1. Aims and Objectives of ESIA Guidelines for Hydropower

Environmental and Social Impact Assessment (ESIA) guidelines for hydropower development in Myanmar are required to provide clear, consistent and comprehensive guidance on: (i) the legal requirements for impact assessment; (ii) key issues to be considered in project design, construction, commissioning, operation and decommissioning, and assessed during the ESIA process; and (iii) management plans to be prepared, to seek project approval and to effectively design, construct, commission, operate and decommission projects in a sustainable manner. This includes application of the mitigation hierarchy to anticipate and avoid impacts to the fullest extent possible, and where avoidance is not possible minimize (e.g. abate, rectify, repair and/or restore) those impacts, and where residual impacts remain, compensate/offset for risks and impacts.

Hydropower projects, particularly medium to large scale, have a range of significant and permanent impacts on aquatic and terrestrial ecosystems, ecosystem services, and communities. Projects have to be adequately planned to avoid and manage significant impacts and risks. At present, Myanmar has only recently approved general Environmental Impact Assessment (EIA) procedures but has no specific environmental and social guidelines for the hydropower sector. In addition, local expertise in the assessment of medium to large scale hydropower projects is limited in Myanmar.

Hydropower development in Myanmar over the next two decades has the potential to create significant, unprecedented, diverse and irreversible adverse environmental and social impacts over fairly pristine landscapes. The development of multiple hydropower projects within a watershed can severely degrade the riverine ecosystem and cause significant adverse impacts on river resource users, primarily by altering river water, sediment, and biodiversity flows (daily and seasonal) and segmenting rivers with dams and weirs that may impair human navigation as well as passage of sediments, and native biota (e.g. fish, macro-invertebrates and mammals). In addition, the social dimensions of hydropower are well known and potentially involve economic and/or physical displacement of people, impact on local people’s access to natural, religious or cultural resources essential to their livelihoods, worships and/ or sustainability of traditions. These impacts are long term and usually only reversible with the removal of the dams. Wide and permanent stakeholder consultation and judicious use and protection of natural resources for multiple purposes over the long term, balancing the economic benefits of hydropower generation with ecosystem protection and services (e.g., flood control) and existing natural resource use (e.g. fisheries), is required to assure sustainable development of hydropower in Myanmar as well as adequate sharing of benefits among affected people.

The Guidelines will be used as a guide and checklist of issues to be assessed and reviewed, and in conjunction with Myanmar’s EIA Procedure. They should bear in mind potential Cumulative Impacts associated to multiple and cascading projects in the same watershed, and thus take in account what valued environmental and social features or components may involve joint management from multiple parties, and

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1 Myanmar has only approved EIA procedures, not ESIA of which social is limited in scope in the existing regulations. The purpose here is to ensure that the social impacts are captured in the guidance.
thus require particular attention from a cumulative impact perspective\(^2\). The primary users of the Guidelines will be:

- Hydropower developers;
- Impact assessment consultants;
- Government agencies; and
- Other stakeholders such as the communities and NGOs.

2. **Hydropower Development in Myanmar**

Relatively limited hydropower development has occurred in Myanmar to date in comparison to the available resources in the country, but development is set to ramp up over the medium term due to the recent opening up of the country to foreign investment, the current high level of interest in this sector, and rising national power demand.

A number of projects are currently being considered for approval by the Government of Myanmar (GOM), ranging in size from 1 MW to over 1000 MW. There are range of very large scale projects proposed for development by the Government of Myanmar.

At the same time there is currently a lack of expertise within the country to assess the environmental and social impacts of medium to large scale hydropower projects. This expertise is expected to be built over time as projects are proposed and assessed, built and operated, but these Guidelines will provide detailed guidance on how to assess and manage environmental and social impacts and risks for hydropower projects, in alignment with good international industry practices and IFC Performance Standards.

