

# DISPOSSESSING MOUNTAIN COMMUNITIES



Who will pay  
for Delhi's water?

A study of the  
Socio-economic and Environmental  
Implications of the  
Renuka Dam Project  
Sirmour, Himachal Pradesh

People's Action for People in Need

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People's Action for  
People in Need (PAPN)

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February 2010



## ABOUT PAPN

People's Action for People in Need- also known as PAPN- is a non-profit rural based Voluntary Organization. It was established in the year 1982 by a group of young professionals from different walks of life. It is registered under the Societies Registration Act-1860 [Act-XXI], the Foreign Contribution Regulation Act-1976 and the Income Tax Act of 1961. PAPN is the outcome of the idea to undertake and organize rural development, education, awareness and organizational programmes for socio-economic upliftment of the marginalized, deprived and oppressed sections of the rural and hilly communities leading to their socio-economic empowerment. PAPN with support from Social Work and Research Centre [SWRC] Tilonia, Rajasthan started the interventions at the grass root level by opting for Sangrah Development Block of Sirmour District - one of the least developed, inaccessible and remote areas of the State – for working with the local communities. The first intervention of PAPN was aimed at understanding the needs, problems and issues of the local communities and understanding the problems and difficulties of the area. This was followed up by small field level interventions focused on educational and awareness promotion activities. The part of Shillai Development Block was included in the operational area of PAPN during the year 1989. Since then PAPN is working in 100 plus villages of both the Blocks, also known as the Trans-Giri areas of the District. The vision of PAPN is a society based on equality and social justice without any sort of discrimination, oppression and injustice and the mission is the socio-economic development /empowerment of the marginalized communities including the women, children and the *dalits*.

## ABOUT ACTIONAID INDIA

ActionAid India, supported by our partner organizations, from 1972 have been making modest efforts to partner poor and excluded communities in India to collectively address poverty, inequity and injustice. Our shared mission is to enable an India, and indeed a world, to emerge free from poverty, discrimination and injustice, where every person - irrespective of gender, caste, class, age, disability and ethnicity - fully enjoys human rights with dignity.

Today, more than three decades since we started our journey, we have the privilege of engaging in rights and development action with more than 300 civil society organizations and nearly 5 million poor and excluded people - namely the *dalit* and tribal people, other sections of the rural and urban poor, women, children, and minorities. And, within them, those in vulnerable situations such as people living with chronic hunger, ill health, migrant and bonded workers, children out of education, urban homeless people, trafficked persons, persons with disability, displaced people and refugees, and people affected by natural and human-made disasters.

Also, we have formed partnerships with people who are socially stigmatized, namely sex workers, persons living with HIV and AIDS, manual scavengers, mentally ill people, people in custodial institutions and de-notified tribals. Excluded and invisibilized, such people find it difficult to enjoy their human rights and emerge out of poverty. Our resolve has been to strengthen the voices and agency of these communities to assert for their human rights and dignity.

## FOREWORD

People's Action for People in Need (PAPN), Andheri, Sirmour, Himachal Pradesh, with support from ActionAid India conducted a study to document the threats to the sustainable livelihood of the community by the proposed Renuka Dam Project. The objective was also to document the Case Studies and Testimonies from the project affected areas and conduct a data based study thereof and to understand, document and disseminate the socio-economic impact of the proposed Dam on the lives of the project affected community.

An attempt was made to explore the impacts of the dam on the local community living on both sides of Giri River. The study findings aim to draw the attention of the policy planners, the local community, civil society groups, movements and campaigns on the threats to the sustainable livelihood of the people living in the Giri river valley. The scope and nature of this study was designed in active support and consultation with ActionAid India DRO Team and the Study Researchers - Ms Nidhi Agarwal and Mr. Prakash Bhandari. The study was conducted during the months of October-December, 2009. We are pleased to share the final Study Report/Document with all the stake holders for further action - for advocacy and influencing the policy of Development and Displacement not only in Himachal Pradesh but the entire Himalayan region.

The proposed Renuka Dam Project is one of the largest projects in the backward district of Sirmour in Himachal Pradesh. It is one of the most controversial initiatives in recent days. More than 2200 hectares of land will be acquired for the project and almost 60% of this will be submerged in 4 tehsils of Sirmour District. The submergence will lead to displacement and/or dispossession of more than 750 families in 37 villages leading to huge livelihood losses. The economy of the submergence area is thriving with prime agriculture and livestock rearing based on rich broadleaf, sub tropical forests - a characteristic feature of the Giri valley villages. Most effected people will be dalits, women and children. Most of the dalits do not have their own land while they earn their livelihood working on other's land. Therefore they will not get any compensation for rehabilitation. Socially, women have a lower status than men and are not allowed to participate in decision making. Usually men receive direct compensation and take decisions about how they will spend this money.

During its ongoing interaction and discussions with the local community, PAPN realized a strong need of conducting this study for understanding the impact of dam construction on the lives of local people, especially communities who derive their crucial livelihood inputs from the forests and agricultural land that is proposed to be submerged/acquired for the project. This document will support the struggle of local people by providing scope of advocacy and lastly, move towards the end of injustice which they face due to anti-poor policies at large.

This is a very small contribution of PAPN in the ongoing debates and discussions on Renuka dam. We would like to put forth this document most humbly in order to draw attention of all the stakeholders towards this debate. PAPN shall be more than happy if this document helps poor and marginalized in getting their rights from State.

PAPN is thankful to Ms Nidhi Agarwal and Mr Prakash Bhandari the study Researchers for doing a great job in understanding socio-economic impacts on the lives of locals.

Place: Andheri

Date: 7 March, 2010

Kuldeep Verma

People's Action for People in Need

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ABBREVIATIONS USED

✿ CEC	: Centrally Empowered Committee of the Supreme Court
✿ DFO	: Divisional Forest Officer
✿ DPR	: Detailed Project Report
✿ EAC	: Expert Advisory Committee of MoEF
✿ EIA Report	: Environment Impact Assessment Report
✿ EMP	: Environment Management Plan
✿ FCA	: Forest Conservation Act, 1980
✿ FRA	: (recognition of) Forest Rights Act, 2006
✿ HP	: Himachal Pradesh
✿ HPPCL	: Himachal Pradesh Power Corporation Limited
✿ INTACH	: The Indian National Trust for Art and Cultural Heritage
✿ LADA	: Local Area Development Authority
✿ MoEF	: Ministry of Environment and Forests
✿ MoU	: Memorandum of Understanding
✿ NBWL	: National Board for Wild Life
✿ NTFP	: Non Timber Forest Produce
✿ PAF	: Project affected families
✿ PCB	: Pollution Control Board
✿ RF	: Reserve Forest
✿ R&R Plan	: Relief and Rehabilitation Plan
✿ RTI	: Right to Information
✿ TEC	: Techno-economic clearance

1. BACKGROUND

On 12 May, 1994 the governments of Himachal Pradesh, Delhi, Haryana, Uttar Pradesh and Rajasthan signed a Memorandum of Understanding for the utilization and allocation of the waters of the Upper Yamuna River (Annexure 1 - Copy of the Agreement among five states). As a part of this agreement, a storage dam was to be constructed across Giri River, a tributary of the Yamuna, at Renukaji in Sirmour District of Himachal Pradesh. The agreement, whose legal validity stands challenged because of the absence of the signature of the then Rajasthan Chief Minister, states that the project would meet the drinking water needs of Delhi<sup>1</sup>. It was also proposed that the project would generate 40 megawatts (MW) power. The cost of the Hydropower component would be borne by the Himachal Pradesh government while the rest of the funds, a major chunk, are to be given by the Delhi Government. Initially the cost of the project was Rs. 1300 crores which was increased to 2700 crores and now has been enhanced to 3600 crores<sup>2</sup>.

While the MoU was signed in 1994, the inhabitants of the Giri valley, who will be affected as a result of the Dam, say that they have been hearing about the proposed project since the last 40 years. Political representatives of both the Congress and BJP, the two key parties in the state, have over the last few decades, made several promises of ushering in the project, which they claimed would bring much needed 'development' to what is considered as the most 'backward' region of the State<sup>3</sup>.

As per the Detailed Project Report (DPR) the conception of the project dates back to the early 1960s when the State government proposed to construct the project on river Giri in two phases. The first stage was to be a barrage at Jataun for a 60 MW power project and the second, construction of a 140 metre dam at the confluence of Giri River and Jogar ka Khala to generate 40 MW power and to augment power of Majri power station. "To make this project economically feasible a component of flood control in Yamuna was added in the scope of the project" states the DPR. It goes on to state that during scrutiny of the project proposal it was found that the catchment area of Giri is only 7% of the total catchments of river Yamuna - and a dam here would not really significantly contribute to flood control measures and hence augmenting the

Box 1: Salient Features of Renuka Dam

- Height of the project: 148 meter rock fill dam
- Location: across river Giri 1.50 km upstream of Dadahu bridge
- Length of Reservoir: 24 Kms
- Water Supply to Delhi: 23.3 cumecs
- Installed Power Capacity : 40 MW
- Submergence Area: 1684 hectares
- Total Area to be acquired: 2239 hectares
- Total Villages to be affected: 37
- Total Project Affected Families: 748
- Total Cost of Project: 2700 crores
- Project Proponent: Himachal Pradesh Hydropower Corporation Limited

(Source: From documents like DPR, EMP, R&R Plan, Baseline survey and RTI information from HPPCL)

drinking water supply of Delhi was later added as the main purpose of the dam to make the project viable.

Stage-I of the Giri project (also know as Giri-Bata Hydel Plant) was commissioned in the year 1978. The Giri-Bata project happened to be a run-of-the-river<sup>4</sup> project - smaller in size by virtue of the fact that it did not involve the creation of a reservoir and hence submergence of land/villages. However, in the past fifteen years, since the signing of the MoU, the second phase called the Renuka Dam Project has remained at the centre of many a controversy and conflicts - the most prominent being around three issues - land acquisition for the project and related displacement; the environmental concerns and technical feasibility of the project itself.

Though the displacement concerns related to Renuka Dam came to the fore only around 2006-07 when the project officials started interacting with the local communities, the delay in the Renuka Dam case has been more due to the fact that a large part of the land involved, nearly 40%, is under the category of the 'Forest land' of which 49 hectares falls under the Renuka Wildlife Sanctuary (RWLS). Obtaining the necessary clearances under the Wildlife Protection Act 1972, Forest Conservation Act 1980 and the Environment Protection Act 1972 from the Union Ministry of Environment and Forests has been a real "hurdle" for the Himachal Pradesh Hydropower Corporation Limited<sup>5</sup> which is the executing agency for the project.



A conditional techno-economic clearance was granted to the project a decade ago, in 2000, from the Central Water Commission. At the time the project cost was approximately 1300 crores. As per the clearance letter, the final clearance would be subject to grant of the Environment and Forest Clearances. Though Forest Clearance for the project was rejected once in 2002 by the MoEF based on the Supreme Court orders on reservation of sanctuaries, the matter of diversion of the 49 hectares of the Wildlife Sanctuary was brought up again in front of the National Board for Wildlife Conservation in 2005 and granted a clearance to the diversion of the RWLS<sup>6</sup>. While the Environment Clearance was granted as recently as October 2009, the Clearance for the diversion of 901 hectares<sup>7</sup> of Forest land is still pending.

The acquisition of 1047.61 hectares<sup>8</sup> of private land, on the other hand, which is the back bone of the local agrarian economy, has been made easy by the draconian provision of the Land Acquisition Act 1894. Acquisition notices under the "urgency clause" of the Act have been issued to about 36 villages. While on one hand the Land Acquisition notices are being issued, on the other HPPCL, through what it calls a 'Negotiation Committee'<sup>9</sup>, has proposed compensation rates which are completely unacceptable to the people for their fertile agriculture and valuable private forest lands. The registries and sale deeds have already been initiated and HPPCL through various means has been exerting pressure on the affected persons to accept the rates being offered in order to be declared as beneficiaries under the project (Refer to Section 7 of the document for details). Renuka Bandh Sangarsh Samiti, an organization of project affected villages, formed three years ago, is attempting to raise some of these issues with the government but has got little response so far with the threat of 'compensation awards' being declared looming large.

Large dam projects across the country, especially in mountain states, have repeatedly been surrounded by the same questions and continue to be even today. In Himachal Pradesh, the Bhakhra Dam, the first "temple of modern India" and the world's highest gravity dam at a height of 224 meters submerged 17875 hectares of land of which nearly 5750 hectares

was forest land. Fishing, agriculture and forest based livelihoods of more than 40,000 families were lost. 60 years later many of them still await rehabilitation. The experience with Pong, Pandoh and Kol (under construction), the other large dam projects of the state have been similar. Decades of experience with large dams has shown that the costs outweigh the benefits. That even if the environmental and social costs are excluded - the proposed benefits are almost always over-estimated to justify the projects.

Perhaps the scale and size of the Renuka Dam appears smaller when compared to the Bhakhra or Tehri (which also caters to the National capital's drinking water needs), but the nature of issues and the rhetoric of 'national interest' are common to these pipe-dream projects. In the era of rapid climatic changes when temperatures are rising and rivers drying up, yet another argument challenges the logic and feasibility of these dams - Will there be enough water in the river? Will the already desiccated Giri be able to quench Delhi's insatiable thirst? Is there any justification for this project when Delhi is unable to reduce its losses of 40%? Is this is the least cost option for Delhi's water supply? This investigative report attempts to unravel some of the social, environmental and conceptual concerns around the Renuka Dam project.

## 2. OBJECTIVES AND METHODOLOGY OF THE STUDY

The key purpose of this document is to provide an assessment of impacts of Renuka dam from the point of view of those to be affected and analyze the issues in the frame-work of community rights, resource ownership, use and distribution. The role of the state and its policies in the dispossession of local communities, in the context of this project, has been critically reviewed.

Through testimonies and case studies of the communities to be affected, this document highlights the extent as well as nature of socio-economic, cultural and environmental impacts.

Secondary data, interviews with activists and government officials have been relied on to understand the interventions and response of the State.

The biggest challenge of the field study was to select a representative sample of households for the study in a scenario where no household wise secondary data on affected population has been compiled by the project proponents (while they have initiated baseline studies these have not been made publicly available). In this situation we had to identify the case studies by visiting almost all villages/ habitations that are to be submerged by the Renuka dam project and those villages which are going to be partially affected by the project. Based on the information collected from each village 2-3 representative households were selected along gender, caste and economic status for interviews, case studies and focused group discussions. A picture of the local economy and social dynamics was derived through this apart from perceptions on the project and its impacts. Quantitative assessment of agriculture, livestock and natural resource based livelihood was made during these interviews and discussions which is reflected in tables, text and annexure.

40 of the affected villages/habitations (29 habitations from submerged area and 11 from partially affected habitations) were visited in a stretch of 24 kms from the proposed dam site to zero point of the proposed reservoir during the course of the study. Data was collected through conducting a total of 74 individual interviews, 40 individual case studies, 9 focused group discussions and 4 village meetings, 11 interviews of

members of organizations working in the area and 5 interviews of Government officials. (*Annexure 2: List of villages visited, persons interviewed with caste and gender profile*). As the survey was carried out in the months of October and November in which communities were busy with harvesting of *kharif* crops, sowing of *rabi* crops and collection of fuel wood and fodder for winter, the planned number of village meetings could not be conducted.

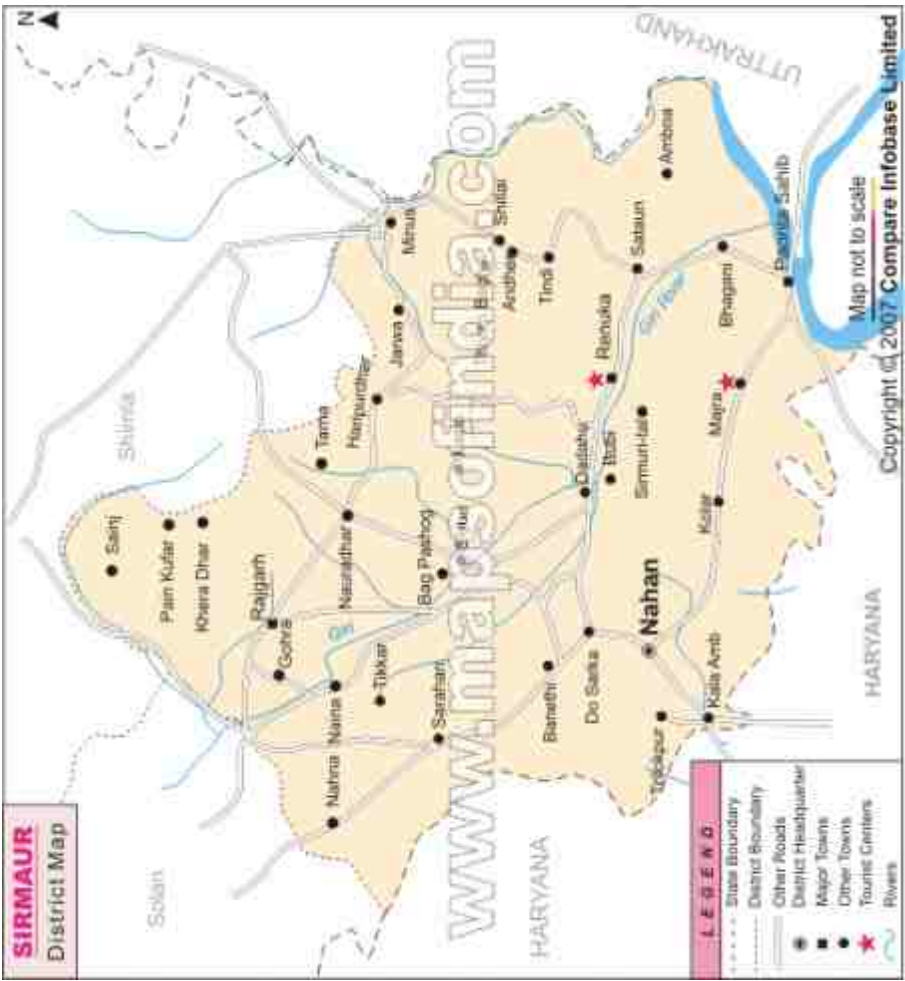
The discussions in the village visits centered mainly around an idea of the basic household economy and assessment of people's attitude towards the building of dam and its impacts on their lives and livelihoods. Wherever, a key member of the village was present, like *Mahila Mandal pradhans*, *ex-pradhans* etc. discussion involved the ways village had adopted to express their concerns regarding the dam. An attempt was made to assess the possible loss to productive resources, like forest area, watermills, grazing areas, the river, agriculture fields, due to the building of dam in the area. Special emphasis was given to visit women headed households and other socially vulnerable communities residing in the village to understand their vulnerabilities further heightened by the possibility of dam construction. The researchers also tried to grasp the inter-caste and cultural linkages to understand the social fabric of the local communities.

