

Impact Assessment of Implementation of Local Area Development Fund and Rehabilitation & Resettlement Policies in Hydroelectric Projects in Himachal Pradesh

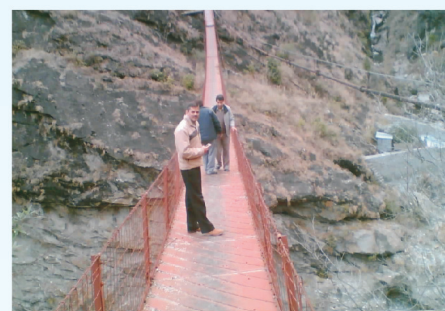
(A Study Sponsored by Directorate of Energy, Himachal Pradesh)

2012



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Cover photo

Karcham-Wangtu, Allian Duhangan, Hydro Electric Projects in Himachal Pradesh, foot path bridge at Rampur, Mobile Health Van, Farmers training camp in Project affected area of RHEP, Budhil Hydro Electric Projects and houses of displaced families at Averi in RHEP.

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ABBREVIATIONS

APP	Annual Action Plan
ADHEP	Alian Duhagan Hydro Electric Project
AERC	Agro-Economic Research Centre, Shimla
BPEO	Block Planning and Extension Officer
CA	Compensatory Afforestation
CAT	Catchment Area Treatment
COD	Commercial Operation Date
DC	Deputy Commissioner
DFO	District Forest Officer
E&RR	Environment and Resettlement and Rehabilitation
GoHP	Government of Himachal Pradesh
Ha	Hectare (one ha=2.47 Acres or 12.50 bighas)
HEP	Hydroelectric Project
HH	House Holds
HRTC	Himachal Road Transportation Corporation
IPP	Independent Power Producer
JE	Junior Engineer
KWHEP	Karcham Wangtu Hydro Electric Project
LV/HCV/MCV	Light Vehicle, Heavy and Medium Commercial Vehicle
LADC	Local Area Development Committee
LADF	Local Area Development Fund
MHU	Mobile Health Unit
MNREGA	Mahatma Gundi National Rural Employment Guarantee Authority
NPV	Net Present Value
NGO	Non Government Organization
OBC	Other Backward Castes
PAFs	Project Affected Families
PAPs	Project Affected Persons
PWD	Public Works Department
PAAF	Project Affected Area Families
R & R	Resettlement and Rehabilitation
RAP	Resettlement Action Plan
Re. AP	Remedial Action Plan
RHEP	Rampur Hydro Electric Project
SC/ST	Schedule Caste/Schedule Tribe
SDM	Sub-Divisional Magistrate

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Foreword

Local area development is a vital component of fighting poverty and eradicating human dependency on other communities or areas. It creates a new level of self-sufficiency and satisfaction for members of a society who may have never experienced such development or more importantly they might have suffered on account of development initiatives, as the tapping of hydroelectric power potential in Himachal Pradesh. Many families are rendered landless or houseless or their occupations adversely impacted because of these developmental activities. Protection of such project affected families should be of paramount importance during the whole exercise of project implementation and even after that till the time it is ensured that they have been put on solid grounds and their livelihood options are at the previous level, if not better. The provisions for mitigating these adverse impacts on local population, environment and infrastructure due to implementation of the Hydroelectric Projects are provided for in different relevant schemes of which Local Area Development Fund (LADF) is an important component.

The creation of Local Area Development Fund to be utilized by Local Area Development Committee for the creation of infrastructure etc in the project affected area, is one of initiatives taken for safeguarding the project affected population. The works undertaken by this Committee are more of a community nature for which the funds are provided by the management of hydroelectric power projects.

The important question which has to be answered at this stage is that after so many years of placing this mechanism in place, have the objectives of the scheme realized in terms of improvement in working conditions of project affected population and whether there has been noticeable and appreciable increase in the living

conditions of these people. This has to be evaluated through a scientific study considering all the relevant parameters. I am glad that the Agro Economic Research Centre of this University took the challenge of conducting this study in the project affected area of ten hydroelectric power projects in three river basins of Himachal Pradesh. Such a large study is not easy to conduct in such a short span of time. I hope that the results of the study would help in providing sharp teeth to the existing policy in the state and the policy planners will not hesitate to refine it, if necessary.

In the end, I wish to commend the work done by Dr. Ranveer Singh and Dr. C.S. Vaidya, Principal Investigators of the study. The research team of investigators collected the field data, tabulated and analyzed it very efficiently while maintaining the integrity of data. I wish to bring on record the appreciation for their efforts. I also wish them very best for their future endeavors as well.

