

# HYDROPOWER SUSTAINABILITY ASSESSMENT FORUM

## Progress update and invitation to provide feedback

January 2009

### Introduction

This document provides an overview of the Hydropower Sustainability Assessment Forum (HSAF) and the current status of its work to develop a broadly endorsed sustainability assessment tool to measure and guide performance in the hydropower sector.

The aim of this document is to provide interested parties with an update of progress so far and to encourage feedback on the *Hydropower Sustainability Assessment Protocol Key Components Document*, which is currently out for consultation. This is the first public consultation on outputs of the HSAF process. A second consultation and trialling of the Draft Revised Protocol is planned for July-August 2009.

### The Hydropower Sustainability Assessment Forum

#### ***Aims and establishment***

The Hydropower Sustainability Assessment Forum (HSAF) is a collaboration of representatives from different sectors who aim to develop a broadly endorsed sustainability assessment tool to measure and guide performance in the hydropower sector.

The HSAF was initiated in 2007 after a meeting between WWF and The Nature Conservancy (TNC) and International Hydropower Association (IHA) about endorsement of the IHA Sustainability Assessment Protocol (2006) by parties outside of the sector. The initial joint-review proposed by WWF and TNC evolved into a broader cross-sectoral review process. Key individuals from NGOs, the hydropower sector, governments and financial institutions were identified by WWF, TNC and the IHA and invited to become members of the HSAF.

#### **Box 1 HSAF Members**

##### *Governments - Developing Countries*

- Dr Yu Xuezhong, Institute of Water Resources and Hydropower Research, PR China
- Mr Zhou Shichun, Hydropower and Water Resources Planning and Design General Institute, PR China
- Mr Israel Phiri, Manager PPI, Ministry of Energy and Water Development, Zambia

##### *Governments - Developed Countries*

- Mr Geir Hermansen, Senior Advisor, Department of Energy, Norad, Norway
- Project Manager Environment, Norad, Norway
- Prof Gudni A Johannesson, Director General, National Energy Authority, Iceland
- Ms Kirsten Nyman, Policy Advisor for Sustainable Hydropower, GTZ, Germany (observer)

##### *Hydropower Sector*

- Dr Refaat Abdel-Malek, President, International Hydropower Association
- Mr Andrew Scanlon, Coordinating Author, IHA Sustainability Assessment Protocol

##### *NGOs - Environmental Aspects*

- Mr David Harrison, Senior Advisor, Global Freshwater Team, The Nature Conservancy
- Dr Joerg Hartmann, Lead, Dams Initiative, World Wildlife Fund

##### *NGOs - Social Aspects*

- Mr Michael Simon, Lead, Development Banks/NRM, Oxfam
- Dr Donal O'Leary, Water Sector Specialist, Transparency International

##### *Finance Sector - Economic Aspects*

- Ms Courtney Lowrance, Environmental Specialist, Equator Principles Financial Institutions Group
- Ms Daryl Fields, Senior Water Resources Specialist, World Bank (observer)

## HYDROPOWER SUSTAINABILITY ASSESSMENT FORUM

The Forum members are jointly reviewing and recommending enhancements to the IHA Sustainability Assessment Protocol (2006), developed as a measurement tool to assess social, environmental and economic performance of hydropower projects and operating facilities against criteria described in the IHA Sustainability Guidelines (2004).

The Forum aims to produce a final revised protocol by the end of 2009, and hopes to have the endorsement of this product by all parties to the Forum, although this is not a condition of participation in the Forum. Pathways forward for the protocol, including the potential for a sector standard, will be explored at the end of 2009.

### **Funding**

The HSAF is funded by the governments of Norway, Iceland and Germany and by The Nature Conservancy and IHA. The total funding pledged to date is £484k; a further £200k is sought to complete the Forum's work program.

### **Operation**

The Forum's work centres on the IHA Sustainability Assessment Protocol (2006). In its first phase (2008-09), the Forum is determining the relevant issues to be included in the hydropower sustainability assessment protocol and the measurement approach and thresholds for each of these issues. The work plan for this first phase involves input from experts on key hydropower sustainability themes, hydropower project assessments, workshop sessions focussed on the protocol, input from key stakeholder reference groups, and stakeholder consultation. The Forum members meet nine times, with two formal periods of stakeholder consultation.

The Forum seeks at all times to operate with transparency, good will and by consensus. Forum members adhere to a common understanding of their responsibilities and the Forum's operating procedures, including processes for reaching consensus. These can be viewed at [www.hydropower.org/sustainable\\_hydropower/hsaf.html](http://www.hydropower.org/sustainable_hydropower/hsaf.html)

So far five meetings have been held - in the USA (2 meetings), Zambia, China and Brazil - and the *Hydropower Sustainability Assessment Protocol Key Components Document* has been developed and released for consultation. Thematic discussions have focused on a range of environmental, social, technical, economic and governance issues.

