UNIT 10 NARMADA BACHAO ANDOLAN/TEHRI DAM

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10.1 INTRODUCTION

The Narmada Bachao Andolan (movement) and the Tehri Dam constitute two prime examples of non-violent struggle against the big dam constructions. They involved the Gandhian method of fasting and staging protests by involving large number of people in their mass movements. The main reason for such protests is not a mere agitation against the dam construction. It involves the rehabilitation of those who lose their land and valuable property in the process. For dams largely displace the local population whose livelihood is closely linked with the natural surroundings. Large dams pose a much higher risk in that sense and are often opposed by the communities concerned.

Aims and Objectives

After reading this Unit, you would be able to understand

- The post independent era's planning and development through large dams
- The cases of Narmada and Tehri dams
- The impact of these large dams on the livelihoods of the local population
- The objectives of a non-violent struggle against large dam constructions

10.2 DAM CONSTRUCTIONS

Essentially, the reason for large dam constructions is tapping the water resources for irrigation, hydro-electric projects and for supply of drinking water to the population. As Goldsmith and Hildyard point out, from the ancient civilisation times, Sumeria, Babylonia, Egypt, Ceylon and Cambodia had been proud witnesses of the engineering skills of the

large dams. However, as on today, the construction of the dams involving the use of concrete technology and earth moving machines, have acquired new dimensions. Their sheer size and complexity have multiplied, with many of them being acclaimed as engineering marvels. 'In Egypt, the Aswan high dam is 17 times higher than the great pyramid of Cheops. In Ghana, the Volta dam is large enough to impound a reservoir covering 8500 sq.kms, 5% of the total area of the total area of the country and an area almost the size of Lebanon. In Brazil, plans to harness the power of the Amazon and its tributaries with a complex of dams capable of providing 66000 MW of electricity will entail flooding an area the size of Montana. The Itaipu dam on the Parana River will alone generate 12600 MW of electricity- the equivalent output of 13 large nuclear power stations (Daniel Duedney, 1981, p.13).

With the growing population levels in the developing countries, more and more water resources are being required and where available, exploited for various purposes. Many a time, the water resources are even controlled by the MNCs, leading to massive local protests, later assuming national and international dimensions.

Many of these dams are constructed with the funding from IMF, IBRD and other international aid agencies. Their number has now multiplied drastically. For example, in Philippines, known to most of us as a small nation in the South East Asian region, an estimated 861 dams are supposed to be in pipeline.

Many of the water development projects promise an improvement in the lives of the mankind with better access to water resources, prevention of floods, decrease in the soil erosion and elimination of the waste. They are even viewed as important symbols of national heritage and prestige, sources of employment and as tools of economic development through hydro-electric projects and as major irrigation sources. The explicit purpose of the dams was to tap the large rivers and thereby extricate the drought and flood stricken people of our country from their miseries, providing employment temporarily, making available paramount irrigation facilities (Vijay Paranjpye, Dam: Are we Damned, in Major Dams, 1981, p.31).

The hydro electric projects are perceived as sources of energy at a cost effective price and the irrigation projects are seen as the most productive means to the farming community and system. The developing countries, with most of them having attained their independence in the late 1940s and early 1950s, having taken up the projects of large dam constructions, embarked on the so-called path of development, to keep pace with their counterparts in the developed nations to provide better living standards to their citizens.

10.2.1 Dam Constructions in India

By the end of the British rule in India, the country witnessed the construction and operation of large dams numbering over a hundred, primarily to confront famine that afflicted the nation. They were still viable considering the low cost of construction and the number being few. But, the increase in their number in the post- independent era continued and were seen as 'monuments of progress'. Some of the dams constructed during that time include Hirakud, Damodar, and Bhakra-Nangal. The expenditure for the dam construction assumed huge proportions and the subsequent Planning Commissions assigned great importance to these 'monuments of progress'. At the same time, post-construction, many of the dams added to the fury of the flood in various states and thus

the vulnerability of the people to the hazards of such large projects became glaringly evident. Some of the negative impacts included:

1. The destruction of agricultural land
2. Rendering the fertile land into salt encrusted areas
3. Uprooting of people from their homes for dam and reservoir constructions
4. Destroying their social and cultural lives and jeopardising their health
5. Severe damage to the land through earthquakes and deteriorating quality of the drinking water and
6. Exposing the real beneficiaries of the projects-MNCs, industries, elite and those in the political class who commissioned the projects. (Goldsmith and Hildyard, p.14, vol.1).

