

Appendix-1: Terms of Reference

Government of the People's Republic of Bangladesh
Department of Environment
www.doe-bd.org
Head Office, Paribesh Bhaban
E-16 Agargaon, Dhaka-1207

Memo No: DoE/Clearance/5231/2013/ 295

Date: 19, December, 2013

Subject: Approval of Terms of Reference (TOR) for Environmental Impact Assessment (EIA) in favour of Priority Works under Dhaka Environmentally Sustainable Water Supply Project (DESWSP) of Dhaka WASA.

Ref: Your application on 31 October 2013.

With reference to your letter dated 31.10.2013 for the subject mentioned above, the Department of Environment hereby gives approval of TOR for Environmental Impact Assessment (EIA) in favour of Water Treatment Plant at Gandharbpur under Dhaka Environmentally Sustainable Project subject to fulfilling the following terms and conditions.

1. Dhaka WASA shall conduct a comprehensive Environmental Impact Assessment (EIA) study considering the overall activity of the said Project in accordance with the TOR submitted to the DOE and additional suggestions provided herein.
2. The EIA report should be prepared in accordance with following indicative outlines:

1. Executive summary

2. Environmental Baseline Data

Following general aspects should be considered for baseline :

- GPS location, data sources, time period, representativeness, relevance to the identified and predicted impact, usefulness in comparing and evaluation of impact to find the significance of impacts.
- Baseline data must also relate to the monitoring plan that covers preparation, construction and operation phases of the project. Baseline data must be in consistent with monitoring plan in terms of location, timing, parameters and other conditions that imply for baseline data.

2.1. Project Data Sheet

- a. Project location and area

- The location of the project and area involved

- b. Project Concept

- An outline of description of the concept and objectives of the project, the types of activities expected, and the development plans for achieving the objectives.

- c. Project Components

- Components of the project covering types of works proposed, locations, resources, infrastructure, utilities and service requirements, etc.

- d. Project Activities

- A list of the main project activities to be undertaken during: site clearing, site development, other associated developments and operation phase.

- e. Project schedule

- The phases and timing of the project activities.

f Resources and utilities demand

- Resources required to develop the project, such as soil and construction material and demand for utilities (water, electricity, sewerage, waste disposal and others), as well as infrastructure (road, drains, and others) to support the project.

2.2. Physical and chemical components

a Map and survey information

- Location map
- Cadastral map showing land plots (project and adjacent area)
- Topographic map for identifying catchment boundaries, general land use and terrain
- survey map showing contour information
- Aerial photograph

b Geology and soil

- Geological map showing geological units, fault zone, and other natural features
- Soil map and soil profile analysis. This may only be established from soil survey and geotechnical investigation (important for analysis for soil stability, cut and fill)
- Soil properties and composition

c Hydrology and drainage

- Catchment boundaries of rivers/lakes/canals which drain the project
- Hydrological characteristics of rivers in and around the project area, including flow, salinity and sediment load for various return period
- Flood characteristics and historical records of flood events covering areas affected, height of flood and frequency
- Ground water potential and aspects of aquifer, such as recharge zones, ground water abstraction etc.
- Drainage system and drainage characteristics in the project area

d Water quality and use

- Water quality of the receiving water bodies likely to be affected by the project
- Beneficial uses of the water need to be established for rivers or any other water bodies likely to be impacted by the development. The locations of these water utilization should be identified in the map
- Sources of pollutants from existing and known future activities within the catchment of the rivers

e Air quality and noise

- Baseline data of the project site with respect to air quality and noise level
- Air pollutant and noise sources from existing and known sources

2.3. Ecological components

a Habitats

- Aquatic habitat likely to be impacted by the project
- Terrestrial habitat likely to be impacted by the project

b Species and Population

- Identification of population of flora and fauna to assess their conservation status of being rare, endemic and endangered
- Biodiversity of the project site

2.4. Social and Economic Factors

a Population

- Population within and around the project area
- Organizational structure of communities and the degree of public awareness and response to the proposed project

b Human settlement

- Size and distribution of human settlement
- Community infrastructure, utilities and services available
- Housing and future requirements within the impacted area
- Historical/archaeological features of significance

c Economic activities

- Economic activities of population in and around the project area. Activities should include those that are dependent on resources which may be impacted by the project
- Income dependence on economic activities impacted directly or indirectly by the project
- Employment and economic returns to the population by the project

2.5. Infrastructure and utilities

- a Availability of infrastructure to support the proposed project. Attention should focus on different transportation requirements due to project, increase in traffic to and from the project area
- b Availability of utilities and services, especially water, gas and electricity supply, sewerage and waste disposal facilities to cater to the projected demand for such utilities and services

3. Identification and Prediction of Potential Impacts (identification, prediction and assessment of positive and negative impacts likely to result from the proposed project). Appropriate scientific and mathematical tools and models should be used to establish cause and effect relationship for prediction of impacts.

