

DAMS, DISPLACEMENT & REHABILITATION: A REVIEW

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Abstract:

In the on-going discourse on development and the search for a suitable model for sustainable development, the problems relating to displacement and rehabilitation have acquired crucial significance. Though a vast amount of literature is available on the concept of development and its benefits, there is a striking paucity of adequate and reliable data on the problems created by it, especially displacement, resettlement and rehabilitation. Against this background, the present article deals with the trends of research findings drawn on the basis of review of trends of relevant literature on dams, displacement resettlement and rehabilitations.

Keywords: *DAMS, DISPLACEMENT, REHABILITATION*

1. Enormity of the Problem and Absence of Data base:

“The most noticeable aspect of displacement during the last decades is the enormity of the problem. Despite the enormity of the problem, the country lacks a reliable database on the situation of the displaced persons. Only a few official statistics are available some small case studies that are available indicate that official sources by and large tend to underestimate the number of persons displaced by development”. (Fernandes: 1991: 243-244). In India, around 15 million persons have been displaced from the first to sixth plan. The real figure may be as high as 30 million (Ibid).

Let us look at the data available for some projects in the country. “In Ganga valley, 22 projects were likely to displace two or three lakh people. A Koel-Karo project displaced over 30,000 persons. Whereas 46 major dams displaced around 25 lakh persons. A study of 12 medium irrigation projects in Orissa, Madhya Pradesh, Maharashtra, Gujarat and Rajasthan,

Dadra and Nagar Haveli shows that together they displaced 2,11,174 families or an average of 1,810 per dam” (J. C. Das : 1988 : 269)

While looking at situation in Maharashtra. We can observe that, “In Maharashtra Pavana and Kalamawadi displaced 9 villages each”. (Paranjape: 1982: 8to16). Dhom dam Irrigation project located in upper Krishna valley in Satara district of Maharashtra affected 29 villages (Sawant: 1985: 28]. According to B. L. Joshi, (1982:5), “Jayakwadi dam near Paithan in Aurangabad district of Maharashtra submerged 118 villages of 70,000 peoples”.

“Whereas Koyana dam displaced 150 villages (Nimbkar, Karve: 1969: 10). The Kukadi Irrigation Project in Pune is one of the major irrigation projects in the state. It constitutes of five dams, Viz. Yedgaon, Waduj, Manikdoh, Dimbhe and Pimpalgaon, Submerged 40 villages”. (Yadav:1983 : 3)

While looking at situation in India, we can note that, “Approximately 1,600 dams have been constructed after independence in India and 100-120 lakh people have been displaced”. (Kothari Smitu: 1996 : 1476-1485). But according to Walter Fernandes (1994: 243) number of people displaced by dams in 1951 to 1990 are approximately 1 crore 64 lakh.

2. Who Are the Victims of displacement?

The studies have also pointed that it is the poor people, mainly tribals, SC’s, ST’s, have become the victims of displacement. The following table presents data regarding major irrigation projects, completed during the period between 1951 to 1986, their location, area under submergence and displaced total population including percentage of tribal population.

Displacement by a Few Major dams under Construction or Planned in Different States of India.

Sr. No.	Name	River	State	Area to be submerge (ha.)	Population to be displaced (closest 100)	% of tribal
1.	Lalpur	Heran	Gujarat	4,500	11,300	83.20
2	Daman	Daman Ganga	Gujarat	7,544	8,700	48.70

3	Karjan	Karjan	Gujarat	3,677	11,600	100.00
4	Sardar Sarovar	Narmada	Gujarat	7,469.61	10,400	98.94
			Maharashtra	6,683.63	7,500	99.92
			MP	14,148	247,500	51.64
5	Narmada sagar	Narmada	MP	91,348	170,000	20.00
6	Maheswar	Narmada	MP	4,856	6,200	60.00
7	Bansagar	Sone	Mp	51,648	127,000	NA
8	Bodhghat	Indravati	MP	12,250	12,700	73.91
9	Icha	Kharkai	Bihar	4,268.29	NA	NA
			Orissa	8,536.59	30,800	80.00
10	Upper Indravati	Indravati	Orissa	NA	18,500	89.20
11	Chandil	Subarnarekha	Bihar	17,683	37,600	87.92
12	Koel-karo	Koel-karo	Bihar	17,763	66,000	88.00
13	Masan Reservoir	Masan	Bihar	4,498	3,700	31.00
14	Polavaram	Godavari	MP and AP	44,513	150,000	52.90
15	Inchampalli	Godavari	AP	71,000	38,100	76.28
16	Bhopalpat	Indravati	MP		8,800	50.00