10.3 SOCIO-ECONOMIC-ECOLOGICAL IMPACT

Large dams simply destroy the livelihood patterns of the people living in the vicinity of the construction areas. They also destroy people's love, attachment and sentiments associated with their personal possessions, property and land, acquired mostly as an inheritance. As they are subjected to displacement, their social fabric of life and traditional ethos of their culture too are displaced, making them strangers in their own country. Their assimilation into other culture, therefore, is not easy making them much vulnerable and hostile lot. Surprisingly, most of them reject the huge sums of money they are offered and settle for nothing less than being allowed to stay where they are. Women, in particular, are the affected lot, who have to make major adjustments in their life patterns. Having been displaced, children too get uprooted from their traditional social and cultural life. Following the resettlement in another place, this displaced lot are seen as intruders. 'The new settlers are bitterly resented by the original inhabitants of the area, leaving much scope for the land disputes and violent outbursts' (Goldsmith and Hildyard, p.30).

The displaced are also usually compensated with inappropriate and inferior quality in housing, thus making the accommodation of large family units most difficult; they are often subjected to less privacy, security and more inconvenience.

Most importantly, the ecological consequences prove to be all the more damaging. Not only do the displaced lose their land and property, but also their resettlement in an alien area puts much pressure on the use of resources. With more number of people being added as resettlers, the resources become scarce and inevitably lead to fight-to gain control over the resources. Further, the release of water during floods damage vast areas of agricultural land and sometimes, even leads to soil erosion.

Further, the cost of resettlement, rehabilitation and compensation assumes huge proportions that put heavy pressure on the exchequer of the state. The relocation expenses, insufficient compensation and possession of an inferior land or none-are all high costs associated with the displacement due to dam construction. A shift to urban areas often compels the people to live in slums, severely affecting their healthy living.

Goldsmith and Hildyard aptly observe the situation thus: 'deprived of their traditional culture, and stripped of the support of their community, many of those who are resettled

drift towards the cities. There, a now familiar tragedy repeats itself. The men frequently turn to alcohol whilst the women are often forced to prostitute themselves simply to earn the where-with-all to feed themselves and their families. Malnutrition and disease are rife, jobs almost impossible to find. It is a world far removed from the 'paradise' offered to them by the authorities. Unfortunately, it is world in which most of them will spend the rest of their lives' (vol.1, p.48).

10.4 NARMADA BACHAO ANDOLAN

'Like the Ganges it is a sacred river and from source to mouth it is by very for the most beautiful river in India'. Further, 'of all the rivers of India none is surrounded by more romance; for strange fantastic beauty it ranks high among the rivers of the whole world' (Geoffrey Maw, p.2).

The above description is of the river Narmada, the largest west-flowing river in the Indian peninsula, that arises on the plateau of Amarkantak in the Shahdol district of Madhya Pradesh. It covers the states of Madhya Pradesh, Maharashtra, Gujarat and parts of Rajasthan. Its course is 1312 kms to the Arabian Sea through lush forests, hills, agricultural regions and rocky gorges. It has around 41 tributaries, surrounded by 3 mountain ranges of Satpura, Vindhya and Maikal, and on the fourth side merges into the Arabian Sea. On its basin, the villages constitute 81% and comprise mainly tribal population consisting of Bhils, Gonds, Baigas and others whose primary occupation is agriculture. The Narmada basin is rich in its natural resources.

The Narmada Valley Development Project

According to the Planners of India, Narmada valley is a backward region that lacks irrigation facilities. The mineral and natural resources are unexploited, hydro-electric power is under-utilised and infrastructural facilities are dismal. The features of the underdevelopment like low electricity consumption, little industrial activity, slow urban growth, below average agricultural yields, lack of modern medical, educational and banking facilities were very much evident.

Though the idea of the project was conceived in 1946, the states through which the river takes its course have got entangled in deciding the resource use, the area to be irrigated and sharing of water. The project commenced after the Narmada Water Disputes Tribunal (NWDT) gave its consent for the planning and work on the largest single river valley project in India.

