

Luxembourg, 24th October 2023

Environmental and Social Data Sheet

Overview

Project Name: BHUTAN HYDRO AND SOLAR ENERGY FACILITY
Project Number: 2022-0778
Country: BHUTAN
Project Description: *EIB framework loan to finance hydro power plants (expected in the range of 25 - 75 MW) and solar PV plants in Bhutan.*

EIA required: *Some sub-projects may require an EIA*

Project included in Carbon Footprint Exercise¹: no
 (details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The present operation concerns a Framework Loan for the implementation of solar photovoltaic and hydropower plants in Bhutan, promoted by Druk Green Power Corporation (DGPC or the "Promoter").

Based on the initial pipeline of projects, most of the sub-projects under the FL are expected to be utility scale solar PV plants (20 – 200 MWp range) and medium-size run-of the river hydro power plants (expected in the 25 -75 MW range).

Due to the nature of this operation, the environmental and social (E&S) impacts of the sub-projects are not fully known at this stage. The envisaged solar PV sub-projects may give rise to typical occupational and community health, safety and security risks and impacts. These risks are primarily linked to traffic, dust and noise nuisances, presence of security personnel and the influx of labour force during construction. The main mitigation and monitoring measures to address these risks/impacts and others will be considered in the respective Environmental and Social Management Plan (ESMP), if applicable.

If the sub-projects in the FL were located within the EU they would fall under Annex II of the EIA-Directive 2011/92/EU as amended by Directive 2014/52/EU, requiring the competent authorities to determine whether an EIA is required, except large hydro with reservoir exceeding 10 million cubic meters, which would fall under Annex I and require mandatory EIA. High Voltage (HV) lines connecting the RE plants to the grid may fall under Annex I and would in this case mandatorily require an EIA if located in the EU.

The Bank services will assess ex-ante all schemes under this operation to determine potential environmental and social impacts and compliance with its Environmental and Social standards. For investments with a cost above 50 MEUR, a separate Environmental Social Data Sheet will be published. In addition, alignment with the principles of the relevant EU Directives (e.g.

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.



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Habitats Directive 92/43/EEC, Birds Directive 2009/147/EC, Water Framework Directive 2000/60/EC amended by Directive 2008/32/EC) will be sought, including compliance with the EIB Environmental, Climate and Social Guidelines on Hydropower Development for the hydropower projects. The Bank will assess ESIA and permitting documentation (including screening decisions) and associated E&S documents when reviewing the allocations. Whenever an ESIA process is required, the environmental impact studies will be provided in copy to the Bank prior to the Bank's approval of the allocation and will be published.

The Promoter will be required to verify that none of the schemes has a significant adverse impact on any site of nature conservation importance. Schemes with significant E&S risks, including a significant negative impact on any site of nature conservation importance, will not be eligible under this operation.

Bhutan relies almost exclusively on run-of the river hydro for power generation and is vulnerable to the impacts of climate change, as those are expected to amplify the seasonal weather patterns and weather extremes, driving the need to diversify the generation portfolio. Solar power in Bhutan has a complimentary annual power generation profile to hydropower, and will enable climate adaptation by diversifying the generation portfolio, creating system change and building resilience against climate change impacts. Adding new hydropower generation in Bhutan will also increase the firm capacity available during the dry season and allow to exploit the potential of RE generation in the country that may also benefit the wider region.

The project is fully aligned to the goals and principles of the Paris Agreement as set out in the Bank's Climate Bank Roadmap and the Energy Lending Policy.

Social Assessment, where applicable

The schemes to be implemented under the FL may require for the installation of the projects' components the acquisition, lease or easements of land. The promoter has a social safeguard manual in place, which includes a resettlement policy framework. If and where applicable, Livelihood Restoration Plans and/or Resettlement Action Plans will be required and reviewed by the Bank during the allocation process in view of the EIB E&S Standards requirements.

Recent reports are pointing out the possibility of use of forced labour in the supply chain of solar PV panels. The promoter will be required for solar projects to undertake reasonable efforts to assess and address risks of forced labour in the supply chain. This will include specific safeguards to mitigate the risk during the tender process, and, on a reasonable effort basis, enhanced due diligence and appropriate contractual provisions to contractors/suppliers for each of the sub-projects financed under the FL. The Bank will assess this as part of the allocation process. The outcome will be reported to and reviewed by the Bank.

Considering that Bhutan is a non-member state of ILO, the promoter will also be required to include labour and working conditions requirements in the ESMP, consistent with lenders E&S requirements, including adherence to the relevant conventions of the International Labour Organisation.

Public Consultation and Stakeholder Engagement

As part of the approval of an allocation, the Bank will ensure that adequate public consultation and stakeholder engagement, in compliance with EIB Standard 2, are carried out, including the establishment of a grievance mechanism.

Other Environmental and Social Aspects

The promoter has in place a set of policies and procedures serving as the framework for its environmental and social management. This includes a social safeguard manual, a safety manual and an environmental safeguard manual for hydropower development. The National Environment Commission of the Royal Government of Bhutan has also issued an Environmental Assessment Guideline for Hydropower Development, with the financial support of the World Bank. The promoter certified its management systems for operations (Quality



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Management System Standard ISO 9001:2015 & Health & Safety Management System Standard ISO 45001:2018). The promoter has also experience in managing the ADB-funded projects Dagachhu HPP (126 MW, started operating in 2015) and Nikachhu HPP (118 MW, under construction).

