**NEPAL**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)**

**POWER SECTOR REFORM AND SUSTAINABLE HYDROPOWER DEVELOPMENT PROJECT**

**(PSRSHDP)**

**December2014**

## A. Background

1. The proposed **Nepal Power Sector Reform and Sustainable Hydropower Development Project (PSRSHDP)**intends to develop technical and analytical studies, capacity-building activities and policy dialog on the energy sector in Nepal, and preparation of next-step critical hydropower and transmission line projects to prepare Nepal for upcoming large-scale private and public investments in hydropower.

2. The project is a technical assistance (TA) projectthat will notfinance any civil works or physical implementation whatsoever, under any circumstance. Therefore, the PSRSHDP would not have any direct environmental or social impacts. To the contrary, the project overall is expected to result in significant environmental and social benefits by preparing critical studies, policy and planning recommendations, and capacity for improved management and integration of environmental and social considerations in the hydropower sector.

3. Nonetheless,the future infrastructure investments to be studied and prepared under the project may have significant environmental and social impacts. Likewise, the studies and activities related to water resources and basin planning, development and/or reform of regulations and guidelines, and capacity building in the power, and especially hydropower, sector will also shape how power sector investments take place in the future, with implications for the environment and affected communities.

4. This Environmental and Social Management Framework lays out the specific requirements, processes, and responsibilities for ensuring that the activities of the project are carried out in a manner that complies with World Bank safeguard policies and Nepal's environmental and social laws and regulations and to enhance the project's positive impact on enhancing environmental and social sustainability of power sector investments in Nepal.

## B. Brief Project Description

5. The Project Development Objectives are to (a) support the GoN in preparing its hydropower and transmission line projects following international best practices and standards; and (b) inform the GoN critical policy and reform actions to create an enabling environment for sustainable water resource management and hydropower development.

6. This Project intends to offer a holistic and coherent set of technical and analytical studies, capacity-building activities and policy dialog on the energy sector, and preparation of next-step critical hydropower and transmission line projects to prepare Nepal for upcoming large-scale private and public investments in hydropower.

7. The proposed Project has three components: (i) Preparation of Hydropower and Transmission Line Investment Projects; (ii) Studies for Policy Recommendations and Sector Reform; and (iii) Capacity Building for Safeguard Management and Hydropower Development.More information is provided below on the components:

- **Component A: Preparation of Hydropower and Transmission Line Investment Projects (**IDA Credit $20 million**).** The GoN has officially proposed the Upper Arun (335 MW) and Ikhuwa Khola (30 MW) for Bank support for project preparation. This component will support preparation of two hydropower projects as proposed by the GoN, and one cross-border high voltage transmission line project following recommendations of the Transmission System Master Planning supported under the on-going NIETTP. Preparation of projects will follow international standards and World Bank Safeguard Policies for preparation of project design, bidding documents, and environmental and social impact assessment and mitigation planning, and support construction supervision and management of these projects.

- **Component B: Studies for Policy Recommendations and Sector Reform (**SAWI Grant US$2.0 million and PPIAF[1] Grant US$2.0 million**).** This component will address critical power sector issues**.** This component will support preparation of (a) Power System Expansion Strategy, including a Generation Master Plan (PPIAF); (b) an action plan for NEA institutional restructuring (PPIAF); (c) integrated water resource planning and management to guide sustainable hydropower development (SAWI); (d) revised Electricity Act and Regulatory Commission Act (PPIAF); (e) streamline of forestry clearance process and procedures (PPIAF); and (f) GoN policies to facilitate private investment in hydropower and transmission line, e.g. the need of GoN guarantee (PPIAF); (g) a road map for establishment of power sector regulatory institution; and (h) power trading strategy and associated capacity building. It will prioritize and sequence study recommendations for actions, build consensus and enhance capacity for follow-on implementation under the planned DPC operations.

- **Component C: Capacity Building for Safeguard Management and Hydropower Development (**SAWI Grant US$0.5 million, PPIAF Grant $0.5 million). The component will support improving the environmental and social safeguard management system and associated capacity building, including:

  (a) Preparation of recommendations for updating environmental and social regulations and procedures for hydropower development, covering the following areas:
  - Cumulative/strategic impact assessment, including minimum ecological flows, in a basin-wide approach;
  - Hydropower resettlement and benefit sharing and gender equality; and
  - Adoption of recommendation for mitigating impacts of climate change on water resources and hydropower, which is being reviewed through an ongoing Bank funded TA (results will be shared in 2015).

  (b) Preparation of NEA corporate policy for compensation of transmission line ROW;

  (c) Safeguard capacity-building, including capacity building in understanding the impacts of climate change and disaster risk management in hydropower planning and operations, and support to NEA, WECS, MoE and other GoN agencies for development of hydropower and associated facilities.