Place : Shimla
Date : 27/12/2012

Prof. A.D.N Bajpai
Vice-Chancellor

Acknowledgments

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This study is a brainchild of Sh. Deepak Sanan who holds the post of Additional Chief Secretary (MPP & Power), who understood the importance of evaluation of Local Area Development Activities and other associated interventions for streamlining these activities for enhancing their efficacy. This is desired for making these interventions more people friendly and ensuring proper utilization of Local Area Development Fund in the project Affected Areas. This is the reason he took personal interest and was instrumental in formulating and finalizing the LADF policies providing micro level details for eliminating any ambiguity during implementation phase. It is, therefore, our proud privilege and opportunity to express our sincere gratitude to Sh Deepak Sanan (IAS), Additional Chief Secretary (MPP & Power), Government of Himachal Pradesh for envisioning and sanctioning the present study. We are thankful to Sh. R.D. Nazeem (IAS), Director and Er. Subhash Gupta, Chief Engineer, Directorate of Energy for their valuable input and constructive criticisms so important for bringing out the present study in final shape. We are also thankful to Er. PKS Rohela, Superintending Engineer, Er. Anshul Sharma, Sr. Xen and Er. Sunit Rana, Assistant Engineer, Directorate of Energy, Government of Himachal Pradesh, for helping the research team at every step of conducting the study and simultaneously providing guidance for finalizing the study.

The study involved extensive survey of different hydroelectric projects. Many officers, local leaders, contractors were consulted to obtain the required information

on different issues; we are thankful to all of them. We are indebted to project affected families of all the projects under study, who co-operated with the team in gathering required information during the field survey.

We would like to thanks the LADC members and officials for the information they provided to the research team and cooperation they extended.

We place on record our thanks to Prof. A.D.N. Bajpai, hon'ble Vice Chancellor, Himachal Pradesh University, Shimla, for according permission to undertake this study. His constant encouragement and valuable guidance provided to be important input in completing the study and making it more rich.

In the end, we are grateful to the staff of Agro-Economic Research Centre, H. P. University and particularly Dr. S. P. Saraswat, Dr. M. L. Sharma, Dr. Pratap Singh and Mr. Narender Kumar Sharma for coordinating field survey, tabulation and analysis of the study data and Mr. Chaman Lal for secretarial assistance.

Authors

Chapter 1

Introduction

1.1 Hydroelectric power

Hydroelectric power is considered to be a renewable energy source because it uses the continuous flow of water without ending up the water resource. It is also non-polluting, since it does not rely on burning fossil fuels. The hydroelectric power plants usually require an intake comprising diversion structure, a penstock for delivering the falling water into hydraulic turbines, electric generators and other control equipments. Also, a surge tank is located just before the valve house to protect the penstock from the a pressure surge, called *water hammer*, in case the turbine gates are suddenly closed. The water turbine converts the hydraulic energy into mechanical energy and the generator converts mechanical energy into electrical energy. After passing through the turbine, the water re-enters the river on the downstream side. The most significant operating characteristics of hydropower plants are rapid start-up and loading, long life, and low operating and maintenance cost.

“A river or stream may be channelized through turbines connected to electric generators to produce power. The power produced by hydroelectric system is the product of three parameters - the distance of water 'falls' from the intake to the outlet, the volume of flow of water, and the efficiency of the turbine/generator equipment.”

1.2 Types of hydroelectric plants

Hydroelectric plants can be divided into following categories:

- 1) Run of the river schemes
- 2) Weekly pondage schemes
- 3) Monthly reservoir based schemes
- 4) Seasonal plants
- 5) Carry over reservoir schemes
- 6) Micro and mini plants
- 7) Major plants

1.3 Advantages of run of river schemes

In Run of the River Hydroelectric plants, energy from running water in the rivers is tapped and converted into electricity. Since the energy is directly tapped from the flowing water, these plants need minimal construction, and submerge least area. Normally a small barrage is built and if there is a local head, it is exploited. Such plants can be put in canals also. Many plants can be put up in a river. These plants normally do not need any storage area for reservoirs. They are ecologically sound. China has tapped its river water's energy potential through a series of such plants. In our country, we have huge potential for generating energy through such run of the river / streams/ canal schemes. Even though these plants are seasonal, a well-developed grid can absorb the seasonality through a proper load generation balance.

