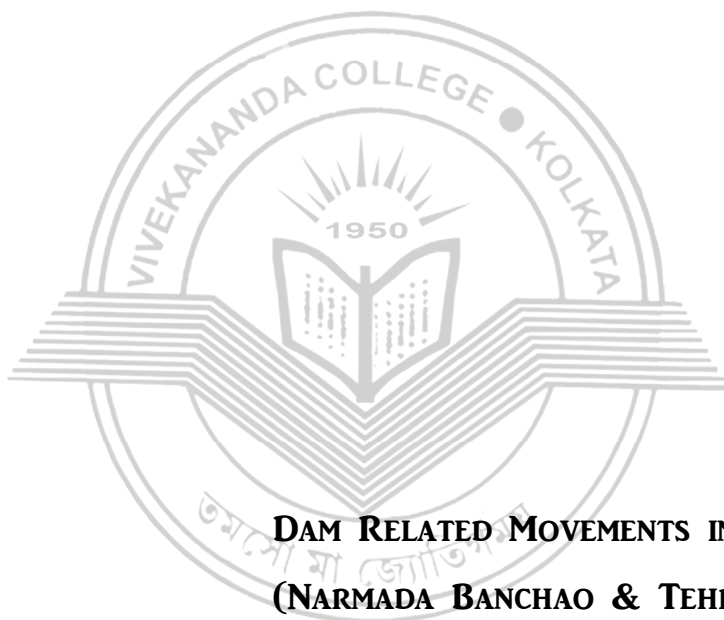


**VIVEKANANDA COLLEGE
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KOLKATA-700063**

NAAC ACCREDITED 'A' GRADE



**TOPIC: DAM RELATED MOVEMENTS IN INDIA
(NARMADA BANCHAO & TEHRI DAM)**

COURSE TITLE: ENVIRONMENTAL SCIENCE (HONS.)

PAPER: CC - 3

UNIT: 5

SEMESTER: 2ND

NAME OF THE TEACHER: DR. RAJARSHI MITRA

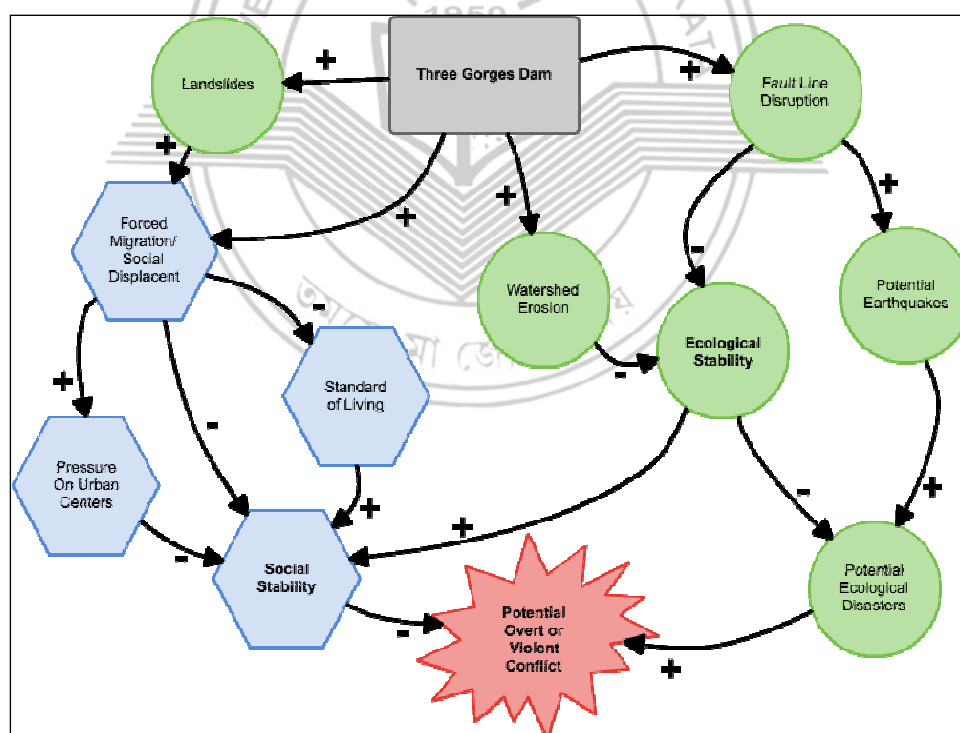
NAME OF THE DEPARTMENT: ENVIRONMENTAL SCIENCE

Introduction:

Water Resource development projects, otherwise known as Dam construction projects are important for integrated development of any country. Of let, most of the water resource development projects are multipurpose in nature and are designed to cater high priority needs like irrigation, drinking water supply, energy (hydal power) production along with some fringe benefits like fishing and tourism development. Perhaps this kind of activities and the expected outcomes justify the claim of the first Prime Minister of India, Mr. Jawahar Lal Nehru, that ‘dams are the temples of modern India’.

But, with those dividend of water resource development, there comes a lots of environmental problem and social consequences. The principle activity of any dam construction is to arrest the natural flow of any river by some huge masonry structure and store water for further uses in human controlled directions and as per the necessity. This kind of intervention in natural flow, not only leads to hydrological imbalance, but also creates havoc to the local environment and social structure.

