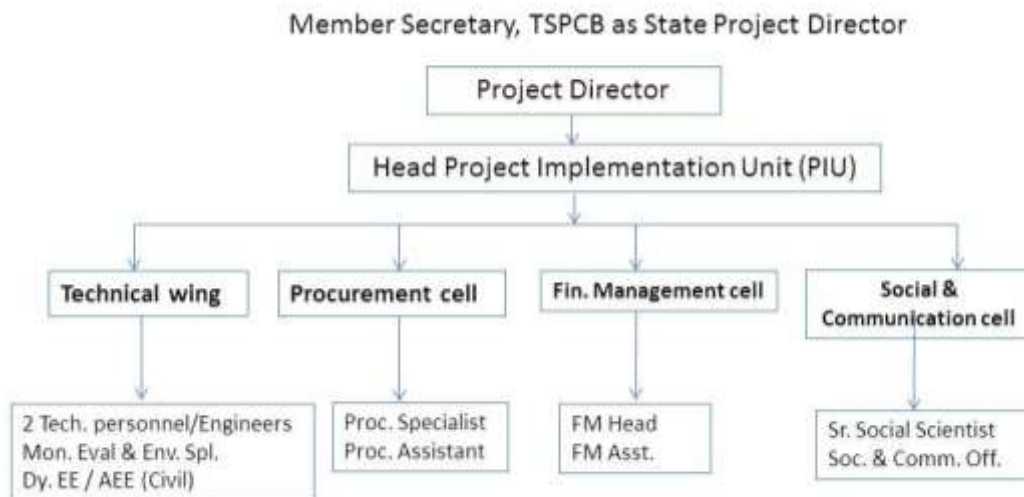
### TELANGANA STATE POLLUTION CONTROL BOARD (TSPCB)

#### **I. Institutional and Implementation Arrangements**

1. An appropriate project governance structure has been established in TS to ensure coordinated implementation, effectiveness, accountability, oversight and transparency of implementation. The TS Pollution Control Board (TSPCB) shall be responsible for coordination and implementation of project activities at state level and reporting to MoEF&CC. The Member Secretary of TSPCB has been nominated by the State Government of Telangana to be the Project Director for the project.

#### **Project Implementation Unit (PIU):**

2. The overall responsibility for project execution will lie with the qualified Project Implementation Unit (PIU) based in Hyderabad. The PIU will be established at the TSPCB and will be headed by the Project Director. The PIU will have the responsibility for day to day project implementation and coordination with other stakeholder agencies. It will serve as Secretariat for the Steering Committee through the Member Secretary, TSPCB who is the member convener of the Steering Committee and the State Director for the Project.
3. The PIU will ensure that procurement, financial management and disbursement aspects of the project are fully consistent with applicable Bank guidelines and shall function under the Member Secretary, TSPCB.



4. TSPCB has constituted PIU on 09.02.2015 with its technical, scientific, social and financial staff to oversee and assist in the day to day project implementation. The PIU will include a Project Director, two Technical personnel, a Deputy Executive Engineer / Assistant Environmental Engineer (Civil)/Project Management Consultant (PMC), a Procurement Specialist, a Procurement Assistant, a Monitoring, Evaluation and Environmental Specialist, a Financial Management Head, a Financial Assistant, a Senior Social Scientist, a Social and Communication Officer along with four support staff. The existing staff with Telangana will be continued and others (Proc. Spl, Proc. Asst. and Fin. Asst) will be selected following Bank

procurement procedures for the selection of consultants. The PIU will be supported by Local Implementation Units (LIUs), located in Hyderabad and responsible for coordinating the day-to-day activities.

CBIPM Cell at TSPCB:

5. TSPCB will constitute CBIPMP Cell with its technical, scientific and financial staff to oversee and assist in the day to day project implementation, provide overall supervision of PIU functioning and support evaluation of proposals for the respective components and help co-ordination with other stakeholder agencies. It is proposed to constitute the cell with members from technical (2 Nos – CEE/JCEE, JCEE (HWM)), scientific (JCES/SES) and financial (CAO/AO).
6. The PIU and the CBIPM Cell will appoint selection committees for contracts below Bank's prior review, and decide on priority list of temporary employment (public works) projects eligible for financing under Component B.

Local Implementation Unit (LIU):

7. Local Implementation Unit (LIU), headed by either JCEE/SEE, Zonal Office, Hyderabad along with representatives of municipalities / industrial area local authority, regional offices of TSPCB, NGOs and District administration to oversee the project implementation on the ground at NMK.

