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Dams and Ecology Concerns: Mapithel Dam Experience of Manipur

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Abstract:

Manipur, the land festivals with rich cultural heritage bosoms with diverse identities of multi-ethnic myriad inhibited in every corner of the state. The state's captive scenic beauties of the green clad forests and hills where wild flowers roll in waves, lingering with free-flowing rivers and entangling amidst a small valley is a matter of vivid appreciation. Aesthetic apprehension will overwhelm one whosoever has a glimpse of the Nature's glory blossoming with the stretches of mankind's inhabitation. The rhythmic echoes of folksongs, folklores hymned at the festivals and rituals on the onset and the retreat of the seasonal cycle filled the air. A sense of intrinsic gratification will overflow perceiving it as 'fate' to be a denizen of this state.

Lives, livelihood and survivorship is webbed with the nature and initiatives of untapping the natural resources need special concerns. Any act hampering the natural ecology plunders the lives of many thousand people. Manipur has many other numerous commissioned, planned and proposed Dams/Multipurpose Projects. The 105 Mega Watt (MW) Loktak Project, the Khuga Dam, the Singda Dam, the Khoupum Dam, Tipaimukh Multipurpose Hydro Electric Project (HEP), Khongnem Chakha Dam, Pabram HEP, the Mapithel Dam/Thoubal Multipurpose Project etc, caused massive internal displacements. Vast tracts of land have been submerged in the upstream villages while leading to desertification in the downstream villages. Homesteads, houses, farms, schools, churches, community buildings, standing trees, forest, personal and many community belongings are being submerged in the upstream villages. Displaced Chadong villagre of Mapithel Dam is one glaring example. In the downstream village of the same dam, their livelihood is mainly claimed by the Thoubal small scale sand mining on the river bank. However, after the construction of the dam, the river bed dried up scarcity of resources reeled in the villages. Tumukhong is one such example.

Nothing less is the impact Khuga Dam to its affected villagers. The farmers along the stretch of the Khuga Dam irrigation canal is unleased with hardships due to its frequent breach. water supply from the dam is unsatisfactory. Not even a single unit of electricity is generated from this dam, that cost more than 400 crores of public fund, submerging vast tracts of fertile land at the same time leading to desertification of many villages.

The paper will be an attempt to explore how multipurpose project implementation plundered the ecology and natural environment generating social disorganisation.

Key Words: Heritage, Dams/Multipurpose Projects, Mapithel Dam/Thoubal Multipurpose Project, Implementation, Upstream, Downstream, Submergence, Desertification

Introduction

Manipur, the land festivals with rich cultural heritage bosoms with diverse identities of multi-ethnic myriad inhibited in every corner of the state. The state's captive scenic beauties of the green clad forests and hills where wild flowers roll in waves, lingering with free-flowing rivers and entangling amidst a small valley is a matter of vivid appreciation. Aesthetic apprehension will overwhelm one whosoever has a glimpse of the Nature's glory blossoming with the stretches of mankind's inhabitation. The rhythmic echoes of folksongs, folklores hymned at the festivals and rituals on the onset and the retreat of the seasonal cycle filled the air. A sense of intrinsic gratification will overflow perceiving it as 'fate' to be a denizen of this state.

The Northeast India (NEI) region is connected to the rest of the country through a narrow corridor known as the 'chicken's neck.' The region on the hand is also known for its strategic geo-political location at the eastern corner of the country surrounded by China, Bangladesh, Bhutan, and Myanmar. This region is characterised by economic underdevelopment to which the planner felt the need to impose development projects. For the implementation of the development projects in these states, the state needs vast land, which are either individually, community, collectively owned or are Common Property Resource (CPR).The people had to involuntary surrender their large land to the state at a price far below the market rate, and many free of cost in the name of common cause of the country (Hussian, 2008). In the absence of fair rehabilitation and resettlement alternatives thousands will coerced into marginalisation and the intergenerational impacts leading to overpressure over the environment and its irreparable degradation.

Manipur is not an exception, numerous dams are being planned, commissioned and many are still ongoing the process of construction. The history of the already commissioned dams and the ongoing construction dams are filled with storyline of unsatisfactory performances. Lives, livelihood, and survivorship is webbed with the nature and initiatives of untapping the natural resources need special concerns. Any act hampering the natural ecology plunders the lives of many thousand people. Manipur has many other numerous commissioned, planned and proposed Dams/Multipurpose Projects. The 105 Mega Watt (MW) Loktak Project, the Khuga Dam, the Singda Dam, the Khoupum Dam, Tipaimukh Multipurpose Hydro Electric Project (HEP), Khongnem Chakha Dam, Pabram HEP, the Mapithel Dam/Thoubal Multipurpose Project etc, caused massive internal displacements.

Multipurpose Projects and Policy Implementation

There is an instant need to assess the physical characteristics of the river before the planned development projects, because there high possibilities of impacting the ecosystem and biodiversity, ultimately afflicting people's livelihood and economy. This understanding is important to strike a balance between resource protection and resource development. Environmental flow must also be taken into consideration keeping into account the maintenance of the river's natural ecosystem for the desired future condition of the river which will enhance the knowledge of the benefits the river will provide through development.