The promoter has an experienced E&S team, and its capacity to implement this FL in compliance with the EIB's Environmental and Social Standards is deemed adequate (having experience with other IFIs standards, such as ADB and The World bank). Nevertheless, in order to ensure adherence to the EIB's Environmental and Social standards and requirements, the Bank will seek to support the promoter in strengthening its screening capacity with regard to the due diligence process of environmental and social aspects of each allocation. The promoter will ensure that potential risks and appropriate prevention, mitigation and compensation measures are identified through an environmental and social impact assessment when relevant, including satisfactory and meaningful public consultation. For this purpose, where applicable, a qualified independent consultant hired by the promoter in agreement with the EIB should review the E&S aspects of the schemes and submit the outcomes to the Bank. The consultant will also support the monitoring activities.

Conclusions and Recommendations

The investments targeted by the operation are not expected to have major residual social and environmental impacts, provided that all mitigation measures assessed by the promoter and the Bank at sub-project level are implemented.

The promoter's experience with other IFI E&S Standards provides comfort and support the fulfilment of the EIB's standards under this operation. Nevertheless, the social and environmental impacts and mitigation measures for the envisaged sub-projects will be assessed individually by the promoter and will be reviewed by the Bank as part of the ex-ante allocation approval process. The promoters will be required to provide all information necessary to the Bank's satisfaction in order to confirm compliance with the Bank's eligibility criteria. All schemes financed by the Bank will be required to be compliant with national legislation and with the Bank's environmental and social standards.

A qualified independent consultant hired by the promoter in agreement with the EIB should review the Environmental, Climate & Social aspects of the schemes and submit the outcomes to the Bank, and will support the monitoring activities.

Additionally, the Bank will require the following:

- The promoter shall not commit any EIB funds against sub-projects that require an ESIA or biodiversity assessment according to EIB E&S standards and/or national law without, prior to commitment, receiving consent from the competent authority, and the ESIA having been made available to the public.
- Under the allocation procedures, all underlying sub-projects including their compliance with EIB standards will be reviewed ex-ante by the EIB (including the compliance with the EIB's Environmental, Climate and Social Guidelines on Hydropower Development², which also requires a climate risk and vulnerability analysis (CRVA), as a stand-alone assessment or as part of the ESIA).
- The promoter shall store and maintain updated the relevant documents (including environmental and social studies, screening decisions, environmental consents, ESIA studies, and Nature/Biodiversity Assessments or equivalent documents supporting the compliance with the principles of the relevant EU Directives, such as the EIA, Habitats, Birds and Water Framework Directives, and with the EIB E&S Standards) to be provided to the Bank upon request. In case the EIB requires such documentation, the promoter shall provide all documents requested promptly.

² <https://www.eib.org/en/publications/environmental-climate-and-social-guidelines-on-hydropower-development>



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- For subprojects which are subject to an ESIA, the promoter shall refer this sub-project to the EIB and retain on file a copy, provide a digital copy of the ESIA study and of the environmental consent to the Bank, and confirm that the sub-project incorporates all mitigating measures recommended as a result of the ESIA.
- For sub-projects requiring an ESIA, the Bank will require the promoter to undertake public consultation. In addition, a separate Stakeholder Engagement Plan (SEP) will be drafted prior to allocation of the scheme. The Promoter will be required to implement these SEPs. The Promoter will be required to establish a grievance mechanism for each scheme, prior to allocation and to the Bank's satisfaction. The Bank will require the Promoter to include a section on grievances received in the progress reports to the Bank.
- For sub-projects that may have an impact on a nature conservation site, the promoter shall obtain confirmation from the competent nature conservation authority, or an equivalent confirmation satisfactory to the Bank, that the sub-project does not have a significant negative impact on any such site. Such confirmation should be delivered to the Bank before the funds are allocated. Sub-projects with significant negative impacts on areas with high biodiversity value and nature conservation areas shall not be eligible.
- Before requesting any allocation, the promoter will prepare a Resettlement Policy Framework aligned with EIB E&S Standards and applicable to the sub-projects to be financed under the FL. For sub-projects that involve involuntary resettlement, the promoter shall prepare Livelihood Restoration Plans and/or Resettlement Action Plans as applicable and compliant with the requirements of the EIB E&S Standards.
- Schemes (i) with significant negative environmental and/or social impacts or (ii) requiring resettlement, which cannot be mitigated to the Bank's satisfaction, shall not be eligible.
- The promoter will undertake to monitor and report to the Bank on compliance with EIB E&S Standards, with a periodicity yet to be defined for the individual allocation.
- Where applicable, the promoter will undertake to include adherence to the relevant conventions of the International Labour Organisation in the ESMP of the schemes.
- The promoter undertakes to make reasonable efforts to carry out appropriate due diligence throughout its supply chains, with the aim of avoiding the use of forced labour in the supply chains of the solar panels that will be used for this project. The outcome will be reported to and reviewed by the Bank.

Under these conditions, the operation is acceptable in E&S terms.