
**Rapid Assessment of Requirements for Setting up of
CETP at Jalan Industrial Complex, Howrah, West
Bengal**

**Project number/
cost centre:
PN: 2018.2074.5-
001.00**

0. List of abbreviations	2
1. Context.....	3
1.1. Brief Information on the Project.....	3
1.2. Background	4
2. Tasks to be Performed by the Contractor	5
2.1. Objective of the Consultancy Services.....	5
2.2. Tasks to be Performed by the Consultant	5
2.3. Duration of the Contract	6
2.4. Deliverables/Milestones.....	6
3. Concept.....	7
3.1. Technical-methodological Concept	7
4. Personnel Concept.....	8
4.1 Responsibilities and Qualification Requirements of Experts	8
4.2 Eligibility Requirements for the Bidders / Firms Participating in the Tender	9
5. Costing Requirements	10
5.1. Assignment of Personnel	10
5.2. Specification of Inputs	10
6. Inputs of GIZ or Other Actors	11
7. Requirements on the Format of the Bid	11

0. List of abbreviations

AICTE	All India Council for Technical Education
AVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2018
CETP	Common Effluent Treatment Plant
ETP	Effluent Treatment Plant
MoEFCC	Ministry of Environment, Forest and Climate Change, Government of India
NGT	National Green Tribunal
SEIP II	Sustainable and Environment-friendly Industrial Production II
SIDC	State Industrial Development Corporation
SPCB	State Pollution Control Board
ToR	Terms of reference
UGC	University Grants Commission
WBPCB	West Bengal Pollution Control Board

1. Context

1.1. Brief Information on the Project

GIZ is engaged in the field of international cooperation for sustainable development and international education work, dedicated to shaping a future worth living around the world. GIZ has over 50 years of experience in a wide variety of areas, including economic development and employment promotion, energy and the environment, and peace and security. GIZ's main commissioning party is the German Federal Ministry for Economic Cooperation and Development (BMZ). As a federal enterprise, GIZ supports the German Government in achieving its objectives in the field of international cooperation for sustainable development in more than 120 countries worldwide.

Under the Indo German Development Cooperation, a project on “Sustainable and Environment-friendly Industrial Production II” (SEIP II) is being implemented from March 2019 to February 2022 with a focus on abatement of industrial wastewater pollution and strengthening of framework conditions. The Ministry of Environment, Forest and Climate Change (MoEFCC) of the Government of India is the main implementing partner at national level. The project is working at national level with MoEFCC and the Central Pollution Control board (CPCB) and at the State level in West Bengal, Bihar and West Bengal with the environmental agencies and the industrial development agencies. For details on SEIP II project, ref. to <http://seip.urban-industrial.in/>.

The objective of the SEIP Phase II project is, “The strategic and operational governance structures of the Indian Government to effectively combat water pollution from industrial wastewater are strengthened.” The SEIP II phase works on the following main outputs:

- Output 1: Strengthening of the Legal Framework
- Output 2: Strengthening of Organisational Procedures and Processes
- Output 3: Strengthening of Incentive Mechanisms
- Output 4: Guidelines/e-portals/reference documents
- Output 5: Resource efficiency (RE) and Sustainable Consumption & Production (SCP)

One of the activities taken up under SEIP II project in West Bengal is supporting West Bengal Pollution Control Board (WBPCB) to implement corrective processes which could address discharging of wastewater generated from industrial parks/areas. There are few industrial parks/areas in West Bengal which the National Green Tribunal (NGT) has categorised as “Critically Polluted” and accordingly WBPCB has been directed to enforce necessary measures in those areas. The toxic effluents flowing through the drains of these industrial parks/areas meet the adjacent canals/rivers, thereby posing threat to the environment and health of people. To overcome the same, setting up of new CETPs or retrofitting of existing CETPs and operating and managing them properly is one way forward for abating industrial wastewater pollution.

WBPCB would like to check if the setting up of CETPs in the critically polluted industrial estates in West Bengal is a viable way forward and accordingly would like to direct the concerned agencies for setting of the CETPs and the required infrastructure. WBPCB has sought support from GIZ under the SEIP II project to support in establishing a technical procedure for

undertaking such assessment based on a pilot assessment work for the critically polluted Jalan Industrial Complex.

1.2. Background

The Jalan Industrial Complex is a private industrial estate developed and promoted by the Jalan Group (www.jalangroup.co.in). Before the Complex came up, the entire land was agricultural land connected with a canal ("Begri Canal") and water channels which were used for irrigation purpose. The Industrial Complex started developing since 1984 and since then it houses more than 600 small and medium scale industries. New industries are constantly being set up thus increasing the area of the Industrial Complex. The Complex is spread across 3,000 acres of land (13 Sq. Km)¹, and lies in the Mouzas of Begri, Baniara and Biprannapara under the administrative jurisdiction of Domjur Panchayat Samity of Howrah District. Begri Canal is the recipient waterbody which passes through the Jalan Industrial Complex to which sewage and industrial effluent are discharged through narrow channels at multiple points. The canal finally joins River Hooghly after travelling about 15 kilometres in south–east direction.

