**Appendix 8**

# GUIDANCE DOCUMENT FOR PREPARING TERMS OF REFERENCE (TOR)

## A. INTRODUCTION

The process for preparing an Environment Impact Assessment (EIA) report can be a rather complicated and long process, especially if the project itself is a mega project involving multiple disciplines and located within a sensitive environment. In this regard, DOE needs to streamline the initial information that is provided by the Project Proponent at the conception stage of the project in accordance with the Section 34A (2C) of Environmental Quality Act 1974, so as to steer the Project Proponent in preparing a 'focused' EIA report which would be used to address all significant environmental issues that are predicted in the EIA during the construction and operational stage.

## B. TERMS OF REFERENCE (TOR)

The TOR document can provide DOE with a snapshot picture of the Project Proponent's overall project scheme and his plan for addressing potential environmental issues that are predicted to arise at the early stage of the project. The TOR is also a good indication that the Project Proponent (and his consultants) have given adequate consideration in the potential environmental issues that may arise during the construction and operation of the project, and that relevant mitigating measures are well thought early enough to be incorporated into the design and planning of the construction & operational methodologies for the project. More importantly, however, the TOR serves as the "blueprint" for the Environmental Impact Assessment which will be prepared by the Project Proponent, and to facilitate the DOE during the review and vetting of the completed EIA report.

Typically, the TOR is complemented by an Environmental Scoping Information (ESI) which provides further elaboration and shall serves as evidence on how the Project Proponent derives the TOR for his project. In essence, the TOR can be regarded as

the “executive summary” of the ESI, which can also be used to outline the skeletal framework for the EIA report to be prepared in detail at the later stage.

The contents of a typical TOR are shown below, as an example. This should not be taken as a “fix format” for a TOR because all projects are different and the Project Proponent should prepare a specific TOR that suits his project needs. The sample TOR shown below is for guidance only.

**CONTENTS OF A TYPICAL TOR FOR EIA REPORT**

| No | Contents | Description |
|---|---|---|
| 1 | Introduction | This Terms of Reference is for the preparation of an Environmental Impact Assessment (EIA) Study for “Project Title” |
| 2 | List of Consultants/ Study Team | Details of each individuals (must be registered with DOE) who will carry out the EIA study, which include:-<br><br>DOE Registration number.<br>Academic background.<br>Experience.<br>Area of study.<br>Declaration (signatures).<br><br>The EIA consultant team is to be led by a Team/Project leader/ manager who is responsible for the EIA report. Include contact details (complete address, phone and fax numbers) of the appropriate and responsible person(s) to whom enquiries regarding EIA should be directed |
| 3 | Scope of Project | List out those components of the Project which fall under the Prescribed Activities under the EIA Order, and describe with enough details to understand the scope of the significant project work components, without the technical details, including a well described engineering implementation programme of the Project. |
| 4 | Alternatives Consideration | Outline alternative solutions (project site, technologies, etc) that will be studied or described to justify that the Project will result in the least environmental impacts. |
| 5 | Significant Environmental Impacts to be studied | List and describe those significant environmental impacts which will potentially be affected by the project works or components which will need to be covered in detail in the EIA |
| 6 | Study Boundaries | Delineate study boundaries for each of the above significant environmental elements to be investigated, and identifying the critical groups of sensitive receptors and how the impacts |

| No | Contents | Description |
|---|---|---|
| | | on the sensitive receptors will be studied |
| 7 | Assessment Standards | List out standards, criteria, acceptable limits, etc that will be used to assess the environmental impacts to be investigated. |
| 8 | Timeline of studies | Details of all studies/investigations to be carried out: who, where, when, how, etc. with indicative dates |
| 9 | Consideration of Concurrent Projects | List out potential concurrent or planned project that may result in cumulative impacts |
| 10 | Description of modelling tools, assessment methodologies | List out modelling tools, methodologies, etc for undertaking impact assessment and evaluation of significance. The extent of accuracy of these tools will also need to be provided, including, name of models, applicability of models and tools, verifiability of results, how results are verified, grid size (for water modelling) |
| 11 | Possible Mitigation Measures | Outline possible mitigation measures or best management practices from similar projects that may be used to address the environmental impacts on this project. |

## C. ENVIRONMENTAL SCOPING INFORMATION (ESI)

### 1. Purpose of ESI

As mentioned above, the ESI provide further elaboration to the Terms of Reference, by demonstrating to DOE that the Project Proponent has given due consideration to his project and the potential environmental issues that may result from the construction and operation of the project. Scoping is a critical activity which should take place at the **early stage** in the EIA process. It is designed to identify and assess the **key environmental impacts and issues** of concern that are required to be considered in detail during the EIA for a particular project. Scoping shall ensure that matters which are **of most importance** are addressed in most detail and valuable resources are not spent on **nonsignificant** matters.