3. **Legal Requirements for Environmental Assessment in Myanmar**

The *Environmental Impact Assessment Procedure* issued by the Government of Myanmar (Ministry of Environmental Conservation and Forestry now Ministry of Natural Resources and Environmental Conservation) Notification No. 616/2015 (29 December 2015) establishes the requirements and procedures for environmental impact assessment, review, approval and monitoring of projects under the *Environmental Conservation Law (2012)*. The Procedure, developed with Asian Development Bank (ADB) assistance, sets out specific requirements for project screening, Initial Environmental Examination (IEE), Environmental Impact Assessment (EIA), appeal process, Environmental Management Plan (EMP), environmental considerations in project approval, monitoring, strategic environmental assessment, and administrative punishment. The Procedure also contains annexes on the (i) Categorization of Economic Activities for Assessment Purposes, (ii) charts illustrating steps in the various project assessment processes, and (iii) Penalties and Other Administrative Punishment.

The *National Environmental Quality (Emission) Guidelines* (29 December 2015) was issued by the Government of Myanmar to provide performance parameters for the regulation and control of air emissions, noise, vibration, and liquid discharges from various sources in order to prevent pollution and thereby protect human and ecosystem health. These Guidelines were primarily based on the World Bank Group Environmental Health and Safety (EHS) General Guidelines from 2007 that provide technical guidance on good international industry pollution prevention practice for application in developing countries.

\(^2\) It is expected these general ESIA guidelines for the hydropower sector make reference to the cumulative impacts of multiple and cascading hydropower projects but separate and specific CIA guidelines will be developed under IFC’s Agreement with the Government of Myanmar.

### 4. Aim of the Assignment

The aim of this assignment is to develop ESIA guidelines for the hydropower sector in Myanmar in consultation with the Government of Myanmar focusing on medium to large scale projects. The guidelines will be in accordance with good international industry practice, as those applied by global developers and required by international development and commercial banks/ financiers, such as the IFC, and when applied shall provide compliance with legal requirements in Myanmar. In addition, the Consultant will be expected to assist ECD with review of pending ESIAs and provide on-the-job learning for the review process linking to the development of the Guidelines.

### 5. Scope of Work

The main tasks involved in the preparation of the ESIA guidelines for the hydropower shall be:

**Background reviews:**

1. Detailed review of current and under development ESIA requirements in Myanmar, including for hydropower, roads, quarries, transmission lines and other infrastructure and activities associated with hydropower projects, as well as related laws and regulations on natural resource protection and management, hydropower, and international treaties that the GOM is a party to;

2. Identify and review good international industry practices (GIIP) for the preparation of hydropower ESIs, including but not limited to the International Hydropower Association’s Hydropower Sustainability Assessment Protocol and other regional guidelines developed such as those in Pakistan and Nepal.

3. Review of the main environmental and social issues – including legacy and historical impacts - of operational hydropower projects in Myanmar – to provide a real world focus for the ESIA guidelines;

4. Review of hydropower projects currently being reviewed by the GOM and the evolving direction of the hydropower industry in Myanmar, to get a sense if there are potentially new/ emerging environmental and social issues likely to occur in the existing project approval pipeline that has not traditionally been an issue and that may also require focus or particular attention or emphasis for these ESIA Guidelines.

**Drafting of the guidance:**

5. Development of *Hydropower ESIA Guidelines* for Myanmar primarily for medium to large scale projects and local conditions, including:

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3 Along with the abovementioned CIA guidelines for the hydropower sector to be developed, IFC will also support Stakeholder Engagement Guidelines and Environmental Flows Guidelines to delve deeper into these issues
• identifying significant and secondary environmental and social issues associated with project design, construction and operation;
• identifying of relevant stakeholders, and describing requirements for the integration of stakeholder engagement (public participation) during the ESIA process, with special consideration of local conditions and transboundary issues. Provide guidance on Stakeholder Mapping including the development of an outline for Stakeholder Engagement Management Plan (SEP) and Grievance Mechanism (GM);
• identifying the range of project siting, design and operational alternatives that need to be considered;
• identifying the generic environmental and social impacts and risks typically encountered in hydropower projects;
• define the environmental and social baseline needed to better assess the magnitude, significance and temporality of the potential impacts and risks;
• identifying relevant KPI and metrics, prevention, mitigation, management and monitoring measures and arrangements that need to be considered;
• providing an indicative outline of the contents of:
  o a comprehensive hydropower ESIA, including the content of each section with a focus on major impacts;
  o an Environmental Management and Monitoring Plan (EMMP)
  o Social Management and Monitoring Plan (SMMP);
  o Key supporting studies and plans (e.g. Resettlement and Livelihood Restoration Action Plan (RAP))
• providing quality review criteria for the ESIA in the form of a checklist, specifically for the use of regulators who will be required to review the ESIA report;
• providing an example Terms of Reference for the ESIA consultant team to be hired for carrying out the ESIA for hydropower projects.