[1] Commitment of PPIAF funding is to be confirmed.

## C. Environmental and Social Compliance Requirements

8. Although the studies and capacity building activities to be conducted under this project will not themselves generate any adverse environmental or social impacts, the future infrastructure investments which are the focus of studies under Component A, as well as development of policy reforms (in particular the corporate policy for compensation along transmission line ROWs) and preparation of integrated basin plansmay have significant potential environmental and social impacts and/or consequences (positive and negative).

9. Therefore, the required environmental and social impact assessments and plans will be conducted in compliance with and subjected to Nepal's own environmental social requirements, laws, regulations and approval processes, and the international conventions Nepal is a party to and has ratified. Furthermore, as the project is proposed to be financed by the World Bank, the project is required to meet the requirements of relevant World Bank environmental and social operational policies2. Therefore, the project is assigned an Environmental Assessment Category "A" as per World Bank Operational Policy (OP) 4.01. Classification of the proposed TA project as a Category A project will ensure that the environmental and social studies to be carried out for specific proposed investments, as well as technical guidance and preparation of regulations on environmental and social management aspects of hydropower, meet the requirements of these policies. This includes in-depth environmental and social impact assessment and management planning, as well as consultations with all stakeholders of the corresponding proposed hydropower and transmission line investments being prepared under Component A, as well as more broadly with regard to basin planning and policy reform studies being carried out under Components B and C.

10. The following World Bank safeguard policies are likely to be triggered under the proposed project:

- Environmental Assessment OP4.01
- Natural Habitats OP4.04
- Forests OP4.36
- Physical Cultural Resources OP4.11
- Indigenous Peoples OP 4.10
- Involuntary Resettlement OP4.12
- Safety of Dams OP4.37
- International Waterways (OP 7.50)

## D. Environmental and Social Issues of the identified investment projects to be prepared under Component A

11. Under Component A, the GoN has included the Upper Arun (335 MW) hydropower project, which includes the Ikhuwa Khola (30 MW) hydropower project for funding of the preparation studies. The

[2]As of the date of this document, the World Bank has not committed to fund the implementation of the potential investments/projects with respect to which technical assistance is being provided under this Project. Nonetheless, any works related to potential investments for which technical assistance is provided under this Project which are initiated and/or undertaken during the period of implementation of this Project shall be undertaken in compliance with the ESMF and the applicable World Bank environmental and social safeguard policies regardless of the source of financing for such works. In such an event, even if the implementation of the investments / projects that have been prepared under this TA project is carried out with funding that does not include World Bank financing, the Government of Nepal shall be responsible for ensuring the implementation of the said investments/projectsare compliant with the corresponding studies and documents prepared under this TA project, and hence are compliant with requirements of the applicable World Bank policies.

GoN will alsoidentify and prepare atransmission line project during the implementation stage of the proposed project, which has not yet been identified.

**D1. Upper Arun and Ikhuwa Khola Hydropower Projects**

Below is a brief summary of key project aspects for the proposed UAHEP and IKHP projects. More information on the project, as well as the study requirements, can be found in the draft Terms of Reference for the detailed Environmental and Social Impact Assessment (ESIA), Cumulative Impact Assessment (CIA) and social planning studies in Annex A.

12. **Upper Arun Hydroelectric Project (UAHEP).** The UAHEP is a proposed 335 MW hydroelectric facility to be located on the Arun River in Sankhuasabha District of eastern Nepal. The project area is situated within Longitude 87°20'00" to 87°30'00" East and Latitude 27°38'24" to 27°48'09" North, about 15km south of the international border with Tibet and 220 km east of Kathmandu. The proposed dam site is located in the Chepuwa Village, in a narrow gorge about 350m upstream of the Arun River's confluence with the Chepuwa River. The proposed power plant site is located in the Hatiya Village 16km downstream of the dam site, near the Arun River's confluence with the Leksuwa River. The right bank of the Arun River at the proposed UAHEP site falls within the Makalu Barun Buffer Zone, which is adjacent to the Makalu Barun National Park. The proposed UAHEP dam site is therefore located at the edge of the Buffer Zone. UAHEP is the upstream most of the three major hydropower projects currently identified and under preparation in the Arun Basin, the other two being the 900 MW Arun III project and the 300 MW Lower Arun project, both of which are more advanced in their preparation status and have already been licensed to IPPs.

