CHAPTER I

INTRODUCTION

The adoption of schemes for planned development after independence has resulted in an ever-accelerating growth in large infrastructural projects undertaken by both the Central and State governments in India. These include mines, heavy industries and dams for power and irrigation projects. Undoubtedly, these are the means to our growth as an industrial nation. Since then the general living standard of an average Indian has gone up many fold. However, till recently development planning was viewed as merely increasing production capacity and providing facilities for comfortable living. And to achieve these objectives the emphasis was laid on the exploitation of available natural resources for increasing output and profits. As a result, a great leap was made in the spheres of industrial and economic growth in the country but we have, at the same time, systematically destroyed, to a great extent, the resource base, giving rise to the question of sustainability of development path in the country. We have now entered into the era of growth and progress characterised by the syndrome of change that stems from the consideration of the interdependence between development and environment. Now there is a growing realisation that development has to be environmentally sound and accepted by the people. This entails the need for looking at development from the point of view of the people, the way it affects their life and livelihood condition. In other words, environmental aspect and the people’s
participation have become a very important factor in the process of development planning.

Just when this realisation was taking shape the country was once again plunged into an economic crisis. In 1973-74 the rising price of crude oil had a grave impact on the Indian economy, creating doubts in the minds of the policy makers that a new arrangement and devices have to be evolved to meet the changing situation. The immediate available alternative to challenge the oil shortage was electric power. However, with the economy of the country going downward, India could hardly arrange the required money to harness her massive potential for power development. This led the way for international financial agencies to play its role in power development in India, the best example being the World Bank aid to the Narmada Project and the Enron of USA in Maharashtra. The result was that through these international financial agencies, control over resources has shifted from local communities to national and international financial agencies. These financial agencies also give loans to develop environmentally sensitive areas like agriculture, dams, irrigation, forestry, etc. threatening to a great extent the man-nature relationship. No doubt such a growth and progress has really helped to stabilise the country's economy to a great level but not without the share of sacrifices made by the people involved. While attending to the immediate needs to overcome the economic crisis, once again the environmental factor was left aside.
Therefore, of late, these mega projects have become the subject of intense debate due to their large-scale social, ecological and material impact. The projects in the field of flood control, navigation, energy and irrigation are necessary for the growth of national economy, but these have, at the same time, led to significant and irreparable losses. A dam across a river, for example, creates a huge man made lake; consequently there is a considerable loss of agricultural land and it leads to erosion of topsoil, forest, wild life and destroys huge immovable assets. At the same time, there is a considerable loss of silt and reduction of soil fertility due to impoundment.

Of all the developmental projects in India river valley projects have attracted the most striking debates involving people of all walks of life. It is because dam building leaves far greater impact on ecological condition and leads to the socio-economic destruction for the local people than any other projects. The dam building and irrigation are not new phenomena in India. The need to harness the flowing waters was felt long ago which dates back to the Indus Valley Civilisation and Rig Veda. However, the era of building of modern day large dams begun only in the early 1930s which was also the time when dams were regarded as symbols of technological advancement and development the world over. Thus began the building of more dams in India leaving larger impact to the natural wealth of the nation. Loss of forestland and wild lives to the various river valley projects in India is astounding. Dams have caused more harms than benefits. It has caused the drowning of thousands of acres of good land and forest to nothing but poverty to the local population. It is estimated, for example, that between 1950 and 1975, India lost 4,79,000 hectares of forestland to
various river valley projects. Obviously much land and forest must have been lost to such a development since 1975 during which dam building in India was much more. In all these developments, what we don’t realise is that ‘land and forest wealth is the only abode of all living beings for existence, and its destruction will not only destroy the wild life and plants but the man himself will be perished’. As Jashibhai Patel has rightly lamented that “forest provide benefits that cannot be given an economic value. Even if the intangible ecological benefits are quantifiable, the social value of forest is not. Yet for the indigenous tribal groups the forest is of great cultural and psychological importance and its destruction represents a serious disruptive event.... The inevitable loss of wild life due to flooding of forest, agricultural land and bush is rarely cited as a reason for preventing the building of a dam. Indeed at times the indifference shown by the officials to the fate of those natural species that will be drowned by a dam’s reservoir is astounding”.