	nam					
			Maharashtra	20,000	NA	NA
17	Tultuli		Maharashtra	5,420	13,600	51.61
18	Mahi	Mahi	Maharashtra	14,340	38,400	76.28
	Bajaj					
	Sagar					
19	Gosi Khurd	Waubegaba	Maharashtra	NA	65,200	Nil
20	Tehri	Bhagirathi	UP	5,200	85,600**	NA
				4,17,346.8 5	11,69,200	50.13

Source: Pawar Patil (1998) P. 208, Enakshi Ganguli Thukral (ed.), 1992: 84-85.

- Most of these figures are from the 1971 census. The numbers would have increased by over 30 per cent by now.

** The density here is very high (1,646 per sq.km.) because the whole town of Tehri will be submerged.

The following table shows the displacement of tribal due to various developmental projects.

Project	Tribal region	Tribal DPs	Tribals % of all DPs region		Tribals rehabilitations	Backlog
Mines	14,15,000	12,00,000	57.14	84.41	3,00,000	9,00,000
Dams industries	70,00,000	53,00,000	31.57	75.71	13,15,000	39,45,000
Sanctuaries	3,00,000	2,60,000	20.00	86.67	65,000	1,95,000

Others	6,00,000	5,00,000	83.33	83.33	1,25,000	3,75,000
Total	2,00,000	1,50,000	30.00	75.00	40,000	1,10,000
	95,15,000	74,10,000	40.05	77.81	18,50,000	55,60,000

Thus, among those displaced due to the developmental projects, the persons belonging to weaker sections, particularly tribals, poor, SCs, STs, is disproportionately high, the studies have highlighted.

Ghanshyam Shaha's early work for Narmada Planning group had shown that, "the tribal is not monolith and within that poorer groups and those in backward areas suffer the most" (Varma M.K. 2004: 27).

As Y.K. Algh points out, "Displacement of poor people is taking place all the time, from their lands, their occupations and their homes as material intensive growth denies them access to resources, conventionally their own. Indian scholars like Roy Burman have documented such displacement on land and rural-rural migration of landless labourers and small peasants and tenants-mainly scheduled castes and tribals" (Ibid).

So the significant and more serious feature of displacement is the proportion of displaced persons or project affected people from weaker sections particularly tribals and dalits. Most project affected people are assetless rural poor, like landless labourers and small and marginal farmers. "The tribals, who constitute 8.08% of the country's population are estimated to be more than 40% of project affected people dams and mines and 90% of wildlife sanctuaries. Another 20% are dalits." (Murichan Jose: 2003: 35).

A reason for the high proportion of tribals among the displaced persons, is that, the number of projects in their areas has been growing since 1970's. Projects are being implemented where tribal population is significantly more. In case of "Upper Krishna, in Karnataka will displace 2,40,000, Somasila (Andhra Pradesh) 1,00,000, Koel Karo (Jharkhand) 70,000, Sardar Sarovar (Gujarat) more than 1,00,000. Some of them have a big proportion of Tribals and dalits. For example, 90 percent of those to be displaced by Koel Karo are Tribals and 75 per cent of the Somsila dam are Dalits" (Ibid, 36) "After 1970's, Maharashtra, western Madhya Pradesh and Gujarat concentrated on medium dams. They accounted for 1860 of the 2162 dams built between 1971 and 1990, 1,165 of them on local

streams. But, most major dams in these and other states came up in the tribal areas (Ibid : 37). Fernandes Walter has also given the same situation about tribals . [Fernandes:1991:243]

3. Reluctance of people about leaving the native place :

It is but natural thing that, people have been living in generations together in the same village, donot become ready to leave their native place. This type of reluctance of people is shown by some researcher in their studies.