From the DOE's perspective, the purpose of scoping is for the Project Proponent to identify the matters which shall be covered in the **environmental information** to be submitted to the DOE. The scoping activity will result in the preparation of an Environmental Scoping Information (ESI).

In general, an ESI is prepared to identify the **key concerns** associated with a proposed Project and specifically will serve the following purposes:

- To enable DOE to evaluate the adequacy of the **Terms of Reference (TOR)** on whether all the critical issues and concerns to be assessed have been included. (Note: On the same note, TOR shall also ensure that time, manpower, and financial resources **shall NOT** be spent on **unimportant matters**).

- To furnish DOE with adequate information on the **general concept** of the proposed Project including the initial proposed works while omitting the unnecessary details. The information provided in the ESI is simple, direct and concise, leaving out substantial background and technical details which should be covered in the EIA Report.

- To provide DOE with sufficient understanding into the **environmental issues** resulting from the proposed Project, so as to guide the Project Proponent and DOE in the identification of specific environmental aspects that require further detailed assessment.

## 2. Extent of Environmental Scoping Information (ESI)

The Environmental Scoping Information (ESI) shall focus mainly on the **important issues** and **significant impacts** to be addressed or covered by the Project Proponent in the EIA. Resources **shall NOT** be spent on **trivial matters**.

## 3. Coverage of Environmental Scoping Information (ESI)

The following is an **indicative list** of information which shall be included in an ESI:

## i. Introduction to ESI

- Introduction: *Provide a short introduction to the ESI*
- Preparer: *Provide the name, designation, contact number and affiliation company of the ESI preparer*
- The need for EIA: *Describe the need for an EIA for the Project*

## ii. Basic Information of Project

- Project Title: *Provide name of Project*
- Purpose and Nature of Project: *Provide brief description on the Project's background, previous studies, statement of need, and Project concept, size, components and outline of process technologies, and Project development phases including future phases.*
- Identification of Project Proponent: *Provide Project Proponent's name and address. If the Proponent is a Joint Venture partnership, the Joint Venture partners shall be identified, together with the Project Manager for the Joint Venture.*
- Location and Scale of Project: *Provide coordinates of Project, extent of Project coverage, and maps at appropriate scales.*
- History of Site: *Describe brief history of the site where Project is to be sited.*
- Project justification: *Describe any alternatives evaluated during early proposal (e.g., location, siting, technology, process) and summarize the criteria used to compare options and select the preferred Project proposal.*
- Number and Types of Prescribed Projects: *Describe which category Project falls under the EQA and states the criteria that made the activity falls under the Prescribed Activity.*
- Previously Approved EIA Reports or Studies**:** *List out any previous EIAs or studies that were conducted for other projects around the proposed Project site.*
- Regional Setting of Project: *Describe how the Project is placed in the regional biophysical and social context.*

- Name and Telephone Number of Contact Person: *Provide contacts of key personnel of Project proponent, normally no more than 2 persons.*

**iii. Alternative Consideration**

- Outline alternative solutions (project option, project site, technologies, etc) that will be studied or described to justify that the Project will result in the least environmental impacts.

**iv. Major Elements of the Environment in the Vicinity of Project Site and Study Boundaries**

A relatively comprehensive list of elements of the environment is mentioned in this paragraph. Attention shall be given only to the more **significant elements** associated with the proposed Project.

- Air Quality: *Briefly describe the prevailing air streams and wind directions at the Project site, and identify the list of air sensitive receivers within a study boundary of 500 m*
- Noise and Vibration: *Briefly describe the existing noise contributors at and around the project site, and identify the list of sensitive noise receptors within a study boundary of 500 m*
- Water Quality: *Briefly describe the existing waterbodies and rivers at and around the project site, and identify the list of water sensitive receivers within a study boundary of 500 m*
- Hydrology and Hydrogeology: *Briefly describe the hydrology and hydrogeology at and around the project site within a study boundary of 1000 m*
- Flood risk: *Briefly describe the existing risk of flooding and flood defense infrastructure at and around the project site within a study boundary of 500 m*
- Erosion risk: *Briefly describe the existing risk of erosion and erosion mitigation infrastructure at and around the project site within a study boundary of 500 m*