According to the Master Plan, the project has:

- 30 major dams, 10 on the main river and 20 on the tributaries
- 5 hydro electric schemes
- 6 multi-purpose schemes
- 19 irrigation schemes
- 135 medium schemes
- 3000 minor irrigation schemes

The cost estimate of the project as on date is 18,000 crores of rupees. The central and

state governments, unable to fund the entire project, sought aid from the World Bank (IBRD). The so-called beneficial features of the project include:

- 50 lakhs hectares of land irrigation
- Generation 2,700 MW power
- 11,500,000 people to benefit

The project also promised to provide employment, to check floods, supply water for domestic and industrial use and promote tourism.

In reality, the project not only lacked meticulous planning but also careful implementation as it involved a large-scale exploitation of natural resources on the river basin, threatening to submerge the vast areas of forest and agricultural land. The region being geologically seismic zone, the earthquakes posed severe threat to the region, threatening an acute damage to the dam. Over 150,000 acres of forest land came under the submergence threat and the total area of forest under the threat of flood constituted around 350,000 hectares, amounting to around 11% of the river basin's forests. The submergence also posed immense pressure on the adjoining areas and its land resources due to large scale migration of people, threatened by the submergence fears.

The NWDT laid down certain directives to take care of the displaced people and the compensation that needs to be paid, in place of the land they have lost. It called for an adequate resettlement grant, and the provision of basic amenities like housing sites, primary schools for children, health dispensaries and transport facilities. The directives did not contain the provision for land acquisition for the displaced and directed the latter to acquire land with the resettlement sum provided by the government. It had also posed new challenges like unemployment and inadequate measures of alternative incomes in the new villages. The rehabilitation efforts varied from state to state with Gujarat providing better compensation and resettlement facilities as compared to Madhya Pradesh and Maharashtra. With no hope for secure economic future, the displaced launched the Narmada Bachao Andolan in order to assert their rights and ensure justice. The Andolan is one of the longest struggles against a development project in the post-independent era, asserting the rights of the displaced and demanding an adequate compensation package for such communities.

The Narmada Bachao Andolan or the Save the Narmada Movement is essentially a movement against the pattern of development as mentioned above. It is a crusade to ensure justice of the affected people due to dam construction. The main thrust of the Andolan is to oppose the Sardar Sarovar Project, the largest dam to be built on the Narmada. The struggle started in 1985, relied on hunger strikes, solidarity marches and mass media publicity to spread awareness of the issue, making it one of the pioneering non-violent struggles undertaken to ensure justice to the people. In 1989, it became a full-fledged environmental and livelihood movement, vehemently opposing the dam construction and demanding a just resettlement policy. Medha Patkar, an inspiring leader of the movement, undertook several fasts and hunger strikes that eventually led to an independent review of the project by the World Bank, one of the sponsors of the project and eventually to its withdrawal in 1995. The activists of the movement faced stern police action and lathi charges throughout the course of the struggle. The activists who took part in the struggle hailed from Badwani, Omkareshwar, Alirajpur, Jhabua and so on.

The issue was finally taken to the Supreme Court wherein the NBA filed a writ petition asking the Court for the stoppage of the dam construction. The initial ruling of the court was favourably disposed towards the NBA, ordering the stoppage of the work and asking the state governments concerned to evolve effective resettlement and rehabilitation policies. But the subsequent orders allowed for the dam construction but with specific conditions. The Grievance Redressal Committees were formed in the respective states to look into the issues of rehabilitation and monitor the process of resettlement. The ruling of the Court in 2000 envisaged the completion of the project as expeditiously as possible, thus assuming the role of a 'vigilant observer'. On October 18, 2000, the Supreme Court of India delivered its judgement on the project, allowing an immediate construction on the dam upto a height of 90m. It also authorised the construction as per the original planned height of 138m, provided it is approved by the Relief and Rehabilitation Subgroup of the Narmada Control Authority. Though the verdict was not in favour, the NBA continued its incessant nonviolent struggle; following an unwarranted police action against the activists, the Jabalpur High Court recognised the displaced people's right to protest, hunger strike and peacefully conduct their struggle. It passed orders to the state government to adequately compensate those satyagrahis who were subjected to illegal arrest and police action. The issue of rehabilitation was discussed again recognising their right to life and livelihood. Many of the activists courted arrests, waged non-violent struggles and demanded land-based rehabilitation for the landless apart from the demand to take action against the corrupt officials involved in disbursing the funds to the resettlers. There were also massive struggles as the Indira Sagar and Omkareshwar affected people continued their indefinite hunger strike for many days and were joined by others who started three-day relay fast in solidarity. It was evidently clear that the people have asserted their resolve to carry on the struggle, with peaceful agitations to achieve their full rights and just demands.

