SUBMERGING JAUNSAR-BAWAR
The dam onslaught continues

A preliminary study of the impacts of Kishau Dam in Himachal Pradesh and Uttarakhand

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Abbreviations and Acronyms

CWC	: Central Water Commission
DJB	: Delhi Jal Board
DPR	: Detailed Project Report
EIA	: Environment Impact Assessment
HP	: Himachal Pradesh
HPPCL	: Himachal Pradesh Power Corporation Limited
IPR	: Intellectual Property Rights
LARR	:Right to Fair Compensation, Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
MoEF	: Ministry of Environment and Forests
MoU	: Memorandum of Understanding
MoWR	: Ministry of Water Resources
PAPN	: People's Action for People in Need
PPP	: Public Private Partnership
RTI	: Right to Information
TAC	: Technical Advisory Committee
TOR	: Terms of Reference
UJVNL	: Uttarakhand Jal Vidyut Nigam Limited

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The curious case of Kishau: A background

In the 2014 Legislative Assembly elections in Delhi, drinking water for the city emerged as the central most issue. Interestingly, so far ensuring water supply to the National Capital has been synonymous with building of dams in the Himalayan states of Uttarakhand and Himachal Pradesh. The Renuka Dam, proposed to be constructed in Sirmour, Himachal Pradesh, had been the red herring of the Delhi Jal Board backed by the Shiela Dixit government. The 148 meter high dam project has been in the offing for decades and yet failed to see light of the day because of several controversies and complications. The new government in power seems to be looking for another way to deal with the Delhi water problem, which could be a relief for thousands of people in Himachal and Uttarakhand whose lives and livelihoods will be disrupted, if projects proposed as part of the disastrous Upper Yamuna Basin agreement start materialising. If the Renuka Dam project inches ahead, close on its heels is the Kishau dam followed by Lakhawar Vyasi, all on the Yamuna river basin as part of this agreement.

The Kishau Dam with 236 meters vertical height is going to be the second highest dam after Tehri dam in India. It is a multipurpose project, with 660 MW power generation capacity. The project promises to provide irrigation water covering 97,076 hectares of land in nearly five states, which include Haryana, Rajasthan, Delhi, Uttar Pradesh and Uttarakhand.[1] The dam is meant to also augment the drinking water supply for Delhi, the national capital by 619 million cubic meters.

Salient Features :

· Location – Himachal and Uttarakhand

· River – Tons tributary of Yamuna

· Capacity - 660 MW

· Concrete Gravity Dam - 236.0 m high

· Surface power house - at the toe of the Dam on the left bank

· Generator : 4 units of 165 MW each

· Vertical Francis Turbine - 4 Nos.

· Design head - 186.00 m

· Submergence area in Uttarakhand and Himachal Pradesh - 2950 Ha

· Annual Generation - 1851.51 MU

· Project Cost - 7156.58 crore on June, 2010 PL

· Year of Commissioning/Completion Schedule - 2023

(*Source: http://www.uttarakhandjalvidyut.com/kaisu.php)*

The Kishau dam project had been conceived way

[1]Information sought through RTI to

back in 1940.[2] In the Inter State meeting held on 7th November 1963 under the chairmanship of the then Minister of Irrigation and Power, it was decided to take up four projects (Kishau, Chandini dam on Giri, Lakhawar and Kotch dam on Yamuna) proposed on the upper Yamuna basin. Uttar Pradesh, Himachal Pradesh, Punjab, Rajasthan and Delhi agreed to, as part of Yamuna water development agreement, to construct a dam on Tons river, on the border of Himachal and erstwhile Uttar Pradesh.[3] In 1965, a Detailed Project Report envisaging a 236 m high arch dam was submitted to the Central Water and Power Commission, but was rejected on the grounds that the proposed site was in an active seismic zone. In 1994, in a meeting of the Upper Yamuna Board, an MoU was signed for sharing of the waters of the upper Yamuna basin among co-basin states. This agreement was not signed by Rajasthan. In 2000, a Technical Advisory Committee (TAC) of Central Electricity Authority, deferred the techno-economic clearance of Kishau project in the absence of established economic viability of the project. In 2002 in a meeting, which the Ministry of Water Resources (MoWR), and Central Water Commission (CWC) had with the northern co-basin states, a method was apparently formulated to apportion the cost of the project under three heads: irrigation, power and water supply.