In identification and analysis of potential impacts'-the 'Analysis' part shall include the analysis of relevant spatial and non-spatial data. The outcome of the analysis shall be presented with the scenarios, maps, graphics etc. for the cases of anticipated impacts on baseline. Description of the impacts of the project on air, water, land, hydrology, vegetation-man made or natural, wildlife, socio-economic aspect shall be incorporated in detail.

4. EVALUATION OF IMPACTS

The judgment of significance of impacts can be based on one or more of the following :

- i. comparison with laws, regulation or accepted national or international standards
- ii. reference to pre-set criteria such as conservation or protected status of a site, feature or species
- iii. consistency with pre-set policy objectives
- iv. consultation and acceptability with the relevant decision makers, local community or the general public.

5. MITIGATION OF IMPACTS

Mitigation measures which may be considered including:

- i. changing project layout, transport routes, disposal routes or locations, timing or engineering design;
- ii. introducing pollution controls, waste handling, treatment and disposal, phased implementation and construction, engineering measures, monitoring, landscaping, social services or public education;
- iii. compensation to restore, relocate or provision of concession for damage;
- iv. most feasible, practicable, doable, cost effective, resource efficient and environment friendly alternative must be compared and selected.
- v. Adequate measures to be taken, explored and documented to avoid public sufferings, nuisance and pollution of any kind during preparation, construction and operation phases.

6. Environmental Management Plan

(a) The responsibilities and actions required of the project initiator or implementing body should be identified in the EMP. Some of those responsibilities and actions include: allocation of institutional responsibilities for planning and management of environmental requirements, allocate responsibility to execute mitigation action, implement a programme of monitoring to check the effectiveness of mitigation measures, and if necessary, taking additional measures to correct or overcome the impact in question, in-house monitoring capacity building and allocation of budget.

(b) The EMP should recognize and include the following:

- i. Management of soil erosion, land slides and siltation during site clearance and earth work
- ii. Management of runoff
- iii. Regulation of the types of activities allowed in the project activities in the project are at various phases of the project
- iv. Management of liquid, solids, sludges and gaseous wastes generated from the project area
- v. Environmental monitoring requirements
- vi. Responsibilities and role of the project proponent for protection of environment
- vii. Adequate measures to avoid and mitigate nuisance, pollution and public sufferings of any kind during preparation, construction and operational phases

(c) The program for monitoring should generally identify:

- i. the type of monitoring required
- ii. the location of monitoring
- iii. the types of parameters to be measured (e.g. dissolve oxygen, if fisheries is important in a river)

(d) Monitoring parameters, location, timing, frequency and conditions must be in consistent with that of the baseline.

7. Management Plan/Procedures:

- For each significant major impact, proposed mitigation measures will be set out for incorporation into project design or procedures, impacts, which are not capable of mitigation, will be identified as residual impacts. Both technical and financial plans shall be incorporated for proposed mitigation measures..
- An outline of the Environmental Management Plan shall be developed for the project.
- In Environmental Monitoring Plan, a detail technical and financial proposal shall be included for

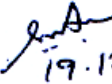
developing an in-house environmental monitoring system to be operated by the proponent's own resources (equipments and expertise).

8. Consultation with Stakeholders/Public Consultation

- Ensures that consultation with interested parties and the general public will take place and their views taken into account in the planning and execution of the project
- Beneficial Impacts (summarize the benefits of the project to the Bangladesh nation, people and local community and the enhancement potentials)

9. Conclusion and Recommendations

3. Without approval of EIA report by the Department of Environment, Dhaka WASA shall not be able to open L/C in favor of importable machineries.
4. Without obtaining Environmental Clearance, Dhaka WASA shall not start operation of the projects.
5. Dhaka WASA shall submit the EIA along with a filled-in application for Environmental Clearance in prescribed form, the applicable fee in a treasury chalan, the no objection certificates (NOCs) from the local authority, NOC from forest department (if it is required in case of cutting any forested plant/trees-private or public) and NOC from other relevant agencies for operational activity etc. for each project to the Head office of DOE in Dhaka with a copy to Regional office of DOE in Dhaka.


19.12.2013

(Syed Nazmul Ahsan)
Deputy Director (Environmental Clearance)
and
Member Secretary
Environmental Clearance Committee
Phone # 8181778

Project Director

Dhaka Environmentally Sustainable Water Supply Project
Dhaka WASA
WASA Bhaban (8th Floor), Room#906
98, Kazi Nazrul Islam Avenue
Kawran Bazar, Dhaka-1215.

Copy Forwarded to :

- 1) The Secretary, Ministry of Environment and Forests, Bangladesh Secretariat, Dhaka.
- 2) Director, Department of Environment, Dhaka Region, Dhaka.
- 3) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

Office of the Project Director

Dhaka Environmentally Sustainable Water Supply Project (DESWSP)

Dhaka Water Supply and Sewerage Authority

WASA Bhaban, 98, Kazi Nazrul Islam Avenue (8th Floor)

Kawran Bazar, Dhaka-1215

Email: pd@deswsp.gov.bd

Phone: +88-02-8189095, Web-site : www.deswsp-dwasa.com

Memo no: 46.113.618.00.00.W- 12 /DESWSP/ 216

Date: 16.02.2014

**INVITATION FOR EXPRESSION OF INTEREST
(For Individual Consultant)**

Date Issued: 16 February , 2014.