Project Steering Committee

8. A State Project Steering Committee is established under the chairmanship of Special Chief Secretary / Principal Secretary to Govt., EFS & T Dept., to oversee the implementation of projects activities in the state. The Member Secretary, TSPCB will be the member convener and details of other members are as follows:

1. Special Chief Secretary / Prl. Secy to Govt , E.F.S&T Dept	Chairman	
2. Prl. Secretary / Secretary, Finance Dept.,	Member	
3. Prl. Secretary / Secretary, Industries Dept.,	Member	
4. Prl. Secretary / Secretary, MA & UD	Member	
5. Vice Chairman & MD, TSIIC	Member	
6. Commissioner, Hyderabad Metropolitan Development Authority	Member	
7. Commissioner and Director, Municipal Administration	Member	
8. Director, National Geo-physical Research Institute (NGRI), Hyderabad	Member	from Academia
9. Member Secretary, TSPCB	Member	Convener



9. The functions of the PSC will be as follows:

- Review and monitor project implementation and achievement of project performance indicators;
- Providing strategic support and guidance as well as coordinating with different government departments and agencies;
- Approving overall human and financial resource requirement for State wide implementation of remediation plans;
- Defining and reformulating project strategies based on emergent experience from project implementation;
- Approve bi-annual progress reports of TSPCB

## **II. Project Components:**

10. The following activities will be implemented by TSPCB under the project:

- Component 1: *Strengthening Environmental Institutions: Building Capacity for Remediation*
- Component 2: *Investments in Priority Remediation and Environmental Improvements in orphan hazardous waste sites and municipal dumpsites*
- Component 3: *Project Management*

11. **Component 1**, some of the sub-components are already completed. The details are as follows :

1. Study on Inventorisation and characterisation of HW categories
2. Study on Impact of MSW dumpsites on Environment
3. Study on Business strategy on Establishment of ECAC
4. Procurement of Laboratory Equipment
5. Refurbishment of Central Laboratory, Hyderabad
6. Domestic training

Apart from the above, the following will be taken-up:

1. Inventorisation of E-waste
2. Trainings/study tour

12. The TSPCB will require technical training to support the effective utilization and analysis of data from acquired laboratory equipment, and to strengthen the capacity in management and remediation of hazardous waste.

13. The detailed activities under Component 1 and their outcomes are detailed below:

<b>Component</b>	<b>Activities</b>	<b>Expected Outcome</b>
Technical Assistance for TSPCB	<ul style="list-style-type: none"> <li>Inventorisation of E-waste</li> </ul>	Identify and quantify the Manufacture/production, sale, purchase, waste generated and processing of electronic and electrical equipment
Infrastructure Support for TSPCB	<ul style="list-style-type: none"> <li>Sophisticated sampling and Analytical equipment were already procured. Additional equipment to augment the existing facilities already in place for optimal utilisation.</li> </ul>	The existing Infrastructure facilities in the laboratory of TSPCB will be upgraded / augmented to monitor environmental impacts of HW and post remediation in different media.
Technical/Scientific Training for TSPCB	<p>Training/study tour of the staff in</p> <ul style="list-style-type: none"> <li>Quantification and characterization of HW dumpsites, including transport and fate of contaminants in soil and ground water</li> <li>International Study Tour to examine the implementation of geo-tubes for remediation</li> <li>Training on the sophisticated equipment for optimum utilisation</li> <li>Procurement of modeling tools (software) for ground water, air and water pollution</li> </ul>	<p>The capacity building for technical and scientific staff of the organization.</p> <p>This will strengthen the decision making abilities of the organisation for better environmental management.</p>

14. **Component 2:** Project demonstration activities will be implemented in pilot site – lake NMK-KIE area in Telangana. Project investments for remediation will be defined on the basis of area-wide Management Plans focusing on hazardous waste and old solid waste legacy dump sites, where the plans will be developed and implemented with stringent social and environmental safeguards in place.

15. *Site A: Remediation of Noor Mohammad Kunta Lake:* This component includes a step-wise area-based management approach consisting of near-term remediation of apparent risks and implementation of remedial measures of soil, ground water, surface water and sediment contamination of NMK lake. Long term impact assessment and remediation strategy is also planned along with a Monitoring and Control strategy.

