Introduction to Annex–XVI: Hidden Hydro Opportunities
Harnessing Untapped Potential from Existing Infrastructure
The overall objective of the Hidden Hydro Annex is to:

“Provide a framework to enable and support an increased development of hidden hydro opportunities globally”.

The work program has been subdivided into four sub-tasks.

- **Subtask 1: Update Sustainable Hydropower Inventories**
- **Subtask 2: Improve Performance from Existing Hydropower**
- **Subtask 3: Add Power to “Non-power Dams” and Water Management Facilities**
- **Subtask 4: Undertake Hydropower Technology Research and Innovation in the context of Hidden Hydro opportunities**
Objectives will be achieved by:

- Identifying and adopting “enablers” for development:
  - Opportunity selection through improved information gathering.
  - Technology improvements to maximize resource potential
  - Innovative approaches for design and implementation at lowest cost

- Identifying and overcoming “barriers” to development
  - Resistance to third-party development
  - Low revenue streams for intermittent generation
  - Understanding regulation policies and environmental constraints

- Formulating needs and developing an R&D agenda
Hidden Hydro opportunities are generally well understood, but development activity has been mixed, partly because:

- **Infrastructure owner considers hydropower not “core business” or are concerned about risks from third party development.**

- **Projects costs are too high, due to standard technology or over-engineering.**

- **Infrastructure such as access, transmission and power offtake are expensive or challenging to implement**

- **Flows available for power generation can be intermittent, and are determined by principle resource users**

- **Electricity markets may not provide sufficient financial reward**

Identifying barriers and means to overcome them is a prime deliverable from this Annex
Work Plan for next 3 to 6 months (key items)

- Annex participants provide an initial collation of HHO examples and reference list/bibliography
- External groups contacted for collaboration
- Recent technology development collated and an R&D agenda developed
- Fact Sheets initiated
- Statement of Objectives (SoO) completed and approved
- Initial “Pathway to Deployment for HHO” drafted
Work Plan for longer term – up to 2 years (key items)

- Prepare “Fact Sheets”, covering descriptors of the various hidden hydro opportunities, outlining enablers and barriers, risks and risk controls, and explaining concepts and misconceptions
- Assemble completed examples of HH case histories
- Complete the “Pathway to Deployment”
- Develop a “Communication and Dissemination Plan”

Prepare the final Roadmap, based on; fact sheets, examples and the “Pathway”, and which addresses issues and prepares strategies to meet objectives