A river itself is a dynamic entity that changes with time, but the changes need some level of predictability and constancy is necessary for the river's life. Different species inhibits during different periods of the seasons or years, for instance some species thrive during wetter years while some during drier seasons, so therefore there is always a need for check and balance to maintain this relationship between the flow, sediments and the diverse ecosystem supported by the river.

Permanent interventions like dams, or water diversions shift towards new equilibrium or completely modify the whole pre-existing system. So maintaining flow regime is regarded as the major variable that need be focus upon. Flow fluctuations during dry and wet years define the perenniality and degree of seasonality of the river and the ecosystem it can support. Changing the flow regime can disrupt the riverine ecology by altering the physical and biological environment. The more the level of flow is disturbed; the ecology will also be disturbed and also the dynamics of the ecological variables. Decadal changes will lead to permanent new dynamism of the river.

The need for analysing effective environmental flow is for policy intervention in the planning process, stakeholder engagement process and to support the steps of negotiation and decision making process. Hydropower projects mainly alter the magnitude, frequency, flow regimes, sediments etc overall affecting the river ecosystem in four ways:

1) Total Loss of Flow: A partially or wholly dewatered space may be created between the dam wall and the tailrace as the flow is diverted
2) Altered Flow Regime: Downstream receives diverted water flow as dictated by the operation of the dam. The extent of flow modifies in downstream because of the hydropower project's operation and is termed as dam-driven zone.
3) Changes to connectivity: Longitudinal connectivity of the upstream and the downstream is lost or reduced affected by the dam wall and the reservoir. The reduction in flow also affects the movement of animals/living beings between habitats as a matter of lifecycle, alongwith transport of sediments and organic matter.
4) Interbasin transfers: Water diversion affects two basins, the donor and the receiving river. This type of the interbasin transfer could lead to the decline, extinction or other changes in the ecosystem.

However the intensity of impacts varies based on the projects. It largely depends on the factors like design, location and operating patterns etc, yet all multipurpose projects entailed impacts.[1]

Ecology Concerns in Mapithel Dam Experience

The ongoing Thoubal Thoubal Multipurpose Project/Mapithel dam is known as a controversial project for its multiple procedural violations environmental degradation. This dam eversince its commencement of the construction is engrossed with impacts over the ecology. More than villages in the upstream villages are affected by the dam. Chadong is a village is fully displaced village due to submergence. More than 3000 ha of land is said to submerge by the ascending water from the filling of the reservoir. Homesteads, houses, farms, schools, churches, community buildings, standing trees, forest, personal and many community belongings are being submerged in the upstream villages. Displaced Chadong village of Mapithel Dam is one glaring example. The whole ecology degenerates with the submergence and the people scattered away different places. Some accepted the Rehabilitation and Resettlement packages provided by the government, while many declined and have been striving for their rights till date. Despite the struggle, the alteration in the ecology and its impacts in lives are vividly visible in the Chadong Villagers.

The impact ecology on cultural lives of people in Chadong could be analysed with the changes in cultural pattern impacted by the dam. According to the village elders, Lui-ngai-ni in Chadong is a cultural praxis through dynamics of cultural transformation. Being an indigenous community, before the advent of the Christianism, they have their own traditional seed sowing festival. The festivals evolved through stages into Luira-Phanit, the essence of which finally incorporated to the Lui-ngai-ni festival. Be it Luira-Phanit or Lui-ngai-ni, being an indigenous community, agricultural festivals are internalised constructs of their community. The importance of the Nature's cycle to the lives of the indigenous communities is decoded from this festival. Nature's glory is gratified through the hymn. Shimthar Mahongnoo, village authority, shared his view about the celebration,

> *"Lui-ngai-ni must not be interpreted as a metaphor of agricultural festival plainly, it imbibes implicit meanings. There is an intangible aspect of it. Lui-ngai-ni is a day of reminisce the serenity of culture, its graciousness. It is the evaluation day of families and its community members' progressive welfare. Before our village was divided, shattered and scattered, in pre-construction of the MapithelDam, the festival was celebrated initiating several events like wrestling, race, javelin throw, archery, tug-of-war, folk songs and folk dances etc. Days were festive and colourful. In the post-construction of the dam, due to submergence and internal displacement, we are commemorating the day through a token*

[1] Environmental Flows for Hydropower Projects, 2018, pp 23-24

celebration. Once the government rehabilitate us, we are planning to revive our tradition, which we are hopeful will be in the near future."

The remark of 'token celebration' deciphers the situational degeneration. The intrinsic entirety of the seed sowing festival degrades with the alienating constructs of agricultural activities in the village. Lui-ngai-ni, in Chadong has a different say in the post-construction of the Mapithel Dam. The reversed fate of the festival percolates with the mass submergence of the vast tract of land. Agricultural festivals loss its resemblance sans agricultural activities and when people become refuge in their own land. The submergence including agricultural land, church, community hall, playground, school buildings, houses, graveyard, structures of personal and community importance serves the testimony of why the festival degrades its resemblance.