The project got a real push on 7th May 2013 with the decision of the central government to bear 90 percent of the total cost of the project, which was the biggest hurdle. It was decided that the rest of the cost would be borne by the states availing benefits (irrigation and power) from the project. The Detailed Project Report has been prepared by Uttarakhand Jal Vidyut Nigam Limited (UJVNL) and an application has already been sent to the Ministry of Environment and Forest (MoEF) for fixing the Terms of Reference (TOR) or grant of Scoping Clearance under the EIA notification 2006. As far as the Memorandum of Understanding (MoU) between Uttarakhand and Himachal – the states where the project is proposed to be constructed is concerned, it has not yet been signed. After agreeing on sharing the power generated from Kishau dam on a 50% basis, now Himachal Pradesh is also demanding a 50% share in the power from projects operational downstream of the proposed Kishau dam.[4] [5] For instance, the Ichari dam which is immediately downstream is going to be benefited by the construction of Kishau dam, as

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[2] http://www.sandrp.in/drp/DRP_Dec_2010_Jan_2011.pdf

[3] Summary record of the decision taken at the Inter State meeting held on 7th November 1963 amongst the government of HP, UP, Punjab, Delhi and Rajasthan regarding Yamuna Water Development. (See here: http://india-wris.nrsc.gov.in/wrpinfo/images/5/5c/32.pdf)

its capacity will increase with a regular water supply all year round – from Kishau dam.

In a sense the histories of both Renuka and Kishau dam have had a similar trajectory. While the Renuka Dam, in the past decade has had to face 'hurdles' in clearances around environmental and forests, the Kishau Dam being a larger and costlier affair with a huge irrigation component has many unresolved issues as far as its viability is concerned. The Inter-state benefit sharing concerns, which are right now seeming in the background are also likely to have a major role to play in determining whether the Kishau dam project will really take off.

Two realities, however, are apparent. First, that as long as the Upper Yamuna basin agreement is considered as the guiding policy document for water distribution and use, the execution of the Kishau Dam project will continue to receive impetus. Second, this project is much bigger in magnitude than the Renuka dam, and its impacts are likely to be more far reaching. It is keeping in mind these two realities that a preliminary assessment has been done on the likely local ramifications, both social and environmental, of this project.

- The Key objective of this study is to provide a broad assessment of the likely impacts on lives and livelihood of people going to be directly affected by the proposed Kishau dam. One of the main challenges in the field-work involved selecting a representative sample of households from villages which are to be fully or partially submerged in a scenario where practically no project documents are available in public domain. Despite the fact that the DPR has already been prepared, one of the local activists was denied access to the report by UJVNL under Right to Information (RTI) Act citing Intellectual Property Right as an issue. Given such limited information, the study could only determine the probable nature of socio economic impacts on villages to be fully or partially submerged.

- Meetings were conducted in great detail with the villagers, community leaders, individual families to be affected with the aim of propagating what their anti displacement rights are, mechanisms available to raise

[4] http://articles.economictimes.indiatimes.com/2013-05-28/news/39580233_1_dam-project-himachal-pradesh-uttarakhand)

[5] http://www.thestatesman.net/news/26580-hp-u-khand-dispute-over-kisau-project.html

violations in situations where land is being forcibly acquired.

- Special emphasis was laid on women's participation in order to understand better the gendered implications of forced displacement and resettlement. The discussions mainly centered around the questions of basic household economy such as family size, distribution of land and income, and understanding views of the villagers who in their everyday life live with the lurking fear of displacement. The intention behind the study was to also understand how people perceive the choices present before them in context of upcoming Kishau Dam.

Understanding Jaunsar-Bawar and its people

The project is proposed on river Tons, which is a major tributary of the Yamuna, originating in the Jamnotri mountains and passing through Shimla and Sirmour districts and Jaunsar Bawar region in district Dehradun. Except in some parts, where it flows through the small town of Tiuni and a little beyond, the river forms boundary of the states of Uttarakhand and Himachal Pradesh. It enters Sirmour district of Himachal near village Kot and forms the eastern boundary of the district for about 50kms before it joins Yamuna near Khodar Majri.

The submergence area on the left bank is part of Jaunsar Bawar region of Chakrauta tehsil, district Dehradun which is a Schedule-V area. A major part of the submergence area on the right bank will be in Sirmour and Shimla districts of Himachal and a smaller portion in Uttarakhand after Faedij bridge on Dehradun-Tiuni road. Part of Himachal going to be affected by Kishau dam is similar to the left bank but is not a declared Schedule-V area.

The area is inhabited by Jaunasari and Bawar tribe who believe that they are descendants of Kauravs and Pandavas. The area has a deeply entrenched caste system where Rajputs and Brahmins dominate possessing most of the land. As opposed to the landed castes, the Doms, grouped in several castes, of which the Bajgis, are professional musicians, the Koltas or Kolia, the descendants of the aborigines, survivors of the race belonging to the pre-historic Koll culture are mostly landless and dependent on the upper caste families for their livelihood.

(Dam site for 660 MW Kishau Dam proposed on River Tons, which flows through Himachal Pradesh and Uttarakhand)

The name of the project gives a wrong idea about the project area. The project site was shifted to Sambarlekha (on Uttarakhand side) and Maina Vaas (on HP side), 15 kms from village Kishau due to unsuitability of the initial selected site for dam construction. The project has a huge spread in 3 districts of two states. The dam site is 70 kms from Dehradun on the road to Tiyuni town, which is zero point of the dam backwaters.