Hydro-Power is a renewable, economical, non-polluting and environmentally benign source of energy. Hydro-Power stations have the inherent ability for instantaneous starting, stopping, load variations, etc. and help in improving the reliability of power systems. There is no fuel cost during the life of the project as hydropower generation is a non-consumptive use of water. The benefits of hydropower as a clean, environment friendly and economically attractive source of energy have been sufficiently recognized. The need for its accelerated development also arises from its capacity of enhanced system reliability and economics of utilization of resources. Environmental impacts of Hydro-Power plants are very different from those of fossil fuel power plants. Some of the advantages of Hydro-electric power plants are enumerated below:

- ★ A renewable source of energy - saves scarce fuel reserves.
- ★ Non-polluting and hence environment friendly.
- ★ Long life - The first hydro project completed in 1897 is still in operation at Darjeeling.
- ★ Cost of generation, operation and maintenance is lower than the other sources of energy.
- ★ Ability to start and stop quickly and instantaneous load acceptance/rejection makes it suitable to meet peak demand and for enhancing system reliability and stability.
- ★ Cost of generation is free from inflationary effects after the initial installation.
- ★ Storage based hydro schemes often provide attendant benefits of irrigation, flood control, drinking water supply, navigation, recreation, tourism, pisciculture etc.
- ★ Being located in remote regions leads to development of interior backward areas. (Education, medical, road, communication, telecommunication etc.)

1.4 Potential for hydro power development in Himachal Pradesh

Himachal Pradesh, a hilly terrain State, has significant potential for hydro power development. The state has an identified hydro power potential of 23,000 MW as follows:

Basin	Hydro Power Potential (MW)
Beas Basin	5,681
Ravi Basin	2,973
Satluj Basin	10,606
Yamuna Basin	809
Chenab Basin	2,976
Total	23,045

Source: Himachal Pradesh State Electricity Board

1.5 Preamble

The provisions for mitigating the adverse impacts on local population, environment and infrastructure due to implementation of the Hydroelectric Projects are provided for in relevant schemes like Environment Management Plan (EMP), Catchment Area Treatment Plan (CAT Plan), and restoration of loss of environment by investing funds provided under the project through Compensatory Afforestation and Net Present Value of Environment lost, Rehabilitation and Resettlement (R&R) Plan etc. In addition, a special provision of Local Area Development Fund (LADF) @ 1.5% of the Project Cost (1% for projects up to 5 MW) as contained in the Hydro Power Policy of the State has been made to carry out Local Development Activities particularly infrastructure so as to ensure that while the projects are developed in the State, the local communities in the projects area also benefitted in the process. As such the Directorate of Energy

(DoE), Government of Himachal Pradesh (GoHP) intended to undertake an assessment of implementation experiences of LAD Funds and R&R Plan across various Hydroelectric Projects in the State.

1.6 Objectives of the study

The study has been conducted with following specific objectives.

- 1.To study the project developers' contribution for LADF and its utilization for developmental activities.
- 2.To study the impact of development activities on socioeconomic conditions of PAF and PAA of selected hydroelectric projects.
- 3.To study the implementation of environmental and R&R policies of different hydroelectric projects.
- 4.To carry out the response analysis of various stakeholders regarding developmental activities and other aspects.
- 5.To highlight the problems encountered by different stakeholders in implementation

of projects and forthcoming suggestions.

1.7 Plan of the study

The present study has been divided into ten chapters. The subject matter of the first chapter is introducing the problems and presents the objectives of the study. The second chapter highlights the methodology adopted for the study and classification of the sample etc. In the third chapter performance of Local Area Development Committee has been examined. Socioeconomic impact of LADC activities have been presented in fourth chapter and involvement of local population in LADC and meetings' background is the subject matter of fifth chapter. Implementation of Resettlement and rehabilitation policies have been presented in sixth chapter, seventh chapter concentrates on socioeconomic impact of R & R programs of projects. Perceptions and responses-stakeholders' analysis forms the eighth chapter of the study. Performance of environmental activities under the projects is the subject matter of ninth chapter. The tenth chapter highlights the conclusions, suggestions and recommendations of the study.

Chapter 2

Research Methodology

The present chapter has been devoted to methodology adopted for finalization of sample for the study and the analytical methods. The sampling technique has been to ensure that the sample of various stakeholders is representative of the population. The technique has mainly been the random sampling technique. The study is based on the data collected from 10 hydropower projects (Table-2.1). In order to quantify the impact of LADC and R&R activities and project activities, the affected households have been divided in to two parts; project affected families, which have been directly impacted by the activities and the households lying in the project affected areas and were not directly affected. The comparison of two on various parameters has been able to highlight the project impact.

