Mekong River: Challenges from deforestation and water transfer

VietNamNet Bridge – The flow of the river will be weakened seriously or it can dry out completely if its waters is transferred to other rivers, like a man who loses his blood, wrote Prof., Dr. Nguyen Ngoc Tran.

According to Tran, besides challenges caused from the construction of hydro-power dams, deforestation and transferring the river's water to other rivers or reservoirs, there are also other major threats to the Mekong River.

The cost of deforestation

The destruction of upstream watersheds poses a great threat to the river, especially in the tropical region.

The loss of forest brings about landslide and erosion which results in the raising the level of the river bed, the change of river geomorphology and river hydro-meteorology and in some cases, even the geomorphology of the region.

Cambodia's Tonle Sap is an example. Owing to deforestation in recent decades, the lake bed rises by 10-12 centimeters annually. The lake capacity decreases accordingly, ,.

It is estimated that to build 25 hydro-power plants in Lam Dong province in Vietnam's Central Highlands, over 15,000 hectares of forest was destroyed. On average, to produce 1MW of electricity, the province loses 10-16 hectares of forest.

How many hectares of forest are chopped down to build 393 hydro power plants totaling 7381 MW in Vietnam's Central and Central Highlands? The central region is suffering from serious floods, which are caused by weather and forest destruction.

If dams are located in the half-mountain half-plain, vast areas of agricultural land will be lost.

Water transfer

The Mekong River will be significantly weakened or even it will dry out completely if its water is transferred to other rivers or reservoirs, like a man who losses his blood.

In the 1980s-1990s, Thailand proposed two projects to move water from the Mekong River to other rivers.

The first project, called Kok – Ing – Yom – Nan in northern Thailand, aimed to move the water from the two branches of the Mekong River – Kok and Ing – to Yom and Nam rivers to raise the water flow for Sirikit reservoir and the irrigation water for central Thailand.

The second one, named Kong - Chi – Mun, aimed to move water from Mekong river to operate the reservoirs and the new ones that were to be built to irrigate 81,600 hectares of agricultural land in the northeastern region.

The two projects caused worries to Laos, Cambodia and Vietnam. And subsequently, the Mekong River Provisional Committee was dissolved in 1992.

The project which currently causes most worries wasis the one in China that transfers 44.8 billion cubic meters of water from several rivers to the Huang He River to serve Beijing and Tientsin.

Under this project, water will be transferred by three routes. The eastern route has already been built. The construction of the western route began in 2010. What causes other countries' worries is that China will take the water from the Mekong River or Salween River for this route.

In the initial plan worked out in late 1950s, China planed to take water from the five rivers of Salween, Lancang (Mekong), Tongtian, Yalong and Dadu to the Huang He river. If China uses water from the Lancang river, this will cause environmental, economic and social impacts on countries in the Mekong River downstream – Myanmar, Laos, Thailand, Cambodia and Vietnam. The plan has not been publicly announced so there is little information available about the project.

The question is how many dams will there be, including the ones that will be built in future on Lancang river (Mekong River's section passes China)? According to the Mekong River Commission's map, currently there are seven. Some documents say 14. According to the meltdownintibet.com, the number is higher and most of them have been or are being built.

It is necessary to find out more about this project and determine the number of dams on this river.

Prof. Dr. Nguyen Ngoc Tran

http://english.vietnamnet.vn/en/special-report/1639/mekong-river--challenges-from-deforestation-and-water-transfer.html