All along 44.5 kms of the submergence area, villages are located on both sides of the river at some interval. The villages on the right bank in Sirmour district are connected via rope trolleys to Tiyuni- Dehradun road. There are strong religious, cultural and economic ties between villages on both sides. According to information provided under RTI by UJVNL, 9 villages from Uttarakhand and 8 villages (6 from Sirmour and 2 from Shimla district) are going to be affected by Kishau dam project and it's submergence area will spread over 2950 hectares. Of the total submergence area, 512 hectares is cultivated private land and 2438 hectare is forest land. A total of 5498 people belonging 701 families will be affected by the project

Table 1: Land use in submergence area under Kishau Dam

Kind of Land	Submergence Area in Himachal (ha)	Submergence area in Uttrakhand (Ha)	Total Submergence Area (ha)

Cultivated Area	177	335	512
Forest Area (community and individual ownership)	400	289	689
Forest Area (with state government)	921	828	1749
Total	1498	1452	2950

(The data is from the data submitted to the Technical Advisory Committee in year 1997. As the information is quite outdated, the number of affected families now would have substantially increased. Further, this data has also not been verified through field surveys.)

Agriculture with livestock rearing is the main livelihood activity in the region. Farming is carried out in relatively flat lands with irrigation facilities available all round the year thus allowing multi cropping and highly productive farming. People also practice commercial farming and cultivate crops like ginger, turmeric, cabbage, tomatoes and ground nut etc on a large scale.

(Kulthi (horse gram) fields between Morad and Siyasu Village)

All along the bank of Tons river, there are scrub forests interspersed with scattered trees, pastures and dense broad leave forests. The forest on Uttarakhand side falls under Reserved forest and Civil Soyam land (under the

control of revenue land) while in Himachal, these are mostly Shaamlaat forests (with individual and collective ownership) barring a small portion of reserved forest.

(A farmer in Machwaad village ploughing his fields with help of buffaloes)

In words of Diwan Singh, Pradhan of Village Kuwanu, Uttarakhand, "*Most of us are owners of land only under cultivation. Concerning the private revenue forest, since it's government land, anyone can access it. In case of the forest area, it is utilized as common land. For this kind of forest, we will not be compensated like in the case of Himachal where people have ownership over common land."*

There is a rich tradition to use medicinal plants found locally for various diseases and its remedies. Around 100 medicinal plants have been recorded which are used by the community in this region.[6] One more common livelihood activity is fishing, both for sale and self consumption. Fishing is relied upon as a source of livelihood, mostly by the *dalit* communities,at least seasonally.

[6]http://www.upsbdb.org/pdf/Souvenir2011/15.pdf

(Turmeric fields in full bloom in Machwaad village)

(Fishing is a common livelihood activity in the region practiced mostly by the scheduled castes)

In Sirmour district, the stretch from Maina Baas to Minus bridge (after which Shimla district's boundary starts), has 19 villages which will be affected (Annexure-1). In the absence of data and clear cut pillar markings, it is difficult to tell the number of families to be fully displaced and/or partially impacted.

According to information provided under RTI, in Sirmour district 285 families from 6 revenue villages will be affected by the project. According to a survey done by PAPN team, around 387 families in 19 villages from 4 panchayats of Sirmour district will be affected. The difference in number of villages is because UJVNL has collected data considering revenue village as a unit,

which is larger in size with one revenue village comprising of 3-4 villages. Further, the data provided is quiet outdated, atleast 1 year old and that too not verified in the field thus making it possible that the number of affected families may have substantially increased if one looks at the families registered in the Panchayat register.

Habitations are mostly located according to the caste composition. Out of 19 villages, 14 villages are inhabited by Thakurs, 2 villages by Brahmins (who have OBC status and 3 villages by SC).(Annexure 4) In interviews with 8 general caste families in five villages and 5 scheduled caste families from four villages, we found that the average landholding size of general caste families is around 30.5 bighas and that of an SC family is 5 bighas. In addition to this difference in land ownership, general castes have ownership over shaamlaat lands – private forests - and many families have more than 100 bighas of shaamlaat land, which the SC community does not have ownership over. Most of the SC families are dependent on the upper castes for cash, food grains and access to shaamlaat forests.

(A typical village house with its distinct local architecture in Machwaad village)

What if the Kishau Dam is built?

Submergence of fertile lands

The agriculture land under submergence are low-lying plots and the boundaries of villages are demarcated by perennial streams. For instance, in case of Bada Lani village, the boundary is marked by Jalil stream and

Chiched stream. On lower altitudes, the streams are open and water flow is slow and can be easily used for irrigating the fields by diverting its water through canals. According to RTI information, out of 159.7 hectare of agriculture going to be submerged under the dam in Sirmour district, only 76.4 hectares, less than 50% area is under irrigation. But during the field visit, we found that almost all the land in the affected areas is under irrigation. It clearly shows that revenue land records have not been updated and only shows area under irrigation through government schemes. The climate is hot and the fertility is high due to alluvial soil. Farmers of the area grow 3 crops and in some instances 4 crops a year.

- Kharif crops are (sowing in June-July and harvesting Oct-Nov): Maize, Paddy, Ginger, Groundnut, Kulthi, Black Gram, kidney Bean, Soyabean, Arabi, Perrila, Turmeric, Finger Millet, and vegetables like Tomato, Gourd family, Brinjal and Cabbage.