In the downstream region the dam has affected around 11villages out of which 7 are considered directly affected viz. Tumukhong, Itham, Moirangpurel, Laikhong Keithelmanbi, Ngamukhong, Nungbrang, Leirongthel etc. Out of these downstream affected villages, Tumukhong is the immediate downstream village, which inhibits hardly around 600 metres away from the main reservoir. In the post construction of the dam, the Thoubal River's riverbed has shrunk and the village is being transformed into a dry barren. Small scale sand mining from the riverbed constituted the economic domain of the village subsisted by farming, fishing, harvesting of local forest resources etc. Loss of livelihood in absence of alternative arrangement is the concern of the villagers. The once flourishing vegetables around the village riverbanks remained a past juncture. Weary appearance becomes the inherent feature of the village.

The livelihood is mainly claimed by the Thoubal small scale sand mining on the river bank. However, after the construction of the dam, the river bed dried up scarcity of resources reeled in the villages. Tumukhong is one such example. Before the construction of the dam, annual sand deposits during floodsdictate economic viability of the downstream villagers. It was easy to earn aroundRs700/1000 per day, by a couple through sand mining.

Authorities' expectation of the dam to uplift people's living standard doesn't decipher the reality standard. Even though Tumukhong may be around 32/3 km from Imphal, the first village from the Dam reservoir, roads and connectivity remains a major challenge. The stretch of deteriorating road conditions starts from Leikoiching to Tumukhong. Driving along the non-metalled road, dust covered the vehicle when it follows another, forsaking visibility. Commuters faced suffocating situation with the air blanketed by thick layer of dust every now and then whenever vehicle passes by. The road is muddy and slippery during rainy days, while dusty and risky during dry season. Scattered sharp edges stones detached from the mud-lining is the risk-factor of the road. Traces of fresh occurred accident with shattered windshield glasses scattered along roadside was found in part from Ngakhasi to Tumukhong. Slope corner cuts with potholed-middle makes accident prone in many spots.

The public passenger services are becoming more inefficient and unreliable. It took more than 2 and half hours to reach Imphal from Tumukhong, which is around 32/33 km only from Imphal. Frequent technical problems with vehicle part failures are the common complain of the vehicle owners and drivers. Villagers and the drivers cannot expect a regular number of trips to and fro of Imphal. The situation has also compelled to increase the fares circumstantially leading to price hike in the community. Crisis of time management is felt hard by the students. For school children to reach around Imphal by 9-9.30 am, they have to move out from the village by 7 a.m. skipping meal and for return they depend on any available source, be it trucks, taking lift from someone or any other possible means. It has increased the vulnerability of the school children. Above all the dusty polluted air is likely to create breathing related health concerns.

At this juncture, the Tumukhong villagers are making up a stand to call a bandh protesting the authority's apathy towards the matter. They are of the view that the road condition worsened due to the heavy traffic of machinery and trucks involved in the dam construction. Tumukhong villagers questioned the benefits of the dam to their lives. Fear psychosis of dam breach traumatises the people, loss of livelihood disorganises the community, heavy vehicles destroy the roads, drop outs increases, generates breathing problems and the community revolves around endless chaos.

Tumukhong women in collectivity, affirms three precise points on their testimony to 'Save Thoubal River' Campaign and Mapithel Dam Inaugural Plan

- The long course of the Mapithel Dam construction and commissioning plan lasting for decades, in phases of talks and negotiations, which concrete plans or initiatives has been taken up by the responsible concerned in favour of Tumukhong Village, a village within zero kilometre of the dam, sustaining with fear psychosis of dam wreak throughout the years?
- The desertification of Tumukhong village, which once boasted of its "TumukhongHangam/Kobi" (vegetables), now become dry barren land in the post-construction of Mapithel Dam. Blocking the natural flow of the river inducedloss of livelihood, social disorganisation and family disorientation. Who will reassert the deprived right to life and the right to work of the Tumukhong villagers? 'Save Thoubal River,' unblock it, release the water.
- Mapithel Dam's component of Integrated Water Supply to the Greater Imphal area through tunnelling pipes, ignoring water crisis of the downstream villager is a non-inclusive plan. Does such a policy indicate that Tumukhongand other downstream villagers have no right of access to safe drinking water? Or should the villagers compromise their basic human rights for the urban and peri-urban dwellersin the name of revenue generation?

Womenfolk continue to share the spell of misery generated by the Mapithel Dam to Tumukhong village. They stressed on the point blame game must not override the 'Save Thoubal River,' people's initiative. Thoubal River claimed the survivorship of the villagers, desertification of its river bed jeopardises the ground water level, rendering Tumukhong barren.

Nothing less is the impact Khuga Dam to its affected villagers. The farmers along the stretch of the Khuga Dam irrigation canal are unleashed with hardships due to its frequent breach. Water supply from the dam is unsatisfactory. Not even a single unit of electricity is generated from this dam that cost more than 400 crores of public funds submerging vast tracts of fertile land at the same time leading to desertification of many villages.

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