



Hydropower Sustainability Assessment Protocol (HSAP)

Background

Apprehensions related to the significant impact on climate change of fossil fuels use in electricity production and to safety and environmental externalities of nuclear fusion have contributed to the promotion and development of renewable energy. Hydropower, which contributes to around 16% of global electricity production, has been the primary source of energy that is coming from renewable energy. The hydropower potential is still huge. The utilization of hydropower has only been 19% of its potential capacity.

In order to drive hydropower development through a more sustainable approach, in 2003, the International Hydropower Association (IHA) began facilitating the preparation of guidelines for sustainable hydropower, which resulted in the establishment of the Hydropower Sustainability Assessment Council (HSAC), and the official launching of the Hydropower Sustainability Assessment Protocol (HSAP) in June 2011.

The HSAP relies on a methodology or tool for assessing the sustainability and guiding the performance of hydropower. It is composed of four assessment tools, each one suitable for a specific stage of project development: *Early Stage* tool (after the identification of potential hydropower sites but before project preparation); *Preparation* tool (while preparing the project and before the award of construction contracts); *Implementation* tool (during project construction); *Operation* tool (after project commissioning).

This project proposes to support the rolling out of the protocol (HSAP), notably by providing technical assistance to the Council (HSAC) and by applying the assessment protocol on selected sites in two SECO priority countries, namely Ghana and Indonesia.

Objectives and Activities

The objective of the project is to improve the sustainability of hydropower development in SECO priority countries.

Country/Region

Global, Ghana,
Indonesia

Executing Agency

International
Hydropower
Association (IHA)

Government Partner

Ministry of
Energy and
Petroleum
(Ghana),
National
Development
Planning Agency
(Indonesia)

Project Duration

2014-2016

Total Budget

USD 3,350,000

SECO Contribution

USD 1,950,000

The project is structured into two distinct components. Component 1 (Council Strengthening) aims at providing technical assistance and reinforcing the capacities of the Council, while Component 2 (Protocol Application) is concerned with the Early Stage assessment tool application in two selected countries.

The main project activities are:

- a. Component 1 (Council Strengthening).
 - Conducting consultations with the council members and expert workshops (including external experts) related to the refinement of the Early Stage tool based on the results and lessons learnt from its application in two selected countries.
 - Establishing an information technology (IT) tool for reporting and analysing the assessments results.
 - Setting up a web-hosted tool for online consultations between the council members.
- b. Component 2 (Protocol Application).
 - Desk studies on hydropower potential.
 - Application of the Early Stage assessment tool by accredited assessors on selected sites in two selected countries.
 - Capacity building of selected stakeholders in the two implementation countries on hydropower sustainability and on the use of the protocol.
 - Policy dialogue related to hydropower sustainability and to the protocol.

Governance Structure

The project Steering Committee will be composed by a representative from SECO, the Head of the Management Entity, and the Chair of the Governance Committee under the HSAC. The Steering Committee will make strategic decisions in relation to project execution and to the attainment of the project objectives.

Applications of the protocol in Ghana and in Indonesia will be done in close collaboration with the concerned SECO Cooperation Offices and with the national authorities and/or ministries in charge of hydropower. For Ghana, it will be the Ministry of Energy and Petroleum (MOEP), and, for Indonesia, the Ministry of National Development Planning (BAPPENAS).

Expected Results

The expected results of the project are as follow:

- a. Efficient consultations between members of the Council.
- b. Improved access, reporting and analysis of the protocol results.
- c. Refined Early Stage tool.
- d. Sustainability profiles of potential hydropower sites in Ghana and Indonesia.
- e. Hydropower stakeholders in Ghana and Indonesia trained on hydropower sustainability.
- f. Increased geographical spread of the protocol application, notably in developing countries.