It is unfortunate that dams are constructed without giving much thought to the problems of socio-economic and ecological consequences to the local population and the region. The loss of so much forestland has a direct impact on the economic life of the rural poor, particularly, tribal population whose livelihood depends mostly on the forest products. Unfortunately, majority of the dam project falls in the region inhabited by the poor rural people; most of them belong to tribal and other backward communities. The worst effect of such projects is the socio-cultural and economic upheaval involving these poor people. The fact that multitude of poor people have to shift to new, sometime unknown destinations – to a destination which have complete
opposite socio-cultural and topographical set-up from their own is never realised. Hence, their socio-cultural and economic loss due to an alien social set-up cannot be easily compensated.

The authorities advocate resettlement and rehabilitation, but these schemes have never brought satisfactory experience in any part of the world. Thus resettlement schemes bring nothing but misery and suffering. It is, therefore, observed that resettling of people at another place due to displacement caused by developmental projects has always created problems. Love of birthplace, no matter how inhospitable it may appear to strangers, is quite possibly a universal characteristic, when the society is a tribal one... love of the land takes on a significance far greater than in societies where land is ... just another commodity to be bought and sold.\(^5\) To top it all, resettlement of the displaced people and economic rehabilitation efforts of the government for both the displaced and the people who have decided to stay back in their original place ‘come what may’ surrounded by waters, are always not satisfactorily planned and implemented, thus making the affectees to fend for themselves. These well-intended schemes become the untold misery and suffering of the people.

Again the cost benefit analysis is also heavily biased. As Bal Govind Baboo has put it “it underestimates the costs and overestimates the benefits; usually acts as a foregone conclusion, and in the most cases such exercise is done to justify the construction of the dam in question”.\(^6\) So much so that Jashibhai Patel came to the
conclusion that “if they build all this, destructions occur, and we will eventually be left with a silted up reservoir and the vast concrete hulk of an abandoned dam. Those ruins can serve but one sultry purpose: as a permanent monument to folly, or the cynicism, of those who now direct the organisations that have financed so much destruction and so much misery throughout the world, a monument set in vast muddy wasteland where once the fertile soil nourished happy and sustainable communities”.^7

Over the years such big dam projects in India have become very controversial. It may be said without any contradiction that the menace of such mega projects is the single largest factor of human misery and suffering next only to natural calamities and man-made wars. The greatest confrontation facing India today is not either with Pakistan or with the Chinese but with the poverty stricken victims of displacement and environmental degradation caused by various Mega projects. The whole of India from north to south and from east to west is infested with so much human problems caused by unthoughtful construction of such mega projects. Time and again the social cost of these projects is least attended to. What is more surprising is the fact that a large part of poverty in India is the result of unthoughtful planning and construction of mega projects was never realised by our leaders and planners. They think only in terms of certain political gains by undertaking construction of such large projects. They miserably failed to think that for the poverty and suffering of a large people of project affectees and their sacrifice, India could rise her head high in the international arena. They failed to examine that these people were rather forced to embrace poverty so that India could be economically and industrially strong. They miserably failed yet again to
think the environmental destruction caused by these projects which concerns not only
the victims but also a health hazard to great millions of people in India.

Not satisfied with what have been done to the people in other parts of India,
the greed of modern technology of building big dams is fast approaching the north
eastern region, where the highest hydro potentials in India is believed to be
concentrated; the region otherwise was unheard of in the mainstream India till a few
years ago. It is feared that the coming of this new technology will disturb the distinct
socio-cultural and economic traditions and the undiluted environmental conditions and
the scenic beauty of the nature of this region. It has put into great disadvantages to the
rich socio-cultural heritage of the people and the tribal economy based on land and
forest. The purpose of this work of course is not against construction of dams, we need
them to increase our economic and industrial growth, for upliftment of our standard of
living like those of our counterparts elsewhere in India. But the basic question
confronting us today is how to look at and tackle the social and environmental costs of
such projects? Because, if we cannot tackle the problems of social and environmental
destruction that are certain to come up in the wake of construction of a dam ‘there is
no point in constructing such dam just to dump the affectees in the dam.' However, in
spite of so much destruction and suffering it has caused to humanity, the construction
of dam in India and the world at large will be an ongoing phenomenon due to mad
race of modern technologies in search of unlimited desires of better and easier life of
modern man.
A series of events that has taken place in India as discussed gives us the impression that these mega projects are built due to the politico-economic and technocratic reasons without giving much thought to the environmental considerations and people’s participation in the process. And if this trend continues as indicated, the man-nature relationship will be further jeopardised to the extent of perishing the man himself all in the name of development. Therefore, in the light of Doyang Dam Project and its socio-economic consequences, this research work has made a modest attempt to integrate the people and the environmental factors into the process of developmental planning.