The findings of the study which have been presented in the following sections:

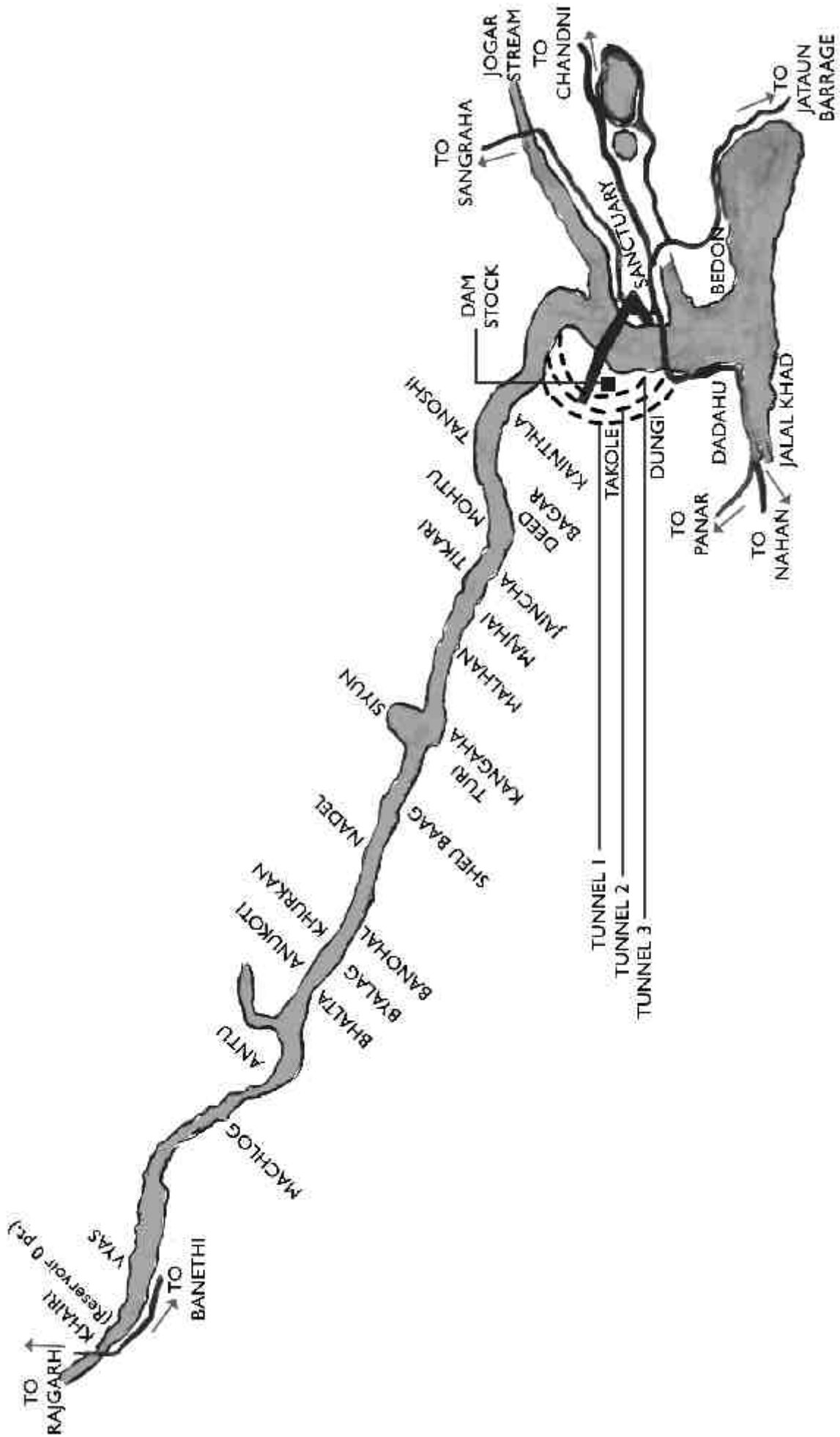
- reveal gaps in the information available in public domain;
- the contradictions in the conception and execution of the project;
- raise the issues of livelihood losses;
- highlight socio cultural and environmental impacts;
- critically analyze the political economy of large projects; and
- expose the role of the state in expropriation of resources and dispossession of communities.



Map 1: State of Himachal Pradesh  
Source: [http://hppanchayat.nic.in/himachal\\_map.jpg](http://hppanchayat.nic.in/himachal_map.jpg)



Map 2: Sirmour District of Himachal Pradesh state  
Source: <http://www.mapsofindia.com/maps/himachalpradesh/districts/sirmaur.htm>



Map 3: The affected area along Giri River  
Source: Reproduced from HPPCL's map provided on notice boards in village



### 3. ABOUT THE REGION

The Giri Ganga, a perennial river, across which the Renuka Dam is proposed to be constructed, originates from the Kupar peak just above a town called Jubbal in Shimla district, north of Sirmour. The river then flows down in the south-east direction and divides Sirmour district into 2 parts - Giri Vaar and Giri Paar (Cis-Giri and Trans-Giri)<sup>10</sup>. The river, which contributes to the drinking water needs of Shimla and Solan and irrigation needs of villages downstream, eventually meets the Yamuna in Rampur *ghat*. Locals say that the river is easily crossed for the whole year except during heavy rains in the monsoons. In the dry months the Giri is reduced to a trickle in some portions. Over the years the level of the river and the flow has seen a considerable decline.



Photo: Nidhi Agarwal

Giri is easily crossable on foot in leaner months

The 24 km long reservoir of the proposed dam would fall mostly in Renuka, one of the six *tehsils* of Sirmour District (Map 3: Map of the affected area). Sirmour district, located in the south eastern part of Himachal, falls in the Shivalik range with Shimla district in the North, Solan district in the North-West, Haryana state in South, and the state of Uttarakhand's Jaunsar Bawar region in the East. Spread over an area of 2825 sq kms, 65% of the district falls under the jurisdiction of the forest department<sup>11</sup>.

The region is well known for its *Sal* (*Shorea robusta*) forests and the Renuka *jheel*, a natural wetland which was declared as a World Heritage Site under the Ramsar Convention in 2005, for its ecological importance. Dadahu, where Renuka Dam is to be constructed is barely a kilometre and a half from the Renuka Lake. Along the slopes of the hills surrounding the lake is the Renuka Wildlife Sanctuary (RWLS), covered with dense subtropical forests. 49 hectares of this sanctuary area will be submerged by Renuka Dam.

Sirmour, apart from attracting tourists for its scenic spots, is also well known for its production of Ginger. According to official records, the total cultivated area in the district is over 70,000 hectares. A few years ago about 78% of the cultivated area in Sirmour was under ginger, producing 83% of Himachal's total output<sup>12</sup>. And though cash crops like Ginger, garlic, tomatoes and peas are common, much of the agriculture is subsistence in nature with maize and wheat as the major produce and livestock rearing forming an important component of the rural economy.

Compared to the other districts of Himachal, Sirmour has lagged behind in terms of over all development with relatively poor infrastructure, road and health facilities. Listed in the 50 most backward districts of the country, Sirmour has nearly 23% of its households residing Below Poverty Line, of which 50% belong to the Scheduled Castes. In fact the district has the highest proportion of scheduled caste population (29.6 percent) in the state (2001 census data). Allotment of land under the land ceiling, land reforms and *Nautod*<sup>13</sup> (common lands) scheme has played an important role in saving the

community from abject poverty but the *dalits* still continue to face exploitation - with practice of discriminatory social customs and distribution and ownership of resources tilted in favour of the upper castes, mostly *thakurs*. The socio-economic status of women in the communities is as low with hardships of day to day living and little access to health, education and resources<sup>14</sup>.

Villages located near ridges and higher up in the valley are facing several crises. Scarcity of water and soil erosion due to deforestation is becoming a common problem in these areas. Limestone mines and quarries have defaced the landscape and caused severe degradation<sup>15</sup>. The average land holding size is small and productivity of agriculture is generally low owing to absence of irrigation facilities. Compared to the terrain and socio-economic conditions of the remote areas of Trans-Giri, the low lying areas of the valley, like the area proposed to be submerged, are better off in terms of agricultural productivity due to good soil quality, ground moisture and rich forests.



Photos: Nidhi Agarwal

(Top) Hand pulled cable car across Bhalta village.  
(Above) Women are the backbone of the household economy



4. THE AFFECTED AREA

Like the rest of the region, the submergence area of Renuka dam can be divided into right bank (Giri Vaar) and left bank (Giri Paar). 17 revenue villages on the right bank and 20 villages on the left bank - a total of 37 villages will be affected as a result of the dam with part or much of their land area being submerged by the 24 km long reservoir. These villages fall in the Pacchad, Rajgarh, Sangrah and Renuka *tehsils* of Sirmour. Beyond this all quantitative data related to the area and people affected by this project is in the realm of uncertainty.

The data on the total area to be submerged is different in HPPCL's various documents but as per the R&R plan the area to be submerged stands at 1630 hectares. Similar is the case for the total area to be acquired (inclusive of submergence area). The figures in the Environment Impact Assessment report<sup>16</sup> indicate the total area to be acquired for the project as 1560 hectares whereas HPPCL, in a response (dated 29 July, 2009) to civil society representations to the MoEF, says that total area acquired will be 2239 hectares. The Environment Clearance letter states that total land requirement will be 1477.78 hectares. To this day it remains unclear as to how much land is actually required for the project and why there are

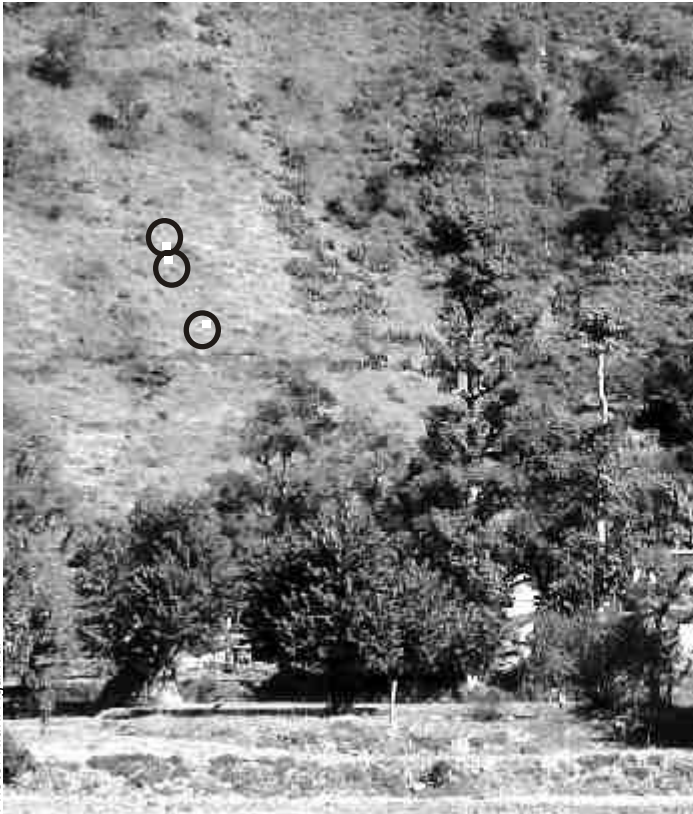
discrepancies between the data from different sources. (See Table 1)

While the Detailed Project Report shows only 165 hectares of private land to be acquired, in an RTI response HPPCL has placed this figure at 591 hectares. In contrast the Renuka Forest Division in an RTI application response informed that the private land involved is more than 1320 hectares. One of the main reasons of 'confusion' around the private land to be lost is the legal status of the land vis a vis the land use. Many families have had village (*shamlaat*) forests regularized into private forests and these are now under individual ownership (see details in the section on *shamlaat* lands). So the private land ownership is of two types, under agriculture and that under forests. As per HPPCL's information, apart from the *shamlaat* forests spread over 455 hectares which would be acquired for the dam, 558.88 hectares of 'Forest' department lands will be diverted. The Forest Department data however puts the forest land figure at 790 hectares, including 49 hectares of Renuka Wildlife Sanctuary which will be diverted towards the project. An additional 110 hectares of 'Other Government Land' will be diverted from other forest divisions for the purpose of compensatory afforestation.

Table-1: Land to be acquired for Renuka dam Project from various documents/Reports (land in hectares)

Documents / Reports	Village	Household	Population	Pvt land	Reserve /Forest land	Govt land	Shamlaat forest	Submergence area	Area to be acquired
DPR	32		1300	165	1075			1197	
EIA report (two sets of data are in EIA)	32	337	2334	436	761.60			1197.60	
				436	485	313		1234	
Environment Clearance letter	32	308		577	901			1197.60	1478
HPPCL office through RTI	37			592	558.88	77.9	455.9	1684	
Baseline Survey	30	786	4166	641					
Renuka Forest Division office				1320	790	127			2237
R&R plan (According to land use)	Village	Household	Population	Agr. land	Forest land	Revenue	Residential /Barren	Horticulture	Area to be acquired
	32	340		376	642	75	475	60	1630

(Source: compiled information from DPR, EIA report, Environment clearance letter, RTI information, Baseline survey, Renuka Forest Division office and R&R Plan)



Three levels of submergence markings (encircled), Syun Village

According to HPPCL's baseline survey, which is yet to be finalized and published, a total of 786 families will be affected by the project. As per the EIA report the affected families have been divided into three broad categories -

- Category 1: Families to be fully displaced - those losing homestead lands;
- Category 2: Fully affected families - losing more than 50% of their land and;
- Category 3: Partially affected - losing less than 50% of their land.
- Category 4: Families losing shops as well.

The mismatch that prevails in the land data also exists as far as data related to the number of affected families is concerned. The EIA report has two contradictory sets of data within itself. Table 7.3 in the EIA report quotes the total number of affected families as 337 of which 115 are going to be displaced (under category 1). 261, 44 and 39 families fall in Category 2, 3 and 4 respectively. However Section 8.3 of the report states that 308 families will be displaced.

According to the Rehabilitation and Resettlement Plan, 340 families from 32 villages are going to be

affected due to land acquisition. Out of these, the R&R plan places 283 as fully affected households and 57 as partially affected. 117 of the 340 families are going to lose their homes and 39 are going to lose their shops.

The Chief Minister of Himachal Pradesh in response to a question in the Assembly gave a whole new set of figures of the affected families and area to be submerged. "About 84 families would be rendered homeless and 81 others displaced due to the Renuka Dam Project in Sirmour district. The government would acquire about 2235 hectares area in which 1731 hectares would be submerged" states the news report quoting the CM<sup>17</sup>.

Some of the possible reasons for this lack of clarity and availability of accurate data about the area to be acquired as identified through interviews with local persons, HPPCL officials and analysis of the available data, are:

- ❖ Absence of a complete field survey and Social Impact Assessment Report. While the HPPCL in different documents claims that this is in progress or almost nearing completion, so far this report has not seen the light of day.
- ❖ "We are still in the process of identifying land", is a response given by an Assistant Engineer at HPPCL when questioned about the different land related data. The conclusion that can be drawn is that the planning stage of the project is still not complete.
- ❖ Revenue records are in a bad shape and need serious updating in terms of genuine shareholders /owners of land and mapping of village boundaries (especially in case of Village *shamlaat* and Reserved Forest lands).

The officer in-charge at HPPCL, Mr. Kathuria maintained a vague status about the final PAF list by saying first that it has been finalized by HPPCL. When the researcher asked for a copy, he said he cannot share it since the DC has to first approve it. When the researcher confirmed if the DC has been given the final list, he again changed his statement to say that the list is being finalized and will be displayed at Panchayat Centers for people to see gaps, if there are any and then it will be sent to DC for final approval.

5. ASSESSING THE IMPACTS

Going by the existing data, the only fact that can be relied upon in certain terms is that the dam is going to be constructed at Dadahu in Renuka *tehsil*. If the dam submergence area is 24 kms long and wide till the points which have been pillar-marked on site, then forests, agricultural lands and habitations of approximately 37 villages fall between Dadahu and 0 point, which is at Khairi/Chaloga Vyas village.

5.1 SOCIO-ECONOMIC IMPACTS

Seventeen of the affected revenue villages fall on the right bank or Giri-Vaar characterized by abundant water due to streams and seepages. Many of the villages on the left bank are supplied water via pipelines from the right bank side. The right bank of the river is north and north east facing and hence covered with thick vegetation. Warm and humid climatic conditions of the valley supporting tropical vegetation ensure better agricultural production as well as availability of a diverse variety of fuel-wood and broadleaf fodder trees to support livestock. As per data obtained through RTI from HPPCL, 3852 *bighas*<sup>18</sup> private land and 2408 *bighas shamlaat* / common land will be acquired on this side. Deed Bagad village on the right bank is losing the maximum private forests (778.5 *bighas*). Malhaan further upstream will lose 658 *bighas* - mostly agriculture land with some private forests.

Fourteen kilometers of the state highway road and all the area below it on the left bank will be submerged by the dam. 3165 private and 2998 *bighas* of common land will be lost on this side, with Siyun being the largest village having an expanse of flat fields of which 1215 *bighas* will be acquired. Lagnu and Mohtu are the other major villages whose agriculture will be impacted. Lagnu is losing 540 agriculture and 852 *bighas* of *shamlaat* land.

THE AGRICULTURAL ECONOMY

Like in all mountain areas here too people use different production systems like agriculture, forest, livestock and manual labour to earn their livelihood. There are strong linkages within all these production systems. Many families may not be earning directly from each of these production systems but without access to forest, livestock and manual labour (no outside manual labour is available) agriculture becomes unsustainable.

The key feature of agriculture in the area is that it is extremely diverse with multi cropping and mostly three crops a year. Table Number 2 shows the 28 different variety of food grains, pulses, oil yielding crops, spices, vegetables grown in the affected area, that were documented during the course of this study (This is not an exhaustive listing). While crops like ginger and garlic are the traditional cash crops cultivated in the area, tomato, capsicum, french bean, peas and other off season vegetables have picked-up as cash crops in recent years. The per *bigha* income from tomato is the highest at Rs. 40,000/-. This crop is highly dependent on forests for providing branches to support the tomato plants and to fulfill its high demand for organic manure. Ginger, which used to be a major crop in the past has in the last few years, taken a back seat because of pests and diseases. Apart from these wheat and maize remain the staple crops. Most villages are located at quite a distance from Dadahu, the main market for the area, and are entirely self-sufficient in terms of food requirements. There is minimal chemical input in what they grow and consume which contributes to their overall nutrition and health as well.