13. **UAHEP salient features.** As informed by an initial feasibility study completed in 1991, the proposed UAHEP is designed to be a Peaking Run of the River (PRoR) project with gated weir across the Arun River. Intakes on the left bank of the river are proposed to divert the design discharge of 78.8 $m^3/s$ through an intake tunnel to three underground desanding basins, a headrace tunnel of 7.8 km, surge tank, drop shaft, pressure tunnel, and ultimately to the underground powerhouse for power generation. Water would be retained for a period of a few hours only in a peaking pond and then released through the tunnel during peak hours. After power generation, water will be released back to the Arun River. A capacity optimization study in 2011 established the proposed UAHEP's capacity of 335 MW and annual energy generation of 2598 GWh.

14. **Ikhuwa Khola Hydroelectric Project (IKHP).** NEA has also proposed to develop the 30 MW IKHP, a medium sized hydropower project, in tandem with the UAHEP. The proposed IKHP site is located on a tributary to the Arun River approximately 8 km downstream of the proposed UAHEP powerhouse site. The IKHP project is envisioned to provide a source of benefit sharing and also power supply to local communities, and may be jointly developed with the participation of the local community. The Department of Electricity Development (DoED) of the Government of Nepal is currently working on a feasibility study and an initial environmental examination (IEE) for IKHP.

15. **Site access.** The proposed UAHEP and IKHP sites are not presently accessible by motorableroad. Three access roads are proposed, including Num-Kimathanka access road, the UAHEP Project Access Road and IKHP Access Road.

16. **Power transmission.** A power evacuation study for the UAHEP and IKHP projects has not yet been carried out. The current proposed option by NEA is to use the proposed Koshi Corridor transmission line up to Khandbari, being financed by Indian EXIM Bank, and NEA will extend the 220 kV line by 45 km to the UAHEP site. The detailed engineering design study for the UAHEP project will evaluate

this and any other options to connect to the national grid to inform a final decision on both alignment and design. A lower voltage transmission line will meanwhile be constructed to connect the IKHP powerhouse to the local grid to supply energy to the local communities. Final decisions regarding the route for the IKHP's transmission line will be determined during detailed design of that component.

17. **Ancillary works and other possible linked activities.** Various ancillary works will be required for project implementation, including contractor camps, diesel generators for construction-stage power supply, spoil and waste rock disposal areas, borrow areas, NEA staff housing, etc. These, and any other activities associated with the project that could be considered "linked activities" as defined in World Bank OP 4.12 (Para 4) – e.g., activities which are directly related, necessary to achieve the Project objectives, and planned to be carried out contemporaneously – shall also be covered under studies funded by the proposed project.

18. **Key Environmental Issues:** The environmental impactson land, water, flora and fauna of the UAHEP and IKHP are expected to be widespread and potentiallysevere across the various project sites and influence areas if not properly managed and these impacts would occur during the construction, operations and maintenance phases. The primary areas of influence for the two projects would includethe upstream catchment areas of each project, , the dam sites and small water storage areas behind the dams, the tunnel corridors, plant room locations, the immediate areas downstream of the damsand upstream of the power houses where the significantly reduced flows would occur, areas further downstream to be affected by changes to river flows and water quality/turbidity,and the areas to be impacted by access roads, quarry sites, disposal areas and campsites. Given the mountainous terrainand undulating landscape that is fairly untouched and pristine at the current time, erosion and sedimentation issues --caused by earthworks as well as induced land clearing or degradation -- may be significant, and will need carefulevaluationand managementin all areas during the construction, operation and maintenance phases, including ensuring that slope areas are well protected and drained. Managing water quality in the upstream areas and ensuring adequate environmental/riparian flows are also issues to be evaluated and managed carefully. In addition, influx of workforce and changes to local livelihoods as a result of the project may indirectly increase pressures on forests and other natural resources in the broader project area, and in turn exacerbate erosion and sedimentation impacts. Cumulative effects on hydrology, sediment movement and erosion, aquatic and terrestrial biodiversity, and other environmental aspects of UAHEP, IKHP and other planned hydropower projects in the Arun River watershed (notably Arun III and Lower Arun) may also result.

19. **Physical Cultural Resources:** There is currently no documentation available of any archaeological or other physical cultural resource sites within the various project site locations. These would be further investigated as part of the ESIA process, and procedures will be specified in the EMP for the handling of chance finds of any artifact/site of archeological significance or any contemporary structures and/or places of spiritual and religious importanceduring construction..

20. **Key Social Issues:** The proposed project will require land acquisition and possibly a small number of relocations. Given the sparse population in the project areas and the deep gorge of the UAHEP reservoir area, these impacts are expected to be small according to impact screening at feasibility stage. There are indigenous communities in the project areas. They will be subject to adverse impacts under the project (covering both UAHEP and IKHP), but they are also among the project beneficiaries. In addition to project benefits of power generation, the project is expected to contribute to and promote the socioeconomic development in the local areas, benefitting local communities, particularly the indigenous and vulnerable communities.