2.1 Sampling procedure

The primary data has been collected from the following:

1. Project affected and non affected families
2. Village level information from revenue officials
3. Local area development committee members
4. Panchayat ward members

5. Employees of project developers
6. Members of local administration
7. Contractors
8. Block officials

The sampling design has been random sampling and adequate sample as presented in Table 2.1 has been collected. The field survey is conducted during October-November 2011. The period of data collected from households is agricultural year 2010-11.

2.2 Data analysis

The data has been analyzed with simple tabular analysis for arriving at the results of study.

Table-2.1: Project wise number of households/persons surveyed.

#	Name of project	No. of schedules/questionnaires									
		Household Schedules		Village Schedules	LDC members	Panchayat at Ward members	Project developers	Local administration	Contractors	Block officials	Total
		Affected	Non-affected								
1	Budhil	50	21	2	8	13	4	8	5	3	114
2	Binwa Parai	22	8	4	5	6	3	6	3	-	57
3	Neogal	25	7	2	5	8	3	6	4	-	60
	Sub-total	97	35	8	18	27	10	20	12	3	231
4	Allain Duhangan	63	15	3	4	18	4	6	-	3	116
5	Fozal	23	6	2	-	12	1	4	-	-	48
	Sub total	86	20	5	4	30	5	10	-	3	164
6	Karcham Wangtu	60	20	3	5	15	3	7	9	-	122
7	Rukti-II	3	1	-	3	-	3	-	-	-	10
8	Sorang	132	35	3	6	15	5	6	6	-	208
	Sub total	195	55	6	14	30	11	13	15	-	340
9	Rampur RHEP	148	127	5	20	30	5	9	15	7	366
10	Manglad	18	12	1	--	5	3	2	-	-	41
	Sub total	166	139	6	20	35	8	11	15	7	407
	Grand Total	544	252	25	56	122	34	54	42	13	1142

Chapter 3

Performance of Local Area Development Committee

The LADF shall comprise of contribution by project based on project cost and free power after commissioning as envisaged in the state and national hydro power policies. The hydro project developers in the State shall contribute towards LADF in two stages.

Prior to Commissioning of the Project, the Project developer shall contribute a minimum of 1.50 % of final cost of the project for projects of more than 5 MW capacities and a minimum of 1 % for projects of capacity up to 5 MW. While the project authorities have, to contribute-minimum of 1.5% or 1% (as the case may be) of project cost to LADF, they may contribute more if they so desire. Initially the LADF will be worked out on the basis of the project cost as per DPR for depositing with the concerned DC. After completion of the Project, the LADF will be worked out on the final completed cost. The balance amount of LADF worked out on final cost shall be deposited by the Developer within one year of Commercial Operation Date (COD) of the Project.

After commissioning of the project, project developers of all capacities shall contribute 1%

free power for LADF over and above the rates of royalty, agreed to be paid to the State Government in the Implementation Agreement/ Supplementary Implementation Agreement,' as the case may be. This additional free power, over, and above the royalty component provided to the host State will be a pass through in tariff. The revenue collected, by the Nodal Agency (Directorate of Energy) from sale of such 1% free power contribution from the project Developer will be transferred to the Local Area Development Fund.

3.1 Projects selected

Of the various ongoing and completed projects, ten projects located in Ravi, Beas and Sutlej basins were selected for detailed study. The projects were finalized after the detailed discussions with officers of department of Energy. The details of these selected projects have been presented in Table 1. All the projects except Fozal and RHEP have been completed, mostly during the year 2011. Total project costs along with installed capacities of each of the projects have been presented in this table.

Table-3.1: Particulars of selected projects

Project	Year of Commencement	Completion	Total project cost (Rs. Crores)	Installed capacity (MW)
Budhil	2006	2011	418.80	70
Binwa Parai	2007	2011	28.82	5
Neogal	2008	2011	61.74	15
Allain Duhangan	2005	2010	922.00	192
Fozal	2004	Work in Progress	63.00	9
Karchham Wangtoo	2005	2011	7080.00	1000
Sorang	2008	2011	706.00	100
RHEP	2007	2013	2047.00	412
Manglad	2008	2010	2656	4.50
Rukti	2009	2011	30.06	5