Aloe vera saplings being raised in a nursery in Vyas village

Farmers realize the scope for diversification in agriculture because of good quality soil and availability of water. The example of floriculture in Mohtu village and nursery raising in Vyas and Maangan indicates that with little support local farmers can really expand their incomes. However, with the dam on the anvil, people are now apprehensive to take on risks and new initiatives on their farms. (See Box 2)

Table 2: Main Crops Grown in Submergence Area and their production

	Crop	Productivity (Qt/ <i>bigha</i> )	Rate (Rs/Qt)	Total earning per <i>bigha</i>	Seed (kg/ <i>bigha</i> )	Seed Cost	Chemical Fertilizer (kg/ <i>bigha</i> )	Cost of Chemical Fertilizer	Organic Manure (Qt)
	FOOD GRAINS								
1	Maize	7.4	800	5920	5	100	50	450	15
2	Wheat	3.6	1200	4320	25	225	50	450	15
3	Paddy	4	1800	7200		own	50	450	15
4	Finger Millet	In small quantities				own	0		15
5	Buckwheat	3	2500		25	own	0		15
6	Amaranth	0.8	2200	1760		own			
	SPICES								
1	Ginger	13	2000	26000	2.5	own	50	450	40
2	Garlic	5.5	2500	13750	60	own	50	450	30
3	Turmeric	1.6	7000	11200		own	0		30
4	Chilly	0.6	6000	3600		own	0		30
5	Coriander	In small quantities				own			
	PULSES								
1	Black gram	0.5				own	0		
2	<i>Kulth</i>	0.8				own	0		
3	<i>Rangoon</i>	In small quantities				own	0		
4	Horse Gram	In small quantities				own	0		
5	Peas	2.5	3000	7500	10	own	0		
	OIL YIELDING CROPS								
1	Sesame	In small quantities	2200			own	0		
2	<i>Todiya</i>	1.8	3750	6750	12	own	0		
3	Mustard	1.8	3750	6750	12	own	0		
4	<i>Taramira</i>	1.8	3750	6750	12	own	0		
	VEGETABLE								
1	Tomato	100 crate	400	40000	40 gms	375	50	450	30
2	Potato	7.5	800	6000	50	own	50	450	30
3	Onion	10	1000	10000	1	own	50	450	30
4	<i>Arbi</i>	11	1500	16500	35	own	0		30
5	Capsicum	125 crate	300	37500	40 gms	375	50	450	30
6	Beans	In small quantities				own			
7	Ladysfinger	In small quantities				own			
8	Peas	In small quantities				own			

(Source: Primary data collected during this study.)





Photo: Nidhi Agarwal

Floriculture, Mohtu

#### Box 2: Floriculture in Mohtu

Durga Ram Sharma, resident of Mohtu, has been practicing floriculture since the past 11 years. He has a total of 10 bighas agriculture land, of which he has dedicated 2.5 for floriculture work. At present he plants up to 10,000 cuttings of chrysanthemum on 1.5 bighas and Marigold flowers in the rest. He gets about 40,000 flowers of chrysanthemum through the season and at least 10 quintal flower of Marigold. Chrysanthemum is sold at Rs. 6 /flower and Marigold at Rs. 25-30 per kg, in the Chandigarh market. If for some reason the rates of flowers are low in a particular year, he sells the seed and cuttings of the flowers, as even that fetches a good price. Marigold seed fetches Rs.600 per kg and at 60 kg seed yield per 100 gm of seed sown he makes a good profit. The seedlings of Marigold sell at Rs. 0.4 per plant and chrysanthemum at Rs. 2 per plant. He generally receives orders from the local horticulture department for seed and seedlings. In all, he is able to make a net profit of Rs. 1.5 lakh - 2 lakh per season, from floriculture itself. Apart from this his orchard of mango, lemon, peach and pear earns him about Rs. 20,000 per year. His agriculture income is another 2 lakh from sale of cash crops. Rs. 40,000 worth of wheat and maize adds an additional income. He also has 5 cows, 4 bulls and 12 goats and sells 5 litres milk everyday and up to Rs.10,000 worth of goats every year. Earning from animal husbandry forms a critical component of his cash income. He says that the land in these villages is extremely fertile, but because of the submergence scare, people are not confident to diversify.

In the entire submergence area there are hardly any farms without irrigation facilities. Of the 74 persons/families who were interviewed during the course of this study all of them reported that more than 90% of their land was irrigated. Even the EIA report states *"Most of the area falling in the submergence zone has a well developed irrigation system with water channels drawn from the natural springs through the pipes. Sprinklers can also be seen in many of the villages."* In case of Siyun village where there is no major irrigation scheme individual families have developed their own irrigation systems - through minor lift irrigation using other sources of water. Interestingly, these are not reflected in revenue records, based on which HPPCL is collecting its baseline data, as irrigated lands. Figure 1 shows the percentage of irrigated to non-irrigated land, based on data obtained from *tehsil* office, Dadahu.

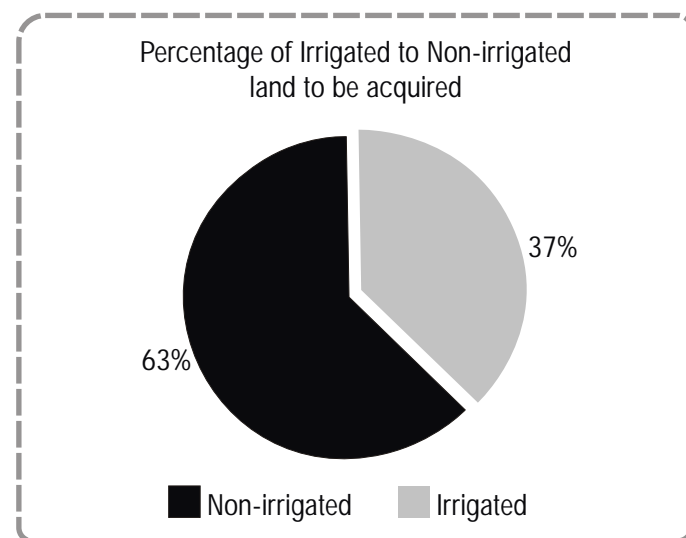


Figure 1: Percentage of Irrigated to Non Irrigated land to be acquired as per HPPCL  
(Source: From Revenue *tehsil* Office, Dadahu)

Similar is the case for Nadel where there is a government sanctioned irrigation scheme since 1995 and the entire agricultural land of this village is irrigated, but in the revenue records is seen as non irrigated land. As a result from HPPCL's data on agricultural land obtained during an interview with the R&R officer, it appears that only 37% of the private land to be acquired is irrigated through local streams and sources and the rest is non irrigated. However, if the revenue records are updated as per the situation on the ground today the irrigated area will be substantially

higher. When the Nayab Tehsildar was questioned in this regard she mentioned that the District Collector has ordered for updating of this information in the revenue records.



Photos: Nidhi Agarwal



(Top) Government lift irrigation of Nadel is missing from revenue records  
(Above) Diversity in agriculture fields, Sheu Baag village

Most of the agricultural land is multi cropped and crop rotations followed are common for both irrigated and non-irrigated land the only difference being that non irrigated areas grow 3 crops only when there is good rainfall. As found during this study, crop intensity varies from 200% to 300% which is pretty high and not common in mountain areas. This is possible due to warm humid climate and irrigation facilities in the area. Tomato and *todiya* (a local variety of mustard) are used as short duration crops.

Based on the interviews conducted in villages during the study, it was found that the agriculture in the area

requires very low external input in terms of chemical fertilizers and pesticides and purchasing seeds from the market. On an average a farmer uses 50 kgs of chemical fertilizer per crop (that too for few specific crops) in one *bigha* and earns on an average around



Photo: Nidhi Agarwal

Vidya Devi's orchard

#### Box 3: Signs of a thriving economy

Vidya Devi manages her household in Taapri, a hamlet of Deed Bagad all by herself, while her husband takes care of the alternative land they have near Sangrah on the left bank of Giri. She has extremely productive irrigated lands on which she has grown an orchard apart from the varied mix of crops she grows. Of the 45 *bigha* 8 biswa land, she has orchards of papaya, guava, walnut, *galgal*, *shisham* on 40 bighas and the rest 5 bighas are agricultural fields. She earns nearly Rs. 1.5 lakh every year from her orchard itself. Her family shifted from near Sangrah to Taapri, because the un-irrigated fields on the top of the ridge were not enough to take care of the family. The rich forest close by also provides for her 5 Jersey cows because of which she earns an additional income of Rs. 160 per day (10 lit of milk sold everyday @ Rs. 16 per liter). The natural moisture in the soil is extremely high, as her fields are located at the foot of the hill. She is able to earn approx. 1.25 lakh from her agricultural produce as well. Apart from this, there is enough for her to feed her entire family. Little wonder then that she says, *"Even if we get Rs. 1 crore per bigha compensation for this land, it is not enough. We earn lakhs every year from this land - where will we find such land?"*



Rs. 40000 per *bigha* of land (*Annexure 3- Annual crop rotation in the submergence area*). As mentioned earlier with every major crop, 2 or 3 other minor crops are cultivated which is not reflected in this income. The other main feature of agriculture in this region, like in most mountain areas, is that it is extremely labor intensive and almost all adult members are employed on the farm — even the children and the aged of the family have some role to play in drying of crops, separating the roots of ginger from plants etc. Most of the times additional labour is also employed during harvest and sowing seasons.

In terms of “market” price of land, the economic value might not be high, but in terms of production and the population it is sustaining, its contribution to the local economy is highly significant. Cash crops grown in the

Table3: Case of Surender Singh - Income Profile, Village- Kunti Bagh, Siyun

Earnings from Agriculture				
Crop	Cultivation Area (bigha)	Qty. sold (quintals)	Earning (Rs.)	Own consumption
Maize	5.5	6	5000	14 quintals
Ginger	1.5	14	48000	for own use
Garlic	1.5	11	54000	for own use
Tomato	0.5	40 crate	20000	for own use
Mustard	3	2	4000	1 quintal
Amaranth	2.5	2	5000	for own use
Wheat	5.5	2	2000	8 quintals
Pulses				for own use
Vegetables				for own use
			138000	
Earnings from Fruit Trees				
Species	Number of Trees	Qty sold	Earning	Own consumption
Mango	12	2 quintals	3000	for own use
Gooseberry	4	-	-	for own use
Peach	10	-	-	for own use
Pear	7	-	-	for own use
Lemon	12	5 quintals	35000	for own use
Khair	35	-	-	
			38000	
Earnings from Livestock				
Products	Quantities	Rate	Earning	Own consumption
Ghee	200 kg	300/ kg	60000	small quantities
Goats	4 goats	4000/goat	16000	1 goat for a year
Milk	-	-	-	2 liters for whole year
			76000	
Daily Wage Labour				
Labour	Days	Wage (Rs.)	Earning (Rs.)	
1 Member	180	100	18000	
	Total earning		270000	

(Source - Primary data collected during field surveys)

area have not been updated in the revenue records, though the *patwari* (field based revenue official) is supposed to record the crops and their production every six months. This is hampering the calculation of the true worth of land here apart from the fact that land buying and selling is not very common and hence valuation of land remains low. Table 3 gives a detailed income profile of a family with 8 members and approximately 10 bighas of land, mostly un-irrigated. While the total earning for the land adds up to 2.7 lakhs in this case, for farmers who have mostly irrigated fields and ownership of private *shamlaat* forests the income would be more than the double of this.

### PRIVATE LAND OWNERSHIP AND DISTRIBUTION PATTERNS

Most families which have settled in these villages of the Giri Valley, especially Giri-Paar have migrated from the villages located on the upper ridges. In the past they used these low lying areas as “*Dogariyan*” (temporary settlements/sheds) and used to come down with their cattle in summers/monsoons, cultivate the land and go back to their permanent residence in winters. But as the families grew larger, part of them came down to the valley and started living here permanently. Owing to this background a certain kind of resource use pattern has developed, which varies from village to village and sometimes within a village from family to family.

1. There are those families following the traditional system - migrating down to the valley seasonally and residing there for part of the year to carry out agricultural activities.
2. There are cases where part of the family is permanently residing in the valley areas and the rest of the family members, residing in the upper reaches move down to these areas in summer to help with the cultivation and move back in winter.
3. There are families who have divided the responsibilities amongst the adult male heirs (and their nuclear families) to live and earn their livelihood as and where they are settled - valley or upper villages (without division of property titles).
4. There are those who have given their lands in the valley to share croppers residing permanently in the area. If a farmer is not able to till his entire land, he gives it away on *adhiya* to another farmer, an

arrangement whereby he gets half the produce from that land. If the land is rented then the owner receives a fixed amount as rent on an annual basis from the tenant. A lot of marginal, landless farmers, many of them *dalits*, depend on these arrangements to secure enough food grains for their families and at times also cultivate cash crops on these lands in the valley which provide crucial cash incomes for their families.

5. There are a few cases that cannot be technically classified as tenants but are engaging in farming on lands owned by others settled elsewhere. These are mostly Nepalis and marginal farmers who came into the area a few decades ago, and are tilling others’ lands through an informal arrangement without entering into any official contract or paying any rent.

In the first three types of land use arrangements, the land title is not necessarily divided among different shareholders. So while it is common to find a single family cultivating a huge piece of land, when it comes to ownership there may be many shareholders making the average land holding size in the area small and a large majority of the population marginal farmers.

Hence HPPCL's R&R plan figure which places almost 70% of the farmers in the area as small and marginal may actually be an under estimation. And though the size of the holdings is small the combined production

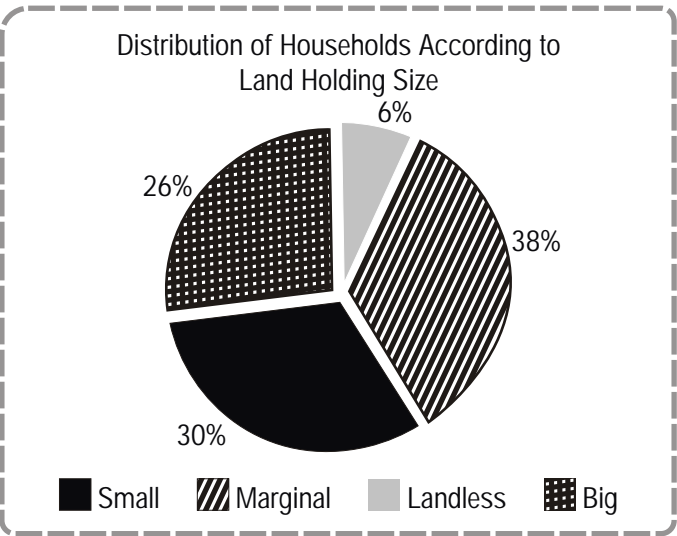


Figure 2: Land holding wise percentage of households.  
(Source: R&R plan prepared by HPPCL)



Box 4: Agricultural land spread across villages

Kamla Devi, a 50 year old widow lives in Nadel with her 2 sons, their wives and children. Her husband died about 15 years ago leaving the family in dire straits. She has a share in her husband's ancestral land in 4 villages. The family owns 7 bighas of irrigated land in Nadel which is cultivated by her. This land is irrigated through a lift irrigation scheme built by government, but on records shown as un-irrigated. This land will be entirely submerged. In Byalag she cultivates 4 bighas irrigated land all of which will be submerged in the Renuka Dam reservoir. Apart from this she owns 4 *bigha* land in Gawahi which is un-irrigated. Her father-in-law stays there and cultivates this land. In Kaapar village, their family has another 7 *bigha* of un-irrigated land, which is also cultivated by her father-in-law. "Even if we have alternative land, without water it is difficult to survive", says Kamla Devi. She is able to earn nearly Rs. 4 lakh/annum from the cash crops (ginger, garlic and tomato) she grows in Nadel and Byalag. She is able to grow enough of wheat, maize, turmeric, mustard, pulses, vegetables and spices for her family's consumption. She even has fruit trees on her land which add an additional Rs. 10,000 annually to her cash income. She currently owns 1 buffalo, 2 cows, 2 bulls, 2 goats. Since the village is far from road-head, she is not able to sell milk everyday but sells nearly Rs. 10,000 worth of ghee every year.

of these jointly owned lands (both in the valley and above) is able to meet the subsistence requirements of the entire joint family unit, apart from providing crucial cash income. There is little doubt that the dam will submerge the qualitatively better lands (in the valley) and hence directly affect the food security and sovereignty of the families.

Further, an issue raised by many farmers was that when compensation for acquired land is distributed, naturally all the resident owners of the concerned piece of land and its shareholders will claim their share of the compensation and will even get considered as eligible for it. This in turn will have two consequences. The tiller of the land will be left with a measly amount and, there is a high possibility that it will lead to disputes amongst shareholders over the compensation amount.

If we look at the caste profile of the farming communities as well as the affected families, nearly 70% belong to the General caste, mostly *thakurs* and Brahmins. The rest of the 30% belong to the *koli* and

'*chamar*' communities classified as Scheduled Castes, who are also cultivators<sup>19</sup>. Surviving mostly on agricultural labour in earlier times, the *dalit* communities, who have been historically landless, got titles on land either during land settlement or through *patta* system<sup>20</sup>. In 1972, the Muzara Act (Land and Tenancy Act) of Himachal Pradesh allotted land to the tiller (Muzara). Those who were not able to get land under this Act, were provided a minimum of 5 *bigha* per family either from the land recovered under Land Ceiling Act or on *shamlaat* land (Common Property/Village forests), also during the 1970s. These are the only agriculture lands owned by the *dalits*, which may have got further divided between brothers, but still fulfill the subsistence food needs of their families. If these lands are submerged, they do

Box 5: Multiple shareholders on a small piece of landholding

Tikari village, Panchayat Rajana is a part of Lohara Tikri Revenue village. This village is located just next to the river on its left bank. There are 11 households in the village, of which 3 are SC, 7 OBC and 1 General Caste. On 125 bighas of fertile irrigated and 30 *bigha* of un-irrigated agriculture land in the village, there are 30 shareholders from within the village and 50 more from villages like Baunal, Kakog, Ghadyat, Rajana, Mayana and Samra.

All the resident 11 families also have a share in 5 other villages. So in this case, despite the entire village proposed to be submerged, not a single farmer will be "landless". Nor will the shareholders get enough compensation (as per the current compensation rates decided by HPPCL) to enable even one of them to buy land elsewhere.