“In case of Hidkal dam on river Ghatprabha in Karnataka, displaced people were reluctant to shift because of sentimental attachment, scale of assessment of land and property was not adequate, delay in payment of compenstation” (Dalua :1993 :125)

“Not surprisingly, those earmarked for resettlement are frequently unwilling to move. This widespread attitude lead the authors of paper prepared for Papua new Guinea’s office of Environment and conservation to remark, ‘Love birthplace, no matter how inhospitable it may appear to strangers, is quite possibly universal human characteristic’. When the society that must be resettled is a tribal one that, love of land takes on significance for greater than is the norm in societies where land is viewed as just another commodity to be bought and sold. Land is very charter on which a tribal culture is based, the resting place of ancestors and the source of spiritual power; it is thus frequently regarded with reverence, rarely understood in the West (Goldsmith Hildyard:1984:29) But reluctance of people, was neglected by project authorities. Dam construction had taken a speed. Then at the time of rehabilitation while selecting the place for resettlement colony, people showed their unwillingness. While giving same type of example, Arjun Patel notes “The Bhills of Turkheda had refused to settle down at the site shown by the Government. (Patel Arjun :1983:13)

4. Delayed Rehabilitation, Communication Gap and Apathetic attitude of Project authorities:

Delay in rehabilitation is a striking feature of rehabilitation process, which is observed all over the world. Some scholars have highlighted this feature.

Rengali dam project (Pawar, Patil :1989:13) gives a very harrowing experience about the rehabilitation of its oustees. The dam was substantially completed in 1985, but payment of compensation of land, displacement of people and their rehabilitation were unsettled issues for a long period.

According to Stanley William (1996:1534) “Many people were not rehabilitated at all, displaced due to NALCO project, more than 80% of the displaced persons, had to self-rehabilitate via daily wages sale of fuel-wood and semiskilled jobs”.

While describing insensitiveness of project authorities and unawareness of project affected people. Fernandes points out the issue of communication gap and unawareness of the project affected people regarding their resettlement. He states “It is not merely that they are not involved in the decision, but also that, information about the projects is kept away from them. Knowledge is power. The powerful project authorities render the affected populations further powerless by keeping them ignorant of their future situation. Much has been said about the tensions created by this situation, between the project authorities and the people. But very few have understood that it creates a sense of insecurity in the people to be displaced and thus becomes a barrier to their preparing themselves for a better life forgetting the benefits of project. That the insecurity thus created leaves the peoples totally unprepared for a new life. This is confirmed by studies on the Machkund and Upper Kolab dams, the National Aluminium Corporation (NALCO) plant and the Salandi dam in Orissa, Coal, Uranium and other mines in Bihar in Eastern India, the Narmada project in Gujarat in Western India etc. (cited from Verma, M.K. : 2004 : 57). Fernandes also stresses the aspect of communication gap and ignorance on the part of project affected people (Ibid : 58)

While showing the apathetic attitude of project authorities Lalita Paniker says, “In Gujarat, families shifted out over 12 years ago have come back to their original homes in the submergence zone. Madhya Pradesh, which has taken the most positive view of the whole issue, so far, claims, it simply does not have enough land to accommodate the oustees. Maharashtra has acknowledged that out of the 4200 hectares allotted for resettlement, 836 hectares are uncultivable.” (Ibid) This same issue has been highlighted by other scholars also [Patel Arjun : 1983 : 28; Stanley William: 1996:1533; Mohammad Asif : 2000-6 to 7).

So the problem of resettlement becomes more chronic in the light of the fact that there is total communication gap between the project authorities and project affected persons. According to Thukral and Singh Mrudula, “The attitude of the authorities towards the oustees is apathetic, to say the least. Our findings clearly indicate that the level of information among the potential oustees about the dam, the submergence and rehabilitation was low. The authorities had made little effort to communicate the rehabilitation provision to the people. The situation improved slightly after the movement against the dam, under the banner of

Narmada Bachav Andolan gained momentum. Until 1989, the situation had not changed much. None of the Government officials visited villages to explain anything. The oustees were not aware of the policy as a whole” (Mathur H.M. : 1995 : 97).