The case of little known dam of Doyang Hydro Electric Project (DHEP) in Wokha district of Nagaland is not an isolated one from such human problems. The dam is located across river Doyang and its only reservoir is expected to submerge around 5424 acres, making the total requirements of land for the project to 8420.41 acres involving the most fertile and strategic land of the affected villages with a population of approximately 30,000, mostly cultivators. This in itself is a great problem for the affectees to be reckoned. Destruction to such a large extent of land and forest naturally has a great socio-economic and ecological concern. Therefore, as a sociologist, we are concerned with how and what will be the social and economic life of the affected populace of the region when the project is completed. A number of social, economic and ecological questions are yet to be answered. Social and economic problems are already evident among the affected people thereby creating unhealthy social relations.
One of the most striking features of social problems is the emergence of a new group of people comprising the landless and small landholders. Unfortunately, these people include the larger population of the affected people. Again the problem of displacement which was not anticipated earlier, has become more eminent today and this has become the greatest fear of the local people. All these besides, wanton destruction of environment of the region to facilitate the dam construction. Such a situation has been created in the life of the affected people and thus it has become a matter of great concern. Thus it requires a full-scale analysis of the socio-economic and environmental costs of the project, which is the subject matter of the present research work.

OBJECTIVE OF THE PRESENT STUDY

A closer look at the problem under study helps us to identify the following specific objectives for the present enquiry.

(a) First, the study intends to examine debates on dam building across the world to provide a global view and also on Indian situation to get general idea about how dams are being constructed in India vis-à-vis the social and environmental costs involved.

(b) Secondly, the study analyses the socio-economic background of the people in the project area.
(c) Thirdly, the enquiry focuses its attention on the history of the project and its developmental aspects.

(d) And finally, the study has analysed the socio-economic and environmental consequences of the project.

**SOURCES OF DATA**

The system of data collection included both primary and secondary methods. However, much reliance was put on the primary sources.

*Primary Sources*

In order to get sufficient primary materials, interview method of both structured and unstructured types were used. For structured interview 150 interview schedules were handed over to different sections of people out of which only 133 came forward to respond. Out of those responded 85 belonged to the college and university educated group while 48 of them were high school and higher secondary educated. Again out of the total 133 respondents, 68 are in service while 26 are businessmen and public leaders, 17 of them farmers or cultivators and 22 are students. Unfortunately, the response from the businessmen and public leaders from the unaffected villages was much lower than expected. Thus those who responded mostly belonged to the affected villages. On the other hand, the response from the affected villagers was very high. The interview schedules which have not been returned are from the people belonging to the unaffected villages. This clearly indicates that the
general people including the businessman and public leaders are either ignorant about the dam or are not at all concerned. The detailed accounts of views and opinions of the respondents have been discussed in the subsequent chapters.

Similarly, as a part of the unstructured interview, apart from interviewing selected local leaders and businessmen, officials from both the Government of Nagaland and the Project were also interviewed. All together 30 selected people were interviewed. Out of these, 9 were public leaders and businessmen, 7 government officials, 4 employees of Doyang project and 10 were the affected landowners. Besides, officials of various voluntary and social organisations including Lotha Hoho, Lotha Graduates’ Association, Lotha Eloë Hoho, Lotha Youth Hoho, Lotha Students’ Union and Landowners’ Union of Doyang project were interviewed. To get first hand information the project site and those seven most affected villages namely – Pangti, Aree Old and New, Changsu Old and New, and Riphyim Old and New were visited a number of times.