Source : Directorate of Energy, Govt. of Himachal Pradesh

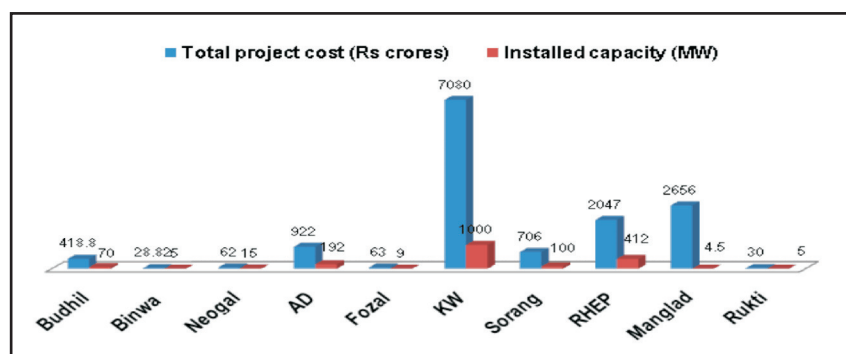


Fig-3.1 : Cost and installed capacity of projects under study

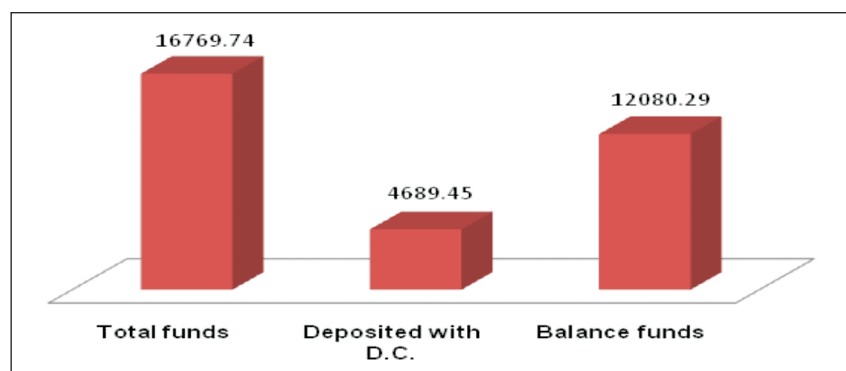


Fig-3.2 : Contribution by projects for LADC activities (Rs. In Lakh)

3.2 Funds contributed to LADC for developmental activities

As per Hydro power policy 2006, the realization of LADF contribution will be in two stages; prior to commissioning of the project, contribution shall be released by project developers in the following manner:

- ★ 10% amount within three months of signing of Implementation Agreement
- ★ 15% amount within 18 months of signing of the IA.
- ★ Balance 75% amount in three equal annual installments during construction period of the project.

After commissioning of the Project, the 1% free power contribution to LADF shall be sold by state government along with its share, of free power. The amount equivalent to average net realization per unit multiplied by the number of units for which 1% is to be paid will be placed at the disposal of LADC annually. The average price per unit will be worked out on the basis of net proceeds of total free power sale by GoHP divided by total number of units involved, after allowing 1

paisa per unit to be retained' by the State Government' as the expenses of Directorate of Energy.

The expenditure incurred by project developer on Local Area, Developmental Activities in respect of the Hydroelectric Projects allotted prior to Hydro Power Policy 2006, shall be admissible for adjustment against the contribution related to the period prior to commissioning of a project.

The funds deposited with LADC for carrying out developmental activities at local level have been presented in Table 3.2 in respect of each of the projects. The LADC contribution is payable @ one or 1.5 per cent depending upon the size of the project. In a few projects, some portion of the amount has been spent by project management prior to LADC notification becoming effective in the respective areas which is being taken into account after due vetting by the concerned deputy commissioners. The table provides details of funds thus spent along with the funds deposited with Deputy Commissioner and balance remaining to be paid.

Table-3.2: Particulars of LADF contribution for development activities

(Rs. in Lakh)

Projects	Total LADF contribution from the project	Claimed by developer	Verified by D.C.	Deposited with D.C.	Total amount spent & deposited on a/c of LADF	Balance funds
Budhil	628.00	0.00	0.00	589.00	589.00	39.00
Binwa Parai	28.82	0.00	0.00	18.00	18.00	10.82
Neogal	93.00	134.00	0.00	16.00	16.00	77.00
Allain	1383.00	1183.00	586.00	399.00	985.00	984.00
Duhangan						
Fozal	95.00	0.00	0.00	20.00	20.00	76.00
Karchham	10355.00	7726.56	3460.00	2200.00	5660.00	8155.00
Wangtoo						
Sorang	1059.00	0.00	0.00	502.00	502.00	557.00
RHEP	3071.00	1623.00	1419.00	925.00	2344.00	2146.00
Manglad	26.56	41.98	0.00	0.00	0.00	26.56
Rukti	30.36	0.00	0.00	20.45	20.45	9.91
Total	16769.74	10708.54	5465.00	4689.45	10154.45	12080.29

Source: Directorate of Energy, GoHP.