## E. List and Scope of Studies and Safeguard Instruments for UAHEP and IKHPto be Prepared during Implementation of the Proposed Project.

21. For Upper Arun(UAHEP) and IkhuwaKhola (IKHP) Hydropower Projects, the safeguards documents required are the following. Details of each are available in the complete TOR in Annex A.

- Environmental and Social Impact Assessment (ESIA) for both UAHEP and IKHP
- Environmental and Social Management Plan (ESMP)for UAHEP
- Environmental and Social Management Plan (ESMP) for IKHP
- Cumulative Impact Assessment (CIA) of the Arun River Watershed
- Resettlement Policy Framework (RPF)
- Resettlement Action Plan (RAPs)
- Vulnerable and Indigenous Peoples Development Plan
- Downstream Impacts Management Plan
- Gender Assessment and Action Plan
- Benefit-sharing Action Plan
- Public Health Assessment and Action Plan
- Public Participation and Consultation Plan
- Communication Strategy and Action Plan.
- One Executive Summary of these documents, in English and Nepali
- Dam Safety Plans (to be developedby the construction supervisionand management consultant; requirements are specified separately in the corresponding draft TORs)

**Responsibility for preparing them**: Nepal Electricity Authority (NEA)
**Expected Start Date**: July 2015
**Terms of Reference for these studies:** Draft finalized, attached in Annex Aof this ESMF
**Source of financing:** Financed under Component A of the proposed project

**Broad scope of each study/document**

The following list summarizes broadly the scope of each of the aforementioned studies or plans for UAHEP and IKHP. Additional detail is provided in the full TOR in Annex A. All environmental and social studies will be disclosed in draft and final forms in-country (including executive summaries in Nepali), and subject to public consultations, in accordance with Bank safeguard policy requirements. In accordance with the Bank's Access to Information Policy, the studies will also be disclosed on the World Bank Infoshop website.

22. **Environmental and Social Impact Assessments:**–the consultant will carry out screening and scoping, collection and analysis of primary and secondary data, and consultations with stakeholders in order to identify and assess qualitatively and quantitatively, the potential adverse and positive environmental and social impacts be they direct, indirect, induced and cumulative. The assessment will identify requiredmeasuresto first avoid, or otherwise reduce, mitigate, manage and/or compensate for such negative impacts and enhance positive effects, in accordance with Government of Nepal's requirements and the World Banks triggered safeguard policies listed above.

23. **Environmental and Social Management Plans** : Each ESIA report will include an ESMP as a chapter or volume, containing all requiredmitigation, management and monitoring measures (including indicators to measure performance) to be implemented during construction, operations and maintenance phases. The ESMPs will specify the institutional responsibilities for carrying out each

measure or action, as well as management arrangements, timelines, budget, and required capacity building measures for their implementation.

24. **Cumulative Impact Assessment (CIA):** will focus on identified Valued Environmental (and Social) Components (VECs) which may be affected by the UAHEP and IKHP projects, and other development activities planned or underway throughout the Arun River watershed, irrespective of their source of financing. The CIA will recommend project level as well as strategic planning level recommendations for minimizing negative impacts and maximizing positive impacts associated at the basin level.

25. **Resettlement Policy Framework (RPF):** will contain the measures and procedures that must be complied with when land acquisition that has not been identified during the planning process is required.

26. **Resettlement Action Plans (RAP):** will identify all impacts of known land acquisition and resettlement, requirements of complying with GoN and World Bank requirements and policies when land acquisition occurs, and the entitlement policy and matrix, and the detailed plan to implement these measures and entitlements prior to the land being acquired. The RAPs will contain, inter alia, an inventory survey of physical impacts, census survey of affected populations, review of relevant legal policies, entitlement plans, livelihood restoration and development measures and the grievance redress and monitoring mechanisms.

27. **Vulnerable and Indigenous Peoples Development Plan**: as the UAHEP and IKHP areas are inhabited by several indigenous communities classified and officially recognized by the GoN, the plan will contain measures to avoid or minimize adverse impacts and maximize positive impacts on these communities.

28. **Downstream Impacts Management Plan:** as the dams will alter natural river flows downstream of the location of these dams, anticipated adverse environmental, social, cultural and economic impacts in the downstream areas will occur. To ensure these adverse impacts are avoided, minimized or mitigated or otherwise managed, the plan will identify, analyze and assess the possible downstream impacts, identify and inventory communities that are likely to be affected and will contain the necessary mitigation strategies and intervention measures based on the above analyses.

29. **Gender Assessment and Action Plan:** Women are important stakeholders in hydropower development, falling among both the affected and the beneficiaries. It is important to understand the gender dimensions of the project and the differential impacts on women so as to maximize project benefits.

