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# ESTIMATING THE SCALE OF DISPLACEMENT IN REHABILITATION OF DAM OUSTEE IN INDIAN SCENARIO

# OM PRAKASH SHARMA<sup>1</sup>, DEVENDER SWAROOP BHARGAVA<sup>2</sup> & RAVINDRA PRAKASH GUPTA<sup>3</sup>

<sup>1</sup>Research Scholar, Civil Engineering, Shri JJT University, Jhunjhunu, Rajasthan, India <sup>2</sup>Professor, Civil Engineering, IIT Roorkee, Uttarakhand, India <sup>3</sup>Principal, MIT Bikaner, Rajasthan, India

#### ABSTRACT

Whenever a dam is constructed and filled with water up to full reservoir level (FRL), large area of the order of hundreds and thousands of square kilometer get submerged under water and all the properties belonging to this area such as land, houses, agricultural land, villages, tress, forest, wells all are submerged and the properties coming under submergence is all lost and lost forever. Additionally, the loss in population so affected needs to be rehabilitated or resettled which is a huge problem that needs support from political and social systems [1]. There are number of dams in India and elsewhere, more or less every dam has its submerged area resulting rehabilitation of the ousters. The planning execution and implementation of various rehabilitation scheme are typical and difficult due to one reason or the other and as a matter of fact none of the rehabilitation scheme is 100% successful and up to the satisfaction of ousters. For example, Bhakra and Pong Dam oustees even after 50 years are in search of proper rehabilitation. Narmada valley project affected persons are doing day today agitation "The Narmada Bachao Andolan" hence it requires a re-attention and research where are the gaps remaining and how these gaps can be overcome. The aim of the present paper is to present a brief survey on estimating the displacement in rehabilitation of the dam oustees at various districts and locations where dams were constructed from the rehabilitation point of view.

KEYWORDS: Full Reservoir Level (Frl), Submergence, Oustees, Displacement in Rehabilitation

## **INTRODUCTION**

The effects of submergence by various dams were mentioned categorically by M. L. Sharma in "Planning of Construction Management" [1]. In brief these effects include submergence of hundreds to thousands of square kilometers large areas of land, thereby affecting thousands of families and individuals as wells as livestock and employments of the individuals oustees. The problems in resettlements mainly constitute of allotting land to displaced, Irregular Compensation, depreciation of original assets dissimilar land types, relocation charges and fake claims. Various issues of displacement and rehabilitation of the oustees, displaced by various developmental projects has been addressed by literature on the said problem. Kaviraj, Sudipta (1996) in found out that historically after independence, the "mega projects" have become "temples of doom" for the uprooted people [2]. Goyal et. al. (1996), found that people dependent upon the land, forest and other natural resources for their livelihood have been dispossessed of their subsistence through land acquisition and displacement [3]

#### ESTIMATING THE SCALE OF DISPLACEMENT

Baxi, (1989) was of the opinion that no reliable data exist on the extent of displacement and rehabilitation. Only a

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few official statistics are available. Some case studies that are available indicate that official sources by and large tend to underestimate the number of persons displaced by development projects. In the absence of firm project wise data, the estimate of total number of people displaced by planned development intervention from 1951-90 ranges from 110 lakhs to an overall figure of 185 lakhs [4].

However, according to Fernades and Paranjepe (1997), a total 213 lakh people have been displaced by various developmental projects [5].

Table 1: A Conservative Estimate of the Total Number of Persons and Tribals Displaced by Various Developmental Projects in India during 1951-90 (in Lakhs)

Types·of· Project∞	All·DPs· (Lakhs)¤	%·of·DPs¤	DPs∙ Resettled∙ (Lakhs)¤	%·of· Resettled· DPs¤	Back·log· (Lakhs)¤	Back∙ log·%¤	Tribal's∙Dis.∙ (in·lakhs)¤	%·of· all·DPs¤	Tribal·DPs∙ Resettled·(lakhs)¤	%·of·Tribal· DPs¤	Back·log·of· Tribal·DPs¤	%·of· Back· log¤
Dams¤	164¤	77¤	41¤	25¤	123¤	75¤	63.21□	38.5¤	15.81¤	25¤	47.4¤	75¤
Mines¤	25.5¤	12¤	6.30¤	24.7¤	19.2¤	75.3¤	13.30□	52.2¤	3.30¤	25¤	10¤	75¤
Industries¤	12.5¤	5.9¤	3.75¤	30¤	8.75¤	70¤	3.13¤	25¤	0.8¤	25¤	2.33¤	75¤
Wildlife≅	6¤	2.8¤	1.25¤	20.8¤	4.75¤	79.2¤	4.5¤	75¤	1¤	22¤	3.5¤	78¤
Others□	5¤	2.3¤	1.5¤	30¤	3.50¤	70¤	1.25¤	25¤	0.25¤	20¤	1¤	80¤
Total≃	213¤	100⊠	53.8¤	25¤	159.20□	75¤	85.39¤	40.9¤	21.16□	25¤	64.23¤	79¤