But the subsequent hearing of the court and its verdict severely reprimanded the officials concerned to carry out the rehabilitation of the displaced without which the dam construction may be halted. While allowing the continuation of the dam construction, the court passed strict orders for the rehabilitation work that required an immediate attention simultaneously.

For its consistent non-violent struggle, the NBA won the 'Right Livelihood Award' that aimed at bringing justice to the society at large. The movement also witnessed an active participation from Baba Amte (1914-2008), known for his yeomen service to the leprosy patients in the tribal areas. As aptly noted by the Right Livelihood Award panel, 'The issues of land for the displaced, the rehabilitation policy at a national level and development planning without displacement have become national issues with NBA interventions, influencing policy making and mass movements. NBA has been effective in its multiple strategy at the executive, legislative and judicial level, campaigning against the destruction and displacement caused by large dams and for the rights of the affected people – farmers, laborers, fishermen and others' (see URL).

10.5 TEHRI DAM

Tehri Dam Project

The Tehri dam project was conceived as early as 1949 and was envisaged as one of the highest dams in the world. The project report of the Geological Survey of India, in 1969, observed that 'a fault, 20 metres wide, approximately exists along the bed in the dam

site. Treatment of this fault zone shall be a costly affair' (Jain, 1987, p.38). The dam site, situated at the Bhagirathi river site, between the rivers Bhagirathi and Bhilangana near the Tehri town, is an area of high seismicity, often prone to earthquakes of severe magnitude, measuring upto 7 points on the Richter Scale. As pointed out by an eminent lawyer and president of Tehri Dam Movement, the river Bhagirathi follows a weathered course, and at the dam site, weak metamorphic formations occur in the foundations. The river gorge is characterised by shale structures subject to intensive weathering and disintegration. The rocks in the exterior zone of the slopes of river gorge are brittle and heavily cracked. The rocks on which the dam is proposed to be built are highly deformed and unlikely to be able to bear the weight of 2.62 million acre feet of water of the impounded lake' (VD Saklani, 1987, p.29). Vijay Paranjpye, summarising the historical aspect of the dam, observes thus: 'the Tehri dam, expected to be 260.5m high will be the fifth highest dam in the world. It will impound 3.22 million cubic m of water. The reservoir will extend upto 45 kms in the Bhagirathi valley and 25 kms in the Bhilangana valley with a water spread area of 42.5 sq.kms. The reservoir is expected to irrigate 2,70,000 hectares of land, and also generate 346MW of firm hydel power. The turbines in the powerhouse at Tehri have installed capacity of 1000MW...the dam will have an additional installed capacity of generating 400MW. Besides, the Tehri Dam is also expected to supply 500 cusecs of drinking water to Delhi. The dam will also submerge Tehri town and 23 villages in its vicinity, 72 other villages will be partially submerged and some 5200 hectares of land, 1600 hectares of it being cultivated land, will be lost to the reservoir. Finally, about 85,600 persons will be displaced because of the dam' (Paranjpye, INTACH Series, 1988, p.23). The Indian Planners did not take into account the high seismicity threats to the region and relied more on the principal findings of the report that endorsed the construction of the dam.

Opposing the Dam Construction

From its very inception, the dam issue received considerable opposition from the local population of the region. The locals not only consider the river as sacred but also the adjoining areas wherein it takes its course. Moreover the people of the region are highly aware of its fragile nature and the magnitude of damage to be inflicted because of the development projects and natural disasters like earthquakes. Since it also involves their displacement, the opposition to the dam found spontaneous response. Inspite of their opposition, the dam construction found approval from the government. To assert their livelihood rights, the local population from around 35 gram sabhas formed the 'Tehri Bandh Virodhi Sangharsh Samiti' (TBVSS) that precisely means Anti Tehri Dam Committee. The TBVSS conducted mass protests and Satyagraha involving people from all groups, age and communities. The Working Group, constituted by the government for conducting an assessment of the Environmental Impact of Tehri Dam, recommended a continuous monitoring of the faults at the numerous locations of the dam site, continuous seismic monitoring to take appropriate control measures and contemplated the preparation of a detailed geomorphological map of the catchment area.