3.3 Physical achievements under R&R activities

There are a large variety of activities being carried out under R&R plan in PAA of different project jurisdictions. Details of such activities have been presented in Table 3.3. Due to large variation among the type of activities, undertaken as per local requirements, it was very difficult to aggregate these activities under some common headings. However, effort has been made to club these activities under the headings as in the table. The number of such activities for each project has been presented in the table along with the achievement in this respect. These are the activities undertaken by project management itself whereas the activities undertaken by LADC have been separately dealt subsequently.

The works providing or improving the connectivity of villages and project affected areas is quite important and it was found that 21 such works in the form of roads, foot paths, bridges etc were under taken in Allain Duhangan, largest among all the projects. This was followed by RHEP with 14 connectivity activities and KWHEP with 8 such works. In total 50 activities of connectivity were undertaken in all the projects together. There were 14 community centers planned in the projects 7 of which were in Allain Duhangan. Three such centers were under KWHEP and 4 under RHEP. The number of activities connected with provision of sanitation was 23 in all the projects together and largest number of these was again under Allain Duhangan, 15 follows by 5 in KWHEP and one under RHEP. Provision of street lighting, drinking water and health services were other activities; total number of these was 11, 10 and 17 in all the projects together.

The activities like construction of temples and crematoria etc do not fall strictly under R&R but undertaking of such activities is necessary keeping in view the public sentiments and requirements. It was perhaps with this in mind

that these activities were undertaken with total number of these respectively being 33 and 7 in all the projects. The details of other activities in different projects may also be seen from the table.

3.4 Financial achievements under R&R activities

The financial targets of R&R activities and respective achievements have been presented in Table 3.4. These are the financial allocations for the R&R works mentioned previously. It may be seen from the table that connectivity had highest financial allocation of about Rs.2125 lakh. RHEP had highest allocation of Rs. 1935 lakh for connectivity works followed by Allain Duhangan with about Rs. 100 lakh. Health services had next highest allocation of about Rs. 775 Lakh and RHEP was again topping in this respect also with allocation of Rs. 555 Lakh. The perusal of the table indicates that maximum number of activities was undertaken in Allain. The further details of individual projects and activities can be referred to from the table.

3.5 Activities under LADC

As per policy the Member Secretary, LADC will after approval by the Chairman inform the concerned Panchayat about the tentative amount that will be available for each project affected Panchayat. A comprehensive shelf of projects for the entire amount would then be prepared by the concerned Panchayat /block /district and. approved by the Gram Sabha LADC as the case may be, along with a yearly plan. The annual plan may be discussed again by the Gram Sabha LADC every year and altered if required. The shelf so approved, would then be sent to the Member Secretary of concerned LADC.

Eligibility of schemes for preparation of shelf of schemes shall be based on the following parameters:

- i) Facilities meant for a Panchayat only will be considered as Panchayat level schemes like cement concrete internal paths, ropeways, street light, sanitation, rain water harvesting, Ropeways, buildings etc.
- ii) Facilities serving more than one Panchayat will be 'considered as Block Level schemes e.g. school, cement concrete link road, primary health centre, etc.
- iii) Facilities for district level infrastructure like Bus Stand, Hospital, College, Training Institutes, fire tenders, ambulances, etc. or any other district level needs, will be considered as District level schemes.

The following schemes/activities will not be covered out of LADF allocations:

- i) Kachha Paths/Roads
- ii) Purchase of Light Vehicles associated with monitoring of the LADF activities.
- iii) Renovation/Repairs/Maintenance of individual houses (if compensation has been received or is being made available out of any other purpose).

In addition to developmental activities undertaken by the project management at its own level and especially the formation of LADC, various developmental activities have been transferred to/undertaken by LADC itself, the very purpose of its formation. The details of such activities undertaken by LADC have been presented in Table 3.5. Perusal of the table indicates that connectivity was the activity on which maximum stress was laid as highest number of works, 217 were undertaken to provide or improve connectivity to project affected areas. LADC undertook highest number of connectivity activities under KWHEP, 107 activities at the cost of Rs. 337.62 Lakh and with an achievement of 54 per cent.

Next in this list was RHEP where 46 activities were undertaken at the cost of Rs. 199.74 Lakh and with an achievement of 96 per cent. In Budhil, LADC undertook 26 activities with allocation of Rs. 40.46 Lakh and achievement of 82 per cent was attained.