Table 2: Displacement by Major Dams of India (1957-1986)

S. No	Name	Year of Completion	River	State	Area under Submergence (ha)	Population Displaced
1.	Maithan and Panchet of D. V. C	1957	Damodar	Bihar	10719	93900
2.	Hirakud	1957	Mahanadi	Orissa	73900	101000
3.	Koyna	196I	Koyana	Maharashtra	11555	20000
4.	Rihand	1962	Rihand	Uttar Pradesh	65000	52000
5.	Bhakra	1963	Sutlej	Himachal Pradesh	16629	36000
6.	Ukai	1972	Tapti	Gujarat	64200	101800
7.	Pong	1974	Beas	H. P	30364	80000
8.	Nagarjuna sagar	1974	Krishna	A. P	28480	28000
9.	Tawa	1975	Tawa River	M. P	20236	38600
10.	Jayakawadi	1976	Godavari	Maharashtra	39833	65300
11.	Kadana	1978	Mani	Gujarat	17722	65300
12.	Srisailam	1982	Krishna	A. P	43289	100000
13.	Uper Kolab	1986	Kolab	Orissa	9067	9000

These figures do not include the sizeable number of people who are not acknowledged as being 'project affected' (i.e. by loss of livelihood caused by natural resource extraction or degradation), those displaced in urban areas and those victimized by the phases of secondary displacement. Secondary displacement refers to those whose livelihoods are adversely affected either as a direct and indirect or as a short-term and long term consequences of the developmental intervention but who are not acknowledged as 'project affected people- (PAPs).

According to Kothari, 1996 If these are tallied, the number of those displaced since independence would be as high as four crores [6].

The number of people permanently uprooted from their homes, is equal to or larger than the population of many major sovereign countries. Out of 213 lakhs people as estimated by Walter Fernades and V. Paranjpe by various developmental projects, 25.5 lakhs of people have been displaced by mines, 12.5 lakhs by industries, 164 lakhs by large and medium dams, 6 lakhs by park and wild life operation and 5 lakhs by other projects. The table 1 presents the details of

displacement of people by various development schemes in India during 1951-90 [7].

Among the developmental projects, dams are the biggest agents of displacement India have the distinction of having the largest number of river valley projects in the world. For rapid irrigation and for hydro-electricity production, there are a total of 3,634 dams (major and medium) which have been constructed during the period of 1951-90. Together with 53.9lakhs displaced by medium dams, a total of 164 lakhs have been displaced by all the dams during 1951-90. People displaced by major dams are given in the table 2 [8].

Patel (1986) and Gangopadhya (1993) worked in Orissa and Surat respectively. They found that there are no comprehensive figures of relationship between the income and social status of the project affected oustees, some micro studies point out that a considerable number of oustees have been a small and marginal fanners, scheduled castes and scheduled tribes and other sections of society [9, 10]

Fact Finding Committee on the Sri sailam Project (FFCSP) (1986) point out that in this project 141 backward castes and 132 scheduled caste households were displaced out of a total 344 households [11]

S. No.	Name	River	State	Population to be Displaced	% of tribals
1	Lalpur	Heran	Gujarat	11,300	83.2
2	Daman	Daman Ganga	Gujarat	8,700	48.70
3	Ganga Karjan	Narmada	Gujarat	11,600	100.0
4	Sardar Sarovar	Daman Ganga	Maharashtra, M.P.	7,500	99.92
5	Narmada Sagar	Daman Ganga	Maharashtra, M.P.	1,70,000	20.00
6	Maheshwar	Daman Ganga	Maharashtra, M.P.	6,200	60.00
7	Upper Indravati	Indravati	Orissa	18,500	89.20
8	Chandil	Subranarekha	Bihar	37,600	87.92
9	Koel-Karo	Koel-Karo	Bihar	66,000	88.00
10	Inchampalli	Godavari	M.P. and A.P.	38,100	76.28
11	Mahi Bajaj Sagar	Mahi	Rajasthan	38,400	76.28
12	Tehri	Bhagirithi	U.P.	85,600	NA
13	Polavaram	Godavari	M.P. and A.P.	1,50,000	52.90
14	Tultuti		Maharashtra	13,600	NA

Table 3: Displacement of Tribals by Major Dams in Different States of India

Alverses, Claude and R. Billorey (1987) worked on Narmada Sagar and SSP, the two main Narmada Valley Project dams, it is estimated that the landless communities comprise 43 per cent and 30 per cent respectively of the total number of oustees [12].