In the meantime, the TBVSS continued its representations to the government regarding the non-viability of the project and the ensuing risks. It filed a writ petition in the Supreme Court in 1985, challenging the decision of dam construction. Its main arguments were that (1) the dam to be located in a seismically active and tectonically risky area had a high probability of failure and would therefore endanger the lives and property of people at settlements such as Munikireti, Rishikesh, Haridwar among others situated on the river

Ganga downstream, (2) habitations like Uttarkashi situated on the river Bhagirathi upstream of the inlet of the reservoir from Dharasu would be lost, and (3) it would create a feeling of insecurity, among the people at the various locations on the reservoir rim slopes and therefore the project would jeopardise the right-to-life guaranteed to the citizens under the Constitution. The case, popularly known as TBVSS v State of Uttar Pradesh (1986) and TBVSS v Union of India and others, was filed in the Supreme Court of India. On the overview the TBVSS unsuccessfully challenged the Supreme Court in the writ petition in 1985.

The petition was dismissed by the Supreme Court in 1990 following a limited enquiry into the issue. The Tehri Project was rejected by the Environmental Appraisal Committee that had unanimously decided on the stoppage of the dam construction. The Central Government, relying on the opinion of the Department of Mines convinced the court regarding the viability of the project. It was further referred to a renowned seismologist of international repute, who further reiterated the recommendations of the high level committee of experts as in accordance with the international experience, practice and the design of the dam. The Project was finally approved and finalised after an independent seismologist's report. In October 1991, an earthquake measuring 6.1 on the Richter scale hit the Garhwal region in which around 2000 people were killed and damaged the regions of Tehri, Uttarkashi and Chamoli. This opened up debate on the safety of the Project though the dam was not damaged. On 14th December 1991, 5000 people led by environmental activist Sunderlal Bahuguna brought the work to a complete halt. In August 1995, the government started the reconstruction at the dam site. (see URL http://coe.mse.ac.in/td.htm)

Rehabilitation of the Displaced

The rehabilitation policy of the State, unfortunately, specified regressive measures. Not only was the amount provided as compensation inadequate but also was grossly miscalculated owing to the application of ad hoc rules or directive or administrative orders that suited the policy makers. It was also highly inadequate to buy new land; further the value of the land was undervalued and thus smooth resettlement measures were relegated to the background. The administration lacked sensitivity towards the displaced and the inhuman conditions the displaced were subjected to.

As pointed out by Sunderlal Bahuguna, the leader of the movement, the humanitarian aspects of the dam construction were highly neglected. 'When clearance to such projects is given without taking into consideration the human and social aspects-which in fact, should be given top priority while dealing with human lives-such decisions become cruel, inhuman and detrimental to the national interest in the long run' (Bahuguna, 1987, p.35). The TBVSS pointed out the following lacunae in the resettlement matter: (1) land allotted as compensation faced problems of denudation and erosion (2) inadequately defining the 'family' that needs immediate rehabilitation (3) unwillingness on the part of authorities to increase the amount earmarked for rehabilitation (4) rehabilitation of individual families as against the whole village (5) policy of divide and acquire by officials (6) land for landless policy was neglected and the displaced provided inadequate monetary compensation (7) faulty estimation of the affected number of people (8) lack of public relations (9) officials' false claims of rehabilitating monuments and archaeological buildings (10) implementation of rehabilitation scheme tardy (11) major flaws in evaluating and compensating for fixed immovable property like houses, wells, barns etc., and (12) suffering of the ousted consequent to dam construction does not find mention in the Detailed Project Report. The

Tehri Dam has been opposed consistently and invoked protests by the environmental organisations and local people. Further, it involves the relocation of more than 100,000 people from the region; it has led to continuous legal battles, law suits and civil protests regarding the resettlement issues. The Tehri issue did receive support from a wide range of civil society and other organisations but could not legally win the case and stop the work at the dam construction site. It continues to relentlessly fight against the government and its agencies regarding the issues of rehabilitation and resettlement. Through relentless efforts, it brought the issue to the fore at the national and international levels that led to heated and compelled debates regarding the safety of the large dam projects all over the world.

