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An Assessment of the Socio-Economic Impact of Hydropower Projects and Displacement in Northeast India

Dr. Sangeeta Borthakur Tamuli

Assistant Professor
Department of Economics
Lakhimpur Commerce College

Abstract:
According to the first Prime Minister of India Pt. Jawaharlal Nehru, dams are the "temples of modern India". From this, it is clear that for the development of a country like India, construction of dams is a must. Dams were mostly concentrated in the northern, central and southern part of India till the last century. However, the high potentiality of hydroelectric projects in northeast India has come to the knowledge of the government only from the beginning of the 21st century.

Construction of dams for hydroelectricity and displacement of local people are the two faces of the same coin. Construction of dams is one of the main reasons for displacement in northeast India. Displacement is the situation in which people are forced to leave the place where they normally live or when they have to leave their jobs.

In this paper an attempt has been made to analyse the socio-economic effects of construction of dams and displacement in northeast India. This paper is purely based on secondary information.

Key words: Displacement, mega dams, socio-economic effect etc.

Introduction:
Displacement means movement of people who are compelled to leave their place of living as a result of policies and projects in the name of development. Large infrastructure projects like dams, ports, airports etc involve displacement of original inhabitants.
In India displacement due to development projects have become a common occurrence.

The victim of mega projects are mainly the poor and the marginalized people. India is one of the major dam constructing nations and has built more than 4000 dams since independence.

According to late Prime Minister Pt. Jawaharlal Nehru, dams are the 'Temples of Modern India'.

In India dams are the main cause for displacement and accounts for around 75% of total number of displaced people. The reason behind this is that, dams are usually constructed in the remote areas of the

country where the tribal people are the main inhabitants. The tribal people follow an indigenous and traditional life based on resources available from their surroundings. Displacing them from their land would eventually lead to massive impoverishment due to loss of their home, livelihood, resources and habitat.

Dams in Northeast India:

Till the last century mega dams were mostly constructed in the central, northern and southern parts of India. The scope for construction of dams in northeast India was highlighted by the Central Electricity Authority (CEA) in 2001. CEA, in its preliminary ranking study of the nation-wide potential for hydroelectricity, gave the highest rank to the Brahmaputra river basin. The Brahmaputra river system includes Barak and other south flowing rivers like Teesta, Subansiri, Kameng, Kalang, Dihing, Dibang and Lohit. The Brahmaputra is one of the longest rivers, with a river basin of 580,000 sq.km, out of which 33% is in India. This region has been referred to as the "Future Powerhouse" of India and Arunachal Pradesh has been identified as the major contributor of hydro-energy according to Central Electric Authority report. The assessed power potential of northeast India is 63,257 MW which is just a little less than half (43%) of total assessed hydro power potential of the country. 50,000 MW hydro-power initiatives by the Ministry of Power in 2003 have been focused on northeast India. 168 dams which are coming up in this area would greatly alter river-scope of this region.

Some of the important mega dams in Northeast India are Ranganadi Dam (Arunachal Pradesh), Dayang Dam (Nagaland), Khunga Dam (Mizoram), Guamati Dam (Tripura), Umiam Dam (Meghalaya), Subansiri Dam (Assam), Rangit Dam (Sikkim). There are another 26 potential sites which have been identified for mega dams. They will generate 99,256 MW of electricity. Some of these dams are already at an advanced stage of planning. These include Tipaimerkh (1500 MW) and Loktak (90 MW) in Manipur; Kameng (600 MW), Lower Subasiri (2000 MW), Upper, Lower and Middle Siang (11,000 MW, 750MW and 1700 MW respectively) and Ranganadi I and II (450MW and 150MW respectively) in Arunachal Pradesh.