5. Inadequate Compensation:

The most of the studies conducted on displacement have always highlighted the issue of inadequate compensation.

Joshi Vidyut (1982:7) points out that project affected people get no compensation for the loss of employment, loss of habitats, social relations and psychological attachments.

“In all the big projects in Andhra Pradesh; namely Nagarjunsagar, Sriramsagar and Srisailam projects, only property holders among displaced people have been provided with some compensation in terms of lands or houseplots. However, the landless poor who constitute almost 80% of the rural population were paid nothing” (Pawar Patil : 1989 : 72).

In case of Pavana dam from western Maharashtra, compensation given for land, homes and other assets was 50% of the regional costs. (Vijay Paranjape :1982:8 to16)

Narrating the lacunae of land compensation, Thukral opines, “The Nagarjuna sagar oustees told us that they have been promised land for land, along with irrigation facilities and house plots. However, as per the rules, they received only five acres of dry land. This was not in the command area that they were not entitled to irrigation facilities from the project that took away their land. The Hirakud oustees found that their rehabilitation sites were a great distance away, badly connected and totally unprepared for resettlement. It was estimated that no more than 11% of the oustees decided to settle in these camps. The others preferred to find their own alternatives.” (Thukral : 1992:17)

Before building the Pantabangan Dam in Luzon, the Philippines government promised the 9500 people who were to be resettled that they would be compensated for the loss of both land and housing. “It was to be a simple case of returning value for value,” writes the Purari Action Group. “Land for Land, house for house. Where such exchange was impractical , such as in the case of trees and plants and other improvements, cash payments would come in. The people could even opt for cash payments for everything lost.” The Government also promised the new communities would be built and that those displaced

would be employed on building the dam. Few of the promises were kept (Goldsmith & Hildyard : 1984:23)

While talking about inadequate compensation, Pawar and Patil have noted that, “Ukai large dam, was constructed on Tapi river in Gujarat in the year 1972. A total of 16, 080 families were affected by the project. Of these, 14148 families of 138 villages were rehabilitated in 17 groups of settlements, whereas remaining 1932 families moved away on their own after receiving the adhoc compensation. Regarding the land given as compensation to the oustees, Mankodi observes that the compensation offered was totally inadequate considering the quality of land acquired” (cited from Pawar Patil: 1998 : 212).

“The oustees of Nagarjunsagar were given dry land as compensation restricted to 5 acres and rehabilitated outside the command area. The present generation oustees and even their in coming generations can hardly reap the benefits of irrigated agriculture to restore their past healthy economy they were living in. As a result, the land required in new sites could not meet just family requirements and majority of them migrated out in search of livelihood” (Ibid).

In a similar vien, just like Nagarjun Sagar oustees, Dalua has given example of Rengali dam. “Land allotted for cultivation to Rengali dam oustees is neither leveled nor suitable for cultivation (1993 : 125). Same was found in case of Sanfrancisco river basin in Brazil (Cernea Michael : 1996 : 1518). In case of Maldhari families of Girforest, Varsha Ganguly pointed out that the land given to displaced people were of very bad quality, sandy and rocky” (Ganguly : 2005 : 2 to 17).

6. Inappropriate use of Compensation:

Generally it is seen that, cash compensation turns man to bad habits like gambling, drinking etc. Pokharel pointed out the same experiences “The people displaced by Kulekhani Hydro electric project were opposed to accept cash as compensation but at last they accepted it. The cash then helped only a few who had previous experience of using it. But most people, lacking such experience, soon spent it on drinking, on gambling, on things least important in their reestablishment”. (Cited from Mathur, Cernea 1995: 140).