LADC laid significant emphasis on construction of temples; 115 temples were either constructed or were under construction under the PAA of these 10 projects. This activity is to be completed with an investment of Rs. 664.91 Lakh. Though this activity does not improve the living conditions of the targeted population in any manner but is important from religious point of view. During the course of survey, construction of temples was considered to be a popular demand. As high as 95 temples were being constructed under KWHEP with an investment of Rs. 411.95 Lakh and achievement of 51 per cent. In total 42 Mahila Mandal Bhawans and 84 other buildings were being constructed by LADC, at aggregate level, with financial allocations of Rs. 97.73 Lakh and Rs. 348.30 Lakh, respectively.

Other activities, currently undergoing under LADC, included provision of drinking water, playground, irrigation and education etc. At aggregate level, 19, 32, 27 and 71 activities of these were either complete or in different stages of execution, respectively. In addition to this, 89 other miscellaneous activities were also being carried out. The aggregate financial allocations for these activities were Rs.185.36 Lakh, Rs.136.80 Lakh, Rs.48.88 Lakh and Rs.94.49 Lakh respectively. A provision of Rs. 442.96 Lakh was created for miscellaneous activities.

3.6 Work execution agencies for LADC

The implementing agency for sanctioned schemes can either be a Gram Panchayat or a Govt. Department or the Project Developer. The decision on choice of agency for

Panchayat level schemes shall lie with the Gram Panchayat. For schemes beyond Panchayat level, the Chairman of the LADC shall decide the implementing agency.

LADC depends on some other agencies for execution of work under R&R plan. The details of agencies employed by it have been presented in Table 3.6 wherein it may be seen that a total of 734 works were being executed in 10 hydroelectric projects under consideration. Maximum numbers of works were in KWHEP, 421 works followed by 124 in Sorang, 77 in RHEP and 51 in Budhil. It was found that LADC mainly awarded the work execution to agencies like panchayats, BDOs and BPEOs. These agencies considered together were executing about 97 per cent of works. In projects like Budhil, Binwa Parai, Neogal, Fozal, KWHEP, Sorang and RHEP all the works were being carried out by these agencies. Other agencies involved were contractors, government departments like PWD and I&PH and NGOs and the quantum of work allotted to them was

0.68, 1.63 and 0.95 per cent of total works. No work was allotted to agencies like project developers, Yuvak and Mahila Mandals and other agencies.

3.7 Coverage of panchayats

The analysis of panchayats covered under each of the projects and number of works undertaken in each of the panchayats has been presented in Table-3.7. The activities or development works have been broadly categorized in to connectivity, construction of Mahila mandal Bhawan and other buildings etc. The table presents panchayats under each project where the activities have been taken up and the figures in parenthesis indicate the number of such works taken up in respective panchayats. Table indicates that maximum works have been taken up under KWHEP. Among different activities, maximum works pertained to connectivity. Further details may be referred to from the table.