### **Stakeholder input**

There are two mechanisms for wider stakeholder input into the HSAF process. The first is the HSAF members' individual reference groups and networks with whom they discuss the HSAF work on an on-going basis. In addition, two open consultation periods are built into the HSAF process. The first runs between January 19<sup>th</sup> and February 20<sup>th</sup> 2009 and focuses on developing relationships with stakeholders, building understanding of the HSAF process and getting initial feedback on the content of the Protocol through comments on the *Hydropower Sustainability Assessment Protocol Key Components Document*. The second is planned for July-August 2009 when the *Draft Hydropower Sustainability Assessment Protocol* will be released, and will focus on the detail and practical application of the protocol. It will include trialling of the draft protocol in a number of different locations.

### **Relationship to previous initiatives on dams**

There have been a number of important initiatives relating to dams and sustainability over the last decade. The World Commission on Dams (WCD) was an extensive review of the performance of large dams conducted between 1998 and 2000, based on a process of submissions, hearings, surveys and case studies, out of which was proposed a new framework for decision-making for the water and energy sectors. UNEP's Dams & Development Project (DDP) was a six-year follow up to the WCD, and resulted in a consensus around the Core Values and the Strategic Priorities of WCD, on which the IHA Sustainability Guidelines and Protocol build.

The HSAF is not an attempt to duplicate or re-write the WCD outcomes. Unlike WCD, it is not a Commission reviewing performance of a sector. The HSAF is a cross-sector collaboration looking

## HYDROPOWER SUSTAINABILITY ASSESSMENT FORUM

at an existing performance measurement tool and proposing enhancements. It draws on WCD Core Values and Strategic Priorities, along with other existing principles and policies, in its work to develop a practical assessment tool for hydropower sustainability.

### Use of the Hydropower Sustainability Assessment Protocol

The final revised protocol released at the end of the 2009 will be a voluntary assessment framework which is being designed so that it can be used by different stakeholders to strongly influence the sustainability of hydropower sector, see Box 2 below.

Endorsement of the revised Protocol, not only by the hydropower sector but also by governments, financial institutions, NGOs and agencies, will send a strong message about how sustainability can be realised in both hydropower development and operation. Such clarity on sustainability criteria and practices should enable strong performers to be better recognised and rewarded, and encourage all industry participants to engage in continuous improvement. Pathways forward for the protocol, including the potential for a sector standard, will be explored at the end of 2009.

#### **Box 2 Potential uses of the protocol to influence the sustainability of hydropower**

The revised Protocol can be used by:

- All stakeholders to provide a common basis for evaluating sustainability in the hydropower sector and promoting dialogue on sustainability issues.
- Governments, potential financiers and other decision-makers to ensure that new hydropower developments are an appropriate solution for the context in which they are proposed.
- Companies, governments, financial institutions and NGOs to guide development of new hydropower facilities.
- Companies, governments and development agencies to assess the sustainability of existing operations and develop programmes for improvement.
- NGOs and civil society to evaluate the sustainability of hydropower projects at different life cycle stages and to form a basis for dialogue and for holding operators and financiers to account.
- Developers, financial institutions and other investors in assessing the risks of potential investments and as part of due diligence.
- The hydropower sector in seeking external qualification for financing from banks, carbon credits (e.g. CDM/JI), renewable energy credits (e.g. RECs), recognition in voluntary markets (e.g. green certificates); and the administrators of these schemes in judging admission
- Verification agencies certifying a level of sustainability.
- Hydropower owners/operators for corporate sustainability management and training

### Structure of the revised protocol

Although, the final protocol is likely to be a single document, it is being developed in four sections, covering different stages in the life-cycle of a hydropower facility. Each section can stand-alone, enabling a sustainability assessment to be made at any stage of the planning and operating cycle, from determining whether or not hydropower is an appropriate solution to energy needs in a particular location, to assessing the sustainability of an existing facility.

The revised Protocol will be underpinned by a set of fundamental principles. As with the existing Protocol, each section will have a set of aspects (encompassing economic, financial, technical, governance, social and environmental considerations) that capture the key sustainability issues relevant to that project life cycle stage. A table of the proposed aspects for each section is included in Appendix 1.

Each aspect will have a description and policy objective and a set of process and performance attributes which form the basis for scoring. Examples of objective evidence in each case will be provided and the revised Protocol will be accompanied by Guidance Notes, the extent and format of which are still under consideration.

## HYDROPOWER SUSTAINABILITY ASSESSMENT FORUM

Each aspect will have a score, determined by the objective evidence identified for each of the process and performance attributes. The focus to date has been on ensuring each section has the right aspects and attributes. The exact methodology for determining individual aspect scores and the overall score is still to be determined.