30. **Benefit-sharing Action Plan:** will cover, but not be limited to; consultations with local stakeholders, in particular with local indigenous communities, over their expectations from this project;Review of benefit-sharing proposal from project feasibility studies for UAHEP and IKHP;Define "benefit-sharing," design, and propose a benefit-sharing scheme for the project; and Include differential benefit analysis for those whose livelihoods and land values will be disproportionately enhanced by road provisioning/improvements.

31. **Public Health Assessment and Action Plan:** The construction of the full project will have adverse public health impacts due to dust, noise, pollution, and migration of construction workers into the project. The transportation of heavy machine and equipment to the project area by road may cause additional hazards, accidents and human injuries. It is therefore necessary to generate awareness of

potential impacts, and initiate both preventive and mitigation measures to minimize risks and possible harmful effects on public health.

32. **Public Participation and Consultation Plan:**Drawing from the stakeholder consultation strategy developed during the screening and scoping phase, this plan will cover the following objectives: (a) outline of the specific activities, logistics and schedule for the consultation and inter-agency coordination processes to take place throughout the environmental and social assessment and planning stage, ensuring that consultations are coordinated and executed together with different entities and at different levels (government, municipality, NGOs, local communities etc.) in order to capture a range of participants, and also to ensure the stakeholder consultation is continuous throughout the project; (b) possible avenues of public interaction, in addition to interviews and public meetings, especially through proactive use of social media and newer communication technology; (c) will identify points of entry for ensuring local people as more active participants (rather than simply respondents) in consultations, and (d) a strategy and required actions, including implementation arrangements, responsibilities and budget, for ongoing engagement, consultations, and grievance / dispute resolution activities throughout the life of the Project.

33. **Communication Strategy and Action Plan:**Given the remote location of the UAHEP and IKHP, the high profile of hydropower development, and the history of hydropower development in the Arun Valley in particular, it is important to develop a communication strategy for continuous communication between the project implementation authorities and all other stakeholders throughout the life of the projects. The objectives are to (i) help strengthen public understanding and support for the projects and create an enabling environment for their implementation; (ii) enable public communication and continuous flow of information on project activities, impacts, and benefits; (iii) manage relationships with key external stakeholder constituencies; and (iv) facilitate dispute resolution and public monitoring of project implementation.

34. **Dam Safety Plans:**This willinclude preparation and implementation of detailed plans for construction supervision and quality assurance for each dam (UAHEP and IKHP); instrumentation plans; operation and maintenance plans; and emergency preparedness plans. Prequalification of bidders during procurement and bid tendering for civil works and electromechanical contractors, and periodic safety inspections of the dams after completion will also be required and specified in appropriate contractual documents.

**Dam Safety Panel of Experts**

35. In accordance with World Bank OP 4.37, a Dam Safety Panel of Experts will be appointed by NEA to undertake periodic, comprehensive and independent reviews of the design, construction and if needed, the initial reservoir filling of the completed dams.

**Responsibility:** The Dam safety Panel will be appointed by and report to the NEA.
**Expected start date: July 2015**
**Source of financing:** financed under Component A the proposed project.

**Environmental and Social Panel of Experts**

36. In addition, given the potential high degree of sensitivity and complexity of the environmental and social issues related to the proposed project, in accordance with World Bank OP 4.01 NEA will engage an environmental and social panel of experts to provide independent advice and quality

assurance for the environmental and social studies and management plans, and support NEA to effectively integrate the findings and recommendations of the various safeguards documents into the design, implementation plan and operational plan of the UAHEP and IKHP.

**Responsibility:** The Environmental and Social Panel of Experts will be appointed by and report to the NEA.
**Expected start date: July 2015**
**Source of financing:** financed under Component A the proposed project.

**Construction supervision for UAHEP and IKHP**

37. In addition to the aforementioned studies to be completed, and panels of experts to be convened, for preparation of the UAHEP and IKHP projects, the engineering design consultancy (also to be financed through this TA project) will include also construction supervision of the eventual implementation of the two investments (irrespective of the source of funding for actual construction of such investments). The Terms of Reference for the construction supervision component of this consultancy therefore includes also the supervision of implementation of all construction-phase required environmental and social management plans and measures to be developed through the studies outlined above.

**Capacity building of NEA**

38. The Terms of Reference for the ESIA, CIA and Social Planning studies for UAHEP and IKHP furthermore includes a requirement for the consultant hired to help build NEA's capacity on all aspects of environmental and social assessment and management planning for hydropower projects. In this regard, the consultant will be required to carry out training activities for NEA engineers, and to involve them to the maximum extent in all aspects of the studies as they are being executed. In this manner, NEA will not only gain experience of overseeing the aforementioned studies through the TA project, but will become more fully equipped to manage future hydropower investment planning processes in line with international standards on environmental and social aspects.