The Jalan Industrial Complex has numerous water polluting industries like:

- Textile processing including dyeing & bleaching of cotton fabrics,
- Acid pickling, hot dip galvanizing, electroplating and other surface treatment of metallic surfaces, and
- Vegetable oil refining and processing.

The water polluting industries have their Effluent Treatment Plants:

- Textile processing units have individual treatment system with physical and chemical treatment facility.
- Galvanising industries and other metal surface treatment units including electroplating and anodizing mills have individual treatment system with physical and chemical process of treatment; and
- Vegetable oil processing industries have their Effluent Treatment Plant comprising physical, chemical and biological treatment system.

However, there are large number of industries which do not have proper disposal system due to which stagnant effluent is seen overflowing from the surface drains. As the Complex doesn't have any CETP, upon NGT notifying this industrial complex as "Critically Polluted", WBPCB would like to explore the feasibility of setting up a CETP in the Jalan Industrial Complex.

As a part of the support being provided by GIZ to WBPCB under SEIP II project, GIZ is proposing to engage a consultant to undertake a rapid assessment on the possibility of setting up of a CETP in Jalan Industrial Complex, as well as to propose a procedure for undertaking similar assessments for other critically polluted industrial estates in West Bengal.

¹ CEPI Management Plan, 2010

The Terms of Reference are given below.

2. Tasks to be Performed by the Contractor

2.1. Objective of the Consultancy Services

The objective of the consultancy services is to undertake a rapid assessment on the possibility of setting up of a CETP in Jalan Industrial Complex, as well as to propose a procedure for undertaking similar assessments for other critically polluted industrial estates in West Bengal.

The scope of services includes:

- Assessments to be carried out for the Jalan Industrial Complex, Howrah District on the possibilities of setting up of a CETP so as to ensure pollution control and compliance with the environmental requirements as stipulated or as may be stipulated by WBPCB.
- Undertake necessary field studies, collection of primary and secondary data, data review and analysis on wastewater generated, its treatment at source, quality of wastewater after treatment, compliance with standards (permitted discharge limits), availability of conveyance and disposal infrastructure etc.
- Assess the possibilities of setting up a CETP including the land available, availability of treatment technologies, indicative costs of user charges, willingness to pay by the industries, indicative costs of establishment and operational costs, availability for disposal options for treated wastewater etc.
- Detail out the requirements for setting up of CETP such as conveyance systems, monitoring systems at industries, monitoring (CEMS) systems at CETP, disposal infrastructure, place of disposal etc.

Based on the procedure followed for rapid assessment of the possibility of setting up of CETP at the Jalan Industrial complex, propose a generalised procedure for undertaking similar assessments for other critically polluted industrial estates in West Bengal.

2.2. Tasks to be Performed by the Consultant

The contractor is responsible for providing the following services:

Main Task 1: Field surveys, data collection and problem analysis	<ul style="list-style-type: none"> • Sub-Task 1: Collection of data/information from existing industrial units to understand products manufactured, wastewater producing processes/operations, treatment systems available (ETP), monitoring systems available for the treated wastewater, place of disposal, compliance with environmental statutory requirements. • Sub-Task 2: Collection of relevant data/information from WBPCB, Municipal department, Water and Sewerage department, Panchayat etc. • Sub-Task 3: Mapping of the industry locations, conveyance systems and disposal systems. • Sub-Task 4: Field surveys for rapid assessment of the situation on ground in terms of pollution. Mark all critical areas on map. • Sub-Task 5: Problem analysis including: <ul style="list-style-type: none"> - Wastewater being generated – quantity & quality, waste/sewage sludge generated
---	--