- Waste Management: *Briefly describe the existing sources of solid and hazardous waste arising at and around the Project site. ~~within a study boundary of 3 km.~~*
- Ecology: *Briefly describe the existing habitats (land and marine, including bathymetric characteristics for marine projects) at and around the Project site within a study boundary of 500 m.*
- Cultural Heritage: *Briefly describe any historical evidence of cultural importance at and around the Project site within a study boundary of 500 m.*
- Land Contamination: *Briefly describe the existing and previous land uses at and around the Project site that may have caused any land contamination within a study boundary of 500 m.*
- Groundwater: *Briefly describe the existing uses of groundwater at and around the Project site and the existing and previous land uses that may have caused any groundwater contamination within a study boundary of 1000 m.*
- Landuse, Landscape and Visual: *Briefly describe the existing landuse and landscape at and around the Project site within a study boundary of 500 m and identify a list of visually sensitive receptors.*
- Traffic: *Briefly describe the existing traffic conditions at and around the Project site within a study boundary of 3000 m.*
- Hazards and Risk Assessment: *Briefly describe any existing hazardous installations at and around the Project site or risks associated with the project itself within a study boundary of 500 m (including possibilities such as seismic & geological events)*
- Socio-economy: *Briefly describe the socio-economic conditions at and around the Project site within a study boundary of 500 m.*
- Geology: *Briefly describe the topographical and geological features at and around the Project site within a study boundary of 500 m, and may include information on mineral deposits and soil characteristic.*

## v. Outline of Planning and Implementation Program

- Relevant Policies: *Briefly describe government policies (federal, state, or local) which are relevant to the Project.*
- Project Implementation: *Briefly describe who will implement and construct the Project works, and who will undertake the detailed EIA studies.*
- Project Time Table: *Provide indicative dates when the project will commence and end.*
- Interactions with other Projects: *List out all concurrent or planned projects in the vicinity of this Project. The purpose of this list is to enable DOE to assess the significance of cumulative impacts from all the projects.*
- Project Assessment Timeline: *Provide a proposed target timeline for the whole assessment process. The time table for proposed studies and investigations shall be included, and as a minimum, shall include:-* TOR submission; TOR *public review (if relevant); environmental studies; consultation program; EIA report submission; EIA report public display; Project proponent's response to public comments.*
- Proposed studies: *Describe scope of works of studies/investigations/surveys that will be undertaken to obtain the baseline information on the major elements of the environment.*

## vi. Possible Impacts on the Environment

Note: A relatively comprehensive list of impacts is mentioned in this paragraph. Attention shall given only to the more **significant impacts** associated with the proposed Project.

*Outline the methodologies used in the impact analysis/ assessment and provide a brief **qualitative** description of the potential impacts during construction and operational phases of project implementation on the following:*

- Air Quality
- Noise and Vibration
- Water Quality
- Hydrology and Hydrogeology
- Flood risk
- Erosion risk

- Waste Management
- Ecology
- Cultural Heritage
- Land Contamination
- Groundwater
- Landuse, Landscape and Visual
- Traffic
- Hazards / Risk Assessment
- Socio-economy
- Geology

### vii. Mitigation Measures to be incorporated in the Design

***Qualitatively*** *describe the proposed pollution prevention and mitigation measures (P2M2) or generally referred to as* ***best management practices*** *that will be implemented to address the impacts from pre-construction (including feasibility studies and design), construction and operational phases of the Project implementation as described in* "Possible Impacts on the Environment" *section of the ESI.*

### viii. Use of Previously Approved EIA Reports or Studies

*Outline and describe any relevant information that is referenced from the previous EIAs or studies that were identified in Section 3(ii) above and briefly discuss how this information is suitable to be used for this Project.*

### ix. List of Drawings, Flowcharts, Diagrams, and Photographs

*Provide the following:*

- *Clear, colored and readable maps, diagrams and photographs to illustrate the nature of the Project and its general layouts indicating the location of the Project and all its components and Project boundaries.*
- *Macro scale maps (1:50,000 & 1:25,000), plans, photographs or satellite images, clearly identifying the location of the proposed project location.*
- *An updated satellite image to indicate the recent existing environment may be used. The coverage of the landuse map must be at least within 5 km radius (interval of 250m). For large scale projects such as the construction of dams or impounding reservoirs, the coverage of the landuse map may be beyond 5 km radius depending on the catchment area.*
- *Other types of map that may be relevant to the key and critical issues of the proposed Project. They may include cadastral map, topography and geological map, bathymetry map, hydrological map, coral population map, etc.*
- *For industrial-based projects, clear and readable flow chart of the production processes and explanation on the processes and the Project's maximum capacity*

**x. References**

*Provide a list of documents and studies used to prepare the Environmental Scoping Information (ESI).*

**Note:**

**The items listed in Section 3 are not exhaustive. Other items shall be included whenever relevant. The ESI shall be included with the TOR submission as an annex or appendix.**

Issued by:

Director General
Department of Environment
July…., 2016

Note: Please submit three (3) hardcopy and a **softcopy** (in PDF format) of the Term of Reference with Environmental Scoping Information to:

Director General
Department of Environment
Ministry of Natural Resources & Environment
Level 1-4, Podium 2 & 3, Wisma Sumber Asli
No. 25, Persiaran Perdana, Precinct 4
**62574 PUTRAJAYA**
(Attn. to: Director of Assessment Division)