The reservoir construction invariably leads to inundation of huge land area along with bio-diverse region, human settlements and agricultural lands. Hence, it causes loss of biodiversity, destruction of ecosystem structure as well as socio-economic disturbances. In addition to the those a dam construction and diversion and storage of water may lead to geological disturbances like hydrological imbalance, slope stability loss, dam induced tremor etc.



Source: Black Campbell-Hyde <http://mandalaprojects.com/ice/ice-cases/china-dam-impact.htm>

Therefore, such types of huge water resource development projects have always been criticized by the environmentalists and social activists. Some of the major movement organised in India are *Narmada Banchao Andolone*, *Tehri Dam movement* etc.

Tehri Dam Movement

Any big dam projects invariably involves problem of land acquisition, inundation of biodiverse region and consequent displacement and rehabilitation issues. In case of such a project in environmentally fragile regions like Himalaya attracts further problems and turmoil. Tehri dam project, which was conceived in the year 1977 with main goal of hydroelectricity generation, however, attracted less turmoil or rather media attention considering its impacts.

The dam planned on the watershed of Bhagirathi at the district Tehri of Garwal Himalaya was mainly targeted to cater the electricity demand for industrial development near Delhi, particularly for Modinagar. With a builtup height of around 1500 m above msl and a base as wide as 1100 m, the wall of the Tehri reservoir runs nearly 75kms, would inundate 1600 ha cultivable lands, 2000 ha forest displacing 23 tehsil with around 100000 people. The resettlement scheme however, was not satisfactory and most importantly did not consider the loss of productive land and livelihood of the indigenous people.

There has been sporadic agitations regarding the development among locals, which got shape under the leadership of internationally acclaimed social activist and environmentalist Padmshree Sundarlal Bahuguna. In 1978 a group was formed as Tehri Bandh Birodhi Sangharsh Samity (TBBSS). The secretary of the committee Sardar Prem Singh and the lawyer V.D. Saklani also gave the movement an useful shape. The issues regarding the Tehri dam development raised by the TBBSS are as follows.

- The lands which are being affected and submerged are one of the most productive and biodiverse lands of Garwal region, hence the construction has led to huge loss of bioresources.
- Heavy siltation is predicted due to logging of Himalayan watershed.
- It was also argued that, as the silts and weathered rocks are being deposited at the site, the downstream regions of Bhagirathi may become devoid of important minerals to sustain the productivity of the Gangetic plain.
- Slope susceptibility increases due to construction activities and altered geological set up, which make the adjacent region more vulnerable to landslide hazards.
- As the alignment of the dam reservoir falls upon a geological fault, the load of water may lead to generation of dam induced seismicity in the region.
- The region concerned is basically populated by indigenous people and their own cultural heritages are being practiced. The resettlements not only affect their livelihoods, but also break the villages and family units leading to lost cultural heritages.

The Tehri movement is still on, but the dam has already been constructed and become partially operational. The movement too has changed its face from a dam centric movement to a large social movement regarding the sustainability of the regions and its social and bioresources as well.

Narmada Banchao Andolon

Narmada Banchao Andolon is one of the most discussed and acclaimed social movement of India related to some environmental issues as well. The movement, however, is a partially successful one but is considered as a milestone movement.

Considering the drought proneness of central and western India, the Government of India in mid 1980s planned a huge water resource management project on the entire Narmada River known as Narmada Valley Project (NVP) with the funding of World Bank. The project was initiated in 1987. The whole project includes establishment of around 3200 dam constructions including 30 major dams dedicated mostly for irrigation and power generation. Sardar Sarobar and Narmada Sagar were the two major dam to be constructed first. The whole project was expected to be completed by 2025.

However, as land acquisition for those two major dams started, around 1,80,000 people were affected either by submergence of their land or by losing livelihoods. But, a very small number among those were receiving compensation. Actually the Government projected very low social and environmental impact due to the project and made the list of project affected people (PAP) on the basis of landholding, while there were lots of tribal communities without any legal landholding, who were going to be affected. In addition, the huge submergence was leading to loss of biodiversity of the region and livelihood options more people. Therefore, the issue of rehabilitation and compensation came forward and different social movements started in patches. Within a few months in early 1990s under leadership of a social activities Medha Pathkar, all those sporadic movements led by different NGOs conglomerated to form a large movement called Narmada Banchao Andolon (NBA). Noted leaders of people's movement like Baba Amte, Arundhuti Roy etc. also involved themselves with it time to time.

The movement, was so massive and well directed that, it made the World Bank to rethink and finally withdraw the financial support from the project in late 1993, which was a massive blow to the Government of India. However, the State Government of Gujrat and a private enterprise continued to make it a success.

There have been several agitations and legal battle against the project by the NBA members, and they in several cases succeeded to protect the rights of the endemic people by means of compensation, but failed to stall the whole project. In fact, the objective of NBA has also changed a lot with time and in addition to raise for an amicable rehabilitation package, it shifted its focus to environmental conservation and local governance as well.

In 2000 the Supreme Court of India gave its verdict in favour of implementation of the project in National interest. The NBA protested against the decision leading to the arrest of many. In 2018, however, the Sardar Sarobar dam was finally built up and became working.

Despite the blow meted on the NBA, it is still adamant and is striving for a more comprehensive and authoritative review of the dam by a new tribunal. Although the verdict has sounded the death bell for the movement, yet the movement is surviving as a part of the broader canvass of peoples' movement in India.