In Western Maharashtra, Karve and Nimbkar carried out a survey (1990 : 7) of the people displaced due to the Koyana dam. The study shows that the chief failure of rehabilitation lies in the lack of planning on the part of government. The government handed

over huge cash amounts to people who had never before handled money and they were left to themselves. The result was the much of this money was spent on transportation and living expenses, instead of being utilized on constructing houses.”

7. Status of Civic Amenities in Rehabilitated Colonies:

While villages are shifted from original place to rehabilitated colonies, it is expected that government should provide certain basic civic amenities to the colonies. But it is so far observed that these minimum expectations are not fulfilled. The following observations of scholars prove this point.

According to Hari Mohan Mathur, ‘Loss of access to basic public services’ is the one more characteristic of affected people. When the affected people move to the resettlement colonies that they become aware of this loss. Even in the most isolated villages, a wide range of basic public services now exist; schools, clinics, street lights, public taps for drinking water, village-to-city transport bus service and so on. On arrival in resettlement colonies, the people discovered to their dismay that the basic services promised them before they move, just do not exist. Eventually, they may get those services, but when that eventuality happens nobody knows. Often, it takes years before any thing happens, if at all. Many services remain beyond their reach, almost forever. The new colonies have school and dispensaries buildings, but usually there are no teachers and no doctors. The buildings constructed as long ago as ten years, are still lying idle in many places. This loss of basic public services, are colossal one to the poor, thus contributes, further to their continuing impoverishment.” (Verma M.K. 2004 : 63-64).

8. Impact on Socio-Economic and Cultural life:

Some of the scholars have studied the processes and problems of development induced displacement and its ramifications on the socio-economic, cultural, psychological, political life of the displaced people. The following are some of the notable findings.

While describing changing economic structure of displaced, Dalua has highlighted the trend of increasing activities in non-farming sector. In case of Srisailam project on river Krishna in Andhra Pradesh, there is change in occupational pattern after displacement. Activities in non-farming sector have increased. (Dalua :1993:125). Similarly more than 80% of the displaced persons due to the Upper Kolab Multipurpose project in Korapat district, had to self rehabilitate via daily wages, sale of fuel wood, and semiskilled jobs. (Stanley William

: 1989: 1534). According to Vijay Paranjape, in case of Koyana, Mulashi and Pavana dams in Maharashtra, the katkari from these regions were working as land laborers on farm but after construction of dam, they had to sell the coal from Bhatti”. (Paranjape :1982 :8to16).

Highlighting the pauperization aspects of the oustees, Thukral says, “what happens to the displaced who are not relocated? It is small wonder that a substantial number among them are reduced to a relentless struggle for survival. It is also observed in case of pong dam oustees. Without resettlement unless they are rich, or big landlords or politically powerful, the displaced find themselves in a state of pauperism. They are forced to join the legions of migrant labour flocking to urban slums in search of work, in the cities. The Bhill oustees of Ukai are forced to migrate seasonally in search of work, most of them as labourers on the sugar-cane plantations, and other times they are unemployed. The Nagarjuna oustees, are faced with a similar situation. The history of rehabilitation and resettlement is replace with such instances of displaced people being forced to join the ranks of migrant wage labor, often falling in to bondage, crime or penury”. (Thukral :1992:18-19)

Displacement due to Kukadi Irrigation project in Pune had brought about adverse effect on the income, expenditure, employment patterns and the social status of the affected families. “They were hit hard both economically as well as socially. The down fall in the capital assets and reduction in the size of holding, had an effect on lowering down returns from crop and live stock activities to a greater extent (Yadav :1983 : 5).

The scholars studying the phenomenon of displacement have identified eight impoverishment risks i.e. Landlessness, Joblessness. Homelessness, Marginalization, increased Morbidity and Mortality, food Insecurity, Loss of Access to Common Property and Social Disintegration or disarticulation. (Asthana Roli, 1996:1468to1475; Verma M.K. :2004:30). These have been briefly described below:

1.Landlessness:

Landlessness takes away the foundation upon which economic and social production systems are constructed. This is the principal form of decapitalization and pauperization of the displaced people, as they lose both physical and man made capital. Cernea Mathur has given same type of example. In case of the Kiambre Hydropower in Kenya, farmers average land holdings dropped 13 to 6 hectares, 1/3 livestock was reduced, yields per hectars decreased by 68%, their land ownership was 47% lower and their. income was halved.