- Mid crops are (sowing in Feb-March and harvesting Oct-Nov): Toriya (Mustard family), Amranthus and Potato.

- Winter crops (sowing in June-July and harvesting Oct-Nov): Wheat, Mustard, Onion, Garlic, radish and Cabbage.

(It's a common sight to see roof of the houses used as platforms to dry crops, in this case corn)Table 2: Total Cultivated and

Uncultivated in 6 revenue villages going to be submerged under Kishau dam project (Area in Hectares)

Village	Cultivated	Uncultivated	Cultivated Area			Uncultivated Area			
			Irrigated	Non-irrigated	Total	Ghasini	Abadi	Jungle	Total
Kotibali	3.2	30.7	2.2	1.0	3.2	16.2	0	14.5	30.7
Mohrad	62.7	30.3	18.8	43.9	62.7	8.3	0.8	21.2	30.3
Siyasu	24.3	84.6	18.2	6.1	24.3	74	0.8	9.8	84.6
Badalani	10.1	22.2	8.1	2	10.1	10.1	0	12.1	22.2
Dando	37.2	91.5	25.1	12.1	37.2	52.6	0.5	38.4	91.5
Bagain	22.2	337.5	4	18.2	22.2	295.4	10.1	32	337.5
Total	159.7	596.8	76.4	83.3	159.7	456.6	12.2	128	596.8

(Source: Information provided by UJVNL under RTI Act)

The major source of fertilizer is cow dung, which has in multiple ways reduced dependency on chemical fertilizers and pesticides. Farmers use the techniques of inter cropping and mixed farming with vermi- compost to reduce incidences of pest attack._ In case of Ginger, farmers have been using chemical pesticides like Bavistin and DM-45, and also use tobacco as inter crop, vermicompost and neem based pesticides to protect from infestation.

Another unique aspect of agriculture in this area is that despite the introduction of commercial crops like ginger, tomatoes, ground nut and all kinds vegetables, traditional crops like Manduwa, Chaulai, Jhangora and Bhangira etc have been preserved to an extent but mainly for self consumption. According to Uttam Singh of Parli Forad village, the 'Sonth' dried ginger of this region is famous not only in India but in Asia and is widely used in preparation of ayurvedic formulations.

Table 3: Productivity and earning from some of the major crops on 1

bigha of land in the submergence area

Crop	Productivity (quintal per bigha)	Rate (per quintal)	Earning/bigha
Ginger	15	5500	82500
Tomato	120 crate	500/crate	60000
Groundnut	2.5	7500	18750
Maize	8	1200	9600
Wheat	11	1500	16500
Amranthus	1.5	2200	3300
Kulth	3	8000	24000

The average land values according to the “Kisan Pass Book” are quiet low. According to Kisan Pass Book of Khajan Singh of BadaLani, the average value of “Kul Awwal” (all round the year of irrigated land) is Rs 26,875.00; for “Kul Yoyyam (6month irrigated land) is Rs.20,520.00 and “Obad Awwal” (Barren land) is Rs. 12,577.00 and similar kind of rates are prevalent in the area.
There is no comparison between the value of land in the revenue records, on the basis of which land will be acquired and the income farmers are earning every year from that land.

And where will the cattle go?

Livestock rearing is another major occupation of the communities which supports agriculture by providing manure and draught power for ploughing. In this valley, tractors are hardly used for ploughing and harvesting totally depends on bullocks. Every household maintains cows, a pair of bullocks, some sheep and goats and some households even rear buffaloes. Selling of milk is not very common but selling of ghee and goats is. Mutton is an important part of the diet and on the occasion of Budi diwali every household sacrifices goats and during wedding ceremonies too. There is a good demand

locally for goats and are usually sold at a good price ranging from Rs. 5000 to Rs. 20,000.

(Almost every household maintains cows, sheeps and goats)

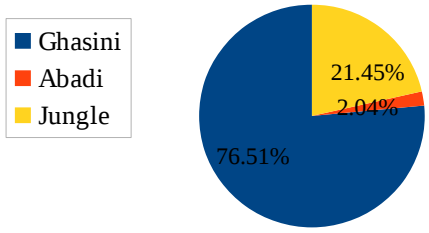
Roop Singh, Age 38, Village: Bada Lani, Panchyat: Jakando

Roop Singh, 38 lives in Village Bada Lani, and runs a family of five members, his wife and three sons. His livelihood is totally dependent on agricultural land, of which 4 fields are "Kul Awwal" (category of land which is irrigated) and is his main source of income. On these four fields, he grows commercial crops like tomatoes, ginger and cabbage and Wheat, Maize, Kidney Bean on the rest. Through this he earns around Rs 2 lakhs to 2.7 lakhs in a year and is able to grow food grains, pulses and vegetables for a whole year for self consumption. For rice, he barters 1 unit of horse gram with 4 units of rice. He also has 4 cows and 10 goats, and sells around 2 goats per year for which the market price is almost 10 to 15 thousand. 15 bighas of grass plot on which he rears his cattles' is under submergence. He says that the land is extremely fertile in his region and nowhere else will anyone find a piece of land with such high production quality.