**E2. Safeguards approach for the yet to be identified Transmission line project to be prepared through the proposedTA project**

39. During implementation of the proposed project, it is expected that the GoNwillseek the World Bank's concurrence to include a transmission line project under Component A, for financing ofthe required preparation studies and documentation including environmental and social studies. . Once the target transmission line investment is identified, he NEA and the World Bank will screen the proposed project to determine the applicable Bank safeguards policies which would be triggered, and to develop detailed Terms of Reference for the corresponding required environmental and social safeguards documents in accordance with applicable GoN legal requirements and World Bank safeguard policies. If the proposed transmission line investment is screened to be of a Category "A" nature as per OP 4.01, the draft Terms of Reference for the ESIA study will be disclosed and subject to public consultation prior to its finalization. In all cases, the studies themselves will include robust stakeholder engagement and consultation, as well as in-country and local disclosure of draft and final versions of the studies (including executive summaries in Nepali), in accordance with safeguard policy requirements. As per the World Bank's Access to Information Policy, the studies will also be disclosed on the World Bank's Infoshop website.

**E.3 Studies to be prepared for other aspects of the proposed project, covered under Components B and C.**

40. **Strategic Environmental and Social Assessment.** Under Component B, a number of studies will be financed, which include inter alia, basin-wide approach for water resource and hydropower development planning. This will involve developing integrated basin wide planning methodologies, in which environmental and social considerations will be key objectives. The Water and Energy Commission Secretariat (WECS) will commission a Strategic Environmental and Social Assessment (SESA) under Component B to provide the necessary analysis of critical environmental and social aspects and considerations that need to be integrated into planning decisions for water resource management and hydropower generation at a basin scale (including, for example, decisions regarding location and scale of investments, alternatives, and key mitigation measures).The SESA will also advise on institutional arrangements and processes for stakeholder involvement for basin management and monitoring. The outputs of the SESA will inform the actual planning processes to be carried out for the pilot basins selected.

41. Component C, meanwhile, specifically focuses on improving the environmental and social safeguard management system and associated capacity building of key agencies in GoN responsible for power development, especially hydropower. The studies, policy development activities and capacity building initiatives themselves will draw from World Bank safeguard policy standards as well as related and emerging international good practices in the targeted areas (i.e., cumulative/strategic impact assessment, ecological flows, hydropower resettlement and benefit sharing, gender equity, integrating climate change and disaster risk management aspects into hydropower planning, and NEA corporate policy for compensation of transmission line ROW). The activities under this component are thus expected to be highly beneficial from a social and environmental perspective, by equipping GoN to develop its hydropower potential in a more sustainable manner at a sectoral level.

**F. Institutional and monitoring arrangements**

42. The overall project will be coordinated by a central Project Steering Committee, reporting directly to the Energy Secretary. However, the technical work will be contracted and overseen by the following specific agencies within GoN:
    - NEA will be responsible for the studies for specific investments under Component A.
    - WECS will be responsible for the integrated basin planning studies and Strategic Environmental and Social Assessment (SESA) under Component B.
    - DOED will be responsible for the studies and capacity building activities under Component C.

## G. Public consultations and brief description of the Communications Strategy.

Table 2 below presents the public consultation and disclosure approach for the project. This section also summarizes the approach for each component.

**43.** For Component A, for each investment being prepared under the TA, consultations on the environmental and social aspects of the investments is required with diverse stakeholders – including potentially affected peoples and communities, other local communities as well as NGOs, institutions, industry, academics and any others – at least twice, once at the TOR stage for each investment and once on the draft studies, in accordance with OP 4.01. However, following international good

practice, the investment-specific studies to be commissioned will include a more comprehensive stakeholder engagement program.

**44.** Therefore, this ESMF hereby specifies that each investment specific ESIA TOR shall include a requirement for stakeholder identification and mapping process and development of stakeholder consultation plans for purposes of ensuring effective, inclusive, and culturally appropriate consultation and engagement throughout the course of study of each specific investment. The arrangements for consultation and disclosure of specific investments under Component A are summarized in Table 2 further below.

**45.** In the case of UAHEP and IKHP, the first formal consultation event was held on the initial draft TORs for the ESIAs and social planning studies to be carried out for these investments as part of preparation of this TA project, and the TORs (attached in Annex A) have been updated by NEA to reflect feedback received. The minutes of this consultation event are also annexed (see Annex 2).