	<ul style="list-style-type: none"> - inadequacies of treatment systems at industries, monitoring systems, conveyance and disposal systems - non-compliance aspects and pollution being caused - main causes of the Industrial Complex being tagged as 'critically polluted'
Main Task 2: Rapid assessment on setting up of CETP	<ul style="list-style-type: none"> • Sub-Task 1: Assess the possibilities of setting up of a CETP so as to ensure pollution control and compliance with the environmental requirements as stipulated or as may be stipulated by WBPCB. <ul style="list-style-type: none"> - Assess the land available - Availability of treatment technologies - Indicative costs of establishment and operational costs of CETP - Indicative costs of user charges and willingness to pay by the industries - Availability for disposal options for treated wastewater, including recycle/reuse, place of disposal etc. - Adequacies of the existing conveyance systems or requirements for new systems - Requirements of monitoring systems at industries and monitoring (CEMS) systems at CETP - Availability of disposal infrastructure for treated wastewater and place of disposal - Possible business models for establishment as well as operations and management of the CETP
Main Task 3: Procedure/guidance document for rapid assessment of other industrial parks in West Bengal	<ul style="list-style-type: none"> • Sub-Task 1: Based on the procedure followed for rapid assessment of the possibility of setting up of CETP at the Jalan Industrial complex, propose a generalised procedure/guidance document for undertaking similar assessments for other critically polluted industrial areas/parks/estates in West Bengal. • Sub-Task 2: Conduct a training workshop for the officials of the WBPCB (at the premises of WBPCB) on undertaking similar assessments for other critically polluted industrial areas/parks/estates in West Bengal.

2.3. Duration of the Contract

April 2021 to August 2021

2.4. Deliverables/Milestones

Required deliverables from the consultancy services and the timelines are given below.

Milestone/Deliverable	Deadline/place
<u>Main Task 1:</u> <ul style="list-style-type: none"> • Report on problem analysis 	May 2021
<u>Main Task 2:</u> <ul style="list-style-type: none"> • Rapid assessment report on setting up of CETP in Jalan Industrial Complex 	July 2021
<u>Main Task 3:</u> <ul style="list-style-type: none"> • Procedure/guidance document for rapid assessment of other industrial parks in West Bengal • Training workshop report 	August 2021 August 2021
Report on the consultancy services provided	August 2021

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

3.1. Technical-methodological Concept

The bidder is required to **submit a Technical-methodological concept** covering the following aspects to enable GIZ judge the technical competency of the bidder (ref. to attached Technical Assessment matrix). If no information is provided, the bidders will not be given any score against 5 parameters and their sub-parameters written below.

- 1) **Strategy:** The bidder is required to understand the objectives given in the ToR and do critical examination of the tasks. The bidder is required to elaborate a strategy/approach for delivering the services put out to tender. The evaluation parameters are:
 - » Interpretation of the objectives in the ToRs, critical examination of tasks
 - » Description and justification of the contractor's strategy for delivering the services put out to tender.
- 2) **Cooperation:** The bidder is required to interact with relevant actors for successful implementation of the contract. Therefore, a clear strategy for establishing cooperation and then cooperating with the relevant actors needs to be detailed out in line with the ToR requirements. The evaluation parameters are:
 - » Presentation and interaction between the relevant actors in the contractor's area of responsibility.
 - » Strategy for establishing cooperation and then cooperating with the relevant actors.
- 3) **Steering Structure:** The bidder is required to outline the approach and procedure for steering the measures with the project partners for effectively and efficiently fulfilling various tasks, viz. needs gathering, seeking approvals, comments to the draft outputs etc. The evaluation parameters are:
 - » Approach and procedure for steering the measures with the project partners
 - » Description of contractor's contribution to results monitoring and the associated challenges
- 4) **Processes:** The bidder should include in the technical proposal an explanation of the implementation plan: work steps, milestones, schedule. The description of the key processes which it intends to follow for delivering the services so that the partners contributions/inputs are well integrated. The evaluation parameters are:
 - » Presentation and explanation of the implementation plan: work steps, milestones, schedule
 - » Presentation and explanation of the integration of the partner contributions

5) **Learning and Innovation:** The bidder should include in the technical proposal an explanation of how they would be able to contribute to the knowledge management at WBPCB and at GIZ. The bidder should also include a presentation and explanation of the measures that they would undertake to promote scaling-up effects. The evaluation parameters are:

- » Contractor's contribution to knowledge management at the partner and at GIZ
- » Presentation and explanation of the measures undertaken by the contractor to promote scaling-up effects Project

6) **Management:** The bidder is required to prepare and submit:

- » Approach and procedure for coordination with/in GIZ project.
- » Personnel assignment plan (who, when, what work steps) incl. explanation and specification of expert months; and
- » Backstopping strategy (incl. CVs of the technical and administrative backstopper)

4. Personnel Concept

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs, the range of tasks involved and the required qualifications. The bidder is required to provide personnel who are suited to filling the positions described, based on their CVs, the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points. The numbers given in brackets refer to the respective lines in the document "Grid for the technical assessment of bids".

4.1 Responsibilities and Qualification Requirements of Experts

Details of responsibilities and qualification requirements of various experts are given below.

Team Leader: Senior Expert (1 no.)