Harichand, who lives in the village across the river, Reda (part of Deed Bagad) owns over 17.5 *bigha* of land which was purchased by his father about 30 years back. However, this land is shown as "charagah" under revenue records with nearly 100 shareholders, though Harichand and his family has been living here and cultivating it since past 30 years. Till date local revenue officials have not bothered to rectify the record as it is a remote area and Harichand could continue to do whatever he was doing without anybody raising an objection. However, now that the dam is proposed and all this land is coming under submergence, all shareholders from Deed Bagad revenue village are likely to claim their share in the compensation, fears Harichand.

not even have alternative lands in other villages like most other families do and neither will the compensation amounts be large enough to purchase land elsewhere. There is also a speculation that the *shamlaat* lands above the submergence areas will be declared as Reserved Forest, so people are not going to be able to get rights or ownership over these lands for their livelihoods. Apart from these, 17 families of Muslim and Hindu *gujjars* who reside in two villages of the submergence area are losing all their homestead and agricultural lands. Traditionally pastoralists, these families are now settled agriculturists in villages Siyun and Vyas. The Muslim *gujjars* in Vyas were allotted land by the government whereas the Hindu *gujjars* of Siyun bought land and settled themselves. The former are now mostly dependent on labour, as the one family which got 5 bighas is now divided into 5 families with minuscule proportions of land in each family's share. None of these *gujjar* families will be left with any alternative lands or livelihoods if the dam is constructed.

Women have no ownership over land, private or common. They continue to labour on the land to raise the family and remain at the margins as far as their rights are concerned with almost no control over the family income. Decisions related to land also, obviously remain out of their domain, which will make them the most vulnerable group, when dispossession occurs. And yet the access to land, even in absence of ownership provides women the much needed support that the absence of it will take away. In a Focus Group Discussion in Nadel village, with widowed women, the importance of land as an asset was highlighted. Kamla

Box 6: Women and Land

Tara Devi, a scheduled caste woman, lived with her husband in Sheu Baag, from where he sold off all the land without telling her and ran away, leaving her behind. Now she has been forced to come back to her mother's house at Machher village. He left behind 5 children with Tara who now depends on daily wage labour to take care of her family. She earns Rs. 20 per day. She does not have her name in the ration card either, so she cannot avail the PDS supply. This kind of destitution may become common as productive resources like land, controlled by the male members of the family, are easily converted to cash.

Devi said, "Because our husbands left behind land, we could raise our children, else we would have been reduced to labourers".

Women are not expected to be active in Gram Sabhas and village matters and as a result collective actions related to the agitation against the dam have also seen few women. When men of the family decide to sell the land they almost never take the opinion of the women. The compensation amounts when distributed will be handed over to the title holders, generally the male members of the family, further exacerbating gender divides in the society.

SHAMLAAT AND RESERVED FORESTS: TENURE AND USES

In mountain regions forests are the backbone of the agricultural economy, providing valuable ecosystem services, leaf litter, fodder, fuel and other non-timber forest produce, contributing directly to cash incomes and lending support to cultivation. Forests are an intrinsic part of the landscape in the Giri river valley as well. While many of these lands are classified as "forests" under the jurisdiction of the Forest Departments, there are other forests, of equally good or better health, that are known as *shamlaat* jungle.

In Himachal Pradesh, the forest and land settlements carried out in the 19th and 20th centuries, established a framework for ownership of forest lands. While this ownership was vested mostly with the Forest department, the framework also recognized community and individual rights over forests. *shamlaat* lands were the village commons delineated as a buffer zone between "forest" lands and villages<sup>21</sup>. These included riverbed lands, pastures, wastelands etc whose ownership was with the village under the Punjab Common Lands Regulation Act 1961. The landed classes, mostly Rajputs, were the ones who remained in control of this common land by virtue of their ownership over private lands and being higher up in the caste hierarchy. The *dalit* families who were tenants of the Rajputs however were using the common forests to sustain their livelihood needs.

The government of Himachal in the 1970s to implement afforestation programmes took control of much of this common *shamlaat* land under the HP Village Common Land Vesting and Utilisation Act.



However, the act consisted of a provision where by individually partitioned forest land could be exempted from take over by the state. Those who were astute and understood the law used this provision to get the land transferred back to a group of families or share-holders. More recently in 2001, the shamlaat forests, which remained unused by the government were returned to the villages and the state recognized only those families as shareholders in *shamlaat* lands, who had recorded land ownership over private lands before 1972.

As a result in the Giri valley one finds various ownership patterns over *shamlaat* forests. These include:

*Jumla Malikan* or *Mushtar shamlaat* - terms used for *shamlaat* land which has been privatized, but by a group of people/various shareholders of a joint family and not distributed individually. The land use tends to be for fodder, fuel, timber, NTFP, etc.

*Malkiyat* jungle - term used for *shamlaat* land on which *takseem* (regularization) has been done and now it is a private landholding of individual households of the village. This can even be converted to agriculture fields if the families want. Those who weren't aware of this provision did not use it and hence there are some areas left under the former — *Jumla Malikan*. As political parties continued promising regularization, cases of 'encroachment' on *shamlaat* forests also led to privatization of these lands<sup>22</sup>.

*Shamlaat* forests converted to Reserved Forests: Up to 25% of *shamlaat* lands where plantations were undertaken were kept with government itself. Also, probably the land near streams, river and vertical slopes was retained as well. Interviews with the Renuka Division DFO revealed that this area has been converted to Reserved Forest (RF under the Forest Department); however he failed to give details of when the conversion took place. (The information is awaited through an RTI filed by researchers).

It is important to mention that *daliits* and landless farmers were also allotted some *shamlaat* lands under the *Nautod* scheme within the provisions of HP Village Common Land Vesting and Utilisation Act 1974. However, very few SC families received any titles or rights of the *Jumla Malikan* or *Malkiyat* jungle because

they had no land entitlements before 1970. So while landless and Scheduled Caste families continued to use these lands for their forest related needs as a 'privilege', they have no legal rights on these lands even today. However, inter-caste relationships, though historically feudal in nature, recognized their need to use the forest as a means of survival, a space that will be lost once they are uprooted from their traditional social context. Neither will the dalit users of these *shamlaat* forests, that may be acquired, be compensated for their losses. Also, while other farmers might be able to carve out agricultural fields in their leftover *shamlaat* lands, the SC's will not have any alternative asset left if they are losing agricultural land to the Dam.

Mostly, the *Jumla* and *Malkiyat shamlaat* have been retained as forests because they support livestock rearing, the twin occupation with agriculture. Animal husbandry contributes a large share to the cash incomes in almost all villages the villages that are near to a road sell on an average at least 5 liters of milk per family daily. This does not take into account the milk that is used for household consumption which would be equal in quantity to what is sold. Villages which are located away from roads mostly sell ghee (clarified butter), the selling price being a good Rs.300/kg. An average of 3kg per month is sold from each family and an equal amount consumed at home. Apart from rearing cattle and buffaloes, almost every family in the area rears up to 6-7 goats and sheep which are sold in situations of financial crunch. The production of milk and the health of the goats are related to the quality of fodder and the area has innumerable species of fodder trees on their *shamlaat*/agriculture lands, especially on right bank. The left bank has good quality grasses, as it is comparatively drier, where grasses grow better than fodder trees. In some villages, where crossing the river is easy, there is inter-village dependence for sharing of fodder and grasses, like Mohtu (on left bank) and Taapriwaala (on right bank).

Since animal husbandry is strong, farmers mostly use farmyard manure. Locals claim that use of chemical manure is not very common. There are some crops like ginger, garlic and tomato for which chemical manure is considered harmful and thus the need for farmyard manure is much more. Fuel wood is relied upon as the main source of energy for cooking and household

#### Box 7: The *Dalit* Farmer's share

Panaar village has two plots of *Mushtar shamlaat* - one above the village and one below the village. The plot below the village is going to be submerged under the dam reservoir. About 50 SC families have been traditionally using this area for their grass, fuel wood, fodder and leaf-litter needs, though they don't have entitled rights of use. Though there are some SC families in the village, who could get legal rights over the *shamlaat* land in their village.

Roop Singh is an 80 year old resident of Panaar village belonging to the *koli* community. Roop Singh got land in 1970, when the government gave *pattas* to families who owned less than 2 *bighas* of land. So now, he and his son, Ram Swaroop, have a total of 5 *bighas* of irrigated land. His agricultural produce is not sufficient for him to feed the family for an entire year, so he takes about 4 *bighas* of land on *adhiya* (share cropping). Since he has only one son, who is not yet married, his agricultural produce not only takes care of his sustenance, but he is able to earn cash income of about Rs. 2 lakh in a year too. The submergence marking is about 30-40 feet below their agriculture land, which does not entitle him as a landless as per HPPCL category. But he fears that his land will also be affected by the huge reservoir.

Ram Swaroop's family also has a share in the *shamlaat* plot below the village, very little of which will be saved from submergence, though Ram Swaroop had to fight a legal battle to legalize his rights over the *shamlaat* land. His father had filed a case to get legal ownership of the forest land that he had been tilling since a long time. The *thakurs* of the village filed a case of encroachment against him, but the decision was given in Ram Swaroop's father's favour and hence he even got rights over *shamlaat* because his ownership of agricultural land was established before 1972 (In 2001, when the *shamlaat* was returned to the villages, government recognized the share for *shamlaat* only for people who had agriculture land ownership recorded before 1972).

As Vijay Kumar, another farmer belonging to the *koli* community said during the discussion, "Only Rajput families have share in the *shamlaat* that will be submerged. However, even *koli* families are allowed to use that land as this is close to the village and well equipped to meet everybody's needs." Sohan Singh and his wife Nanda Devi of Behra Mataniya village, own 5 *bighas* of agricultural land in the village. Their family, which is further divided into 8 families, gets hardly enough agriculture produce to suffice them. The couple has to take land on *adhiya* to take care of their subsistence. They do not have legal entitlement over *shamlaat* but they said that they have a *kabza* over 80 *bighas* of *shamlaat* land that is going to be submerged. And all this land is below the submergence markings. "We will lose at least 6 months worth of fodder and fuel wood that we get from this *shamlaat* land".

needs. Demand for fuel-wood is almost entirely fulfilled from private forests. The leaf litter they get from the *shamlaat* lands is of very good quality as this area has abundant and rich broad leaf forest. In villages far from road, the main source of transport for agricultural and horticulture produce is mules, which are easy to rear due to abundant forests and agricultural by-products.

Some farmers have used their privatized *shamlaat* forests to raise orchards and are earning their main cash incomes from sale of horticultural produce. The income from horticultural produce is especially significant for farmers who are not able to cultivate their agriculture fields due to paucity of labour, unavailability of irrigation sources, etc.

Some of them, as illustrated in Box 8 have a major proportion of their private landholding in the form of forest and hence are dependent mostly on this land for cash income. Their cultivated land is comparatively much less.

A sizable *khair* (*Acacia catechu*) production from these private forests, mostly on the right bank villages is also an important income source. The bark of the tree (a by-

#### Box 8: Private Forests as main landholdings

The Renuka dam wall is proposed to be built on the *shamlaat* land owned by Sitaram and his 3 brothers. Sitaram Pundir, a 30 year old shopkeeper in Panaar has a share over 160 *bighas* of *shamlaat* land on which he has *shisham*, *khair*, *amla*, *kakarsinghi*, *baheda*, *toon*, *harad*, *karal* etc. species of trees. In 1990 he sold *khair* worth Rs. 1.5 lakh from this land, after which he planted about 250 more trees of the same species. Apart from this, he sells nearly Rs. 6600 worth of *amla*, Rs.4500 worth of *baheda*, Rs.6000 of *harad* and Rs.10,000 worth of *anar dana* (pomegranate seeds) every year from this private forest. He will lose about 40 *bighas* of this private forest in reservoir submergence. Apart from that HPPCL wanted to make a path through this land, which he stopped. "I am the only person in the village who sent back HPPCL labor who came to make path on my land. I will not let any dam construction activity take place on my land", said Sitaram.

product of *kattha* extraction) is also sold. Forest Department opens the beat once in every 10 years for *khair* sales. The last *khair* sales in the area were in 1990 (in Panaar area) and 2001 (in Siyun area). Since then the Supreme Court had imposed a ban on *khair* extraction. The ban has been lifted as recently as October 2009.





Kakadsinghi-medicinal plant

contribute to diversity of food-preparations.

The private forests also have a lot of medicinal trees such as *amla*, *harad*, *baheda*, *kakadsinghi*, etc. Though very few people collect and sell them, they are often used in home remedies for common ailments and also

These villages have little or no *shamlaat* forests but their rights have been recorded by the forest department and permits for use are issued on an annual basis. Interestingly the land use data from villages like Mohtu and Deed Bagad shows the presence of RF, local residents of these villages report that they never had any RF areas in their territory historically and therefore consider this to be village forests (*shamlaat* jungle) and themselves as right holders.

### OTHER LIVELIHOODS

Watermills are unique to mountains, used for grinding food grains and spices. Locals say that in the mountain economy it is believed that owning one watermill is equivalent to owning 5 bighas of land. Maize, Wheat, Finger millet, Turmeric and Amaranths are the main crops which are ground in these mills that run entirely on natural flows of water. As per our field survey, almost 42 watermills will be submerged in the area. According to the information collected during this study, the average net annual income of one watermill comes up

to Rs. 37,100 (*Annexure 4 - Annual earnings of a watermill*). The watermill ownership in the area is recorded in the revenue records and a *patta* is issued marking the presence of a watermill. Just as is the case with agricultural lands, watermills too may have several joint holders. In some cases outside (the family) labour is also employed to run the watermill. Because road connectivity is poor these watermills provide a crucial service around the year.

Fishing is not really a source of livelihood in the area though one finds that almost every village has a few fishing licenses. Most people have not renewed these licenses over years as the fee has increased but most people catch fish for their own consumption. The license is mostly renewed by people who are living close to the markets/road heads, so that they can sell fish easily. It does provide supplementary income, though it is hard to find any family entirely dependent on fishing. The river near Jaincha Majhai is told to be popular for fishing, where even tourists have been seen fishing for trout. Apart from the snow trout, the Mahaseer is the other common species of fish here. As

per the EIA report there are almost 16 varieties of fish in the Giri River. Local people report that around the 1980's the area saw use of dynamites for mining activities, which started getting used for fishing as well. This has resulted in reduced availability of fish over the past 10-15 years.

### Downstream impacts

The area is marked by large scale stone mining starting from Chandini, just downstream of the Jataun barrage. Further down, from Paonta Sahib onwards till Yamuna Nagar the area is dotted with Pharmaceutical and heavy metal industries. Most of the villages are located far above the river basin and hence do not have any direct dependence on the river. However, a few villages between Dadahu and Jataun did report having tube-wells for irrigation. Though the downstream villages will not be immediately and directly impacted by the dam, monsoon flooding will be prevented by the controlled flow in the river hence it will impact ground water recharge in downstream areas. It might ensure continuous and more amount of water in downstream (because the existing Jataun barrage had diverted the water to Girinagar, thereby reducing water in the river stream), but since flooding will be restricted, it will have impacts on ground water re-charge. In most of the years, there may be no downstream flows in monsoon till the dam is full, and in some years indeed zero release throughout the monsoon when dam does not fill up till end of the monsoon.



Khair trees in private forest land, Badaala village

### Reserved forests

Villages like Nadel, Siyun, Khurkan and Vyas on the left bank of the Giri River have Reserved Forest lands adjacent to their village boundaries and depend mostly on these forests for their fuel and fodder needs. As the R&R plan itself mentions, the 592 hectares of Forest Land proposed to be diverted for submergence in the Renuka division is sub-tropical deciduous forests with *khair*, *shisham*, *kachnaar*, *toon* and bamboo trees.



Water run flour mill



Fishing nets are seen in most households

## 5.2 ENVIRONMENTAL IMPACTS

In the age when protecting and conserving our forest wealth, especially in the Himalayan region has become crucial to the survival of communities not just in the mountains but across the globe, it is distressing to know that more than a thousand hectares of broadleaf, mixed forests and grasslands are being destroyed for the construction of the Renuka dam.

The wide variety of wild flora and fauna that these forests comprise of has been adequately documented by the Indian Council of Forestry Research and Education, who prepared the EIA report for HPPCL. And though the report comprehensively lists the species biodiversity of the Renuka Wildlife Sanctuary and the Renuka wetland adjacent to the Giri River, the same is completely



inadequate in its articulation of the nature of impacts that the destruction of this ecosystem will have. "The hydrological cycle showing the interaction between the lake, the ground water and the Giri River does not find a place in the EIA document. The Ramsar Wetland document shows a connection between the Giri River and the Renuka Lake through the Parshuram *taal*", say environmental activists challenging the reassurances that the present Renukaji wetland will not be impacted by the Dam. Much of the wild flora and fauna is not just restricted to the Wild life Sanctuary and Reserved Forest areas report the local people. Two persons interviewed raised the issue of wildlife in the *shamlaat* and private forest. Ujagar Singh from Deed Bagad and Tika Ram from Badaala claim that the faunal biodiversity is richer in the *shamlaat* forests. The major wild animals in these forests are wild boar, leopard, barking deer, langur, monkey, goral, porcupine, jackal, fox, hare and many birds.

Their primary concern was that as private and *shamlaat* forests in the valley will be submerged these animals are likely to migrate into upper areas. "All these years this area has been more or less free from human-wildlife conflict or wild animals attacking on crops because of the good forest habitat - the dam is likely to reverse this situation".

The EIA report does admit that the impact of the submergence of forests will go much beyond the actual area of forest that will be diverted. "Since, the proposed dam will submerge a vast stretch of vegetation in about 24 km area and accordingly, a number of trees and other plant species will be felled/ submerged. Therefore, there will be sudden shifts in the population density of the species, which certainly will have some impact on the ecology of the region", states the report. It also admits that the damming of the Giri would cause more damage to the aquatic fauna and riverine ecology but steers clear from going into the gravity of the impacts. As a result the Environment Management Plan suggests superficial "solutions" like plantations to compensate for the environmental losses.

The EIA report of the project does not mention what the contribution of the proposed reservoir will be to green house emissions. As it has been nationally and internationally accepted, reservoirs in tropical

countries like India can emit very large quantities of methane, which has 21 times greater potency than carbon dioxide<sup>23</sup>.

Section-6 in the Detailed Project Report on the geology of the area states that there are 8 fault lines in the dam area, making it vulnerable to seismic activity. But neither the DPR nor the EIA report have quoted or proposed any studies to understand the impacts of these faults once such a huge water reservoir comes up in the area.

