Brazil: Old hydroelectric dam project again threatens Amazon peoples

Presented as a "clean" source of energy that does not contaminate the atmosphere with greenhouse gases, as in the case of oil or natural gas, obtaining hydroelectric energy by building dams continues to advance along the Xingu river, the last of the great Amazon rivers in good state of conservation.

However, it is estimated that nearly all the Amazon forest will be destroyed during the first half of this century if the present trends are increased with the implementation of major infrastructure works in the region and that carbon release resulting from burning down the forest would be the equivalent to nearly 50 times the present annual release of greenhouse gases in the United States. In spite of this, the energy consultant, Joaquim Francisco de Carvalho, argues in favour of the construction of the Xingu hydroelectric plant, all to satisfy future Brazilian demand for electricity, an unsustainable demand that comes hand in hand with "development."

Today, over 45,000 large dams, with walls of over 15 metres high, obstruct the rivers of the world and their dams flood thousands of hectares of forest --particularly in tropical zones-- leaving them to slow decomposition (and therefore to the release of enormous volumes of methane gas, one of the main greenhouse gases). Reservoirs have also been the indirect cause of deforestation in other places (with the consequent release of carbon dioxide, another greenhouse gas), because farmers displaced by the dams have had to cut down forests in other zones to install their crops and build their homes (see WRM Bulletin 42).

Plans for the construction of the Kararaô hydroelectric dam, rebaptised Belo Monte, on the Xingu River, generated a major controversy during the eighties. Although the area of the artificial lake necessary for the dam to operate was reduced, destruction associated with the dam is only a part of that caused by the works in general. Dams require the building of highways that enable "development agents" to have access to previously remote regions. Thus uncontrollable environmental degradation processes are triggered off --the dam not only floods agricultural lands but also causes drastic changes in the environment, and even the gradual disappearance of flora and fauna-- which in turn causes severe effects on the population, not only on the local population that depends on such resources, but also on the population of the whole river basin that has been dammed.

An example of this is the highway from Xinguara, in the zone of influence of the Belem-Brasilia highway, going through the forest towards the west and ending up in Sao Felix, on the banks of the Xingu River. The road, opened up in the eighties by the Andrade Gutiérrez building company, created a zone for a great concentration of loggers and illegal logging, that has now extended beyond the left bank of the river.

The forests of the Xingu river valley are particularly vulnerable to large forest fires. This is because the river crosses a zone of low rainfall, receiving nearly 2000 mm of rain a year, concentrated in a single and well-defined humid season. During the dry season (from April to September), the total absence of rain for long periods is usual. As a major part of the rainfall on the Amazon comes from forest transpiration, while deforestation advances on the region, droughts become more intense, increasing the risk of further forest fires and deforestation rates, in a positive feedback cycle. Thus,

the Xingu hydroelectric plants, which during the dry season (when the flow of the rivers in the region is greatly reduced) would be already working well below the level of their capacity would, ironically, become unviable due to the deforestation and desertification processes associated with their very construction.

The present ecological integrity of the Xingu and the fact that so far no hydroelectric plant has been built along its course, is not the result of the action of "environmental NGOs" but of peoples' genuine struggles. The preservation of this river is explained by the abundance of indigenous peoples with war-faring traditions, for whom ecological preservation is necessary for their survival. In 1989, when the construction of the Kararaô hydroelectric plant was planned, the project was halted by pressure of the indigenous peoples, who demonstrated in Altamira, shaking their knives at the Electronorte company technicians and going to the World Bank, getting them to suspend their funding. Today, in addition to the indigenous peoples, small rural farmers are also protesting against the construction at Kararaô.

Just as with the use of fossil fuels, which if continued to be used at the present rate will cause environmental catastrophes that can place at risk the very survival of the human race, the construction of dams could also have the same effect. The problem is complex and its solution demands an in-depth revision of consumer values and models, urgently and drastically reducing the Brazilian demand for electricity.

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