Secondary Sources

The secondary sources of information included government reports, records, and documents, State Assembly debates, speeches of important personalities, and other published books, newspapers reports and journals.
REVIEW OF LITERATURE

The available literature on the problem of our concern do not sufficiently explain the problem under study. Nevertheless, they have thrown some light on the cases of similar kind which deserve our closer scrutiny.

The big river valley projects in India from Hirakud to Narmada dams are now familiar names owing to the national debate on their affects on the socio-economic life of the people and environment of the region. In the words of Enakshi Ganguly Thukral "till a few years ago they were heralded as the symbol of our country's march towards development and progress, somewhat along the way that perspective underwent a change". The author in her book "Big Dams, Displaced People, Rivers of Sorrow, Rivers of Change" has tried to explain what went wrong in the process of development. In trying to answer this pertinent question the author conducted intensive research work on many of the major river valley projects in India. In doing so the author took pains to understand the situation of the displaced people in some detail through the experiences of those who had been affected. It was an attempt towards understanding the impact of displacement and nature of rehabilitation of dam oustees. Thus the author raised the need for proper identification of the displaced persons, need for having national rehabilitation policy and the rights of the displaced people. Having evaluated all these the author came to the conclusion that increasing the number of projects is not the solution, especially when the benefits accrue to only the privileged few, while the others bear the cost. This means that there is a need for more holistic planning to enable better co-ordination between the various
governmental bodies and departments. Only the most judicious use of the available resources with better co-ordination among one and all will ensure that there is enough to meet not only our needs but also those of future generation.¹⁰

The case of Hirakud dam is not better even today. The problems of displacement, rehabilitation and adjustment to new settlement are still evident even after 40 long years. According to Bal Govind Baboo, the Hirakud Dam was expected to submerge 108 full and 141 part revenue villages of Sambalpur district of Orissa and also 3 full and 33 part revenue villages in Pusar and Saria Police Stations of Madhya Pradesh, and since most fertile tract of Sambalpur district was to be submerged leaving aside so much destruction the Hirakud dam in Orissa, the longest earthen dam in the world, was completed in 1956.¹¹ Since the Hirakud Dam is more than 40 years old most of its benefits are already visible and the lessons drawn from it might be useful in the planning and construction of major dam projects in India.

Further information on Hirakud dam project and its impact have been recorded in the book entitled “Technology and Social Transformation: The Case Study of Hirakud Multi-Purpose Dam Project in Orissa” also by the same author. The study has tried to explain the reconstruction of life by displaced people of the Hirakud Dam who underwent traumatic changes some 40 years ago. It traces the origin of the dam, the process involved in the physical rehabilitation of the affected population and survival strategies of the people settled in different types of locality. It also explains the historical conditioning of the Hirakud Dam, about people’s opposition to such an
event, and the several processes involved in the construction of life of the oustees in a somewhat culturally different situation. Since construction of dam was to be an ongoing phenomenon, the study also made certain emphasis on issues connected to policy measures and alternative form of development.

The case of Narmada Dam is not different either. In modern times the Narmada dam project has become the most controversial and much debated among every section of people in India. Much has been debated among the intellectuals. This is the reason why it has attracted more controversies than any other project in India. Although a detailed discussion of the Narmada Project is being included in the subsequent chapter, it is necessary to highlight some of the important remarks made by the eminent writers and intellectuals. Himanshu Takkar in his article “Resettlement of Displaced Tribals” has studied the problem of displacement and of resettlement of Narmada project at length. He observed that ‘nowhere in the site visited have the oustees improved or at least regained the standards of living that they were enjoying prior to displacement... families have been split. Father and sons have not been given land... Provision of appropriate compensation and adequate social and physical rehabilitation has not been possible. If one considers in addition the cultural deprivation of the community, alienation, change of life style and fragmentation of communities, it is impossible for the oustees to restore their lives to previous equilibrium.'
Bharat Dogra lamenting about the impact of Sardar Sarovar project he said in his article “Urgent Need to Review Sardar Sarovar Project” that “the agricultural fields, pastures and forest that will be submerged can provide livelihood to thousand of families for hundred of years to come. This long lasting gain will be surrendered to the benefits lasting only a few decades. Keeping in view of these facts the author came to the conclusion that there is urgent need to review Sardar Sarovar Project and the overall developmental work on the Narmada river.