### 5.3 CULTURAL-RELIGIOUS

Closely intertwined with the ecological values and the landscape are the spiritual and religious ethos of mountain societies. Legend has it that the Renuka Lake was earlier a small pond into which Renuka, an incarnation of Goddess Durga and mother of Lord Parshuram (an incarnation of Vishnu), jumped in after she was abducted by a king who wanted to marry her<sup>24</sup>. Mythological stories like this one are an essential part of the religious life of people in the area.

*Mahasu devta* is the popular local deity considered to be an incarnation of the Hindu Lord Shiva and every



*Mahasu Devsthan* in Nadel, a site where the local deity resides, is one of the many that will be submerged

village has at least one temple of *Mahasu devta*. Gurdalay Singh, the oracle of *Mahasu devta*, known locally as Garnita, says "This entire valley has 56 *sthapnas*<sup>25</sup> of *Mahasu Dev*. All of these will be drowned. People have been praying to this Devta over generations". Local communities believe that their deity will not allow their submergence and there will be divine intervention whenever the dam authorities try to force them out.

A strong element of the cultural fabric of the society is cooperation and collective action in times of need. Since most villages are located away from the road, carriage and transportation requires collective labour. Termed locally as *Ella*, this system is used in activities like grass cutting, repair of houses, marriages and harvest of labor intensive crops such as ginger, todia, maize, wheat. It reduces the need for cash and enables sustenance in an inaccessible area and harsh climate.



*Ella* for ginger harvest, Malhan village

Most of the widows interviewed during the course of the study narrated how they were assisted with ploughing of fields or bringing up their children by the community. That this sense of cooperation will be entirely lost, as parts of the village are displaced and also as cash compensations are distributed, was a concern voiced by many. The area has also seen settlers from outside being accepted into the community, a primary example being the existence of 5 Nepali families who have been cultivating lands over decades, without actually buying the land. However, these families will be left totally landless after submergence.

#### Box 9:

##### Monetary Compensation = The End of Good-will?

Buddhi Prakash lives on an isolated patch of land next to the river. The owner of the land he cultivates is Deep Ram of Panaar village, who was not able to till this land ever. So, when Buddhi Prakash arrived in the village in 1972, Deep Ram gave the land to him for cultivation without asking for a share in the crop, rent or any form of payment for it. Buddhi Prakash also uses Deep Ram's share in the adjoining *shamlaat* forest. Buddhi is one of the many Nepali settlers in the region who will be rendered houseless and landless, perhaps without any compensation and no other place to go to after this piece of land is submerged under the dam.

Despite the negligence of the state government in providing basic infrastructure to the area, the rich natural resources of the area and the collective efforts of the local community have led to the evolution of an economy and way of life that sustains livelihoods of the communities in the area. The most significant characteristic feature of the submergence area is its inaccessibility. Only two or three of the villages in the submergence zone are directly connected with a non-tarred road without a regular bus service. All other habitations in the area are scattered across the valley with distances from road heads varying from a half an hour to 3 hour steep walk. Carriage and transportation involves severe hardship.

A five kilometers stretch of Dadahu-Sangrah road passing through Renuka wildlife sanctuary will be submerged under Renuka Dam. According to Puran Chand Sharma, a local resident, the alternative road proposed by HPPCL will add up an extra distance of 9 kms of travel from Dadahu to Sangrah which will affect thousands of people from trans- Giri area in terms of extra money and time they will have to spend for their travel to Dadahu, which is the main market place and vegetable *mandi* for their agriculture produce.

Because accessibility is a constraint, health and education services are poor. There is only one *anganwadi*<sup>26</sup> and three primary schools in the area. Children have to walk distances from 2.5 to 5 kms even to get primary education. For higher education there are degree colleges in Sangrah and Dadahu towns. There is not a single primary health centre in the entire submergence area.



6. POLITICAL ECONOMY OF THE PROJECT

The mountain state of Himachal Pradesh, while has maintained its image of carrying out "good governance", promoting local interests and protecting its environment, over the last few decades, there has been an increasing thrust on exploitation of natural wealth - rivers, minerals and forests to raise revenue and push the state onto the path of economic growth. Since the 1950s the state has seen development of reservoir based dams like Bhakhra, Pong, BSL and Theen requiring acquisition of thousands of hectares of land resulting in large scale displacement. Rehabilitation and resettlement issues in many of these areas are still unresolved. The trend of constructing mega hydro projects and setting up of large run of the river projects in the state gained pace in the 1990s paving the way for private investment with almost no social and environmental responsibility.

Central to the political economy of large development projects like dams was the issue of displacement and forced acquisition of land. Closely linked was the gradual privatization and commoditization of natural resources pushing communities dependent on these to the margins, threatening their ownership and control over these resources - *jal, jungle* and *jameen*. As per the Himachal Forest Department's own data between 1980 and 2009, 8528 hectares of forests have been diverted to various projects in the state. 50% of the land was diverted for mining and hydropower projects<sup>27</sup>. There is almost no count of the livelihoods displaced as a result of these diversions and acquisitions.

The state and project proponents claim that these developments are bringing more prosperity and prospects of employment for local people but there is no evidence of it in any of the on going projects. It is a fact that these projects involve activities like heavy infrastructure development, road construction, blasting to make tunnels (in case of Hydel power), dumping of muck/debris, and mining for cement and construction needs. This has implied that affected villages are deprived of land, waters and forests - the very pillars of their livelihoods. In some cases direct displacement is minimal but other problems like contamination of drinking water sources, destruction

Box 10. Profile of the Project Affected People

1. Permanent residents fully dependent on the agriculture land to be submerged - will be landless after dam submergence. No shamlaat in the village either, which could have been a theoretical alternative. Will however get compensation as "landless".
2. Permanent residents and currently dependent on the agriculture land to be submerged - but have shares in other villages also. Hence not being considered as "landless".
3. Permanent residents who will lose all their agriculture land but will be left with private forest land or share in *Mushtar shamlaat* land only - hence not being considered "landless".
4. Shareholders who reside in another village but seasonally cultivate part of the land to be submerged. Neither "landless" nor "houseless".
5. Scheduled Caste families who got ownership of 5 *bighas* under the Muzara Act, 1972 - which gave Land to the Tiller - this did not entitle them to a share in shamlaat lands, hence they do not have any alternative lands. Their share in compensation is also miniscule, owing to fragmentation of land over years. They also are allowed to use the shamlaat in goodwill, but don't have a share, so will not get part of compensation if shamlaat will be submerged.
6. Tenants who were kept as caretakers by absentee landlords - they don't have a local residential status. Will lose the land they have been cultivating for years/generations and legally not even entitled to compensation. These are mostly Nepalis.
7. Permanent residents who have houses and agriculture land out of the submergence area but their shamlaat forest or private forest land is coming under submergence area. They use these forests for a part of year and for sale of *khair* trees. Otherwise it is mostly used by surrounding population which is under submergence.
8. Permanent residents who take others' agricultural land on *adhiya* and earn most of their cash income and subsistence food grains from this land - will not be left with any productive land after this land is submerged. Will not get any compensation either, as the land is not owned by them.
9. Permanent residents using *Mushtar shamlaat* lands for their forest needs over generations, but do not have a share in it. If it is submerged, there livestock and agriculture inputs will be severely affected, but they are not entitled to any cash compensation for this area.
10. Permanent residents who have encroached upon *shamlaat* or *ghasanis (grasslands)* and turned them into farm lands but don't have any ownership title.

of grasslands, agriculture land and forests, decreasing recharge and discharge of perennial rivers system, flash floods, air pollution, local climate change that makes horticulture and farming difficult have cropped up. These have caused alienation of on going economic activities from local resources with no alternatives, made livelihood difficult of even those who are not directly displaced and are not eligible for compensation.

Spontaneous local agitations which have emerged in several locations like Kinnaur, Kullu, Sundernagar and Bilaspur in the last five years against large projects are proof that the losses are significant for the people and are being closely felt and recognized.

6.1 FORCED DISPLACEMENT, LAND ACQUISITION AND R&R POLICIES

The socio-economic and livelihoods study of the Giri River valley, covered in the previous section, makes it clear that, there exists a complex set of land ownership and distribution patterns with divides along lines of class, caste and gender. But as deep as the divisions are the dependencies on the web of socio-cultural, economic and ecological relations that sustain this system. Compensation and rehabilitation policies, if and where they have been implemented, have always been blind to these complexities of the system and the dependencies within and the case of the Renuka Dam is no different.

The Himachal Pradesh government does not have its own Land Acquisition related legislation or Rehabilitation Policy but the HPPCL has a standard R&R policy which it adopts in all its projects in Himachal Pradesh and for the Renuka Dam project an R&R plan has been prepared. Though HPPCL has claimed that its Rehabilitation Policy is better than the National Resettlement and Rehabilitation Policy, from the point of view of the community it matters little, considering that their consent in almost all scenarios and policies is seen as avoidable by the State. In fact, in the Renuka Case they have even lost the right to raise objections under section 5a of the Land Acquisition Act 1894. It has been more than a year since the government issued the Section 4 notices coupled with provisions of Section 17(4) to

36 villages in the area. The notice was published in the news paper and Gazetteer but not sent to individual land owners or Panchayats.

As per this draconian provision, the land owners lose their right to present objections and claims to the Collector before their land is acquired. Commonly known as the urgency clause, this provision has been misused in several projects in India to make way for forced acquisition. In recent times however, farmers have approached courts against the provision and the Supreme Court in a judgement (Civil appeal 6580/2008 arising out of SLP 15449/2004-Essco Fabs Pvt. Ltd. & anr. Vs State Of Haryana & anr) in November 2008 held that the government cannot forcibly acquire private lands by invoking the "urgency clause" without inviting objections from the aggrieved persons or citing sufficient justification. However, the HPPCL has repeatedly justified the use of 17(4) on the grounds that no alternative site is available for the construction of this dam of "National" importance. (See Section 6.3 on issues around conception and planning of the project)

While on one hand the Land Acquisition notices were issued, on the other HPPCL, through what it called a 'Negotiation Committee', proposed a compensation of Rs. 75000/*bigha* for uncultivable waste land, Rs 1.5 lakh for un-irrigated agriculture land and Rs. 2.5 lakh for irrigated land for those who were ready to sell directly to HPPCL. "The registries and sale deeds were started early this year with HPPCL encouraging people to accept the current rate willingly in order to be declared as beneficiaries under the project" informed people in the interviews. Cases of local land agents having cropped up and duping innocent people into selling their lands have come to light in the wake of this process.

Category of land	Avg value based on transactions made in last year. (Rs.)	Rates offered by HPPCL (Rs.)
Barren	5,844	75,000
Un-irrigated cultivated	67,362	1,50,000
Irrigated	1,69,663	2,50,000

(Source: HPPCL)

### Box 11: Deceiving poor farmers of their lands

Budh Ram, a Scheduled Caste farmer, and his brothers, in need of cash, took a bayana (advance) of Rs. 56,000 from a local property dealer (the school teacher from the village) against sale of a *bigha* of their land in village Jaincha Majhai. Little did they know that their land would be sold to HPPCL by the agent. When section 17(4) notice was issued in the area, the agent started pressurising Budh Ram and family for return of his money or handing over of their land to him. Ultimately, giving in to the pressure Budh Ram and his brothers sold 13 *bigha* 16 biswa of prime irrigated land to HPPCL on 1<sup>st</sup> Aug, 2009 via this property dealer. The compensation amount should have been Rs. 2.5 lakh per bigha, totalling to Rs.34.5 lakh. However, because these lands were recorded as un-irrigated in the revenue records, Budh Ram was given Rs. 21.82 lakhs @ Rs. 1.5 lakh per *bigha* (the rate fixed for un-irrigated cultivable land) despite the land being fully irrigated. This amount was to be divided amongst six shareholders within his family. Budh Ram opened his account on 31 July, 2009 in UCO Bank, Dadahu. The entire paperwork was handled and controlled by the property dealer in the guise of helping an illiterate person like Budh Ram. According to his pass book entries, his share of Rs. 417292 was deposited in his account on 1 August, 2009 and the same was withdrawn on the same day. But Budh Ram came home with only 217000/-.

A local resident, Mr. Baburam, who is a government servant looked into the matter as the land dealing happened in his village, and he was concerned that the poor illiterate farmers were cheated. In his interview he told the researchers that in all, Rs.7.49 lakh was siphoned off by the property dealer, who belongs to the same village. They called a meeting in the village and tried to resolve the issue. The property dealer returned Rs.3.67 lakh under pressure, but refused to return the rest of the amount which is 3.62 lakh. So now a complaint has been filed with the Vigilance Department as well as the DC. However, Baburam has had to face un-justified transfer, which he attributes to the pressure created by the land dealer, because he was instrumental in highlighting the forgery in the case.

The entire area was abuzz with the news of the duping involved in land sale to HPPCL. Not only that, it became evident later that the total amount given by HPPCL was also not correct as they calculated the compensation on the basis of un-irrigated land rates rather than irrigated land. The question that arises is that with few registries itself, opportunists like the land dealer in this case, have become active and HPPCL does not seem to have any objection to third-party dealings for the land they need to acquire and refuse to take responsibility for the money that was siphoned off. Besides, HPPCL seems to be taking advantage of the fact that revenue records are not up-to-date to pay lesser amounts of compensation. In his interview to the researchers, Mr. Kathuria, the R&R officer, HPPCL, clearly said, *"We have paid the sum agreed upon and if the owner himself withdraws the money and gives it away to someone else, we cannot do anything about it"*.

The application of Section 4 and 17(4) by itself violates the rights of the land owners. Coupled with a "negotiation" process it puts undue pressure on the land owners to sell their lands rather than accept 'compensation award' rates which are likely to be much lower. According to HPPCL the land values in the area are low and their negotiation offer is actually a good deal for the land owners.

However, these land values have been calculated using the average based on the local sales in the last three years. In an area like Giri valley, where most of the land is agricultural rather than commercial and land sales are not common, it is obvious that land valuations would be low. This method of calculating land rates has been considered unacceptable even by the central government in its National Rehabilitation and Resettlement Policy and the proposed Land Acquisition Act Amendment Bill 2009.

Interestingly, HPPCL's Rehabilitation Policy, which the department has been trumpeting as the 'best' has several issues of concern. The most important being that it covers only 340 families as eligible for R&R out of the 780 that it has listed as affected. These are those that it considers as PAFs (fully and partial). HPPCL's own baseline data shows that in a single Panchayat like Deed Bagad with 3 villages - Deed Bagad, Jaincha Majhai and Chabyana villages there are 237 PAFs. Whereas the R&R plan only considers 68 families as eligible PAFs from this Panchayat. This obviously means that the R&R plan is not going to cover all affected persons. Further it appears that even the number of affected families could be much larger than 780 if in a single Panchayat alone there are 237 PAFs. In a scenario where there is no accurate data or survey of the affected persons and no Social Impact Assessment Report, the use of the "Urgency clause" for land acquisition seems

completely unjustified. The Social Impact Assessment is a clear requirement under the provisions of the National Rehabilitation and Resettlement Policy 2006-07.

The other issues with the R&R plan for which a total of 173 crores have been set aside include:

- ❖ The social impact assessment of the project is incomplete without identification of all the land required for the project, including the area that will be affected at the maximum water level.
- ❖ The current R&R plan does not consider the overall earning of communities from different production systems like agriculture, forest and livestock which are all linked to each other.
- ❖ It treats *shamlaat* forest land as equivalent to cultivated agriculture land while defining categories of PAF but treats it as different land (with lower value) while fixing compensation rates.
- ❖ The Panchayat registers and revenue records which are the basis of R&R plan are not up to date.
- ❖ There is no commitment to provide land for land and as of today the alternative site for resettling the displaced communities has not been finalized.

At present the entire land acquisition process is being handled by the HPPCL office with local revenue officials directly assisting the corporation. There is no legalized or notified body for Grievance Redressal under the District Collector, thus ending all scope for dialogue between the state and affected people.

## 6.2 ENVIRONMENT AND FOREST CLEARANCE.

### THE FOREST CLEARANCE PROCESS

HPPCL applied for a Forest Clearance for denotification and diversion of 49 hectares of the Renuka Wildlife Sanctuary almost a decade ago. In 2001-02 the application was rejected by the Union Ministry of Environment and Forest based on the Supreme Court orders related to protected areas. However, the National Wildlife Board in 2005

recommended the diversion. Interestingly, the minutes of the meeting indicate that the members of the NBWL were not really convinced in favour of the diversion. The minutes dated 6th April 2005, state, "Shri Ravi Singh and Shri S.C.Sharma had done the site inspection and submitted the report. Shri Ravi Singh made a presentation on the report and highlighted the catastrophe that may be caused due to large dams". Despite this the recommendation was given along with 10 conditions. (Annexure 5-CEC conditions on Renuka dam project)

The case went to the Centrally Empowered Committee (CEC)<sup>28</sup> and the Supreme Court in 2006 where World Wide Fund for Nature and others challenged the decision of the NBWL. In the CEC hearing the following points were discussed:

- ❖ The notification of all the Reserved Forest and Protected Forest near the project area as a Wild Life sanctuary not less than 20 sq.km. The state government highlighted its inability to do this as the forests were used by the local people.
- ❖ The state suggested that since the existing sanctuary is about 4.5 sq.km.. and if the dam structure is added to the sanctuary area then it comes to about 16 sq.km.. The CEC questioned as to how the dam structure can be a part of the sanctuary area, to which the response was that since there are going to be fishes and other aquatic flora and fauna, the area could be considered as a sanctuary.
- ❖ The state government in their affidavit had suggested that the CEC intervene with changing the conditions other than compensatory afforestation. However, the CEC stated that if a modification is required, the state government will need to approach the NBWL itself.

Following this the Supreme Court recommended diversion and later in July 2006 the NBWL also changed the conditions as per the requirements of HPPCL. The Supreme Court recommendation also became an impediment in the stay that the High Court of Shimla had ordered on any non-forest activity within the RWLS area.

As per the Environment Management Plan proposed by HPPCL the following steps are proposed to be taken by HPPCL towards compensatory activities:



- ✿ Adding a habitation free buffer zone to the sanctuary: This buffer zone proposes to include *shamlaat* areas of Khall Kiar (25 ha), Jammu Lathiyana (40 ha), Kathmali (40 ha) and Dhar Taran (52 ha).
- ✿ The Renuka reservoir be added to the Sanctuary, as a protected area. (Pg 194, EMP)
- ✿ The conservation funds are proposed to be spent in far off areas like Sarahan, Chail etc, which will not benefit the affected area. Rs. 17 crores is proposed to be set aside for such Conservation programmes. (Pg 198, EMP)

A discussion with an official at HPPCL also revealed plans of tourism around the reservoir. He claimed that this would generate employment for the local people. A total of 120 crores have been budgeted for these activities.