10.6 AN OVERVIEW

The issues of Narmada and Tehri reflect the systemic flaws that engulf judicious planning of large dam constructions in India and abroad. They also clearly reflect the official apathy towards the sensitivities of the local communities concerned. The dam constructions without consideration pose immense dangers to the overall structure of the systemic planning and implementation. For any plan to be implemented, it requires the weighing of pros and cons of the project concerned. These massive constructions severely affect the socio-economic fabric of the communities that get displaced in the process. Not only are they deprived of their basic right to a decent life but also are subjected to hostile behaviour in the newly settled regions and their original inhabitants. Further, it requires the efforts of civil society and non-governmental groups who can effectively take up the case of these communities and communicate or pressurise governments to reconsider the projects. All over the world, the mega hydel projects are increasingly contributing to the global warming process; these involve massive concrete structures that disrupt the pristine nature and damage the fragile ecology of the regions concerned. The concerns of the local communities need to be taken into consideration and should be adequately compensated where there is massive displacement. Non-violent struggles effectively convey a strong message to the state organisations but are often repressed by it. The state needs to play a sensitive role in order to curtail further damage to its subjects. It should adopt a community-oriented approach and allow the local communities to have rights over their resources. No projects can be successful unless the local communities are taken into confidence and are empowered to assert their basic livelihood rights. These dam issues are not just ecological issues. They have intricate connections to our daily life and largely determine the course of our livelihoods. They thus involve the socio-economic dimensions which, when ignored, are likely to impose unprecedented damage. The need of the hour is to evolve effective plans and protect the fragile environment that is responsible for our sustenance.

10.7 SUMMARY

The Narmada Bachao Andolan (NBA) and the Tehri (TBVSS) issues raise the issues of not just the environmental issues but the issues related to livelihoods of the people who find themselves displaced due to the unplanned and inconsiderate planning of the large dam constructions. At the outset these movements have lost out to the powerful governmental planning agencies, whose short-sightedness has threatened the very existence of the people living in the vicinity of dam construction areas. Their relentless battles against the government and their commitment to asserting their rights through non-violent means have earned for them respect, dignity and unflinching support from the society at

large. These movements also reiterate the relevance of non-violence that gives us a ray of hope in the world that is afflicted by violence and injustice, which is at times, promoted by the very institution of state. The need of the hour is to understand the local ecology, social and economic aspects of the local population before embarking on the projects at a gigantic scale. The understanding of the nature and its benefits to the mankind would augur well for our future.

10.8 TERMINAL QUESTIONS

1. Trace the socio-economic and ecological impacts of the dam construction in India.
2. Discuss at length the case of Narmada Bachao Andolan and its non-violent struggle against the Sardar Sarovar Dam.
3. Examine the Tehri Bachao Andolan and its non-violent struggle to save the Himalayan region.
4. 'Non-violent struggles ensure socio-economic and ecological justice'. Justify this statement in your own words.

SUGGESTED READINGS

1. Goldsmith, E, and N.Hildyard., (eds) The Social and Environmental Effects of Large Dams, Volumes 1&2, (Overview and Case Studies), Wadebridge Ecological Centre, Cornwall (U.K), 1984.
2. Maw, Geoffrey Waring., Narmada: the Life of a River (ed by Marjorie Sykes)
3. Paranjpye, Vijay., Evaluating the Tehri Dam, An Extended Cost Benefit Appraisal, INTACH Series, New Delhi, 1988.
4. Sharma, L.T., and Ravi Sharma., (eds) Dams-A Second Look, Development Without Destruction, Environment Cell, Gandhi Peace Foundation, New Delhi, 1981.
5. The Tehri Dam-A Prescription for Disaster, The INTACH Environmental Series, New Delhi, 1987.

Web Resources

http://www.rightlivelihood.org/narmada.html

www.narmada.org

www.sabrang.com/news/2005/**narmada**verdict.pdf