Effects:

The effects of mega dams are many folds. The people in and nearby dams have to suffer a lot at the cost of generation of hydroelectricity. Generally, the dams are constructed in the remote areas and so the displaced people are marginalized and poor people. Some of the major effects are discussed below.

i) On Human Lives: Loss of Livelihood

Displacement destroys the two most important aspects of displaced people's life, that is, common natural resources and community. The North-East is home to various indigenous groups. Many of these groups like the Idu-Mishi and Lepcha would be grossly affected due to displacement and loss of livelihood. Arunachal Pradesh being a hilly terrain has very little land where permanent agriculture can be done. The submergence area of Lower Subansiri project extends up to 70 km upstream along the main river and also to some extent through its tributaries Kamala and Sil. Almost all arable land will be lost after completion of the projects. The shifting agriculture (jhum) is a dominant traditional land use in the hills of Northeast India and plays a critical role in the livelihoods of the people, maintaining agricultural biodiversity and providing food security. Increasing pressure on land have resulted in the shortening of jhum cycles (the length of the fallow period between two cropping phases), thus its impact falls on the ecological viability

of this farming system. The submergence of land by hydro projects will further shorten the jhum cycle and enhance the pressure on the surrounding areas, thus affecting the environment and the livelihoods of the jhum dependent communities. Common property resources include grazing, edible fruits, vegetables, timber, fishes etc. which the communities loose after being displaced. Thus, livelihoods are affected and take a severe toll on human life.

ii) Loss of culture:

Besides livelihood, many of these indigenous groups are skeptical about their immediate development and fear losing their culture and ethnic tradition after being displaced. In Sikkim the Lepcha tribe is opposing the construction of hydro project on Dzongu, which is a sacred site. Zeliangrong Nagas, who inhabit the area of Tipaimukh hydroelectric dam in Manipur, also stand to lose their sacred spots and half of their fertile hill.

iii) Influx of Labour:

Another area of major concern for these tribal groups is the migration of labour population from outside, as these hydro projects need skilled as well as unskilled labourers. The presence of large number of non-indigenous people in a region for a prolonged period of time can affect the demographic profile of the area. Although employment generation is portrayed as one of the benefits of such projects, observations from similar projects in the past, show that local people are rarely/minimally employed in the skilled, semiskilled, or unskilled section.

iv) Other Downstream Effects:

The downstream negative impact of these mega dams is also significant. The construction of the dams will drastically affect natural water flows with far reaching consequences. Natural breeding cycles of river fish shall be affected and will result in less fishing stock in the rivers for fishermen. Water flow for irrigation of agricultural fields is also affected, which may lead to loss of income for farmers. For sustainable electricity generation, dam reservoirs will need to be filled to a certain level throughout the year. To maintain this water level there will be less water in the downstream during the dry season and major floods during the monsoon season, when water is released from reservoirs. The downstream effects also include loss of fish habitats, changes in wetland ecology in the flood plains, impact on agriculture in the riverine islands and tracts, impact on various livelihoods like driftwood collection, sand and gravel mining etc. due to blockage of rivers by dams.

v) Conflict in the society

The adverse effects of displacement of people due to dams fall severely and directly on society. Society has to face conflict between the tribals and non-tribals, refugees and local people. This will create intolerance, moral degradation and unrest in the society.

Policy measures

Government has given little attention to the real economic cost and adverse social and environmental consequences of mega dams. Also, the people who will be displaced are subjected to high risks, especially without their knowledge, participation or consent. Inspite of being resettled the displaced people are even not given their due compensation. Therefore policy should be made and implemented to ensure that the

displaced people get their due compensation beyond monetary benefits. The government should reverse the risk of displacement by reconstructive actions from landlessness to land-based resettlement; from joblessness to re-employment; from food insecurity to safe nutrition; from homelessness to house reconstruction; from increased morbidity to better health care; from social disarticulation, marginalization and deprivation of common assets to community reconstruction and social inclusion.

Conclusion

The power generation from the dams in Northeast India is more than what the region needs. Definitely the excess power is going to the mainland of India. Thus, it is obvious that the poor and the marginalized people have to suffer for something that is not going to benefit them. People of this region have suffered disproportionately from the effect of construction of dams on their land but the benefits hardly reach them. The resettlement and rehabilitation process of the government is not satisfactory. Most of it has only focused on the short run issues and has ignored the long run issues. India is one of the fastest growing economies of the world today, so no one can ignore the immense importance and significance of hydro-electric development of the country. But development of the country should not be at the cost of disrupting and displacing the local people. Development should be done in a sustainable and people sensitive way. Also, the country as well as the states should consider cheaper and more effective energy options that are harnessed without affecting environment including human population and society.

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