

ANTI BIG DAM MOVEMENTS IN ASSAM: SPECIAL REFERENCE TO SUBANSIRI DAM

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Abstract: Assam is an alluring place surrounded by mountains and rivers. As a riverine state, various rivers enhance the beauty of the place and meet the needs of the residents. Rivers are also the centres of hydropower generation through dam which have various impacts on the ecology and the survival of the people or other living organisms. In general dam is like a water reservoir or an obstruction which resists water flow, retards and directs the flow of water. The Subansiri river dam which is known as Subansiri Lower Hydroelectric Project is an iconic project of hydropower production of Assam has impacts on social, cultural and environmental like displacement, ecological problems, soil erosion, extinction of species, degradation of forests and wildlife etc. Although there are some positive impacts of the project, Anti big dam movements arise because of such problems faced by the residents of that area. Anti big dam movements are to protest against the construction of a dam which is being built by the government or any other company. In this article, we will discuss about the advantages and problems created by the Subansiri dam and the causes and consequences of the Anti-big dam movements against the project.

Keywords: River, Dam, Hydropower, Project, Movement.

0.0 Introduction: Assam is a riverine state. Brahmaputra is the main river of Assam and there are many tributaries of Brahmaputra which fulfil the various needs of the residents. Subansiri river is a northern side large tributary of the Brahmaputra River. It originates from Himalayan and flows through Tibet's Lhntse Country in the Shannan Prefecture, and the Indian states of Arunachal Pradesh and Assam. The length of the river is 442 km long. It is the biggest tributary of upper Brahmaputra which is known as 'gold river'. In ancient time, it was a prospective mining spot for gold as there was presence of gold in its riverbed. Adam is a barrier or obstruction which resists flowing of water, directs or retards the flow. It is like a water reservoir and also acts as a great divider of flowing freshwater ecosystem. The Subansiri Lower Dam is officially known as Subansiri Lower Hydroelectric Project. The project is located 2.3 km upstream of Subansiri river on Arunachal Pradesh. The project is stands for production of

2000MW of power. The building of dams has helped human civilization by generation of hydroelectricity, supply of irrigation water for agriculture and it is also useful for flood control. But the project is faced many problems and interrupted by some movements which are against the construction of the dam. The construction of the dam is threatening to the lives of the people and wildlife. Soil erosion, displacement, ecological problems, changes of socio-economic life are happened because of the construction of the dam. So, some political parties and regional parties and some NGO are against of the construction who oppose the dam and lead to Anti big dam movements. This article covers about the movements and their consequences and attempts to draw conclusion.

0.1 Objectives of the Article: The main objectives of the article are as following-

1. To know about Anti big dam movements.
2. To examine the advantages and disadvantages of the Subansiri dam.
3. To know about the consequences of Anti big dam movements.

0.2 Methodology: This article will be prepared in descriptive and analytical process. It will be written with the help secondary data. Secondary data is collected from various books, articles, magazines and from internet and attempted to reach a conclusion.

1.0 Analysis: A Dam is an impermeable hydraulic construction which is built across a river to create a reservoir on its upstream side for confiscating water for various applications. The Subansiri dam which is known as The Subansiri Lower Hydro Electric Power Project is being built at Gerukamukh on the border of Arunachal Pradesh and Assam. It is an under-construction gravity dam located 2.3 km upstream of Subansiri river on Arunachal Pradesh. The dam is designed to be 116m tall, measured from the riverbed and 210m from the deepest foundation. The project aims to generate around 2000MW of power and expected to provide power to the NE region and the other parts of the country. Subansiri Hydro Electric Power Project is a large dam. International Commission on Large Dams (1998) have categorised Dams as Major Dam, Large Dam, and Small Dam on the basis of height, volume and storage capacity.

(a). Major Dam: Major dams fulfil at least one of the following criteria-

- (i) Height should be at least 150 meters from the foundation to the crest.
- (ii) At least 15 million m³ of volume.
- (iii) Water reservoir capacity should be at least 25km³.
- (iv) Electricity generation capacity at least 1000MW.

(b). Large Dam: The criteria are-

- (i) Height should be 15 meters from deepest foundation to crest.

(ii) 500 meters crest length.

(iii) One million m³ reservoir storage capacity.

(iv) Flood discharge capacity at least 2000m³ per second.

©. Small Dam: 15 metres height from the foundation to the crest.