16. The activities under this component and the outcomes are as detailed below:

**Site A: NMK Lake**

Activity	Activities/ Consultancies	Outcome
Environmental Site Assessment – Phase II and Phase III for delineating the contamination – assessing the extent of contamination in surface-/ground water, sediments and soil; quantities, characteristics and topographical information;	Detailed reassessment/ engineering Study, bid document preparation and supervision	Detailed Site Investigation Report
Remedial Options Study along with Site Specific Risk Assessment (SSRA) to develop the standards for cleanup of site for water, sediments and soil surrounding the lake.	NGO Work for community communication, identification of PAPs	Final SSRA and the recommended option for Cleanup.
Remedial Action Plan (RAP) – will be developed based on detailed Phase III- can be part of the Phase III or separate. – provide engineering for how to go about the cleanup including technology; engineering and equipment.	GIS Works and identification of data gaps	Remedial Action Plan
Implementation of the RAP including removal of sediments and soil; treatment of water; redirecting contaminant flows into the lake; landscaping and other infrastructure.	Post remediation ground water investigation, and monitoring	Contract award and works implementation
Record of Site Condition – site audit and review of works to ensure work was completed and all the cleanup has been to the standard.	Environmental Monitoring Initiative	Audit Report for cleanup of site.
Post remedial strategy	Post closure monitoring	Sustainability of the remediation.
Study for up-gradation of the existing STP located at lake NMK from 4 MLD to 10 MLD	Consultancy services to study the waste water generation its	STP design

	characters and preparation of STP designs and supervision of up-gradation works.	
Up gradation works of STP	Construction of STP / augmenting the existing STP	The total waste water generated in the catchment area will be treated. Thereby the remediation of the lake will be sustainable.

#### B. Other lake studies:

Activity	Activities/ Consultancies	Outcome
Study of two lakes 1. Asani Kunta lake, Medak District, 2. Kazipally lake, Medak District	Assessment of contamination, design of remediation plan and supervision of remediation activities	Detailed site assessment along with remediation plans and environmental and social management plan.

#### III. Project Budget for TSPCB

CBIPM Project - Component wise costs - Telangana State		
No.	Description	Total (Rs. In Lakhs)
<b>1</b>	<b><i>Strengthening of Environmental Institutions: Building Capacity for addressing pollution remediation</i></b>	
1B1.1	Inventorization of Electronic Waste (New)	73.87
1B2.1	Laboratory equipment (updated from actual costs) Operation & maintenance and warranty cost	85.22
1B2.2	Refurbishment of Central Lab	699.34
1B3.1	Environmental Compliance Assistance Centre Savings under ECAC Allocation	75.32
1B4	Training Activities to be finalized	85.22
	<b>Sub-Total of component I</b>	<b>1018.97</b>
<b>2</b>	<b>Investments in Priority Remediation and Environmental Improvements: Rehabilitation of the abandoned contaminated sites</b>	
2B1	<b>Remediation of Noor Mohammed HW Site</b>	
2B1.1	Detailed reassessment/ engr. Study, bid document prep., and supervision - Noor mohammad kunta	288.60
	<b>Remediation Works for NMK</b>	
2B1.2	Remediation works (Excavation & related works) - Noor Mohammed	4428.98

2B1.4	Independent supervision consultant - Noor Mohammed	203.39
2B1.9	Study for the upgradation of STP	249.43
2B1.10	Construction of Fence around NMK	85.22
2B1.11	Construction of Weir at NMK	122.74
2B1.12	STP Upgradation Works	2500.69
2B1.13	Remedial Plans for Asani Kunta and Khazipally Lakes	700.48
	<b>Sub-total:</b>	<b>8579.54</b>
	IBRD Front End Fee:	13.66
	<b>Sub Total of Component II</b>	<b>8,593.2</b>
<b>3</b>	<b>Project Management</b>	
3B1	Project Administration	22.79
3B2	Staff & consultants	333.00
<b>3B3</b>	<b>Social Safeguards Initiatives</b>	
3B3.1	Noor Mohammad kunta – NGO Work for community communication, identification of PAPs	69.94
3B3.2	Noor Mohammad Kunta - Compensation / Grievance	0.10
<b>3B4</b>	<b>Environmental Monitoring Initiatives</b>	14.49
	<b>Sub-total of component III</b>	<b>440.59</b>
	<b>Grand Total</b>	<b>10,052.76</b>