

Dams causing algae-induced ill health and poverty? Stories from the Mekong

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The Se San River is a trans-boundary river originating in Vietnam and running through Northern Cambodia where it culminates in the Mekong River. It is recognized as one of the top three rivers in Vietnam in terms of its hydropower potential. Development of the Hydropower Project started in 1993, and the project was completed in 2002. Today three more projects are under construction on the Vietnamese side of the Se San River. At the same time, several reports (1,2), as well as information garnered from people living along the Cambodian part of the Se San River have revealed health-related problems and deterioration of the surrounding ecosystem.

In June of 2007, environmental groups obtained the "Final report on environmental assessment on the Cambodian part of the Se San River due to Hydropower Development in Vietnam" published in December 2006. The report has drawn great attention because it highlights for the first time that the possible connection between health problems of people living downstream of the Se San River - including itchiness, skin lesions, stomach aches, headaches, and respiratory problems - and toxic blue-green algae in the river following dam construction on the Vietnam side (3). For the local inhabitants, vital daily activities such as cooking, bathing, and washing clothes depend on the water from the river, so their health could be directly affected if the quality of the water deteriorates. The report also indicated that the 10 to 30% reduction in fish numbers and species in the last ten years was due to the dam, and warned of an expected future risk of malnourishment and associated deterioration of health status, especially for growing children, unless viable alternative protein sources to fish can be introduced and the lacking riverbank vegetables can be replaced by other species with equivalent nutritional content (4).

In July, the Economist warned of a plan of 240 MW hydro-electric dam in the Mekong River in the Siphandon district (4,000 islands) of southern Laos bordering Cambodia, a region home to picturesque waterfalls, tranquil waterways and a colony of endangered Irrawaddy dolphins. If the dam goes ahead

as scheduled, it may block a channel used by over 200 species of migratory fish, such as the giant catfish, to bypass waterfalls between Laos and Cambodia. This would disrupt their bleeding cycles and might destroy the livelihood of the riparian population (5). It is notable that this world-renowned economic journal criticized plans for construction of a dam, aiming to bring economically gains to one of the poorest countries in Asia by selling electricity generated by the dam. Laos has an abundance of mountains and is traversed by the surging rivers of the Mekong, which runs its full length. Seven dams are already working and 11 more are under preparation, including the massive, and controversial, 1,088 MW Nam Thuen 2 project. The government sells the electricity to Cambodia, Thailand and Vietnam. However, as reported in the environment assessment



Figure 1. Mekong Map.



Figure 2. Skin lesion of a child in Pau village along the Se San River.



Figure 3. Abandoned riverbank vegetable field due to change of water level.

on the Cambodia side, if started, this new project would bring about deterioration in ill health status, as well as a reduction of the fish population so crucial to the livelihood of the local people as a source of income and of dietary protein.

Construction of the dam is generally supported by donor partners and the World Bank granted a loan to the Nam Thuen 2 project because expected revenues from dam-produced electricity are expected to be used for poverty reduction in accordance with the Bank's mission (6). However, the issue of support and compensation for local people who have to be relocated elsewhere due to the construction remains unclear (7,8). Environmental groups are trying to mitigate these problems for the

people living with the enriched Mekong River who are weak and vulnerable, and to preserve the precious ecosystem, which the current world economic system seems intentionally to be ignored.

Japan has started preparation for the G8 summit in Hokkaido next year, and the main item on the agenda is the Environment (9). Although Japan is a main contributor to the World Bank, we should take the initiative to address the threatened ecosystem and the interests of the people living along the Mekong. In the past we have overcome serious and shameful environmental pollutions and related human rights abuses, such as Minamata disease and Itai Itai disease (10,11). The economy is always deemed more important than the environment and the victims are always vulnerable people like fishermen and farmers.

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