Drowning the commons

Another production system which is going to be badly hit is shaamlaat land which comprises of forest (trees and shrubs), grazing lands and grass plots. In villages such as Nera, farmers have individual ownership over shaamlat land, whereas in Machwaad as a joint holding of all the landowners of the village. Shaamlaat forests are a source of fodder and forage for livestock, fuelwood, leaf litter to prepare manure, provide raw material for agricultural tools, basket and kilta and ropes and source of medicinal plants etc and moreover supports agriculture by providing fodder to cattle. Along the bank of Tons river, there are scrub forest which provide good

Chart-1: Shaamlaat land in project affected area in Sirmour under different land uses (in hectares)



forage for goats and sheeps, and grass plots and grazing lands support cattle population. In almost all the affected villages, all cooking and heating is done on fuelwood and it's a rare sight to see families use gas stoves.

At present, 69 families from 4 villages have Dogris (temporary residence), in village Siyasu, where they come for a part of the year for farming and grazing of cattle. This is one of the traditional ways to spread the resource use and to also protect resource base like forest and land from over exploitation. Siyasu will be completely submerged by the dam. If Siyasu is submerged, it will then concentrate the resource use in the four villages where these families permanently reside. Similarly, in case of villages like Parli Forad, Machwaad, where except houses and surrounding land , most of the agriculture and Shaamlaat land is under submergence. These families living in the area will be left with small landholdings and common land.
Both the above mentioned situations is likely to cause a massive resource crunch in the area, which will lead to over exploitation of existing resource base, and very likely to increase conflicts among communities. This all will be ensured along with an adverse impact on the local mountain ecology.

(Temporary residences (dogris) in Siyasu village)

Village Case study: Machawaad, Panchayat Balikothi; Thesil-Shilai; Sirmour

Machwaad is one of the 13 villages of Balikothi Panchyat. The village has 25 households (23 Thakur, 1 SC and 1 Brahmin family). The village has around 450-500 bighas of land under individual ownership and around 3000 bighas under joint ownership (of all the families except one Schedule caste family, in proportion to private land holding). There are three markings in the village, with the current pillar markings done in 1990. Out of the total 3000 bighas, half of the common land and 70% of the private land is under submergence. Only two people from the entire village are government job holders, and the rest are totally dependent on agriculture, livestock and forest for their livelihood. All the families in the village are entirely dependent on fuelwood for cooking.

People on the margins

Displacement experiences in the past have clearly shown that the worst affected have always been the Dalits and Tribals, and within that women and children.[7] Majority of those displaced in the name of development are landless agricultural farmers working on land owned by someone else. The case of Renuka Dam too elucidates forcible land acquisition as a great setback for SC communities like Kolis, Chammars, Doms and other landless Dalit communities working as tenants for upper caste Rajput and Thakurs. In Himachal Pradesh, though the landless farmers, mostly Dalits were alloted a minimum of 5 bighas under the Nautod Scheme, however the land provided was mainly barren forest and unsuitable for agriculture. Since most of the Schedule Caste families did not enjoy any land entitlements before 1970's, the transfer of ownership of Shamlaat land to the land owners as per their land holding size, left a large majority of SC families without land entitlements over Shamlaat forest. This issue of ownership continues till date.

According to Tikam Singh of Morad village, who is seriously worried about losing his land and livelihood expressed his concern for the Scheduled Caste families, *“Will they get anything? For instance, right now I have 50 bighas of agricultural land and at least 50 mun (1 mun is equal to 40 kgs) of my entire*

[7] http://infochangeindia.org/agenda/migration-a-displacement/paying-the-price-for-someone-elses-displacement.html

produce goes to the schedule caste families who work for us. If, tomorrow, the dam comes up and the government decides to resettle me in Poanta, where will these families will go? Their survival is more at stake than ours. For families like ours, we will manage our survival somehow, but for the landless and other schedule caste communities, only loss awaits."

(Basket making, a skill traditionally practiced by Saniya's community)

When questioned about Kishau dam, Saniya, a basket weaver belonging to the Dalit community, from village Kushraad, informed the team that *he wasn't aware of Kishau dam nor did he have any idea about submergence markings in the area.* On hearing about the prospects of a dam, *he added remorsefully, "in that case, I would not know what to do. If this entire area gets submerged and water level comes this high, the only recourse left for us is nothing but jump into the same river. It is very difficult for us to survive and we are mainly dependent on the big farmers. If everything is washed off, where will we go?"*

In all the villages visited, the women of the households especially perceived the upcoming Kishau Dam as a great threat. Agitated at the thought of her land being taken away, Uma Thakur from Bada Lani spoke with deep conviction that Kishau dam cannot come up at any cost. As a woman, she fears the loss of her skills and knowledge along with access to resources such as land, forests and river. Putting forth her thoughts fiercely, she added, *" The government has no right to displace people off their land and above all, how will the government compensate us for the loss of our culture? We*

will not leave behind our community at any cost. Resettling in an unknown land means no fields, unfriendly neighbours and no forest to collect fuel and fodder from."