The nature of plans and recommendations shows that HPPCL is completely in denial about the high level of dependence that the people of the area have on these forests. On one hand the project authorities claim to be taking steps to ensure increased livelihoods for the fishermen in the upstream area, and on the other suggesting ways of prohibiting any activity in the reservoir area. Diverting reserved forest areas which are also serving the local needs, the government plans to take over additional *shamlaat* lands to be declared as 'reserved'.

The project proponents seem to have completely ignored the existence of a historical legislation which was notified in January 2008 for implementation - Recognition of Forest Rights Act, 2006 which clearly recognizes the community and individual rights of forest dwellers on the lands under the jurisdiction of the "Forest Department" including sanctuary areas. On 30th July 2009 the MoEF issued an advisory stating that projects seeking forest clearance must comply with the provisions of the FRA which include informed consent of the Gram Sabha towards the diversion. While the State government has forwarded the proposal for diversion of 901 hectares of Forest Land for the project, there has been no effort to initiate the implementation of the FRA and settlement of forest rights under this. The state of Himachal Pradesh, infact has been one of the worst performers in the implementation of the FRA 2006 compared to other states.

Apart from the 'Forest' land involved in the project there is 455.89 hectares of *shamlaat* forests with lakhs of trees which will be acquired for the project. The revenue records if examined will prove the extent of vegetation on these lands and so does a visit to the area. The project proponent itself had hired a contractor for the counting of trees standing on private/ *shamlaat* property and as per the report submitted by the contractor 13 lakhs trees (both on agriculture land and private forest land) have been found standing in submergence area. The HPPCL is now refusing to acknowledge this report<sup>29</sup>. The attitude of HPPCL in the matter becomes evident in a response it filed with the Environment Advisory Committee of the MoEF, where it states, "As per preliminary enumeration of trees on submergence areas, no forest cover has been found on the private land". Apparently, the District Collector has ordered for a fresh counting of trees. When asked about it, both the DFO and Mr. Kathuria said that HPPCL officers and Forest Department are jointly conducting the exercise in the field.

Further, as per the law even the private forests will require a 'Forest Clearance' from the MoEF which has not been applied for by HPPCL. The Supreme Court of India vide its Order dated 8 May, 2009<sup>30</sup> accepted the following recommendations of the Central Empowered Committee (CEC) that compact wooded blocks of above five hectares, which are otherwise not notified/recorded as forest, should be treated as "forests" for the purpose of the Forest Conservation Act 1980 (FCA). Felling of trees and non-forest use of such areas should be permissible only after obtaining approval under FCA.

As per this provision the *shamlaat* forests involved in the Renuka Dam project will also require clearance under the Forest Conservation Act apart from the forests under the jurisdiction of the Forest Department. However, neither HPPCL nor the Forest Department has acknowledged the application of this<sup>31</sup>.

The proposal for diversion of 901 hectares is still pending with the MoEF, nevertheless the same Ministry has granted the Environment Clearance to the Project on 23rd October 2009 under the provisions of the Environment Impact Assessment Notification 2006.

## THE ENVIRONMENT CLEARANCE PROCESS

The most crucial part of the Environment Clearance process is the Public Hearing or consultation which is mandatory for projects the size of the Renuka Dam, involving such large scale environmental and social fallouts. These projects are classified as River Valley projects and are assessed by an Expert Advisory Committee at the MoEF, which recommends the clearance. The entire Environment Clearance procedure, starting from the terms of reference given to the project proponents, the preparation of the EIA report, the conducting of the Public Hearing, right up to the recommendation of the clearance is ridden with several problems - the most fundamental being that the entire process is treated as a mere formality. Hence several short cuts are resorted to, to obtain the clearance by the project proponents with full support from the State and Central administrations. This has been the experience with the EIA process across the board over the last decade and a half and Renuka Dam was yet another brick in this dilapidated wall.

The various contradictions in the EIA report have been raised in the different sections of this report. But the most problematic issues, that have also been highlighted by social and environment action groups have been:

- ✿ Variations in data on socio-economic impacts and the number of affected families
- ✿ Blank spaces and absence of data in many sections - incomplete report
- ✿ Inadequate details related to the environmental implications of the project

Environmental activists have alleged that the EIA report presented during the public hearing and the one presented to the MoEF is different.

"However, for deciding the adequacy of the EIA the document that was used during the public hearing needs to be referred to, as per the requirements under EIA Notification of September 2006. A new version of EIA cannot be used for getting clearance for the project. In fact, such an attempt to use an updated version of EIA, amounts to deliberately mislead the

EAC and MEF and should invite rejection under section 8(vi) of the EIA Notification of September 2006", according to a memorandum filed by activists with the MoEF before the clearance was granted.

When the researchers approached the DFO, Renukaji, as well as the Nayab Tehsildar, Dadahu for any land-related or affected area information, they were told to approach the HPPCL R&R department as they have all the information. However, when the researchers approached the HPPCL R&R Division in Dadahu, they were told that both the EIA and the EMP (which has details of PAF, compensation categories, etc.) are out of print.

The EIA report (which was available on the website last year) on one hand makes statements like the following - "the proposed dam and its adjoining area provide food, fodder and fuel wood to the local people because of the presence of large number of species. The results of the social survey also showed that irrespective of caste, land-holding size and occupation pattern, the project affected people can suffer a substantial drop in their income" and on the other hand underplays the implications by offering superficial solutions in the Environment Management Plan. The EIA report even goes on to present the finding that 95% of the farmers were not in favour of the project.

Yet the HPPCL has used the fact that a large number of residents from the area attended the Environment Clearance Public Hearing held on 21st October 2008 to justify that people were consulted and had a positive attitude towards the project. The locals however have a different story to narrate. "We had no idea that it was a Public Hearing which would lead to an environmental clearance and that our opinion was important. The project authorities were holding many such meetings and we treated it like any other" claims Ujagar Singh from Deed Bagad, who also mentioned that people were brought in buses by the project authorities and treated to a "*dham*" (feast) but not informed of the details of the EIA process.

After they learnt about the Environment Clearance process, some of the Panchayats passed resolutions demanding a fresh hearing on the grounds that:

- ❖ The Environment Impact Assessment Reports were not made available in advance at the required places by the PCB or the project proponents. These were not provided in the local language either.
- ❖ That there was no information about the public hearing amongst the people of the area.

While HPPCL claims to have made newspaper and local announcements, it is important to note that most of the project area is inaccessible by road, with tough mountainous paths and it seems a bit impossible that the news of the Public Hearing would have reached the wider public living in far flung villages. It is even harder to imagine that they would have got access to any documents leave alone reading and analyzing them. This was confirmed in the interviews when people were asked about their participation in the public hearing process.

Despite most of these objections being raised by local people, members of the Renuka Bandh Sangarsh Samiti and environmental groups, the Expert Advisory Committee chose to remain silent and pass on the objections to the project proponent for them to respond, leading to a series of arguments and counter arguments. The minutes of the EAC reflect that members of the EAC had virtually no discussions on these written exchanges and hence no opinions on the concerns raised, it can be concluded. On 23rd October 2009 the project was granted an Environment Clearance which has now been challenged before the National Environment Appellate Authority by a representative of the local affected people.

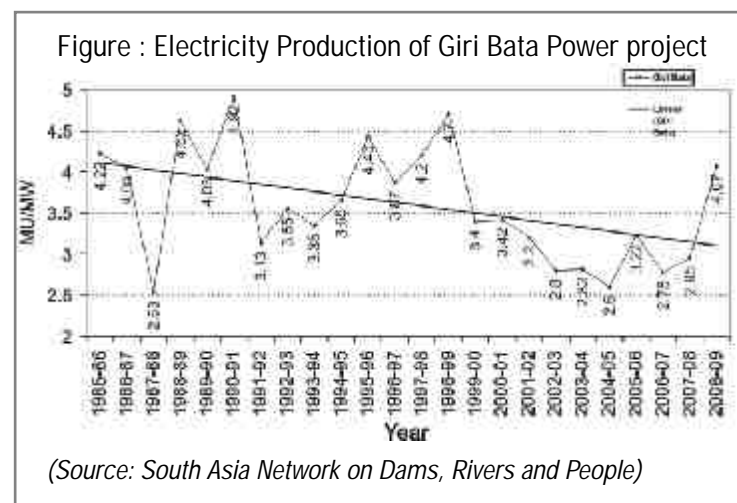
### 6.3 ISSUES AROUND CONCEPTION AND PLANNING OF THE PROJECT

The Giri is not a glacial river and the forests in its upper catchment are relatively depleted compared to earlier times and the forests lower down in the valley. Locals who have lived with the Giri for decades observe that the annual discharge of the river is much lesser compared to a few years ago attributing it to the changing temperatures and rainfall patterns. The Detailed Project Report of the Renuka Dam is prepared on the basis of 20 years rainfall data till the year 1988-89. It clearly does not

reflect the current pattern of rainfall in the Giri catchment area. Infact page 50 of the DPR acknowledges that the data collected on rainfall/runoff from 6 rain gauge stations, located in the catchment area of Giri river, to understand the hydrology of the area, is unreliable and no purposeful hydrological analysis can be done from this data. It also suggests installation of three different rain gauge stations in the area placing a question mark on the further analysis that has been done for the project.

"The Giri Bata power generation trend, as seen from Graph below, does indicates a downward trend. While this may not be only due to lower water flow, there are studies required to explore the factors involved", states Himanshu Thakkar of the South Asia Network for Dams, Rivers and People. As per Ministry sources the project proponents are to submit a revised DPR. However, the Environment Clearance to the project was granted on the basis of information based on the earlier DPR.

This scarce resource (Giri River) is already providing drinking water to Shimla and Solan town from the upper catchment. As the demand of the local rural areas also increases there will be a need to further tap this already scarce resource. There are no other sources of water in this area apart from Giri River that can cater to the local needs and locals also voice that



water sharing is going to become a major source of conflict between the five states if this project is allowed to come up. While Rajasthan government had not signed the 1994 agreement on the dam, the

Haryana government had also initially opposed the project till the state was promised its share of water.

"We believe that it will take years for a dam of 148 m to be filled considering the discharge levels which is reducing every year due to climatic changes and increasing local demands in the upstream catchment. If after displacing 37 villages, destroying hundreds of hectares of forests and spending thousands of crores of rupees, the project is unable to fulfil its objectives or cannot come up because of inter state disputes then who will be accountable?" - states the memorandum submitted by Renuka Bandh Sangarsh Samiti and Himalaya Niti Abhiyan to Delhi Chief Minister Shiela Dixit. In this memorandum, they demanded a review of the project which is being pushed in the name of national interest because it will fulfil Delhi's demand for drinking water. Unfortunately the Minister when asked to take action in the matter, stated that the Delhi government was merely a "buyer" of Giri's water and that it is the Himachal government that has been keen to "sell" and therefore the responsibility lies with it. The Minister's statement is just a reflection of the mainstream perspective on natural resources like water, treated merely as a commodity to be bought and sold. While the Himachal government has repeatedly put forth the "national interest" argument to justify the project, the Delhi government washes its hands off the social and environmental impacts, by calling itself "only a buyer". *The case of the Renuka Dam also throws up the question of the skewed allocation of resources in favour of large cities and urban populations, whose interest is placed on priority irrespective of the costs involved. Even in Delhi which has the highest per capita consumption of water placed at 240 litres a day; it is the up-market localities which are favoured with much higher supply of water compared to the slums and low-income group localities.*

Organizations like INTACH and Peace Institute in Delhi have holistically analyzed Delhi's water problem and are of the view that there is a need to look at optimizing the existing capacity of water supply by dealing with the problem of distribution losses which are as high as 40%. Feasible and cost effective alternatives like water recycling, ground water recharge and rain water harvesting must be

implemented, they recommend. Several studies by water experts have shown that the projected demand can be fulfilled through such an integrated approach instead of high cost, conflict ridden and destructive projects like large dams. The fact that there has been no assessment of the options before granting of the environmental clearance has also been raised by environmental groups questioning the conception and planning of the project. Both the National Water Policy and EIA manual require that a least cost and least environmental impact option is explored for the given objective of a project<sup>32</sup>.

Unfortunately the in-principle techno-economic clearance granted to the project in the year 2000 does not state any issues in relation to Options Assessment or Techno-feasibility of the project. It is a one page document that kept the Final techno-economic clearance conditional to the clearances from the Ministry of Environment and Forests. Since the Forest Clearance is pending, the TEC has also not been granted by the Central Water Commission, New Delhi.



## 7. LOCAL RESPONSES AND AGITATION AGAINST THE DAM

The Renuka Dam Project has met with opposition both locally and nationally. The Renuka Bandh Sangarsh Samiti, the organization of project affected communities was formed around the time that HPPCL set up its office in Dadahu more than two years ago. The main objective of the Samiti was to protect the interests of the local affected people and farmers through a process of negotiation and engagement with HPPCL. The Samiti, which gave itself a formal structure dividing the entire affected area into three zones for ease of mobilizing and organizing, has brought together varied interest groups. A large majority continues to question the dam itself - these include villages and families losing a large part of their agricultural lands and those dependent heavily on *shamlaat* forests. Those who have alternative means of livelihood and are only losing part of their *shamlaat* forests have been comparatively less active in the Sangarsh Samiti. This is a relatively small percentage of the total



Photo: Manshi Asher

Rally against the project at Dadahu

affected people. "The real challenge for us is to deal with the tactics of the dam authorities and the attitude of the State government", informs Yogendra Kapila, resident of Siyun and convenor of the Samiti.

In the various interviews, people have revealed the pressure tactics as well as methods to cajole farmers into giving up their lands, being used by HPPCL in co-ordination with the state government.

Some of these include:

- ❖ Village Panchayat heads or *pradhans* being co-opted by Local Area Development Authority (LADA) funds. As Tara Devi said in a village meeting of Behra Mataniya, "HPPCL sent a team to select a spot for construction of Community Centre in the village under the LADA funds. The *pradhan* only knows where they will spend the money, but we have heard that our Panchayat has received Rs. 35 lakh for LADA".
- ❖ HPPCL is giving out petty contracts to select few in the area to garner their support to the project.
- ❖ Appointing of Coordinators in village clusters, who work to collect information for HPPCL. Locals say that though these are mostly local youth they do not share any information with the villagers, but are consistently collecting information from the villages in their area. These youth belong to the village itself, but their appointment has created a rift between people.
- ❖ For the co-ordinators HPPCL has laid strict terms and conditions that each of them will initiate at least ten project affected families to register land sales towards HPPCL. If the co-ordinators fail to do their job then their honorarium would be ceased and another person will be appointed, is also a condition.
- ❖ Threats to stop or slow down development work under the Panchayats in the area. "When we met the Chief Minister a year and a half ago with our demands we were told straight off that if we oppose the dam all development work would be stalled. Obviously we said that we are not opposing but asking for adequate compensation" states Yogendra Kapila.
- ❖ Spreading rumours that if farmers do not sell their land now, then they will face difficulty in retrieving the compensation money from the government later.

*"HPPCL is coming up with newer techniques everyday to lure or somehow mis-guide them. Like when they announced scholarships for students. When they did not give scholarships to deserving students, people started objecting to it. The acceptance of scholarships is then used to project*

*people's agreement to the project and ensure that organized resistance becomes difficult. Now they have asked their coordinators in villages to procure income certificates to prove eligibility for scholarships. The Patwaris are producing low-income certificates, so that people can avail of the scholarships. People do not realize that this could affect if Patwari will give them low-income certificates it will affect the rates of compensation we are asking for as our basis is high incomes from agriculture",* says Master Saab of Siyun village, coordinator of Sangarsh Samiti.

Such an environment seems to have made it difficult for the local people to organize themselves. Further, the media as well as the local political representatives, of both BJP and Congress have shown indifference towards the resistance to the project. Kisan Sabha, the farmer's wing of the Communist Party of India (Marxists) is the only political party that has come out openly in support of the Sangarsh Samiti. Politically more astute and well connected persons from the market town of Dadahu have managed to over-shadow the voices of dissent and created a false impression of support for the dam.

Despite these attempts and challenges, the local people continue their agitation with a list of demands which include:

1. Every person losing land under acquisition should be given land in return. Wherever they are given land, they should be given rights on forest also. The land that they are given should be arable. In addition, they should get irrigation facilities and grazing land.
2. The definition of landless should include people who are going to be left with land which is not arable. It should also include the landless agriculture labour who do not own any land.
3. The PAFs should be given 100 units of electricity free forever.
4. The displaced should be recognized as shareholders in power generation.
5. The PAF should be given priority in the fields of education, higher studies, training and accorded reservation in all these fields.

6. Displaced families should be accorded reservation in government jobs.
7. According to the R&R plan, if HPPCL is not able to provide jobs, they will be given a compensation of Rs.1 lakh. This is unacceptable, and employment must be provided.
8. The resettlement colony must be located near the land they are being given in lieu of the land being acquired and must have electricity, drinking water facilities.
9. The grant being given for construction of houses is not enough.
10. Resettlement should be given priority.
11. HPPCL should undertake species-wise counting of trees on private lands.
12. One person from each displaced family should be given employment on the basis of Panchayat records.
13. Sangarsh Samiti has demanded that the compensation rates for land should be decided on the basis of Dadahu land rates.

And while this is the "formal position" of the Sangarsh Samiti, almost all persons interviewed during the study voiced their opposition to the project on a single ground - the right to keep their lands and livelihoods. Women have been particularly vocal in their opposition though not in the forefront of the



Photo: Nidhi Agarwal

Mahila mandal member tying rakhi to a tree



Sangharsh Samiti given the patriarchal nature of the society. In a unique initiative in September 2009, the *Mahila Mandal* of Mohtu village initiated a symbolic protest by tying *rakhis* to trees in their village that are to be submerged<sup>33</sup>. Not receiving any attention to their concerns, the members of the community have had to take the judicial recourse. At present there are 3 cases pending against the project - 2 in Shimla High Court and one challenging the Environment Clearance at the National Environment Appellate Authority.

