



## Damned to be dammed? A case study of Ojirami dam in Southern Nigeria

*Small dams should also be seen as a potential source of hazard for surrounding communities, writes SWAPHEP, based on a study of dams in Southern Nigeria. The organization calls for risk assessment and management in communities near dams.*

Over 45,000 dams have been built round the world, playing an important role in helping communities and economies harness water resources for numerous uses. Yet these services do not come without a potential cost to the communities. According to the World Commission on Dams (WCD) report published in November 2000, 60 per cent of the world's rivers have been affected by dams and diversions, with their construction leading to the displacements of some 40-80 million people worldwide. In Nigeria, more than 250 communities lose their homes and farmlands annually to the flooding of hydroelectric dams in Niger, Kwara, Kogi and Kebbi States. Over 40 people were feared dead and more than 20,000 people were displaced by the flood resulting from the failure of the Tiga and Challawa dams in Niger and Jigawa in August 2001.

The WCD report focused mainly on large dams, defined as those measuring fifteen metres and above in height. It detailed information on the social, economic and ecological impacts of large

dams. However, research conducted by the Society for Water and Public Health Protection (SWAPHEP) on Ojiramin Dam in the Edo state of southern Nigeria, shows that the impact of small dams is similar to that of large dams. The research studied the Okhoro and Ojirami dams and their effects on host communities, investigated the purpose and processes involved in the choice, as well as design and



construction of the dams in the state. Researchers also wanted to study the social, economic, health and ecological impacts of the dams on the host communities and document the structural, institutional and policy frameworks put in place by the government to enable these communities to resist and cope with possible negative impacts of the dams

Ojirami dam is located in Ojirami Community in Akoko Edo Local Government Area in the northern part of Edo State of Nigeria. The dam was constructed across the river Onyami which flows into the Ose River. The height of the dam is 3.9 metres with a storage capacity of 900,000 gallons. The main purpose of the dam is to supply water to the communities in Akoko Edo at an output capacity of 245 m<sup>3</sup>/hr.

On 30th August 1980, the Ojirami dam failed and inundated the Akuku and Enwan communities. The failure was mainly due to technical breakdown and negligence on the part of the dam official on duty. Moreover, no alarm was installed to give warning to local officials and communities when the water exceeded its limit in the reservoir. The flood destroyed more than 180 houses in the

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Akuku community and many people lost their houses and other properties worth millions of naira. Although the flood did not directly cause any deaths at the time of the failure, numerous casualties were reported due to the resulting poor conditions. Residents now suffer from housing shortages, resulting in overcrowded living environments. In one instance, more than 30 people were reported as living in a house meant for ten people. Many community members lost their local businesses due to the catastrophe and were left without a means for livelihood.

The impact of dams on people's livelihood, health, social systems and culture are not easily quantified and hence often not ignored when analyzing the costs and benefits of dams. The direct benefits they provide to people are typically reduced to monetary figures for economic quantification and are not recorded in human terms. SWAPHEP recommends the decision process to build dams should be participatory and should not be left in the hands of government officials alone. There is a need to conduct post environmental impact assessment on existing dams with a view to mitigating the negative impacts on host communities. Policies should be formulated to help reduce community vulnerability and the government should consider other options for water and energy supply. These options could include wind power, solar energy, biomass and ocean energy system to produce electricity and rain water harvesting, desalination of marine water, wastewater recycling as water supply.



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