Presenting at Multi-stakeholder consultations:

The Project Team will organize two multi-stakeholder consultations to obtain inputs from a wide range of stakeholders on the draft guidelines. The consultant will be expected to prepare consultation materials (draft agenda, presentations and workshop report) and present the materials;

The consultant will finalize the guidance material based on the feedback received during consultations and from the Project Team.

Review of ESIA

The Consultant will sit in ECD and provide review of 4-5 ESIA that are pending for the hydropower sector and provide on-the-job learning for the review process and how the guidelines will be used for future projects.

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4 Stakeholder consultation is a critical element for the development of the EIA Guidelines for the hydropower sector. At least two stakeholder consultations are envisaged.
5 The project team for the purposes of this project consists of representatives from IFC, MONREC and MOEE (hereafter referred to as the project team).
6. Outputs

The consultancy assignment will produce the following outputs:

1. An Inception Report – containing a work plan and brief progress report, to be submitted within two weeks of commencing the assignment;

2. Comprehensive Hydropower ESIA Guidelines for Myanmar incorporating:
   a) A description of applicable policies, laws, regulations, permits and other requirements for hydropower projects and related E&S impact assessment;
   b) Detailed guidance on the preparation of an ESIA for hydropower projects, commensurate with the likely impacts, including, but not necessarily limited to:
      i. Project components to be described in the ESIA;
      ii. Assessment of alternatives;
      iii. Baseline description;
      iv. E&S impacts (primary and secondary, direct and indirect impacts, cumulative, cross-border) and a full description of the related factors that have to be assessed (e.g. factors that have to be described in an ESIA for changes to hydrology);
      v. Assessment methods and their application;
      vi. Mitigation and monitoring measures;
      vii. Management planning (including institutional arrangements); and
      viii. Consultation / stakeholder engagement through ESIA preparation.
   c) Example ESIA TOR for a team of specialists to undertake an ESIA for a hydropower project;
   d) Detailed outline of an Environmental and Social Monitoring and Management Plan.

3. Feedback report on the review of ESIs in the form of key areas needing further training/review in which IFC can provide to ECD.

The outputs are expected to be submitted as a Draft Report and a Final Report.

7. Program

The assignment shall be completed in six months from the day of commencement.

The Draft Report is due four months after commencement, while the Final Report is due one month after comment has been provided on the Draft Report.

8. Working Arrangements

The consultant will work independently, but in close coordination with the Project Team for all aspects of the assignment. As the same partners are also conducting a Strategic Environmental Assessment (SEA) of the Hydropower Sector, the consultant will also liaise with the SEA team for background inputs. The consultant shall maintain effective coordination with all necessary parties.

The international consultant will be supported by technical officers from MONREC and MOEE and a local consultant may be hired for gathering of materials and carrying out translations as determined. The Government of Myanmar will be responsible for setting up individual meetings with government and stakeholder consultations with support from IFC. The consultant will regularly consult with IFC E&S experts as well as Technical E&S officials/ experts of the different relevant ministries of Myanmar to gain insight into current and GIIP for the sector globally and in Myanmar.
The international consultant is expected to work from home and travel to Myanmar three (3) times during the assignment for roughly 5-10 days per mission. In between missions, ongoing communication will be expected via email and Skype.

The assignment is expected to be completed in up to 70 days.

9. **Required Expertise**

- Senior impact assessment (environmental and social) professional with academic training and 15 years or more of experience
- Proven expertise in preparing ESIA for hydropower projects
- Proven track record on development of ESIA for hydropower project in compliance with good international practices and IFC Performance Standards.
- Proven competency in guidance development
- Experience working in Southeast Asia
- Good understanding of the Myanmar context for hydropower development, policy formulation, etc.
- Excellent use of the English language - both spoken and written.