**46.** Furthermore, NEA will establish a project-specific website, where information about the specific investments being prepared under the project (for now covering UAHEP and IKHP) can be accessed. Draft and final reports will also be disclosed locally, including executive summaries tailored to the language, level of literacy, as well as cultural considerations for the local communities in each project affected area. For the future transmission line investment to be prepared, similar processes will be followed.

**47.** For Component B, with respect to the integrated basin planning activity, consultations started during the preparation of this project, which included an initial workshop in Kathmandu in September 2014 involving key stakeholders from across government and the donor community, as well as select key NGOs and academics. The workshop aimed to lay the initial groundwork for advancing integrated basin planning and management in Nepal at a national level by creating a mutual broad understanding of the key elements and components of such processes, stimulating consensus on the need for such an approach, exchanging information about current and planned donor supported activities in Nepal related to water resource management and planning, and identifying critical gaps or areas where more donor support would be helpful to advancing integrated basin planning.

**48.** During implementation of the proposed project, this initial workshop will be built upon further with additional capacity building activities involving diverse stakeholders at the level of the specific basins to be targeted through this TA project.

**49.** The SESA to be carried out in conjunction with the integrated river basin planning activity will furthermore require engagement with broad stakeholders, and will feed the recommendations and feedback of stakeholders on water resource management and hydropower development considerations within each basin into the basin planning processes.

**50.** The program to be supported through Component B furthermore aims to support WECS in developing a transparent digital platform for data and information sharing at a basin level, to facilitate better understanding of the interrelated effects of different water resource development activities within a basin on shared resources, and hence better decision making and collaborative management

of water resources for both hydropower as well as other sector uses (in particular irrigation). All draft and final documents produced related to the integrated basin planning processes will furthermore be disclosed on the digital platform, and linked to from the project website.

**51.** For Component C, the specific studies to be supported related to key policy areas on environmental and social management will each require identification of relevant stakeholders to contribute to each, and engagement with them throughout the course of study. All draft and final studies will be disclosed.

**52.** For the overall project, this ESMF outlining the safeguards compliance strategy, requirements and processes across all project components, and including the detailed TORs for environmental and social assessments and studies for the UAHEP and IKHP investments, has been disclosed and consulted with project stakeholders by NEA on behalf of the GoN at a workshop in Kathmandu in December 2014.

**53.** Summary minutes of consultations on this ESMF, as well as on the ESIA, CIA and Social Planning TORs for the UAHEP and IKHP are contained in Annexes2 and 3.

## H. Budget Arrangements for Safeguards Management

54. Financing is included under the project for all safeguards related studies and specialist advisors as set out above. Table 1 below, shows the breakdown of project costs, component by component.

| Project Components | Cost Estimation (US$ m) | Source of Financing |
|---|---|---|
| **Component A: Preparation of Hydropower and Transmission Line Investment Projects** | | |
| a) Upper Arun and Ikhuwa Khola* | | |
| (i) Optimization, engineering design and bidding documents | 6.00 | IDA |
| (ii) Environmental and social impact assessment and mitigation plan | 1.00 | IDA |
| (iii) Owner's Engineer for construction supervision and management | 10.00 | IDA |
| b) Transmission Line | | |
| (i) Feasibility study, design, route survey, environmental and social impact assessment, and bidding documents | 1.00 | IDA |
| (ii) Owner's Engineer for construction supervision and management | 2.00 | IDA |
| c) Project implementation support | 1.00 | NEA |

| | | |
|---|---|---|
| **Sub-Total** | **21.00** | |
| **Component B: Studies and Preparation for Policy Recommendations and Sector Reform** | | |
| a) Power System Expansion Strategy | | |
| (i) Preparation of Generation Master Plan | 0.10 | PPIAF |
| (ii) Communications / consultations with stakeholders | 0.05 | PPIAF |
| b) NEA institutional restructuring | | |
| (i) Governance structure and a road map for restructuring | 0.55 | PPIAF |
| (ii) Consultations and communications | 0.05 | PPIAF |
| c) Integrated water resource planning and management | | |
| (i) Planning | 2.00 | SAWI |
| (ii) Consultations and communication with private developers | 0.05 | PPIAF |
| d) Updating Electricity Act and Regulatory Commission Act | 0.20 | PPIAF |
| e) Streamline of forestry clearance process and procedures | 0.10 | PPIAF |
| f) GoN policies to facilitate private investment in hydropower and transmission line, e.g. the need of Government guarantee; | 0.20 | PPIAF |
| g) A road map for establishment of power sector regulatory institution | 0.50 | PPIAF |
| h) Power Trading Strategy and associated Capacity building | 0.20 | PPIAF |
| **Sub-Total** | **4.00** | |
| **Component C: Capacity Building for Safeguard Management and Hydropower Development** | | |
| a) Updating environmental & social regulations and procedures for hydropower | | |
| (i) Preparation of recommendation | 0.20 | PPIAF |
| (ii) Consultations and communication with private developers | 0.10 | PPIAF |
| b) NEA corporate policy for compensation of transmission line ROW | 0.20 | PPIAF |
| **c)** Safeguard capacity-building and support for integrated water resource management and sustainable hydropower development | 0.50 | SAWI |
| **Sub-total** | **1.0** | |
| **Total** | **26.00** | |