2.Joblessness:

Loss of wage employment occurs both in urban and rural areas, and those loosing jobs become landless laborers, enterprise or service workers, artisans and small businessman. But creating new jobs is difficult and requires substantial investments. Resulting unemployment or under employment among resettlers lingers long after physical relocation. Goldsmith and Hildyard illustrated this. In case of Madagaskar Tana plain project, private small enterprises being displaced by 1993 and are entitled to no compensation and lose their places of trade and customers.

3.Homelessness:

Loss of shelter is temporary for most of those displaced but for some families it may remain a chronic condition. In a broader cultural sense, homelessness is also placelessness, loss of group cultural space and identity of cultural impoverishment.

Same issue is raised in case of Foun Gletia Irrigation Project Mauritania by Goldsmith Hildyard, "Only 200 out of 881 displaced families reconstructed their housing, the rest were living precariously for two years longer in tents or under traupline.

4.Marginalization :

It occurs when families lose economic power or and slide a downward mobility path; middle income farm households become small landholders; small shopkeepers and craftsman are downsized and slip below poverty thresholds. Relative marginalization may often begin long before the actual displacement. In case of the National Alluminium company in Korapat district, loss of land resulted in the marginalization and impoverishment and benefited to the powerful high castes and urban population. (Stanley William : 1996 : 1535).

Powar, Patil also raised the same issue. According to them, "Magnitude of the problem arising from irrigation development in India is by no means negligible. The number of people driven away from homes or habitats from dam building is enormous and whatever benefits accrue from these projects don't reach these displaced people. This influence marginalize affected group (1989:21).

Increased Morbidity and Mortality:

serious decrease in health levels result from displacement, causes social stress, insecurity and psychological trauma, outbreak of relocation related diseases.

Food Insecurity:

Forced uprooting increases the risk that people will fall into chronic undernourishment and food insecurity, defined as calorie-protein intake levels below the minimum necessity for normal growth and wake.

Loss of Access to Common Property:

Loss of access to common property assets belonging to communities that are relocated, represents a major form of income and livelihood deterioration. Typically such lost resources remain uncompensated by the government relocation schemes.

Social Disintegration or Disarticulation:

Displacement tears apart the social fabric and the existing patterns of social organization. Production systems are dismantled, kinship group and family system are often scattered, local labour markets are disrupted, and peoples' cultural identity is put at risk.

So according to Mathur Hari Mohan (1995:18). "One unfortunate outcome is the feeling of alienation, helplessness and powerlessness that overtakes the displaced. This stems from the way in which the people are uprooted from homes and occupations and brought to question their own values and behaviour, and the authority of their leaders. Such feelings persist for a long time".

Displacement and Health:

While planning for multipurpose development projects, it is not surprising that health is low on the list of priorities. Ruwani Jaywardhane has raised the same issue, on the basis of a case study of Mahaweli Project in Sri Lanka. The author brings out the significance of proper attention to the health issues in resettlement planning. It is pointed out that, in planning, little attention is paid to the health consequences of resettlement and what attention is paid, is done so only when ill health approaches a crisis point. Secondly, economically deprived and politically powerless sectors of the population were often the targets of massive resettlement, and they were the least likely to voice demand for better healthcare. Thirdly Malaria was among the most prevalent and serious health problems facing development projects, particularly in tropical areas. And lastly, the management of health in large resettlement programme should be handled by a separate authority". (cited from Mathur :1995:4)

Savitri Ramaiah has also observed reduction in health status of PAPs because of loss of calorie-protein intake level, gastro –intestinal disturbances such as indigestion, constipation, (Cited from Verma M.K. :2004:36-37).