Further K.K. Oza in his article “Saga of failed dams” has pointed out that the failure of dams in India is among the highest in the world. He also pointed out that corruption is rampant in the Narmada project and alleged that millions of rupees are being siphoned away from the Nigam. Once again the rehabilitation aspect was highlighted by the author and criticised the Gujarat Government for not providing land to the oustees from the state.

Furthermore, Vandana Shiva has rightly observed on large dams and conflict in the Krishna Basin in her book entitled “Ecology and Politics of Survival” that ... the villagers were orphaned overnight. Unemployment stared them in the face. The idea of settling down in a new place made them feel like aliens. Insecurity and uncertainty about the future further aggravated the problem. Added to this were appalling living conditions in the new areas with no basic civic amenities, life became very difficult. The primary responsibility of any civilised government in such a situation is to provide at least basic amenities to the displaced people, especially when
they are in distress and emotionally disturbed. Cash compensation, far too inadequate was the only one-point rehabilitation programme the government had envisaged. The book continues to talk about how and why nature and people are never taken into account in developmental plans which emerge from the north, in terms of their intellectual and political genesis. She opined that when technological euphoria of dam building was transferred to India the associated ecological disruption and social conflicts were also transferred. The buying of these technologies from the west and subsequent involvement of international financial institutions to finance developmental projects, conflict over national resources put tribal and peasant communities against international communities, with the state acting as an agent of dispossession of local communities, to clear the way for global plans and ideologies of development. In other words, study in this book shows how conflict that emerged during the long innings of colonial period have continued to this modern day through development era. The conflict of colonialism gets deepened and expanded with the larger involvement of multinationals in the areas of technological development through aids and loans. Ultimately, the poor tribal and peasant communities are exposed to the world market economy to which they are unmatch.

Therefore, besides several mega projects, especially large dam projects with densely populated submergence sites, are being opposed in India for their harmful social and ecological impact even by the experts appointed by the government for investigating the feasibility of constructing such dams. Such instances have been recorded in an article entitled “Destructive Mega Projects: Fate of Experts’ Opinion”
by Bharat Dogra, in which we find the experts opinion rejecting the construction of the controversial Tehri Dam Project which was sidelined by the authority on a number of occasions. The author observed that the Tehri Dam Project has been in the focus of a fierce controversy for the hazardous nature of this project. Its dubious reputation rests on the project having being evaluated as unacceptable by the government appointed experts and expert committees on three occasions. Every time an adverse report is received about this project and efforts are organised to wash out the report. Similarly, Thayer Scudder, World Bank representative, and B.D. Sharma, former Commissioner for Scheduled Castes and Scheduled Tribes, Government of India, were also appointed by their respective employer separately to study the rehabilitation aspect of the Narmada Project. But when their reports were submitted suggesting immediate withdrawal of all works on the project till discrepancies in the implementation of relief and rehabilitation are corrected by the Gujarat government, it was sidelined by the authority to whom they have submitted their reports. Such are the methods being applied to build dams in India.

While the planners and policy makers of the country are attempting to take India into the 21st century, scholars and social activists concerned with the weaker sections are today concentrating on the question of displacement caused by development projects. Because, as Walter Fernandes and Enakshi Ganguly Thukral have recorded in their book "Development Displacement and Rehabilitation" that construction of these mega projects in most cases necessitate the acquisition of land. However, unlike in an industrialised nations even our hills and forests are not
uninhabited. Since we are a people primarily dependent on agriculture, any available land is occupied. Therefore, any project aimed at exploitation of land and natural resources leads to the displacement of people living on that land.\(^{21}\) Therefore, as Bharat Dogra has observed “any projects that destroys agricultural land, pastures and forest on a very large scale deserves to be treated with caution”.\(^{22}\)

