

The Lower Sesan2

The Lower Sesan2 is one of the widest dams in Asia, located in Cambodia's Mekong River Basin to generate electricity. It is the part of China's Belt and Road Initiative (BRI) by supporting from Cambodian government. It causes many problems that involved with biodiversity, water resources, forests and humans. It causes the conflicts between the economy and environment.

The effect on biodiversity, this artificial reservoir cuts off the two major tributary rivers of the Mekong and blocks the traveling of fish up and down the stream disturbing their feeding and reproductive cycles. Consequently, these species have died. This dam drowns the land with less flowing make it emits bad air pollutions and fouls the quality of water resources. Also, it submerges the agricultural land and forests. Because all of these, it has many impacts on humans, their food supplies and sources of income drop. Fishes, crops and forest products used to be one of the supplies and sources of income, but the dam makes fish died. Crop can't be planted since the soil is no good and required fertilizers which they can't afford. Forest products can't be foraged. The ground water also unfit for drinking, they have to buy water. Some of the communities has to migrate from their inherited home and some refuse to resettle. They received an insufficient compensation from the company and the government didn't offer appropriate strategies to handle this situation.

The economists wonder if this project produce the electricity worth the cost of loss in fishery and the displacement. Cambodia lacks mountains with gorges so they have to build such big reservoir, however, they can't ensure if the water pressure is sufficient enough to power the hydroelectric turbines. This dam also has carbon footprints equal to fossil fuel plants.

Key economic insights

1. The behavioral underpinnings of economics matter for environmental policies:
The Chinese company and government want to develop their country and make them look good to world stage by launching BRI, even so, not take much into account of the communities. Additionally, government want this loan from China for infrastructure development.
2. Opportunity costs matter as environmental resources are scarce:
The economists ponder if this hydroelectricity plants worth the cost of the plummet of fishery and the migration.
3. Market failure:
No price on pollutions that this dam produces.
4. Government intervention could make things worse:
Cambodian government doesn't have appropriate energy policy to control this issue.
5. The maximum sustainable yield of renewable resources may not always be optimal:
The fishermen have to put more effort in fishery, yet the outputs are not meet their expectation.
6. Economic growth may contribute to environmental problems
This hydroelectric plants' objections are to develop the infrastructure and economic growth but it causes much of the troubles including environmental issues like mentioned above.