The Subansiri Lower Project is a big dam started in 2005, which is being constructed by NHPC. NHPC is National Hydro Electric Power Corporation which is an Indian private sector company of dam building that generates hydropower and also involved in other energy sources. At first the project was commenced under Brahmaputra Flood Control Commission which was primarily for flood control and irrigation. The Subansiri project is expected to provide flood moderation, irrigation facility and drinking water benefits to the downstream areas. The Subansiri Lower Hydroelectric Power project has many advantages as following-

- 1. Hydropower generation:** The main benefit of the project is Hydropower generation. It is a big project which has the capacity to generate around 2000MW of power. It is expected that the project will fulfil the power supply of the NE region and also provide power supply to the other parts of the country.
- 2. Flood Control:** Rivers are big threat in monsoon season for the dwellers of the riverbank. Floods can occur due to heavy rain and overflowing of the rivers. The project is helpful for flood moderation of Subansiri river. In monsoon season, Subansiri dam reduce the risk of downstream flooding by regulating river flow.
- 3. Irrigation and Drinking Water Facility:** Irrigation facility is a primary aim of the project. At first the project was taken by Brahmaputra Flood Control Commission mainly for flood control and irrigation facility to the downstream area and constructed 122m high dam. It is expected that it will provide good irrigation facility and fresh drinking water to the dwellers of downstream area which will help in agriculture and will reduce scarcity of drinking water.
- 4. Economic Development:** The Subansiri project helps in economic development also. It is a large project commenced by NHPC which provide job opportunities during construction and operation. The project creates various jobs for physical labourers or jobs for others also. The local people get the opportunity to engage in various jobs in construction. It helps in the development of local economy.
- 5. Energy Security:** The project enhances energy security of the region by increasing the share of renewable energy. It includes a concrete gravity dam which has the capacity to generate 2000MW power. It increases the energy security and reduces dependence on fossil fuels.

- 6. Infrastructure Development:** Infrastructure development also an advantage of the project. Infrastructure development is beneficial for Arunachal Pradesh. The project will provide large infrastructure network in the region.
- 7. Tourism Potential:** The Subansiri Lower Hydro Electric Power project helps to develop the area as a tourist place. Many people from various region specially students from different schools and colleges come to see and know about the project. The dam and the reservoir can attract the tourists to visit the place. The project offers opportunities for recreational activities which helps in economic development.

In parallel, there are many disadvantages of the project which should be also under discussion. Some disadvantages of the Subansiri Lower Hydro Electric Project are as following-

- 1. Environmental Impact:** The Subansiri big dam can affect on the eco-system of that particular area. Loss of biodiversity, degradation of forest lands, displacement of habitants can create problems for the dwellers and wildlife. It is said that the project would affect protected areas like Kamlang Wildlife Sanctuary, Dibru-saikhowa National Park, various grasslands and forests. The release of water by the dam has changed the nature of the river which destroy the seasonality of rivers in the region. It affects on the earn of living and the lifestyle of the people of that region.
- 2. Displacement of communities:** Sometimes displacement happens for developmental works. For the construction of the Subansiri dam, dwellers of that area are displaced to another place which changed their lifestyle. They have to loss their community land for the project and demanded jobs and compensation but ignored by the project authorities.
- 3. Cultural Impact:** The project has affected on the culture of the indigenous communities of the region. Due to displacement and the land use by the project, the living style has changed. The livelihood of the people attached with the river. They earned their livelihood by fishing, flood plain farming, driftwood collection, grazing etc. and the culture was formed through it. But the project has changed the cultural scenario of the region by changing economic condition of the families. People of different places of different community has come to work in the project and they have impacts on the local culture.
- 4. Siltation Issues:** Another disadvantage of the project is that there may be siltation issues for the downstream dwellers.
- 5. Seismic Risk:** The location of the hydropower generation project is geologically and seismologically sensitive. The construction of dam in such an area is in seismic risk. Earthquake may occur and it could affect the project and also a risk for inhabitants of the region.

6. Political and Social Tensions: The Subansiri project occurs political and social tension in the region. For their own interest there arise disputes among various stakeholders including local communities, organizations, environmentalists and governmental bodies which led to social unrest.

1.1 Anti Big Dam Movements and Consequences: Anti big dam movements are to protest against the construction of a dam which is being built by the government or any other company. The movement has gathered remarkable impulse against a project that endangers devastating environmental, demographic and socio-economic impact. Due to some problems created by the dam construction or because of the disadvantages of the dam some organisations or inhabited groups have been raising claims to stop the construction of Subansiri Dam which led to Anti big dam movements in Assam. Subansiri Dam which is called Subansiri Hydro Electric Power project is in advance stage of construction. It is the largest hydroelectric project of India in terms of installed capacity. At first Brahmaputra Flood Control Commission started the project work and later handed over the work to National Hydroelectric Power Corporation (NHPC). NHPC is a public sector dam builder, started construction of the project in January 2005. Anti dam movements stand against the construction of the project from the beginning. The construction has been facing obstacles through anti dam movements by various inhabited groups under the leadership of All Assam Students Union which is known as AASU. Due to uncertainties about the socio-ecological impact of the project, AASU started campaigning against the big dams. AASU led protests in Dhemaji and Lakhimpur districts and demanded an assessment of the impact of Subansiri Lower project. To discuss about the claims, a tripartite meeting seated involving AASU, NHPC and Assam government in December, 2006. An expert committee formed to investigate the project. After many agitations launched by AASU, the committee started to study about downstream impact in September 2008. In June 2010, the report of the expert committee stated that the selected site is geologically and seismologically sensitive region and recommended not to construct mega dam in the site. Despite the protests, NHPC continued the construction of the Subansiri dam. After it, AASU allied with KMSS and 26 ethnic organisations including Mising bodies such as Takam Mising Porin Kebang (TMPK) and Mising Sangram Porishad known as MMK and gave more strong and full-fledged agitations. KMSS-Krishak Mukti Sangram Samity is a major organisation under the leadership of Akhil Gogoi, known as peasant leader and the general secretary of KMSS. Akhil Gogoi had the support of 500000 fishers depended on the Brahmaputra. The protest against the dam construction was led by pressure groups – AASU, Krishak Mukti Sangram Samity (KMSS) and Assam Gana Parishad (AGP) as an opposite party of the then government. On 17th July