Various studies show that development of large water bodies results in the spread of water borne diseases. Among these Malaria being the commonest. This was observed on case of Pong, Nagarjunsagar, Tawa, Mahaveli and Nampong in Thailand, Awashvalley in Ethiopia. Some of the other diseases like schistosomiasis filariasis. Onchocerciasis, Dysentery, Gastro, Enteritis, Diarrhoea, Hepatitis, Cholera, Guinea worms, pneumonia, Respiratory Infections and Tuberculosis are observed in case of Tawa dam. Mahaveli Project of Sri-Lanka reflects so many diseases like skin worm infections, bowel diseases and Malnutrition, Morbidity Mortality, Psychiatric Morbidity and Suicides too. In similar vein, Goldsmith and Hilyard also pointed out the health issues (Goldsmith and Hilyard: 1984:74-75).

Besides, physical health related problems, displacement is also a mental trauma for project affected people. Scholars have observed mental diseases and suicides among the affected people. It is said, “Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.” (K. Park : 1977 : 11).

Impact on Environment:

While constructing big dams in the name of development possible future ecological impacts find little reflection in project planning and policy, some studies have revealed. Besides, large scale displacement related social and cultural problematic issues, construction of big dams leads to several environmental hazards.

It has been noted that, “The exploitation of natural resources in the name of development is leading to the rapid depletion of stocks of the renewable resources, raising serious questions regarding the capacity of the present path of development to generate sustainable growth. Many of the large development projects disturb and pollute the natural order beyond limits of tolerance, thus laying waste the livelihood resources, base not only of millions of people but also future generations. All this is in addition to the large scale displacement of people in the present course of so called Development.” (VIKALP : 1994 :3)

While stating disastrous impact on Environment, Mahapatra says, “The sub-soil environment changes caused by the construction of dam have triggered off causative factors resulting ultimately in a crippling syndrome of knock knees, among the poverty stricken

people living in the command area of the dam. Water seepage from the dam's reservoir and canals has increased the level of the subsoil water. As a result alkalinity level of soil has increased. This in turn has changed the Fluoride, Calcium and trace metals (Copper, molybdenum, Zinc, Magnesium) Composition thus creating suitable conditions for increased uptake of Molybdenum by Sorghum plants. eg., Srisailem in Andhra Pradesh, Subarnarekha and Pong dam in Himachal Pradesh," (Mahapatra : 1991 :280-81)

The negative environmental impacts of large dams and developmental projects have been also highlighted by other scholars [Goldsmith and Hildyard:1984:52-65: Verma M. K.:2004:36-38].

1. Multiple Displacement and problems associated with Projects Involving More than One State :

Lack of long term planning results in multiple displacement. Large Reservoirs involve more than one state, It results in the worse situation of oustees.

Mukerji writes, "The Rihand dam meant progress but it also drawn the hopes of thousand of families on the Uttar Pradesh – Madhya Pradesh border. For generations, Gahbhars family had lived at Raja Paraswar, in UP's Sonbhadra district. In March 1960, they had to leave home when the water of the just completed dam submerged the entire village. In 1978, he had to move again when part of the Chilkadand was acquired for a project set-up by National Thermal Corporation (NTPC) at Kota now renamed Shaktinagar. Like the victim of nightmare he lost it all again in 1989 to the NTPC's third thermal plant in Rihand Nagar." (Verma M.K. : 2004: 45)

Thukral went deep into the matter by narrating the cases of multiple displacement, which have deep rooted impact on the oustees. According to Thukral, "It is worth mentioning that the process of rehabilitation is itself leading to more displacement. The Gujarat govt, in order to rehabilitate Sardar Sarovar Ousteas, is buying private land from absentee landlords willing to sell. But in the process labourers, who were engaged in these fields for years, have been rendered jobless as the ousteas who have been allotted the lands are by and large tilling it themselves. As the problem not yet attracted the attention of the govt, there is not definite estimate of the numbers involved. To rehabilitate the ousteas of Tehri town, which is being submerged by the Tehari dam, the government is building the Tehari Township. In the process, it is acquiring more land and consequently displacing other people, with limited and

so many claimants, resettlement seems to have become a game of musical chair.” (Thukral : 1992 :24-25)

According to Murickan Jose, The Soliga tribals in Karnataka displaced by the Kabini Dam in the 1970's are threatened with displacement a second time by the Rajiv Gandhi National Park. Many fishing families displaced by the Mangalore Port in the 1960's and resettled as agriculturalists were displaced again by the Konkan Railway in the 1980's after they had adapted themselves to farming. Many more such cases are found all over the country.” (Murickan Jose : 2003 : 38).