Many villagers also illustrated Lakhwar Vyasi, another project on the Upper Yamuna basin as a case in point of decisions taken by villagers completely gone wrong. According to Uttam Singh from Parli Forad village, several controversial incidents related to compensation had cropped up in case of Lakhwar Vyasi project. He shared a couple of them - Out of all those compensated, only one family was wise enough to have purchased land from the compensation money offered. Rest of the families, particularly men, splurged on alcohol and gambling. It was the women who had to face the brunt of all this and a large number of cases of domestic abuse were reported. The situation was worse off for women belonging to the Dalit families for whom the small patch of land was the only asset the families had at hand.

Himachal's tryst with Dams and development

Dams and Himachal Pradesh have a long history dating back to the time when the Bhakhra dam was built. Communities displaced on a large scale from that time, followed by those affected by Pong and Pandoh dam continue to face issues of inadequate compensation and rehabilitation in the face of their livelihoods being uprooted. The loss of scarce agricultural lands and precious forests continue to be the price that is being paid for dam and hydropower project construction in the state.

If we look at the execution of Himachal's development model in Sirmour district alone, it provides a picture of the costs that are being incurred. This is a region dominated by flat and irrigated land which supports a large population in the terai area or the foothills like Kalaamb and Poanta Sahib. However, these lands are now rapidly being either diverted to industries or being converted to non productive lands because of the polluted units coming up in the area. The valley populations practicing irrigated and commercial agriculture are along two major river basins of Sirmour district i.e. Giri and Tons, where now the government is determined to build big dams projects (Renuka and Kishau), which will submerge all the fertile land along banks of these rivers. This leaves the steep and mountainous or forested areas, which are being deforested and hollowed out for limestone mining. In such a scenario, where the linkages between local people and their natural resources – land, water and forests, stand thoroughly disturbed

and broken, there is little scope for real development due to massive dispossession.

Even if we look merely at implementation of basic laws and transparency and accountability mechanisms, be it of fair compensation, resettlement, environmental safety, conservation related, to name a few the government has failed to a large extent. Just as was the case with Renuka, there remains little information in the public domain about Kishau Dam. To this day the project authorities in the Renuka Dam case have not been able to provide a final list of the affected people based on a social impact assessment. In fact, the Social Impact Assessment study is yet to be conducted. In case of Kishau dam, there is almost no information available publicly as yet. UJVNL has denied to provide a copy of DPR of Kishau dam project asked under the RTI Act citing violation of Intellectual Property Right (IPR) as the reason. According to information provided under the RTI Act, there are 1412 houses, 712 in Uttarakhand and 702 in HP, which will come under submergence area of Kishau dam and in 8 villages of Sirmour district the figure is 633. These figures hint at the fact that substantially a large number of people in both Himachal and Uttarakhand states will be displaced.

On the issue of resettlement, which is often touted as the answer to displacement, it is important to note that in the case of Renuka dam project coming up in the same district, the project proponents have not been able to find a suitable place to resettle the families who are going to be displaced by that project. HPPCL, the project proponent of Renuka Dam, has clearly said that there is no option whereby affected families from the project can be provided land for land. For even those families which are going to be completely displaced, providing a minimum 5 bighas of agricultural land with housing facility has been impossible. It is then quite apparent that the HP government will not be able to resettle a much larger number of families going to be displaced by Kishau dam.

When costs are overlooked and benefits overrated

A cost-benefit analysis is central to assessing the feasibility of any development project. This exercise needs to be done at the very conception stage. But the problem is not one of timing alone, but rather one of perspective. The parameters used for calculating the costs and benefits need to take into account the entire gamut of causes that are at the root of crises that a project is trying to address. In the case of dam projects, it needs to

take into account the history of these projects and a fair assessment on whether set targets and objectives have been achieved and at what cost. The definition of costs itself needs to include social, environmental and financial costs. And most importantly, the issue of equity needs to be placed at the centre – which means that the question of who pays the cost and who benefits needs to be squarely addressed.

UJVNL's claims that one of the purpose of Kishau is to "also" augment Delhi's water supply needs to be looked at with great suspicion. There is little reason to believe that the story of Kishau Dam would be any different from the Renuka experience. And the questions that surround the Renuka Case today could also be very well posed for Kishau project.

- Is the purpose justifiable? Does Delhi really have a water scarcity or is it an example of bad management? Is it just a political gimmick to legitimize large dams, and how much the areas where large dams are constructed actually benefit remains contentious. Have all the existing options such as rainwater harvesting, ground water management, maintaining the deteriorating water bodies, reviving local knowledge been completely explored by the Delhi Jal Board? Further, there is no consideration of the history of proposed projects with the same stated objective, like the Renuka Dam and how much additional water is required and what are the other options available.

