

## Environmental Impact Study on Hydropower Development of Irrawaddy River: An Analysis from Burma Rivers Network

### What was the study?

A 945-page preliminary biological assessment of seven planned dams on the Irrawaddy, N'Mai and Mali rivers in Kachin State, Burma collected baseline information on the biodiversity of flora and fauna in the catchment area of the dams over a period of 5 months from January to May 2009.

### Who was involved?

All expenses of the study were funded by China Power Investment Corporation. A team of 80 scientists from Burma (from the Biodiversity and Nature Conservation Association) and others from the Changjiang Institute of Surveying, Planning, Design, and Research (CISPDR) of China conducted the study.

### What does it say?

#### The Myitsone dam should not be built:

*“With experts, find an alternative option to avoid construction of Myitsone dam at the confluence.” (p. 25)*

*“If Myanmar and Chinese sides were really concerned about environmental issues and aimed at sustainable development of the country, there is no need for such a big dam to be constructed at the confluence of the Ayeyawady River. Instead two smaller dams could be built above Myitsone to produce nearly the same amount of electricity. Hence respecting the Kachin cultural values which surpass any amount of the overall construction costs.” (p. 40)*

*“The construction of the dam on the Irrawaddy should be avoided due to the changes in downriver hydrology which may affect navigation, riverine ecosystem and delta ecosystem and will lead to negative impacts on the economy.” (p. 227)*

#### The dams will have severe negative impacts, including on livelihoods, public health and safety:

*“On account of construction of a cascade of dams in Kachin State there will be severe negative impacts on livelihoods and habitations of grassroots people of the region; disappearance of some wild rice varieties and their ancestors; disappearance and forever loss of the cultural heartland of Kachin people...” (p. 21)*

#### The dams will threaten biodiversity:

*“Ecoregions which are nationally important, regionally significant and globally outstanding will be directly affected by clearing and logging of the inundation areas and construction activities for a series of dams in Kachin State....Of particular concern are the loss and fragmentation of key ecosystems and the loss of key, endemic and endangered species of both flora and fauna....Definitely there will be negative impacts on potential of availability of traditional medicinal plants.” (p. 21)*

*“There will be severe negative impacts on regionally significant and globally outstanding three ecoregions, one center of world plant diversity; severe impacts on key biodiversity areas and conservation corridors of Myanmar” (p. 21-22)*

**Downstream impacts to the whole Irrawaddy need to be examined, the river is vital to the country:**

*“Irrawaddy River is the most important lifeblood river in Myanmar. Millions of people are depending on Irrawaddy River for their livelihoods. It acts as a conduit of communication to over fifty million of people.” (p. 1)*

*“The fragmentation of the Ayeyawaddy River by a series of dams will have very serious social and environmental problems not only at upstream of dams but also to very far downstream to the coastal delta. A longer and more comprehensive EIA investigation is strongly recommended in such a big and sensitive hydropower development which may very significant adverse impacts.” (p. 2)*

**A social impact assessment must be conducted and decision makers should balance positive and negative aspects:**

*“Proper social impact assessment must be done before construction of each dam to know real impacts on livelihoods.” (p. 29)*

*“The main drawback of this study is the lack of Social Impact Assessment. Systematic social impact assessment must be carried out by competent social scientists....Before approving the construction, the decision-makers are strongly urged to fairly balance between the negative and positive aspects of dams.” (p. 62)*

**Affected people should be consulted and consent; local people are currently against the projects:**

*“The public should be disclosed about the hydropower dams and resettlement programs by having public meetings.” (p. 26)*

*“The majority people of local races oppose construction of the dams especially Myitsonne hydropower project. They consider the confluence as the cultural heartland of the Kachins.” (p. 21)*

*“For the longevity of dams to be constructed in Kachin State, the opinion of grassroots people should be brought into due consideration.” (p. 41)*

**The benefits of the project need to be shared equitably:**

*“There must be a fair and equitable sharing of benefits coming out from this hydropower development among the stakeholders concerned, including the people of Myanmar in general and Kachin people in particular.” (p. 63)*

**The Environmental Impact Assessment should be publicly released:**

*“The main audience for this document is the people of Myanmar.” (p.xxiii)*

**What is missing in the study?**

- **Downstream impacts**, including assessments of river flows, water levels, flooding patterns, salt water intrusion into the Delta, fish habitats, and riverbank erosion are not studied. Baseline data on the river as a whole is also not collected.
- **Social and economic impacts** of the dams are not addressed.
- **Consultation with affected peoples** is not conducted.
- **Strong conclusions and recommendations** that ensure the concerns raised in the study are fully addressed are not included.

## What has happened since the study?

Since the completion of the study in October 2009:

- Opposition to the dam projects by affected communities throughout the country has increased and numerous appeals to local and national authorities as well as Chinese companies and government have been ignored
- China Power Investment is speeding ahead with its dam plans, ignoring Chinese and international standards for conducting proper assessments
- Thousands of workers and equipment have been moved to Kachin State and construction has begun on the Chibwe and Myitsone dams
- A flawed compensation and resettlement process is being carried out using intimidation by military authorities; to date six villages have been forced to move. Villagers at the relocation camp do not have enough farmlands or water, suffer poor health and education facilities, are restricted in movement and are constantly under military surveillance
- Thousands of people are mining for gold near the Myitsone dam site in advance of construction, seriously polluting the Irrawaddy River
- The study has not been made publicly available; it is not clear if any further studies have been conducted as none have been made available
- The Kachin Independence Organization warned China's government in March 2011 that construction of the Myitsone Dam may result in civil war
- In June 2011 fighting broke out between Burma Army and the Kachin Independence Organization, resulting in the shutdown of China's Dapein hydropower station in Kachin State

## Position of Burma Rivers Network

Water resource management must be based on principles of ecological sustainability and social justice. Affected communities - upstream and downstream - must be protected. To ensure this as well as transparency and accountability, national reconciliation and genuine democratization is needed in Burma.

Therefore the Burma Rivers Network urges that:

- These harmful dam projects on the Irrawaddy are immediately stopped and the river preserved for future generations.
- The economic, social, security and environmental impacts of dams throughout Burma be publicly disclosed.

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