The aim of *Section I - Strategic Assessment* is to demonstrate the strategic basis for a hydropower development project, so that it is clear how a proposed project fits within a framework for development and sustainability. The Section I assessment evaluates the strategic need for energy and water and whether a proposed hydropower development is an appropriate solution. This section of the Protocol can be used prior to, and to inform the decision, that there is a strategic basis to move forward with project preparation.

The aim of *Section II – Project Preparation* is to demonstrate the sustainability of a hydropower project at the project preparation phase. During this stage, investigation takes place into a range of issues including siting, design, environmental and social impacts, risks and benefits, and management plans are prepared. The Section II assessment can be used to evaluate whether all preparatory requirements have been met, management plans are in place and commitments are appropriate and binding. This section of the Protocol can be used prior to and to inform the decision to move forward with project implementation.

The aim of *Section III – Project Implementation* is to demonstrate the sustainability of a hydropower project at the project implementation phase, during which construction, resettlement, environmental, social and other management plans and commitments are implemented. The Section III assessment can be used to inform the timing and conditions for commissioning the power station.

The aim of *Section IV – Project Operation* is to demonstrate that a hydropower facility is being operated on a sustainable basis with active measures in place to continuously improve performance.

### **Providing feedback on the Hydropower Sustainability Assessment Protocol Key Components Document**

The HSAF welcomes all comments on its progress to date and the *Hydropower Sustainability Assessment Protocol Key Components Document*. It can be downloaded at [http://www.hydropower.org/sustainable\\_hydropower/hsaf.html](http://www.hydropower.org/sustainable_hydropower/hsaf.html) where a link to the online questionnaire can be found. Please fill in the questionnaire by **February 20<sup>th</sup> 2009**. All comments will be reviewed and considered as the HSAF develops the revised Protocol. A summary of the feedback received and the HSAF response to it will be posted at the above web address after the Forum's meeting in March 2009.

#### **General Forum Contact and Further Information:**

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#### **Information and Questions on the Consultation Process**

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## Appendix 1 - Proposed Aspects

### Section I Aspects – Strategic Assessment

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- Demonstrated Need
- Options Assessment
- Regional and National Policies and Plans
- Political Risk
- Institutional Capacity

### Section II Aspects – Project Preparation

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#### Economic / Technical / Governance Aspects

- Demonstrated Need
- Public Sector Governance
- Transboundary Issues
- Regulatory Approval
- Site Selection and Design Optimisation
- Integrated Project Management
- Corporate Governance
- Economic Viability
- Financial Viability
- Management of the Hydrological Resource
- Construction Management Plan
- Procurement

#### Social Aspects

- Social Impact Assessment
- Social Management Plan
- Cultural Heritage
- Indigenous Peoples & Ethnic Minorities
- Public Health
- Resettlement
- Affected Communities
- Community Acceptance
- Asset & Community Safety
- Labour and Working Conditions
- Communications
- Project Benefits

#### Environmental Aspects

- Environmental Impact Assessment
- Environmental Management Plan
- Catchment Management
- Reservoir Management
- Environmental Flows & Downstream Sustainability
- Biodiversity, Habitats & Protected Areas
- Pest & Invasive Species
- Sedimentation and Erosion

### Section III Aspects – Project Implementation

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#### Economic / Technical / Governance Aspect

- Integrated Project Management
- Public Sector Governance
- Transboundary Issues
- Corporate Governance
- Construction Management Plan

#### Social Aspects

- Social Management Plan
- Cultural Heritage
- Indigenous Peoples
- Public Health
- Resettlement
- Community Acceptance
- Labour and Working Conditions
- Suppliers and Service Providers
- Communications
- Project Benefits
- Asset and Community Safety

#### Environmental Aspects

- Environmental Management Plan/System
- Catchment Management
- Reservoir Management
- Environmental Flows and Downstream Sustainability
- Biodiversity, Habitats and Protected Areas
- Pest and Invasive Species
- Sedimentation, Erosion and Water Quality
- Waste, Noise and Air Quality Management

### Section IV Aspects – Project Operation

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#### Economic / Technical / Governance Aspects

- Transboundary Issues
- Corporate Governance
- Financial Viability
- Markets, Innovation and Research
- Management of the Hydrological Resource
- Asset Reliability and Efficiency

#### Social Aspects

- Social Management Plan
- Cultural Heritage
- Indigenous Peoples
- Public Health
- Labour and Working Conditions
- Suppliers and Service Providers
- Communications
- Asset and Community Safety
- Project Benefits

#### Environmental Aspects

- Environmental Management
- Catchment Management
- Reservoir Management
- Environmental Flows and Downstream Sustainability
- Biodiversity, Habitats and Protected Areas
- Pest and Invasive Species
- Sedimentation and Erosion
- Water Quality