Thukral also has focused on the plight of the oustees of the projects involving more than one state. She writes, “If the project involves more than one state, an entirely new set of problems arises. In such cases, the plight of the oustees is even worse because even though each state wants to share the responsibility of rehabilitating the people consequently displaced. The case of the pong oustees is a good example. The state of Rajasthan and Himachal Pradesh seen intent on playing a game of Ping-Pong with each other, forcing the oustees to shuttle between the two states looking for redressal in vain. While many were not rehabilitated, Others, having lived their lives in the hills of Himachal Pradesh found themselves unable to cope with the deserts of Rajasthan, where they had been offered resettlement. The affected population had been offered relocation in the command area where the promised waters of the project were destined to reach. But in the meanwhile they found the condition so inhospitable and alien that many were forced to return to Himachal Pradesh.” (Thukral : 1992 :24-25)

2. Lack of Uniform Policy and State of Laws:

The national rehabilitation policy was first mooted in 1985 by a committee of the Ministry of welfare. Then the Ministry of Rural Development in 1993, drafted a rehabilitation policy. These two draft were having many loop holes. Social workers, voluntary organizations, displaced people had suggested changes and made a new draft of National Rehabilitation Policy in 1997. Again philosophers, scholars, activists raised the issue of loopholes of this draft. Lastly in 2003, Central Government declared a National Rehabilitation Policy for project affected people is still being finalized. Thus, India, lacks national policy on resettlement and rehabilitation.

While there is no comprehensive national rehabilitation policy applicable for all states in the country, land acquisition in India is covered by a national law, the 1894 Land

Acquisition Act (LAA) and its subsequent amendments. The LAA allows for land acquisition in the national interest for water-reservoirs, canals, plants, fly-ash ponds, transmission lines and highways to be carried out by the respective states in accordance with its provisions.

Only three states have separate laws on rehabilitation: Maharashtra, Madhya Pradesh and Karnataka. However, these laws are also not automatically applicable to all the projects in these states.

3. Movements / Agitations of PAPs:

For the people affected by the developmental projects, displacement is indeed and unmitigated disaster. The studies conducted in this regard, reveal that the plans of resettlement or rehabilitation have rarely worked well in the past. Therefore, the opposition to development projects by the displaced people is increasing day by day. The displaced people are being supported by a growing number of environmental groups, human rights groups, and NGO's in their fight against developmental projects or for better resettlement or rehabilitation

The Asian experiences of displacement resettlement and the associated problems have been documented by some scholars.

“The case of Kendung Ombo Dam located in Central Java Indonesia, reveals that some dam affected people refused to move elsewhere due to low compensation, inspite of intimidation of people or use of force etc., people were supported by the students and NGO's. When the case of this dam was internationalised inspite of peoples' opposition to move out, Government did not use coercion. The people became stubborn and their stubbornness has been attributed to their fear of being pushed in a worse living condition. Having lost everything, people had no other choice.” (Cited from Mathur, Cernea 1995 ; 122-138)

“In Philippines the resettlement plans for the Chico river project in northern part of the country which the highland tribes considered inadequate generated such violent protests that three out of four dam projects had to be abandoned”. (Hari Mohan Mathur :1995 :32)

4. Impact On Women:

A very scanty material is available on the impact of displacement on women. The scholars have studied process of displacement and rehabilitation, its impact on whole family, community, culture, social life etc. But only few scholars have made passing reference to the situation of women.

According to Tapan K. Bose and Rita Manchanda, (1997) displaced women were particularly vulnerable. Many had suffered sexual violence and carry the scars of psychological and physical trauma.”

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