- Another concern relates to the absence of cost benefit analysis. For instance, close to 15 lakh trees will be cut and a population of 37 villages will be uprooted from their land if Renuka becomes a reality. The case of Tehri, Pong, Pandoh and Bhakra too speaks the same story where those displaced still await just rehabilitation. When Himachal government is not able to provide land for the rehabilitation and resettlement for people going to be displaced by Renuka dam, from where will it get land to rehabilitate and resettle people from Kishau dam project?

- Speaking of legal and technical complexities, the case of Renuka itself presents a complex picture concerning clearances at all levels. The project sought and was granted environmental clearance for 577 hectares of private land in 2009, whereas they are acquiring almost twice the amount of land. Till today, there is no assessment of the actual land requirements for the project. There remains complete confusion with regard to the classification of shamlaat land as private

lands or forest lands and whether they attract the provisions of Forest Conservation Act 1980. The project construction has been stayed by the National Green Tribunal and the environmental clearance remains challenged. The forest clearance has been rejected twice by the Ministry of environment and if granted now is likely to be challenged in court on account of the above issues.

The second purported benefit of the Kishau project is the 660 MW of power to be generated by the project. As revealed in several reports, despite damming the entire Himalayan region, a large portion of Indian society still does not have access to electricity, and if one takes into consideration the household level, the picture is even worse. The issues of inefficient management, losses in transmission and distribution as well as privatisation, like water are also applicable to the power sector.[8] For instance, Himachal will only get 50% of share in electricity to be generated by the Kishau Dam i.e. 330 MW, and that too at a very large cost to its population as well as forests.

According to the information provided by UJVNL, the project proponents have not identified and studied the 97,076 hectares of land likely to be irrigated by the project and in absence of any legally binding MoU for sharing of water of upper Yamuna basin among co-basin states, there is a doubt that the project will be able to achieve the stated purpose. More importantly, the state of Himachal Pradesh has no share in irrigation water.

If we look at the cost-benefit analysis only from the point of view of the state of Himachal Pradesh, the ratio seems quite poor. Himachal will get no share in the irrigation, only 50% in the power and will lose 177 hectares of cultivated land, 1321 hectares of forest land and will displace hundreds of families in return. Evidently, the priority of the Himachal government remains distorted – with the focus on earning higher revenues instead of looking at the concerns of its own people and environment. This is clear from the fact that for signing the MoU with Uttarakhand, Himachal government is now demanding a higher share in the additional power going to be generated in the hydropower projects downstream of Kishau Dam.

However, state boundaries hold little meaning when we take a birds eye view. It is then that we look at the area as a Himalayan region with the realisation that the cumulative impacts of three huge impoundments – Tehri,

[8]Dharmadhikary, Shripad. *Mountains of Concrete: Dam Building in the Himalayas.* International Rivers, December 2008. (page:

Kishau and Renuka Dam in almost parallel valleys – adjacent to one another are not even being considered. What would be the costs in the long run in an area that is known for being seismically sensitive is also a question that is not being asked.

Local opposition to Kishau

A strong opposition is building up against Kishau dam in the affected areas, and this seems to be an occurrence irrespective of caste, class, religion and gender. The reason for opposing is but obvious as livelihood of everyone directly or indirectly dependent on agriculture will be severely impacted.The risks of Kishau are being calculated higher especially by those who have personally viewed the negative impacts of Tehri dam and its after effects.

Words of Muskaan, a woman in her twenties summed up feelings of a large majority the team spoke to. "*We will go to any extent to save our land and water. We are even ready to attend and conduct meetings, be it in Bada Lani or Shimla. We are even ready to meet people who are now facing the brunt of displacement. We are ready to learn from their experiences. Even if the rates go from 30 to 50 percent, the money received will be over someday. Resettling into new land will only come with loss of our culture, and restoring ourselves to this situation will never be possible."* Similar concerns were also voiced by Chumma Devi, a 40 year old woman belonging to the Dom community who maintained her staunch beliefs that her land cannot be taken away at any cost.

A strong opposition is also stemming from the fact that the affected area has a self sufficient economy based on agriculture and a very low dependency on state government jobs. Government initiated development activity hasn't reached the area and people are dependent on road and markets developed on the Uttarakhand side. In words of Jai Singh from Machwaad village- *" Due to Kishau dam project , we will lose all our land, forests, hills and water. Any amount of compensation cannot make up for the loss of land and forest. If we are resettled into a new land, we have to depend entirely on the market for everything. Right now, apart from buying sugar and salt, we grow everything on our own. For instance, we grind flour only in the water run flour mills. Only in cases of emergency, like if our area gets flooded, we eat market flour."*

To register their collective opposition to Kishau project, the affected population in Sirmour have organised themselves under the banner of

“Kishau Bandh Sagarsh Samiti” which has 16 members with Shri Uttam Singh from Parli Forad as its President. (Annexure 5) However, this reveals a crucial detail of the Sangarsh Samiti and that being its upper caste character. How would the aspect of caste and class pan out itself in context of building a “united” struggle against Kishau dam needs to be seen. Nevertheless, to make the struggle stronger and visible, there is an urgent need to make it inclusive along the lines of caste, class, religion and most importantly gender.