Gadgil M. and Guha, R. C. (1990) worked on the Fissured Land and Ecological History of

India were of the opinion that in SSP about 60 per cent of the proposed oustees are tribals [13]. V. P. Patel points out that in certain areas; well over 85 per cent landless communities belong to scheduled tribes [9]

Mridula Singh and R. K. Samant Ray (1992) in their study often out of twenty-three resettlement centres of the Nagarjuna project, point out that 36 per cent of the oustees are tribals, 4 per cent are scheduled castes and 4. 5 per cent are other backward castes [14]. While the proportion of tribal population displaced incase of Karjan, Panchet, Pong dams can be as high as 50 per cent of the total population, it is lowest, at about 18.34 per cent and 18.92 per cent of the population in the case of Hirakud and Ukai dams respectively. Thus the backward communities, more particularly the tribal regions and tribal people are most affected in this process of development since they form the majority in the resource rich regions.

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The tribal areas produce most of the country's coal, mica, bauxite and other minerals. Out of 498 mines active in 1993, as many as 485 (98%), are situated in tribal regions.

Fernades found that the only major materials found outside the tribal areas are iron and manganese -60.74 per cent and 58.74 per cent respectively, of which are in the predominantly non-tribal areas [15].

Sharma found out that dams (both major and medium) and canals together displaced 63.71 lakhs, park and wild life operation displaced 4.5 lakhs, other projects displaced 1.25 lakhs tribal. In total, 85.39 lakhs of tribal have been displaced by the entire developmental projects during 1951-1991. This figure is more than 10 per cent of the total tribal population of the country. While they only form 7.5 percent of the country's population, their proportion among those displaced by developmental projects in the country as a whole is over 40 per cent 85.39 lakhs tribal, who have been displaced by all the development schemes were 15 per cent of the tribal population of the country in 1981. [16, 17].

In recent past, the tribal among displaced has been increased. For example, of the 11.6 lakh persons to be displaced by 20 representative dams above 50 meter either under construction or being planned in the 1990s, 59 per cent are tribal. The figure will obviously increase for dams planned in predominantly tribal areas. The Central Water Commission's 1990 register of large dams is also instructive (CWC: 1990).

Of the 32 dams of more than 30 meter height completed during 1951-1970, only nine (22.13%) were in tribal areas. between 1971-1990, 85 additional dams of similar sizes were either completed or were under construction. However, by now, not only were they taller and more sophisticated, but around 60 per cent of them were in the tribal region. Table 3 provides situation of displacement of tribals by major dams in India [4].

A recent official report on the rehabilitation of tribals, based on comprehensive study of 110 projects, concludes that of the 16.94 lakh's people displaced by these projects, almost 50 ·per cent (8. 14 lakhs) were tribals (Working Group on Development and Welfare STs: 1993). The tribals happen to be among the most depressed and underprivileged communities in India.

Mathur worked in asian region and found that even after four decades of development they still remain outside the pale of any form of visible material change. Thus, the affect of displacement is more disastrous in case of tribal people [18]. Experience from across the tribal areas in the country illustrates the difficulties that displaced tribals have been dealing with in the market economy. Their low level of modern skills coupled with almost non-existent official efforts to facilitate an easier entry into the dominant economy, pushes a majority of tribals into conditions of servility and bondage.

Escudero, Charlos R. worked on legal issues and opined that for a majority of the tribals, geographical space and an evolved relationship with it has contributed to their cultural identity and their complex patterns of subsistence which have primarily depended on land, forests, water bodies, and animal and plant life. In addition, most do not live in discrete nuclear families but in extended ones that are integrally linked to a larger community fabric. Thus, moving to new places is just unthinkable for the tribal as they are deeply attached to their socio-economic system ·and environment. The word "resettlement" does not exist in many tribal languages [19].

Haimadrof, Chtistoph Von furer worked on *Tribes in India* was of opinion that relocation to new places their culture, customs, traditions, beliefs, festivals, rituals, songs and dances, social organizations, community life, will all vanish forever. No subsequent effort can then undo the damage done to their traditional culture by resettlement [20].

### **CONCLUSIONS**

A brief survey on estimation of displacement in rehabilitation of the dam oustee at various districts and locations; where dams were constructed from the rehabilitation point of view were carried. The construction of large dams is not desirable in India from the viewpoint of the original land owners, especially the tribal in remote areas who are the ultimate losers, whereas, upper crest industrialists, rich farmers (interested in cash crops) as well as urban water and electricity consumers corner most of the benefits of dams. As the projects are part of development They should not be stopped The compensation to oustees should be given up to the extent of satisfaction.

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