**Table 2: Disclosure and consultation requirements for the proposed environmental and social studies under the project**

| Reference component | document | Disclosure responsibility(ies) and location(s) | Expected disclosure date | Consultation requirements and responsibilities |
|---|---|---|---|---|
| A | Upper Arun and IkhuwaKhola ESIA, CIA and Social Planning TOR | NEA to disclose on website (as part of this ESMF and separately), and in hard copy at culturally appropriate public locations accessible to affected communities | Draft TORs were disclosed in April 2014. Final TORs disclosed as part of this ESMF. | NEA consulted the TORs with international, national and local stakeholders and finalized in light of feedback received (see Annex 1). Refer to consultation minutes in Annex 2. |
| | Upper Arun and IkhuwaKhola ESIA, CIA and Social Planning studies | NEA to disclose draft and final documents in full (English versions) as well as Executive Summary (in Nepali) on website and in hard copy at culturally appropriate public locations accessible to affected communities<br><br>Social planning studies including RAP and TPDP to be disclosed in particular to their respective target populations in accessible and culturally appropriate form/manner.<br><br>WB to disclose on Infoshop. | *Draft reports:* at minimum 2 weeks prior to holding consultations on the drafts<br><br>*Final reports:* TBD (est. January 2015). | NEA to broadly consult draft ESIA and Social planning studies with international, national and local stakeholders and finalize studiesin light of feedback received.<br><br>Social planning studies including RAP and TPDP to be developed through consultative process with target populations for each.<br><br>Consultations with tribal peoples as part of ESIA, RAP and TPDP preparation must constitute Free, Prior and Informed Consultation. |
| A | Transmission line project (TBD) ESIA and social planning studies TOR | NEA to disclose draft and final versions on websiteand in hard copy at culturally appropriate public locations accessible to affected communities, when available.<br><br>NEA to also disclose summary minutes of the consultation meetings including an indication of how feedback was taken into account. | Draft TOR: following initial screening / scoping; at minimum 2 weeks prior to consultations on TOR.<br>Final TOR: following finalization. | NEA to consult the TORs with international, national and local stakeholders and finalize in light of feedback received. |
| | Transmission line project (TBD) | NEA to disclose drafts and final documents in full (English versions) | *Draft reports:* at minimum 2 weeks | NEA to broadly consult draft ESIA and Social planning studies with |

| | | | | |
|---|---|---|---|---|
| | ESIAand social planning studies | as well as Executive Summary (in Nepali) on website and in hard copy at culturally appropriate public locations accessible to affected communities .<br><br>WB to disclose on Infoshop. | prior to holding consultations on the drafts<br><br>*Final reports:*Unknown. | international, national and local stakeholders and finalize studies in light of feedback received.<br><br>Social planning studies to be developed through consultative process with target populations for each. Consultations with tribal peoples must constitute Free, Prior and Informed Consultation. |
| B | SESA for Integrated Basin Planning | WECS to disclose draft and final versions on WECS digital platform (to be established through project) and linked to project website. Hard copies to be made available to interested stakeholders. | TBD. Initial estimate: draft in spring 2015; final in summer 2015. | SESA to be carried out in a highly participatory manner, involving stakeholders throughout. At least one formal consultation will be held with stakeholders on the draft SESA. |
| B | Basin plans for 3 pilot basins | Draft and final plans to be disclosed on WECS digital platform (to be established through project) and linked to project website. | TBD. | Integrated basin planning process to be carried out in a highly participatory manner, involving stakeholders throughout. |
| C | Studies on key policy areas on environmental and social management | Draft and final studies will be disclosed by DOED on project website. | TBD | Stakeholder mapping will be done to identify relevant stakeholders to involve in the study process for each. |

ANNEXES

- Annex 1: Terms of Reference for the ESIA, CIA and Social Planning Studies for Upper Arun and IkhuwaKhola Hydropower Projects

- Annex 2: Consultation minutes on the initial draft ToR for the ESIA, CIA and Social Planning Studies for Upper Arun and IkhuwaKhola Hydropower Projects

- Annex 3: Consultation minutes on this ESMF

- Annex 4: Map of the Upper Arun and IkhuwaKhola Site Location