2010, the house committee of Assam Legislative Assembly asked the Assam government to follow the recommendation and take necessary action about the project.

After 50% of work had been completed, in March 2011, due to raised complaint by Assam Experts Groups (AEG) that the location of the project is geologically and seismologically sensitive and halted the construction work in December 2011. Assam Experts Groups and the National Green Tribunal raised hydrological issues of downstream and stand against the dam construction work.

Assam is on the edge of a movement due to the upstream of the dam is constructed in Arunachal Pradesh. When Union Minister of Environment and Forest Jairam Ramesh came to Assam to consult about the Subansiri Hydro Electric Project which is the biggest of three dams being constructed in Arunachal Pradesh, there held a number of protests in Assam.

On 1st December 2011, a fully-fledged state-wide disquiet broke out against the project, more than 3000 activists led by AASU and KMSS filled the Lakhimpur town to block a 14-wheel jumbo carrier which carries equipment towards the Subansiri project. The protest remained for one month and a forceful blockade against NHPC in Lakhimpur and Dhemaji districts have launched the Assamese public imagination, and given birth to a regional movement.

AASU assigns that as Assam's water resources may serve to the other parts of the country also or national interest and the project is to a distorted profit-making motive of the centre, without addressing the decades-long problems of its people. It is unconsidered by the government that devastating floods and soil erosion create damage every year in Assam. From the total proposed project 168 mega dams in Arunachal Pradesh the total estimated power generation would be around 75000MW, much of which will be driven out of the region. Assam will receive only 50MW as a royalty 25MW from the Lower Subansiri project and 25MW from the Kameng Project despite having equal rights over the inter-state rivers. AASU claims it as injustice for Assam. Samujjal Bhattacharya, the adviser of AASU said that Arunachal Pradesh would get revenue for the projects but Assam would be only responsible for damages or loss of the project.

After leading a massive opposition more than a month-long blockade, turning disruptive at times, KMSS general secretary Akhil Gogoi is invited for the first-round talks, in Guwahati, Assam's capital city and Gogoi says, "Although we appreciate Government's wish to hold talks, there was no indication that they were ready to draw the project to a halt. In fact, experiences from all other anti-dam movements across the country tell us that centre will use this as a strategy to calm the protests and delay the process".

Combining all concerns on dam safety and downstream impact the National Green Tribunal (NGT) gave its final report on July 31,2019. After 8 years, construction resumed in October 2019 with all modifications as recommended by the committees. On 24th September, a flood struck collapse the guard wall of the project and this led protests demanding the cancellation of the project. The 85% Of work of the project construction had been completed till October 2022. Frequent landslides on 11th October and 27th October 2022 collapsed in to the reservoir, blocked a tunnel and stopped water flowing to the Subansiri river which fuelled protests.

Allying to other opposition parties of the dam construction, the Assam Jatiyatabadi Yuba Chhatra Parishad (AJYCP), is a regional students organisation also protests the construction work of the project. The AJYCP organised public meetings to discuss and highlight the threat to downstream areas of the project. AJYCP complained that the construction of dam had been resumed without consulting with 965 villages. However, the project has been facing multiple delay and opposition since its inception in 2005. It is expected to be commissioned by December 2024 and will increase India's energy security.

1.2 Conclusion: The Subansiri Lower Hydroelectric Power project is the largest project of India in terms of the capacity of reservoir. The Project offers an obscure reciprocity of benefits and challenges. It has been facing multiple obstacles from its beginning through various anti big dam movements. Various anti -dam movements are held under the leadership of AASU, KMSS, AJYCP, TMK and so many NGOs and other organisations to stop the construction. The construction of big dams may occur frequent earthquakes, serious changes to the earth's surface and can lead to geological damage. The project has many threatens from the ecological, seismological and from various organizations. In spite of various problems like displacement, disruption of ecosystem, sedimentation, decrease of forest and agricultural lands etc. the construction of the dam is going through ups and down and expected the completion by December,2024. Modern technology, planning and designs of dams have reduced the possibility of occurrence of certain disaster. It is expected that after completion of the construction the project will generate 75000MW of power which will reduce scarcity of power in to the whole country. The anticipation of the project is promise of significant energy generation and economic development of the region and other parts of the country. But it will be under consideration about the environmental, cultural impacts of the project for balanced decision making and sustainable development.

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