Project No. Loan 3051BAN : Dhaka Environmentally Sustainable Water Supply Project (DESWSP)

Deadline for Submission of EOIs: 26 February 2014

[Note: This notice is issued on a preemptive and non-committal basis]

1. The People's Republic of Bangladesh has applied for a loan from the Asian Development Bank (ADB) to Provide finance the proposed Dhaka Environmentally Sustainable Water Supply Project (DESWSP). The Dhaka Water Supply and Sewerage Authority (DWASA) is the executing agency of the project under the Local Government Division (LGD) of the ministry of Local Government , Rural Development and Cooperatives and intends to apply part of the proceeds of the loan to payment of consulting services.

2. DWASA now invites expression of interests (EOIs) from eligible individual national Environmental consultant to prepare the EIA report for the Dhaka Environmentally Sustainable Water Supply Project (DESWSP) according to the approved TOR by DOE under the proposed project.

The qualification and experience of the individual environmental consultant required for the assignment are as follows.

3. **No of the post : one**

4. **Selection method** Individual Consultant Selection (ICS)

5. **Duration of the service** : 90 days

6. **Educational Qualification** : The environmental Consultant should have a degree, preferably with Master's in civil / environmental engineering/ management/ science .

7. **Experience and adequacy for the assignment** : The consultant should have at least 10 years' experience in environmental impact assessments and environmental monitoring/management. He will also have at least 3 years of experience in administering ADB environmental safeguard policies. Experiences with international organizations shall be an added advantage.

8. **Brief description of the assignment:**

1. Preparation of Environmental impact assessment (EIA) Report according to TOR approved by DOE for the project DESWSP.

2. Conduct field surveys: collecting data to establish a baseline condition for levels of pollution or contamination for a site or area of consideration . Collection and incorporate all relevant data, studies and reports in EIA report related to the environment, screen and evaluate the direct and indirect environmental impacts and assess alternative options according to TOR

3. Identifying measures to mitigate and monitor the environmental impacts, their cost estimate, and institutional arrangements, with public consultation with the stakeholders and in liaison with department of environment (DOE) Preparation of the EIA report following the standard format and providing required details

4. Prepare the Environmental Management Plan to ensure compliance with the EIA.

9. The Terms of Reference (TOR) EIA report and ADB standard EOI format (template) for submitting EOIs can be obtained from the office of the undersign during the office hour (9 AM-5PM) or can be downloaded from DWASA websites: www.dwasa.org.bd. And project website: www.deswsp-dwasa.com The EOI notice and TOR of the EIA report is also available at ADB website (<http://cms.adb.org>) and CPTU website www.cptu.gov.bd, and local Newspaper.

10. EOIs submitted in other than the EOI standard template will be considered non-responsive and will not be evaluated. EOI standard template can be obtained from ADB website <http://www.adb.org/site/business-opportunities/operational-procurement/consulting/documents>

11. The Consultants shall be selected and engaged in accordance with the "Guidelines on the Use of Consultants by ADB and its Borrowers (March 2013), as amended from time to time".

12. Interested and eligible Consultant are invited to submit their EOIs either electronically/ on-line at www.adb.org or in hard copy (paper document in sealed envelope) both to be in the prescribed format by the deadline of **26 February 2014 up to 2.00 PM** to the address given below. If the consultant submits an EOI in both modes (electronic and hard copy), only the hard copy submission will be considered and evaluated. Those who submit the hard copy only, request to submit 02 (Two) hard copies (01 Original +01 Copy).

13. Under no circumstances will the ADB, DWASA or DESWSP be responsible for any cost incurred in submission of the EOI.

14. The procurement entity reserves the right to accept or reject any or all EOIs



Md. Mahmudul Islam
Superintending Engineer &
Project Director
DESWSP Project
Dhaka WASA

Memo no: 46.113.618.00.00.W- 12 /DESWSP/ 216

Date: 13.02.2014

1. The Managing Director, Dhaka WASA
2. The D.M.D (Admin/O&M/RP&D/Fin), Dhaka WASA
3. Chief Engineer, DWASA
4. Additional Chief Engineer (RPD), DWASA
5. The Superintending Engineer/Deputy Project Director-----DESWSP, DWASA
6. The Executive Engineer,----- DESWSP, Dhaka WASA
7. Sr. Accounts Officer, DESWSP, DWASA
8. ✓ Senior System Analyst, Dhaka WASA-with the request to arrange publication of the EOI Notice in DWASA web-site
9. The Dy. Chief P.I.O, Dhaka WASA-with the request arrange publication of the EOI Notice in Two National Daily news papers (One in Bengali & One in English)
10. Deputy Director, CPTU, IMED, Dhaka-with the request to arrange publication of the EOI Notice in CPTU web-site
11. Country Director, BRM, ADB, Agargaon, Dhaka
12. Notice Board/Respective file.