A similar caution has also been echoed by Mason Willrich in his book entitled “Energy and World Politics”. He observed that in seeking solution to current problems, we must not loose sight of the enduring issues. For if we do, in solving immediate problems we may plant the seeds of much worse energy crisis in the future.\(^{23}\)

Therefore, it is vitally important to note all these cautions while planning construction of any large project because as it is said “once degraded by over exploitation and pollution, nature cannot hold its own. Cut down forests and over tax the land, and soils will become eroded. Pollute rivers, and fish will die…. Indeed the whole gamut of ills that now beset the earth are merely the symptoms of a degraded ecosystem which, under pressure from homo sapiens, can no longer continue to function properly. Historically, it has been mainly traditional societies that demonstrated an awareness that “it is our way, not natures, which can be changed”.\(^{24}\)

However, in spite of all these views and opinions the shortcomings of dams for power and irrigation purposes should not be over emphasised. The benefits of dams
are many fold and do not have to be reiterated, as its multifarious uses are self explanatory. Asha Hans in her book “The Power Sector in India” has mentioned that among the primary sources of electricity available today, hydro-power ranks the highest in the list of priorities in energy exploitation. She goes on to trace the genesis of hydro-power in India and observed that India has large potentials of hydro-power but so far only small portion of it has been harnessed and efforts are on for large scale exploitation in different parts of the country. However, despite huge potentials, if a country cannot exploit its resources, then something must be wrong somewhere. According to her, these hurdles to progress have been connected to a large extent with faulty planning and execution. This hurdle has to be removed in the interest of national development because in spite of its drawbacks, hydro-power, with its large availability in India is bound to play an important role in the development of the nation. Since hydro-electric potentials is still in infancy, new methods and means can be adopted for future keeping in mind all aspects of development.

The term development planning therefore, should not be limited merely to the activities of increasing production and providing material facilities, but should be expanded to include the well-being of both the environment and the people affected due to technological advancement. Only then the true meaning of the term will be realised. With this simple understanding of development this research work is being initiated.
CHAPTERIZATION

The dissertation is divided into the following chapters:

Chapter I – Introduction

The first chapter being in the form of introduction includes general remarks about dam construction, objectives of the study, methods of collecting data and review of related literature.

Chapter II – Debate on Dam

The study has attempted to analyse some of the major dams of the world in this chapter. While doing so, the study has taken up an analysis of ‘Global views’ about the impact of dam and reservoir on the life of the people. For this purpose mentions are made of few major and much debated dams from different parts of the world such as, the Aswan Dam of Egypt, the Danube Dam of Europe etc. Similarly, the Sardar Sarovar Project on Narmada, one of the most controversial and widely debated dams in the recent times in India and few others have been discussed to project the Indian way of constructing dam.

Chapter III – Land and the People

This chapter has made a thorough analysis of the socio-economic background of the affected people in which a brief mention has been made of the traditional life of the Lotha community. However, special emphasis has been given on the existing socio-economic conditions of the affected people inhabiting the dam project area.
Chapter IV – The Doyang Dam

The study has described in this chapter the river Doyang in Wokha district, its meaning and significance for the local people. It also provides a brief history of the project and its developmental aspects.

Chapter V – Socio-Economic and Environmental Consequences

This chapter of the dissertation discusses the findings of the study. It analyses the social, cultural, economical and the environmental consequences of the Dam. The study based on extensive research has brought out the project’s actual impact on land, forest and natural wealth of the region. Some of the major findings highlighted are the emergence of landlessness, poverty, danger of displacement and of resettlement. Besides, the project’s environmental consequences and rehabilitation dimension constitutes the main areas of discussion in this chapter.

Chapter VI – Summary and Conclusion

Here the study attempts to give a summary of the work and some suggestions thereof.
References


4. Ibid., p. 35.

5. Ibid., p. 33.


9. Ibid., p. 10.

10. Ibid., pp. 26-27.


17. Ibid., p. 203.

18. Ibid., p. 11.


20. Ibid.


26. Ibid., p. 57.