Annexure-1: The List of Affected Villages from Sirmour District

S. No.	Village	Panchyat	Households				Population		
			Total	Gen	OBC	SC	Male	Female	Total
1	Mohrad	Balikothi	22	20	2	0	102	89	191
2	Kushrad	Balikothi	18	0	0	18	62	62	124
3	Machwaad	Balikothi	23	21	1	1	135	90	225
4	Kusenu	Balikothi	29	0	29	0	172	123	295
5	Dudogh	Balikothi	7	7	0	0	45	38	83
6	Chakri	Balikothi	20	19	0	1	124	102	226
7	Kandiyari	Balikothi	11	11	0	0	101	81	182
8	Nera	Balikothi	10	10	0	0	65	50	115
9	Chambiyara	Balikothi	28	28	0	0	242	218	460
10	Siyasoo	Bandli	69	69	0	0	631	723	1354
11	Parali Foraad	Bela	25	25	0	0	198	193	391
12	Bagna	Bandli	42	42	0	0	379	363	742
13	Dharwa	Jakando	24	20	0	4	211	202	413
14	Kamlog	Jakando	9	0	0	9	54	51	105
15	Badidhar	Jakando	16	0	16	0	123	115	238
16	Kando	Jakando	5	5	0	0	40	41	81

17	Rohini	Jakando	10	10	0	0	92	84	176
18	Aniyara	Jakando	4	0	0	4	42	38	80
19	Thukrah	Jakando	15	15	0	0	120	114	234
	Total		**387**	**302**	**48**	**37**	**2938**	**2777**	**5715**

Annexure 2: List of People Interviewed during Field Visit

S. No	Name	Village	Panchayat	Sex	Caste
1	Chamel Singh	Biao Bas	Bali Koti	Male	SC
2	Balbir	Biao Bas	Bali Koti	Male	SC
3	Baajis	Biao Bas	Bali Koti	Male	SC
4	Shupa Ram	Biao Bas	Bali Koti	Male	SC
5	Chuma Devi	Kharadi	Bali Koti	Female	SC
6	Numu Ram	Kharadi	Bali Koti	Male	SC
7	Bhagat Singh	Kharadi	Bali Koti	Male	SC
8	Saniya	Khushrad	Bali Koti	Male	SC
9	Sohan Singh Chauhan	Machwad	Bali Koti	Male	Gen
10	Jai Singh	Machwad	Bali Koti	Male	Gen
11	Narender	Machwad	Bali Koti	Male	Gen
12	Naresh Negi	Morad	Bali Koti	Male	Gen
13	Tikam Singh	Morad	Bali Koti	Male	Gen
14	Kalso Negi	Morad	Bali Koti	Female	Gen
15	Babli Negi	Morad	Bali Koti	Female	Gen
16	Shanti Negi	Morad	Bali Koti	Female	Gen
17	Kundan Singh Chauhan	Nera	Bali Koti	Male	Gen
18	Guman Singh	Siyasu	Bandali	Male	Gen
19	Virender	Siyasu	Bandali	Male	Gen

20	Bahadur Singh	Siyasu	Bandali	Male	Gen
21	Jagat Singh	Parli Forad	Bela	Male	Gen
22	Uttam Singh	Parli Forad	Bela	Male	Gen
23	Roop Singh	Bada Lani	Jhakando	Male	Gen
24	Uma Thakur	Bada Lani	Jhakando	Female	Gen
25	Sunita	Bada Lani	Jhakando	Female	Gen
26	Muskaan	Bada Lani	Jhakando	Female	Gen
27	Satya Thakur	Bada Lani	Jhakando	Female	Gen
28	Rekha	Bada Lani	Jhakando	Female	Gen
29	Bisha	Bada Lani	Jhakando	Female	Gen
30	Sheela	Bada Lani	Jhakando	Female	Gen
31	Tikam Singh	Kuyanu	Mehlot	Male	Gen
32	Diwan Singh	Kuyanu	Mehlot	Male	Gen
33	Kesar Singh Bighta (telephonic interview)	Kyarla	Biktaari	Male	Gen

Annexure 3: List of Hamlets and/or Villages visited during Field Visit

S.No.	Village	Panchayat
1	Bada Lani	Jhakando
2	Biao Bas	Bali Koti
3	Kharadi	Bali Koti
4	Khushrad	Bali Koti
5	Kuyanu	Mehlot
6	Machwaad	Bali Koti
7	Morad	Bali Koti
8	Nera	Bali Koti
9	Parli Forad	Bela
10	Siyasu	Bandali

Annexures 4: Focus Group Discussions carried out during Field Visit

S.No	Place	Group/Issue	No. of Persons

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1	Bada Lani	A group of Men and Women from Bada Lani	7 Women 9 Men
2	Bada Lani	Members of Mahila Mandal	7
3	Biao Bas	With SC Community	6
4	Siyasu	Members of families with alternate land in Village Dadhas	5

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