

## Cumulative Impact Assessment and Management of Renewable Energy Development in the Myitnge River Basin, Myanmar

## **Project Introduction**

The Myitnge River Basin Cumulative Impact Assessment (CIA) has been commissioned by the International Finance Corporation (IFC) as part of its activities to promote environmentally sustainable renewable power planning globally and in Myanmar.

The Myitnge CIA follows and builds on the Strategic Environmental Assessment (SEA) of the Myanmar Hydropower Sector, finalized in 2018. The IFC partnered with the Myanmar Ministry of Electricity and Energy (MOEE) and Ministry of Natural Resources and Environmental Conservation (MONREC) for the SEA study, designed to support planning for hydropower at a basin-wide scale taking into account environmental and social values and potential cumulative impacts.

The Myanmar hydropower sector has enormous potential, arising from the four major river basins flowing through the country – the Ayeyarwady, Chindwin, Sittaung and Thanlwin. Development of the Myanmar hydropower sector is in the early stages, with 3,298 MW of installed capacity (29 projects), 1,564 MW capacity under construction (6 projects), and a total of 43,848 MW capacity proposed in 69 projects nationally. Development of this sector offers considerable potential for Myanmar to better meet domestic demand, increase electrification rates (from 40% at present), and power economic growth.

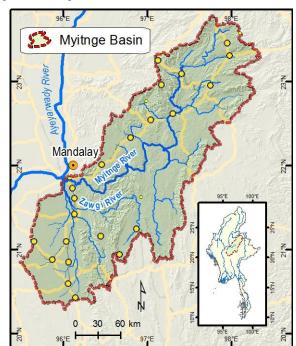
The SEA of Myanmar's Hydropower Sector recommends system-scale planning and CIAs of multiple renewable energy development projects at the sub-basin level. The Myitnge Sub-Basins of the Ayeyarwady River will be the first pilot study at the sub-basin level to demonstrate how risks and opportunities that are often not captured in individual project Environmental and Social Impact Assessments (EIAs) can be identified and managed, leading to more holistic and sustainable basin

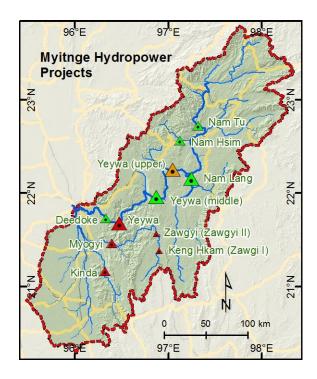
development.

The Myitnge River Basin is a major tributary entering the Ayeyarwady River just downstream of Mandalay.

There are five hydropower projects currently in operation, one under construction, and a further five at various stages of planning, as shown in the figure and table on the next page. There has been no CIA of the sub-basins.

The vision for this study is that sustainable planning for renewable energy development options in the Myitnge River Basin is founded on a clear, multi-stakeholder commitment to assessing and managing cumulative impacts, and collaborative monitoring and management.



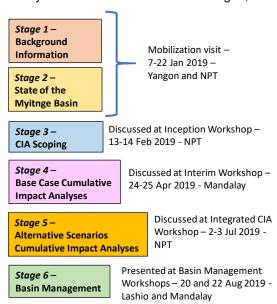


Area	Project	MW	Stage
Upper Myitgne	Nam Tu (Hsipaw)	210	MOU/ Feasibility report being reviewed
	Nam Hsim	30	MOU, preparing Feasibility Report
	Nam Lang	210	MOU, preparing Feasibility Report
Lower Myitgne	Upper Yeywa	280	Construction
	Middle Yeywa	735	MOU/ Feasibility report being reviewed, EIA submitted
	Yeywa	790	Operational
	Deedoke	60	Notice to Proceed (NTP)/ Feasibility done, EIA being reviewed by MONREC
Zawgyi	Kinda	56	Operational
	Myogyi	30	Operational
	Khen Hkam / Zawgyi I	6	Operational
	Zawgyi / Zawgyi II	12	Operational

## There are three study objectives:

- Plan and execute an integrated assessment of the cumulative impacts of renewable energy development in the Myitnge River Basin, including power development and optimization scenarios.
- 2. Lead the participatory design of a framework for ongoing river basin co-management in the Myitnge, including collaborative environmental and social impact monitoring and management.
- 3. Strengthen the capacity of Myitnge River Basin stakeholders in CIA and co-management.

Study tasks will be undertaken in stages, as shown below.



Project Finalization - Final Project Workshop -

The Myitnge River Basin study will be undertaken during 2019 by Sweco, Europe's largest engineering and architecture consulting company working in ~70 countries to ensure clean water, efficient infrastructure and sustainable energy solutions.

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