Outside the purview of the local area, the discourse on the Renuka Dam has also focused on the viability of the project and the environmental concerns. The Himalaya Niti Abhiyan, a coalition of community activists and organizations in the state has raised the Renuka Dam issue at several fora. The Abhiyan leaders have challenged the Himachal government for "paying lip service to climate change for higher financial allocations and selling the state's resources by promoting destructive projects like the Renuka Dam"<sup>34</sup>. Other local organizations like Jan Ekta Samiti, Sanjivni, People's Action for People in Need, Gyan Vigyan Samiti, and Janwadi Mahila Samiti have also voiced their apprehensions regarding the project. Delhi-based environment action groups like South Asia Network for Dams, Rivers and People and Yamuna Jiye Abhiyan have raised issues with the central government.



Renuka Wildlife Sanctuary

## 8. KEY OBSERVATIONS AND RECOMMENDATIONS

### SUMMARY OF KEY OBSERVATIONS

#### *About the Project*

- ❖ The economic, technical, social and environmental viability of the project has not been established in a credible manner. This was expressed by local persons as well as analysed through the project documents available.
- ❖ The social and environmental costs of the project have not been assessed vis a vis the proposed benefits.
- ❖ The legal validity of the MoU related to the project and agreement of water sharing between five states stands challenged with the absence of Rajasthan Government's signature.
- ❖ No alternatives to the dam have been explored to fulfill the proposed objective of providing water to Delhi.
- ❖ The conditional Techno-economic clearance to the project was granted in 2000 when the cost of the project was close to 1300 crores. Today the project cost has doubled and the final TEC is pending and yet the land acquisition process has been initiated in the absence of a final TEC.

#### *Impacts of the Project*

- ❖ More than 2200 hectares of land in 4 *tehsils* of Sirmour District will be acquired for the project and almost 60% of this will be submerged.
- ❖ The submergence will lead to displacement and/or dispossession of more than 750 families in 37 villages leading to huge livelihood losses.
- ❖ The economy of the submergence area is thriving with prime agriculture and livestock rearing based on rich broadleaf, sub tropical forests - a characteristic feature of the Giri valley villages.
- ❖ The social and cultural fabric of the villages will be destroyed.
- ❖ *Dalit* farmers, sharecroppers and tenants will be the worst impacted losing the only source of livelihood - agriculture and animal husbandry.

- ❖ The environmental losses and destruction as a result of submergence of more than 1000 hectares of forests (including 49 hectares if the Renuka Wildlife Sanctuary) will be tremendous considering the floral and faunal biodiversity that exists in the area.

#### *Process of Implementation and related issues*

- ❖ All project affected persons interviewed during the course of this study were not in favour of the Renuka Dam being proposed on the grounds of land and livelihood losses.
- ❖ The Land Acquisition Act 1894 is being used to acquire land for the project with the urgency clause invoked that does away with the provision of filing of objections by the land owners and affected persons.
- ❖ In the absence of a Social Impact Assessment report the use of the urgency clause is completely unjustified - an issue which has been raised locally but the HPPCL has refused to withdraw.
- ❖ There is pressure on farmers to accept the rates fixed at Rs 75000 for barren land, Rs 1.5 lakh for un-irrigated private land and Rs 2.5 lakh per *bigha* for the irrigated land, lest they will have trouble seeking even this money. These rates have been rejected by the people because they are extremely low compared to the actual value of the lands based on the economic returns from it.
- ❖ Cases of fraud being committed by local property dealers and agents in the process of sale of lands towards HPPCL have come to light.
- ❖ The Environment Clearance Public hearing for the project took place in October 2008. But most persons interviewed during this study said that while they had heard about it and some of them attended too, they had no clue about the purpose of the "meeting" and were given no information about its implications. Despite objections raised related to this and the inadequate EIA report, the Ministry of Environment and Forests has granted clearance for the project on 23 October, 2009.

- ❖ The Environment Clearance was granted despite the Forest Clearance for the project being pending. The lakhs of trees standing on the *shamlaat* forests have not been included in the application for diversion of forest land despite the law requiring a 'forest clearance' for such lands.
- ❖ The Forest Rights Act 2006 which requires settlement of Forest rights of communities is yet to be implemented in the area. An advisory of the MoEF issued to all states in July 2009 requires consent of the Gram Sabha and compliance to FRA 2006 before final forest clearance is accorded to a project. This has been completely overlooked by the Himachal Pradesh State government and HPPCL.

### RECOMMENDATIONS

#### *Specific Recommendations*

1. The MoU and agreement of 1994 between the five states should be reviewed since its legal validity is unclear. (The government accepts that agreement is invalid, but not the MOU).
2. An Options assessment study should be conducted in a credible and independent way to explore alternative means of fulfilling the objective of the Project.
3. The EIA and EMP should be re-done, and translated into local languages, and a fresh public hearing be conducted based on the same.
4. The Central Water Commission and Ministry of Water Resources should carry out an independent review of the techno-economic feasibility of the project.
5. A Social impact assessment should be carried out and the report made public. This study should be carried out by a reputed Social Science institute.
6. The settlement of individual and community forest rights under the Forest Rights Act 2006 should be carried out in the area by the Himachal Pradesh Government at the earliest.
7. Survey, updating and mapping of revenue and forest records should be carried out in consultation with affected people and local groups.



8. As demanded, with all this documentation in place and made publicly available, a fresh Environment Clearance Public Hearing should be conducted, only once the Options Assessment and Techno-feasibility of the project have been established.
9. The notices for land acquisition under section 17/4 of the Land Acquisition Act should be immediately withdrawn.
10. Consent of gram Sabha should be a pre-requisite to any clearance accorded to the project.
11. A grievances committee should be formed under the District Collector to look into the grievances of the project affected villages and members of the Sangarsh Samiti. At least 50% of the members of the committee should be from the affected people and their representatives.
12. In the absence of all this ground-work, no project work should be initiated.

#### General Recommendations

13. The government of Himachal Pradesh should promote mountain specific development policies that help protect and sustain threatened mountain ecosystems and dependent livelihoods. Legislations like the Forest Rights Act 2006 that protect community ownership of resources should be implemented.
14. The Ministry of Environment should instruct the Himachal government to conduct a study of the carrying capacity of all the river basins in the state for construction of Dams and Hydro-projects. The study should examine the cumulative impacts of these projects on Himalayan Ecology and landscape.
15. Executing agency of the project should not be the body which carries out, selects and commissions impact assessment studies like the EIA. This should be done by independent bodies which may not be directly funded by project proponents.
16. In cases like the Renuka Dam Project, where the area of forest land diversion is large, the procedures for Forest clearance accorded by the

MoEF, should precede or go hand in hand with the Environment Clearance.

17. There should be a comprehensive legislation on Rehabilitation and Resettlement in the country. The Land Acquisition Act should be amended and provisions like "urgency clause" should be removed from the Act. Informed Consent of the affected people should be a provision of any law on acquisition of land.
18. Delhi government should take responsibility for its water woes by looking at the consumption and demand issues as well as adopting an integrated water management approach for the city.

#### ENDNOTES

1. Agreement between Himachal Pradesh, National Capital Territory of Delhi, Uttar Pradesh, Haryana and Rajasthan on construction of Renuka Dam Project across River Giri, Tributary of River Yamuna in Himachal Pradesh 06/11/94.
2. Himachal Renuka Dam Project Estimated Cost Enhanced, dt 22/11/09, Northern Voices Online.
3. An impression given by local people during interviews.
4. A run-of-the-river hydropower project involves generation of power through tunnelling of the river rather than building of a reservoir by damming the river.
5. HPPCL is a state owned company established for the development of Hydropower projects in Himachal Pradesh with HP government having 60% stake and HP State Electricity Board, the rest.
6. Minutes of the NBWL - 2005-06.
7. Recommendation Letter of DFO and MoEF website.
8. As per HPPCL's RTI response which says that there is 591.72 hectares agricultural and 455.89 hectares of private shamlat forests.
9. HPPCL offering rates higher than average rates prevailing in the area for acquisition of land in Renuka Dam, No 1366/2008 PUB PRESS NOTE December 03, 2008.
10. [http://www.indianetzone.com/32/giri\\_river\\_indian\\_river.htm](http://www.indianetzone.com/32/giri_river_indian_river.htm)
11. Himachal Forests 2008, a document brought out by the Himachal Pradesh Forest Department.
12. <http://www.hpagriculture.com/achivements.htm>
13. The Himachal Pradesh Common Land Vesting and Utilisation Act (1974), also known as the *Nautod* Lands Act, was enacted to redistribute land to the landless or land poor but was discontinued by 1980. The redistributed land was granted from land classified by the revenue department as 'wastelands'. It carried a number of restrictions on its use. *Nautod* land must be cultivated by the grantee and cannot be sold for 15 years. After the 15 year period it was considered to be the same as other agricultural land. ([http://www.umanitoba.ca/institutes/natural\\_resources/mountain/book/6/4.html](http://www.umanitoba.ca/institutes/natural_resources/mountain/book/6/4.html))
14. <http://himachal.us/2006/04/21/people%E2%80%99s-action-for-people-in-need-papn/347/ngo/avnish>
15. Ibid
16. The Environment Impact Assessment Report is prepared by consultant hired by the Project proponent under the provisions of the Environment Impact Assessment Notification and is an important document containing details pertaining to the project.
17. 6th August 2009, <http://news.webindia123.com/news/articles/India/20090806/1312790.html>
18. 1 *bigha* is approximately equal to 0.085 hectare.
19. EIA report and primary survey done during this study.
20. Titles of ownership over land received from the government, under various Acts.
21. Hemant Kumar Gupta Regional Director, Forest Survey of India, Shimla, An analysis of policy, legal and institutional framework of Common Property Management in the Himachal Himalayas, India: a case study.
22. Emmanuel Bon, Common Property Resources: Two Case Studies *Economic and Political Weekly*, Vol. 35, No. 28/29 (Jul. 15-21, 2000), pp. 2569-2573.
23. Objections Regarding The Proposed Renuka Dam Project, Himachal Pradesh, Dated 6th May 2009.
24. <http://hpsirmaur.nic.in/Santury.htm>
25. A *sthapna* of a deity is generally a distinct tree or a rock in the village, which is symbolic of the deity to which people pray.
26. An *anganwadi* is a government sponsored child-care and mother-care center in India.
27. Asher, M, Mega projects threaten Himachal's climate, The Tribune, 03/11/09.
28. CEC is a quasi judicial body formed by the Supreme Court in the Godhavarman case of 1996 to look into the matters related to the Forest Conservation Act 1980 and Wild life Protection Act 1972.
29. Objections to forest diversion for Renuka Dam - Letter dated. 11/11/09 sent to the Forest Advisory Committee, MoEF by affected communities and NGOs.
30. In I.A. No. 2370 in Writ Petition (Civil) No. 202/1995 in the matter of T.N. Godhavarman Thirumulpad Vs Union of India & Ors.
31. Objections to the Forest Advisory Committee, MoEF filed on 18th November 2009.
32. Thakkar Himanshu, SANDRP and Manoj Misra, Peace Institute.
33. New Chipko movement: Himachal women tying *rakhis*. [http://news.indiainfo.com/article/0908031200\\_new\\_chipko\\_movement\\_himachal\\_women\\_tie\\_rakhis\\_protect\\_trees/412223.html](http://news.indiainfo.com/article/0908031200_new_chipko_movement_himachal_women_tie_rakhis_protect_trees/412223.html)
34. Upmanyu Kulbhusan, Shimla Declaration, Himalaya Niti Abhiyan, October 2009.

/N

**Subject: - Information sought under RTI Act, 2005.  
ID No. 15, dated 24.02.2009.**

With reference to the RTI Act, 2005 vide letter no.: D5-B/RTI/CE (W) Pr./PIO/2009/42 dated 24.02.2009, the point wise reply of the queries is as under: -

1. No MOU has been signed for purpose of Renuka Dam. However, a copy of agreement between Himachal Pradesh, National Capital Territory of Delhi, Uttar Pradesh, Haryana and Rajasthan for construction of Renuka Dam Project across river Giri in Himachal Pradesh is attached.
2. No such MOU exists.
3. As per agreement clause-5.
4. It is as per agreement clause of 5 (IV).
5. It is also as per agreement clause 5 (IV).

CE (Pr.) Water

SE (P) Water

दिल्ली जल बोर्ड  
DELHI JAL BOARD

OFFICE OF THE  
SECRETARY  
27/2/09

67/R 2/3/09

AGREEMENT BETWEEN HIMACHAL PRADESH, NATIONAL CAPITAL TERRITORY OF DELHI, UTTAR PRADESH, HARYANA AND RAJASTHAN ON CONSTRUCTION OF RENUKA DAM PROJECT ACROSS RIVER GIRI, A TRIBUTARY OF RIVER YAMUNA IN HIMACHAL PRADESH

1. WHEREAS storages in Upper Yamuna are considered essential to conserve and utilise the monsoon flows in Yamuna in a regulated manner.

2. AND WHEREAS allocation of Yamuna waters among Haryana, Uttar Pradesh, Himachal Pradesh, Rajasthan and National Capital Territory of Delhi has been decided vide Memorandum of Understanding dated 12.5.1994 regarding allocation of surface flow of Yamuna.

3. AND WHEREAS Himachal Pradesh has identified and formulated a project proposal for a storage dam at Renuka across river Giri, a tributary of Yamuna in Himachal Pradesh

4. AND WHEREAS it is necessary to start construction of Renuka Dam.

5. NOW, THEREFORE, it is hereby agreed that:

(i) Himachal Pradesh shall carry out the field investigations and prepare a detailed Project Report the cost of which shall initially be borne by N.C.T. Delhi. The Central Water Commission would assist the State in planning designs and arranging necessary clearances of the Government of India.

(ii) Himachal Pradesh shall construct, operate and maintain the project. To ensure its timely completion the National Capital Territory of Delhi shall bear the



8.11.94  
12-11-94

full cost and provide necessary funds for the construction of the Dam initially to Himachal Pradesh in an agreed phased manner.

(iii) Cost of the land and property acquired or damaged due to construction of the Dam, rehabilitation package for oustees and environmental protection package shall be borne initially by National Capital Territory of Delhi in accordance with prevalent policy/practice of the Government of Himachal Pradesh.

(iv) The regulation of releases from Renuka Dam will be carried out by the Upper Yamuna River Board to meet the drinking water needs of Delhi. The Upper Yamuna River Board would work out the post Renuka seasonal distributions consequential to the change in drinking water allocation to Delhi. This arrangement will be only until other storages are created at which stage releases from Renuka shall be carried out leaving in view the overall allocation of Yamuna water as per Decree dated 12.5.1996 between the Basin States.

(v) Except for sharing of stored water, all other resultant economic benefits including hydro power generated due to the construction of the Dam are assigned to the State of Himachal Pradesh. Funds for minimum appurtenant civil works in the dam for power component shall be provided initially by Himachal Pradesh. The cost of hydro power component shall be decided by Central Water Commission.

(vi) In respect of hydro power, if Himachal Pradesh so desires, power generated and cost thereof can be shared with other beneficiary States through a multilateral agreement to be entered separately.

(vii) The actual final shares between the beneficiary States in the cost of the project and maintenance and repairs shall be decided by the Central Water Commission.

6. In case of any differences about interpretation of this Agreement or any difficulties in its implementation, the matter will be referred through Review Committee of Upper Yamuna River Board to Ministry of Water Resources whose decision will be final.

7. We place on record and gratefully acknowledge the assistance and advice given by the Union Minister of Water Resources in arriving at this expeditious and amicable settlement.

New Delhi, the

1994.

Chief Minister  
Uttar Pradesh

Chief Minister  
Bihar

Chief Minister  
Rajasthan

Chief Minister  
Himachal Pradesh

Chief Minister  
Delhi

In the presence of:

Minister (Water Resources)

ANNEXURE 2

ANNEXURE 2 (A)- LIST OF HAMLETS AND/OR VILLAGES VISITED DURING FIELD SURVEY

S.No	Village	Panchayat
1	Jamtadi	Baunal Kakog
2	Mohtu	Baunal Kakog
3	Tanoshi	Baunal Kakog
4	Deed	Deed Bagad
5	Jaincha	Deed Bagad
6	Majhai	Deed Bagad
7	Mathana	Deed Bagad
8	Nichala Bagad	Deed Bagad
9	Reda	Deed Bagad
10	Gwahi	Gawahi
11	Nadel	Gawahi
12	Antu Jari	Kathli Bharan
13	Bhadroh	Kathli Bharan
14	Chaloga Vyas	Kathli Bharan
15	Lagnu	Lagnu
16	Bhalta	Lana Bhalta
17	Machlog	Lana Bhalta
18	Baag	Panaar
19	Badaala	Panaar
20	Bahera	Panaar
21	Behra Matiyana	Panaar
22	Khampala	Panaar
23	Panaar	Panaar
24	Taapri	Panaar
25	Takol	Panaar
26	Panyali	Panyali
27	Bagil	Parada
28	Banol	Parada
29	Bhartiya Kharad	Parada
30	Chambi Bylah	Parada
31	Mahendo Patrag	Parada
32	Malhan	Parada
33	Seu Bagh	Parada
34	Toori	Parada
35	Tikri	Rajana
36	Anu	Ser Tandula
37	Khurkhan	Ser Tandula
38	Maithali	Ser Tandula
39	Kunti	Siyun
40	Siyun	Siyun

ANNEXURE 2 (B)- VILLAGE MEETINGS CARRIED OUT DURING FILED VISITS

S.No.	Village	Panchayat
1	Nadel	Gwahi
2	Behra Matiyana	Panaar
3	Tanoshi	Baunal Kakog
4	Malhan	Malhan

ANNEXURE-2 (C)- MEMBER OF ORGANIZATIONS INTERVIEWED.