Responsibilities:

- Responsible for overall assignment, quality aspects of all deliverables
- Coordination with team members (pool of experts) and GIZ including its relevant partners/stakeholders
- Technical tasks as detailed in Section 2 above.
- Resource person for the workshops/training programmes

Technical Assessment Parameters of Senior Expert

- Qualifications (2.1.1): Minimum Master's degree or equivalent in environmental engineering from a recognised institution/ university.
- Language (2.1.2): Excellent writing and communication skills in English
- General Professional experience (2.1.3): Minimum 20 years of experience in the field of environment
- Specific Professional experience (2.1.4): Minimum 5 years of experience in the areas of wastewater management and planning & management of CETPs
- Regional experience (2.1.6): Working experience in West Bengal is preferred

Pool of Experts (Max. 3 members)

Responsibilities:

- Data/information collection, field surveys, data analysis
- Assistance to the senior expert in carrying out various tasks
- Assigned technical tasks by the Senior Expert (Section 2 above)
- Organising of meetings/workshops

Qualifications of the expert pool - (Max. 3 Nos.)

- Qualifications (2.6.1): Minimum Post Graduation/ M.Tech. in Engineering from a recognised institution/ university.
- Language (2.6.2): Excellent writing and communication skills in English
- General professional experience (2.6.3): Minimum 2 years of experience in the field of environment
- Specific professional experience (2.6.4): Minimum 2 years of experience in the areas of wastewater management and planning & management of CETPs
- Regional experience (2.6.5): Working experience in West Bengal is preferred

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications.

4.2 Eligibility Requirements for the Bidders / Firms Participating in the Tender *(Please refer to enclosed sheet of Grid for assessing eligibility of consulting firms for weightage)*

I. Commercial Assessment

- Please provide the legal status of your firm.
- Average annual turnover of the agency or consortium for the last three financial years: at least Euro 30,000.
- The number of employees of the agency or consortium as at 31.12. of the previous year: at least 5 persons.

IIA. Technical Assessment

- The bidder shall have reference projects with a minimum commission value of 10,000 EUR

- At least 3 reference projects on preparation of pre-feasibility report/Detailed Project Report for setting up a minimum 1 MLD CETP or Individual ETP for managing effluents in India
- At least 1 reference project on preparation of pre-feasibility report/Detailed Project Report for setting up a minimum 1 MLD CETP for managing industrial effluents in India **in last three years**

II B.1 Technical Experience

- Minimum 3 years' experience in undertaking feasibility report/DPR preparation for setting up CETPs/Industrial Wastewater treatment Plant/STP
- Minimum 1-year experience in Commissioning and Operation & Maintenance of CETPs/Industrial Wastewater treatment Plant/STP

II B.2 Regional Experience

- Experience in undertaking feasibility report/DPR preparation for setting up CETPs/Industrial Wastewater treatment Plant/STPs **in India**

Kindly submit documentary evidence of above-mentioned requirements.

5. Costing Requirements

5.1. Assignment of Personnel

Team Leader (Senior Expert): **60 expert days** (including travel days)

Expert Pool (3 Nos.): **80 expert days** (including travel days)

	Senior Expert (1 no.)	Pool of Experts (3 Nos.)
Main Task 1	20 days	40 days
Main Task 2	20 days	20 days
Main Task 3	20 days	20 days
	60 days	80 days

5.2. Specification of Inputs

Fee days	Number of days up to	Comments
• Preparation/debriefing	1 day	Preparation/debriefing on the assignment by GIZ
• Implementation	139 days	Man-days for taking up the tasks as defined in the TORs. This includes travel days (maximum 30 days)

Fee days	Number of days up to	Comments
Travel expenses	Number of days/nights up to	Comments
• Per diem	30	Bidder to quote per diem costs. Note that costs will be reimbursable up to limits as per GIZ rules
• Accommodation	30	Bidder to quote per accommodation costs. Note that costs will be reimbursable up to limits as per GIZ rules.
Other travel expenses		Comments
• Number of local trips (train/road)	-	-
• Number of trips abroad	NIL	
• Local conveyance	Actual	Bidder to quote local travel budget for trips to industrial estate, meetings with partners etc. The same will be reimbursed on actuals as per GIZ rules.
Flights	Number of flights up to	Comments
• International flights	0	
• Domestic flights	Max 6 trips	Trips to Kolkata from any part of India.
Other costs		Comments

6. Inputs of GIZ or Other Actors

GIZ and/or other actors are expected to make the following available:

- Facilitate working in WBPCB and other offices.
- Facilitate interactions with Jalan Industrial Association and WBPCB.
- Organisational aspects of the trainings including venue, tea/coffee etc.

7. Requirements on the Format of the Bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

The complete bid shall not exceed 30 pages (excluding CVs).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs can also be submitted in English (language).

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.