1. Sh. Ramesh Verma, Kisan Sabha, Dadahu
2. Sh. Subodh Abhi, Jan Ekta Samiti, Paonta Sahib
3. Sh. Om Prakash, Sanjivani Jan Sewa Kalyan Samiti
4. Sh. Dheeraj Ramol, Secretary, Prayas, Panaar, Dadahu.
5. Sh. Kuldeep Gatwal, Saras, Manal
6. Sh. Yogendra Kapila, Convener, Renuka Bandh Sangrarsh Samiti
7. Sh. Pratap Tomar, Siyun, President, Renuka Bandh Sangrarsh Samiti
8. Sh. Sanjay, Vice President, Renuka Bandh Sangrarsh Samiti
9. Sh. Durga Ram Sharma, Mohtu Zone Adhyaksh, Renuka Bandh Sangrarsh Samiti
10. Sh. Madan, Bhalta Zone Adhyaksh, Renuka Bandh Sangrarsh Samiti
11. Sh. Vikram, Siyu Zone Adhyaksh, Renuka Bandh Sangrarsh Samiti

ANNEXURE-2 (D)- LIST OF GOVERNMENT/HPPCL OFFICIALS INTERVIEWED

1. DFO, Renukaji Forest Division
2. Mr. Kathuria, HPPCL, R&R Officer
3. Mrs. Vimla Chauhan, Nayab Tehsildar, Dadahu.
4. Mr. Gyan Chand, Ranger, Renukaji Forest Range.
5. Mr. Rajendra Singh, Head Teacher, Mohtu Primary School

ANNEXURE 2 (E)- LIST OF PEOPLE INTERVIEWED DURING FIELD VISIT

S.No	Name	Village	Panchayt	Sex	Caste
1	Ranjit Sharma	Jamtadi	Baunal Kakog	Male	Gen
2	Deep Ram	Mohtu	Baunal Kakog	Male	Gen
3	Durga Ram Sharma	Mohtu	Baunal Kakog	Male	Gen
4	Ishwar Chand	Mohtu	Baunal Kakog	Male	Gen
5	Karam Chand	Tanoshi	Baunal Kakog	Male	Gen
6	Sukuma Devi	Tanoshi	Baunal Kakog	Female	Gen
7	Ujagar Singh	Deed	Deed Bagad	Male	Gen
8	Hari Ram	Jaincha	Deed Bagad	Male	Gen
9	Amar Singh	Majhai	Deed Bagad	Male	Gen
10	Baburam	Majhai	Deed Bagad	Male	Gen
11	Kamla Devi	Mathana	Deed Bagad	Female	Gen
12	Dhami Devi	Nichala Bagad	Deed Bagad	Female	SC
13	Harichand	Reda	Deed Bagad	Male	Sc
14	Kaku Ram	Reda	Deed Bagad	Male	Gen
15	Ramesh Chand	Reda	Deed Bagad	Male	SC
16	Deshraj	Gwahi	Gawahi	Male	Gen
17	Kamla Devi	Nadel	Gawahi	Female	Gen
18	Nirmala Devi	Nadel	Gawahi	Female	Gen
19	Saraswati Devi	Nadel	Gawahi	Female	Gen
20	Devinder Singh	Antu Jari	Kathli Bharan	Male	Gen
21	Sudarshan Singh	Bhadroh	Kathli Bharan	Male	Gen
22	Bibi	Chaloga Vyas	Kathli Bharan	Female	ST
23	Kasam Din	Chaloga Vyas	Kathli Bharan	Male	ST
24	Ramesh	Chaloga Vyas	Kathli Bharan	Male	SC
25	Reena Thakur	Chaloga Vyas	Kathli Bharan	Female	Gen
26	Vandana	Chaloga Vyas	Kathli Bharan	Female	Gen
27	Saroj Bala	Lagnu	Lagnu	Female	Gen
28	Bhagh Singh	Bhalta	Lana Bhalta	Male	Gen
29	Janaki Devi	Bhalta	Lana Bhalta	Female	SC
30	Leela Devi	Bhalta	Lana Bhalta	Female	SC
31	Vijay Pal Singh	Bhalta	Lana Bhalta	Male	Gen
32	Kamlesh	Machlog	Lana Bhalta	Female	SC
33	Sumitra Devi	Machlog	Lana Bhalta	Female	SC
34	Mast ram	Baag	Panaar	Male	Gen
35	Sitaram	Badaala	Panaar	Male	OBC
36	Deep Ram	Bahera	Panaar	Male	Gen
37	Narda Devi	Bahera	Panaar	Female	SC
38	Ram Swaroop	Behra Matiyana	Panaar	Male	SC



S.No	Name	Village	Panchayt	Sex	Caste
39	Roop Singh	Behra Matiyana	Panaar	Male	SC
40	Sohan Singh	Behra Matiyana	Panaar	Male	Gen
41	Buddhi	Khampala	Panaar	Male	Gorkha
42	Daulat Ram	Panaar	Panaar	Male	Gen
43	Vidhya	Taapri	Panaar	Female	Gen
44	Amar Dutt	Takol	Panaar	Male	OBC
45	Prem Dutt	Takol	Panaar	Male	OBC
46	Tika Ram	Badaala	Panar	Male	OBC
47	Bheem Singh	Panyali	Panyali	Male	Gen
48	Darshan Singh	Bagil	Parada	Male	SC
49	Ravinder	Banol	Parada	Male	SC
50	Vijay Ram	Banol	Parada	Male	SC
51	Bahadur	Bhartiya Kharad	Parada	Male	Gorkha
52	Ram Kali	Bhartiya Kharad	Parada	Female	Gorkha
53	Prem Dayal	Chambi Bylah	Parada	Male	OBC
54	Sukhdayal	Chambi Bylah	Parada	Male	SC
55	Pradeep Kumar	Mahendo Patrag	Parada	Male	Gen
56	Mantaram	Malhan	Parada	Male	SC
57	Mast ram	Malhan	Parada	Male	SC
58	Madan Singh	Seu Bagh	Parada	Male	SC
59	Savita Devi	Seu Bagh	Parada	Female	SC
60	Chudu Ram	Toori	Parada	Male	SC
61	Dhanveer	Seu Bagh	Payali	Male	Gen
62	Amar Singh	Tikri	Rajana	Male	Gen
63	Ishwar Chand	Tikri	Rajana	Male	OBC
64	Mohinder	Tikri	Rajana	Male	SC
65	Munni Devi	Tikri	Rajana	Female	Gen
66	Niranjan Shah	Anu	Ser Tandula	Male	Gen
67	Prem Dutt Sharma	Anu	Ser Tandula	Male	Gen
68	Sarita Devi	Anu	Ser Tandula	Female	Gen
69	Laxmi Singh	Khurkhan	Ser Tandula	Male	Gen
70	Vijay Singh	Khurkhan	Ser Tandula	Male	Gen
71	Daleep Singh	Maithali	Ser Tandula	Male	Gen
72	Joginder	Kunti	Siyun	Male	SC
73	Prem Dutt	Siyun	Siyun	Male	ST
74	Satpal	Siyun	Siyun	Male	ST

ANNEXURE 2 (F )- FOCUS GROUP DISCUSSIONS CARRIED OUT DURING FIELD VISITS

S.No.	Place	Group/Issue	No. of Persons
1	Mohtu	With a group of people who have alternative lands in other villages	6
2	Mohtu	Members of <i>Mahila Mandal</i>	9
3	Vyas village	With a group of Muslim <i>gujjars</i>	7
4	Lana Bhalta village	With SC widows	3
5	Nadel village	With widows from Gen Caste	3
6	Siyun Kunti village	With Hindu <i>gujjars</i>	4
7	Banol	With SC community	8
8	Reda and Tikri	With SC community	5
9	Bhratiya Kaharad and Taapri	With Gorkha community	4

ANNEXURE 3

CROPPING PATTERN IN SUBMERGENCE AREA

Crop	Sowing time	Harvesting time	Productivity (Quintal)	Rate (Rs/Quintal)	Total earning per Bigha (Rs)
1st Cropping Pattern					
Ginger	July	Nov-Dec	13	2000	26000
Tomato	Mar	July	100 crate	400	40000
Total Earning					66000
2nd Cropping Pattern					
Wheat	Nov - Dec	May	3.6	1200	4320
Mustard (with wheat)	Nov - Dec	Mar	1.8	3750	6750
Makki	June- July	Aug- Sept	7.4	1000	7400
Siyul (with maize crop)	June- July	Nov	0.8	2200	1760
Toriya	Sept- Oct	Dec	1.8	3750	6750
Total Earning					26980
3rd Cropping pattern (relay Cropping)					
Ginger	Oct	Oct	13	2000	26000
Mustard (with wheat)	Oct	Mar-Apr	1.8	3750	6750
Maize	June- July	Aug- Sept	7.4	800	5920
Total Earning					38670
4th Cropping pattern					
Garlic	Oct	Mar-Apr	5.5	2500	13750
Tomato	Mar-Apr	Jul	100 crate	400	40000
Urad	Aug	Oct	0.5	2500	1250
Total Earning					55000
5th Cropping pattern					
Wheat	Nov - Dec	May	3.6	1200	4320
Mustard (with wheat)	Nov - Dec	Mar-Apr	1.8	3750	6750
Paddy	June- July	Aug- Sept	4	1800	7200
Toriya	Sept- Oct	Nov-Dec	1.8	3750	6750
Total Earning					25020
6th Cropping pattern (Relay Cropping)					
Ginger	July	Nov-Dec	13	2000	26000
Maize	July	Oct	7.4	800	5920
Mustard	Nov - Dec	March-Apr	1.8	3750	6750
Total Earning					38670

(Source- Primary data collected during this study)

ANNEXURE 4

ANNUAL EARNINGS FROM A WATERMILL

Average Annual Gross Earning

In one day 1 watermill approximately grinds- 120 Kg of food grains

Charges- 1 kg of flour for grinding 10 kg of food grains

One day earning- 12 kg of flour

Annual Earning- 12 kg x 330 days (approximate running days) x Rs. 10/kg of flour = 39600.00

Average Annual Expenses-

Annual *Mistry* and labour charges- 500

Annual Grinding stone cost (Has a life span of 2 years and costs Rs. 4000) = Rs.2000

Net Annual Income= 39600-2500=Rs. 37100.00

(Source: Interviews with watermill owners during this study)



## CENTRAL EMPOWERED COMMITTEE

**REPORT OF THE CEC IN APPLICATION NO. 323 FILED BY THE GOVERNMENT OF HIMACHAL PRADESH FOR THE USE OF 49 HA. OF THE FOREST LAND FALLING IN THE RENUKA WILDLIFE SANCTUARY FOR THE CONSTRUCTION OF THE RENUKA DAM PROJECT IN DISTRICT SIRMOUR, HIMACHAL PRADESH**

Application No. 323 has been filed before the CEC by the Government of Himachal Pradesh for seeking permission for the use of 49 ha. of the forest land falling in the Renuka Wildlife Sanctuary for the construction of the Renuka Dam, a storage scheme on River Giri to augment the drinking water supply of the National Capital Territory of Delhi.

2. The project which is an outcome of the agreement arrived at between the States of Uttar Pradesh, Haryana, Himachal Pradesh and the N.C.T. of Delhi on 6.11.1994 has primarily been contemplated as a storage scheme on the River Giri, a tributary of the River Yamuna to augment the drinking water supply to the National Capital Territory of Delhi as also to utilize the other incidental benefits such as power generation therefrom. The project envisages the construction of 148 mtr. high rockfill dam downstream of confluence of Jager-ka-Khala with River Giri at a place about 2 kms. upstream of Dadahu town. It has also been proposed to utilize the available head to generate 40 MW of power. The dam is situated near the famous shrine of Renukaji and the historical Renuka Lake. The project, when completed, will have a live storage of 498 MU<sup>3</sup> that will ensure firm water supply to the tune of 23 cumecs, that is about 437 mgd (million gallon daily) to the National Capital Territory of Delhi during the lean months every year from September to June. The cost of the project has been estimated at Rs. 1,224.64 crores at May, 1997 price level. The Government of Himachal Pradesh and the National Capital Territory of Delhi have agreed in principle that the Himachal Pradesh Government will contribute Rs. 166 crores as its share for the power component. The rest of the project cost is to be borne by the N.C.T. of Delhi.

3. The Advisory Committee on Irrigation, Flood Control and Multipurpose Project under the Chairmanship of Secretary, Ministry of Water Resources at its 72<sup>nd</sup> meeting held on 18.1.2000 found the Renuka Dam Project acceptable from the techno-economic angle subject to the following conditions: -

- (i) the Government of Delhi and the Himachal Pradesh would decide the sharing of the cost bilaterally;

- (ii) the Environment and Forests clearance should be obtained from the Ministry of Environment and Forests. The necessary action for the denotification of the Wild Life Sanctuary area should also be taken as per the requirement of the Wildlife (Protection) Act, 1972; and

- (iii) the clearance of the R&R plan for the tribal population from the Ministry of Social Justice and Empowerment.

4. The project involves the use of 485 ha. of forest land out of which 49 ha. falls in Renuka Wildlife Sanctuary. The total area of the sanctuary is 4 sq.km. Out of the 49 ha. area falling within the sanctuary, 24 ha. is required for submergence and the balance 25 ha. for the treatment / stabilization of the slopes. In all 16,008 trees have been enumerated in the project area out of which 10,429 trees fall within the submergence area and the balance 5,579 trees in other forest areas. The proposal has been recommended by the Chief Wildlife Warden, Himachal Pradesh (**ANNEXURE - R1**) stating that the area going under submergence can serve as the wetland and that the dam will attract a number of migratory birds. The Principal Chief Conservator of Forests in his letter dated 18.9.2003 addressed to the Principal Secretary (Forests), a copy of which has been filed before the CEC has stated that a diversion of 49 ha. land of the Renuka Wildlife Sanctuary will lead to the fragmentation of the wildlife habitat. This is likely to adversely affect the wildlife population and restrict the wildlife movement in the sanctuary. To mitigate the adverse impact on the flora and fauna a comprehensive and exhaustive environment management plan for wildlife and bio-diversity management will be required to be prepared for the submerged area of the body. It has also been recommended by him that the water body created due to the dam and the additional area of reserved forest Unger will have to be declared as part of the wildlife sanctuary. The management plan will address all wildlife and diversion issues such as provision of corridors, prevention of fragmentation of habitat, habitat improvement, augmentation of wildlife, replanting of trees etc. It has been informed that to compensate use of 49 ha. in the sanctuary, 50 ha. of forest area will be added to the sanctuary and for its development a scheme for Rs. 2.25 crore has been prepared and which will be funded by the Delhi Government.

5. The Standing Committee of the National Board for Wildlife in its meeting held on 06.4.2005 recommended the project for

approval subject to the fulfilment of ten conditions recommended by the team deputed by the Committee for site inspection (**ANNEXURE - R2**). Subsequently, on the request of the State of Himachal Pradesh, the matter was reviewed by the Standing Committee in its meeting held on 08.6.2006 and the relaxation / deletion of conditions as proposed by the State of Himachal Pradesh were accepted (**ANNEXURE - R3**). The modified conditions subject to which the proposal has been recommended for approval by the Standing Committee, NBWL, areas as under: -

- (i) submerged area of the project would be included in the sanctuary bringing the total area of the sanctuary to 15.976 ha.;
- (ii) the road that is presently bifurcating the sanctuary should be closed to traffic and an alternative road would be provided bypassing the sanctuary area. However, till the new road is constructed the existing road may be allowed to be used;
- (iii) the entire submergence area of the reservoir would be notified as a sanctuary with a view to provide protection to the migratory species and birds in the reservoir area;
- (iv) Compensatory Afforestation over twice the area notified as deemed forest diverted for the project to be carried out over the degraded forest on the mountain slopes along the River Giri downstream of the proposed dam. This area is estimated at 939 ha. and therefore Compensatory Afforestation is required over 1878 ha.;
- (v) 5% of the project cost should be deposited by the Project Authorities for development and management of the sanctuary; and
- (vi) the Project Authorities should ensure adequate flow of water through out the year in the Giri River, which is the habitat for several varieties of fish for centuries. Appropriately designed fish ladder should be provided at Renuka Dam and Dadahu Barrage.

6. The Standing Committee of the National Board for Wildlife has also recommended that the Project Authorities may explore

the possibility of having a series of 2 or 3 smaller dams rather than a 148 mtr. high dam and that alternative sites for such dams may be considered. The construction of the Renuka Dam should be considered only if the above suggestions have been dealt with by the Project Authorities. It has been informed that the suggestion for the construction of series of dams instead of the present proposal has not been found to be technically possible.

7. As per the R&R Plan of Renuka Dam Project, in total 836 people in 32 villages are likely to be affected. The Ministry of Tribal Affairs Government of India has approved the R&R Plan.

## RECOMMENDATION

8. The CEC after hearing the applicant and the counsel for MoEF and after going through the relevant documents and after a site visit by Sh. P.V. Jayakrishnan, Chairman on 15<sup>th</sup>-16<sup>th</sup> September, 2005 is of the view that the proposed project for the construction of the Renuka Dam to augment the drinking water supply of Delhi is in public interest particularly keeping in view the acute scarcity and the continuously growing demand for water in Delhi and the fact that alternate source of drinking water supply for the rapidly growing population of Delhi is becoming more and more difficult to identify. Though the proposal will result in considerable fragmentation of the sanctuary area and will have adverse effect on the flora and fauna inspite of mitigative measures recommended by the Standing Committee of the National Board for Wildlife, the CEC is of the view that the balance of convenience may lie in permitting the use of the forest land falling within the sanctuary for the project in view of the benefits accruing from the project particularly the drinking water availability for Delhi. Considering the above, it is recommended that this Hon'ble Court may consider permitting the use of 49 ha. of forest land falling within the Renuka Wildlife Sanctuary for the construction of the Renuka Dam Project by the Himachal Pradesh State Electricity Board subject to the following conditions:-

- (i) requisite approval under the FC Act for the use of forest land will be obtained;
- (ii) the NPV at the present rate will be deposited by the Project Authorities alongwith an undertaking to deposit additional NPV in the CAMPA as per the directions of this Hon'ble Court;
- (iii) the conditions on which the proposal has been recommended by the Standing Committee for



National Board for Wildlife will be complied with;

- (iv) 5% of the revised project cost will be deposited in Compensatory Afforestation Fund by the user agency for undertaking conservation and protection works in the sanctuary. This condition has also been recommended by the Standing Committee of the National Board for Wildlife;
- (v) a comprehensive environment management plan for the conservation and the protection of the Renuka Wildlife Sanctuary will be prepared and implemented;
- (vi) no labour camps will be established in the forest area, arrangement for fuel wood / kerosene oil will be made and supplied free of cost to the labourers only in the project to meet their energy requirement; and
- (vii) the Project Authorities will enter the sanctuary area for the construction activity after obtaining prior permission from the concerned authorities of the Forest Department.

9. The CEC is unable to agree with the request of the State Government to modify the condition imposed by the Standing Committee, NBWL regarding the payment of 5% of the project cost for the conservation and protection of the sanctuary. It may be seen that the said Committee at the request of the State Government has already reviewed various conditions imposed by it in the present case and has not thought it fit to modify this condition.

The Hon'ble Court may please consider the above report and may please pass appropriate order in the matter.

  
(M.K. Jiwrajka)  
Member Secretary

  
  
Public Information Officer  
Renuka Ji Forest Division  
Renuka Ji

Dated: 30<sup>th</sup> October, 2006

#### ABOUT THE RESEARCHERS:

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