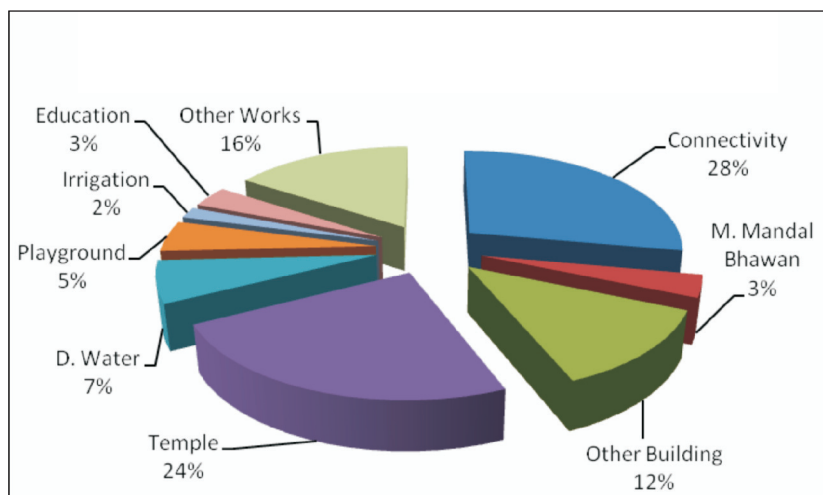


Fig-3.3: Financial targets under different activities by LADC

3.8 Summing up

Of the various ongoing and completed projects, ten projects located in Ravi, Beas and Sutlej basins were selected for detailed study after the discussions with officers of department of Energy. The analysis of funds deposited with LADC for carrying out developmental activities indicate that no funds have been deposited in Neogal as LADC has not been formed there. In other projects, some portion of the amount has been spent by project management prior to LADC becoming effective. The works providing or improving the connectivity of villages and project affected areas was found to be important. In total 50 activities of connectivity were undertaken in all the projects together. There were 14 community centers planned in the projects. The number of activities connected with provision of sanitation was 23 in all the projects. Provision of street lighting, drinking water and health services were other activities. The activities construction of temples and crematoria were also undertaken with total number of these respectively being 33 and 7 in all the projects. The financial targets of R&R activities and respective achievements indicate that connectivity had highest financial allocation. Health services had next highest allocation. Maximum number of activities was undertaken in Allain Duhangan.

Connectivity was the activity on which maximum stress was laid by LADC as highest number of works were undertaken to provide or improve this aspect. LADC undertook highest number of connectivity activities under KWHEP which was followed by RHEP. In Budhil, LADC

undertook 26 activities. LADC laid significant emphasis on construction of temples which was a popular demand. As high as 95 temples were being constructed under KWHEP. In total 42 Mahila Mandal Bhawans and 84 other buildings were being constructed by LADC, at aggregate level, with financial allocations of Rs. 97.73 Lakh and Rs. 348.30 Lakh, respectively. Other activities of LADC included provision of drinking water, playground, irrigation and education etc. In addition to this, 89 other miscellaneous activities were also being carried out.

The implementing agency for sanctioned schemes can either be a Gram Panchayat or a Govt. Department or the Project Developer. The decision on choice of agency for Panchayat level schemes shall lie with the Gram Panchayat. For schemes beyond Panchayat level, the Chairman of the LADC shall decide the implementing agency.

Out of total works being executed in 10 hydroelectric projects under consideration, maximum number of works were in KWHEP followed by Sorang RHEP and Budhil. It was found that LADC mainly awarded the work execution to agencies like panchayats, about 97 per cent works and remaining to other agencies like government departments, contractors and NGOs etc. These agencies considered together were executing only about three per cent of works. In projects like Budhil, Binwa Parai, Neogal, Fozal, KWHEP, Sorang and RHEP all the works were being carried out by these agencies.

Table-3.3: Details of physical achievements under R&R plan

Activities	Projects									
	Budhil		Binwa		Neogal		AD		Fozal	
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)
Connectivity	2	80	0	0	2	100	21	100	0	0
Community centre	0	0	0	0	0	0	7	100	0	0
Sanitation	2	100	0	0	0	0	15	100	0	0
Street Light	0	0	0	0	0	0	6	100	0	0
Drinking Water	0	0	0	0	0	0	10	100	0	0
Health Services	3	100	0	0	0	0	7	100	0	0
Construction of Temple	1	100	0	0	1	100	25	100	0	0
Construction of crematoria	0	0	0	0	0	0	4	100	0	0
Training	0	0	0	0	0	0	0	0	0	0
Scholarship	33	100	0	0	0	0	0	0	0	0
Construction of room in School	0	0	0	0	0	0	13	100	0	0
Construction of House	0	0	0	0	0	0	4	100	0	0
Irrigation	0	0	0	0	4	100	2	100	0	0
Employment	57	100	18	0	27	100	17	100	0	0
Work awarded	0	0	0	0		0	0	0	0	0
Subsidy	0	0	0	0	0	0	0	0	0	0
Grant to Project affected Landless families	0	0	0	0	0	0	0	0	0	0
Land Compensation	50	100	18	0	27	100	0	0	0	0
Pension	0	0	0	0	0	0	0	0	0	0
Allowances	0	0	0	0	0	0	0	0	0	0
Construction of ITI collage	0	0	0	0	0	0	0	0	0	0
Construction of Hospital	0	0	0	0	0	0	0	0	0	0

Tar = Target, Ach = Achievement

Table-3.3 contd...

Activities	Projects										Total
	KWHEP		Sorang		RHEP		Mangland		Rukti		
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	
Connectivit	8	85	3	100	14	0.78	0	0	0	0	50
Community centre	3	100	0		4	0.75	0	0	0	0	14
Sanitation	5	100	0		1	100	0	0	0	0	23
Street Light	2	100	0		3	100	0	0	0	0	11
Drinking Water	0	0	0		0		0	0	0	0	10
Health Services	3	100	2	100	2	100	0	0	0	0	17
Construction of Temple	3	85	0	0	3	0.67	0	0	0	0	33
Construction of crematoria	3	100		0	0	0	0	0	0	0	7
Training	0	0	0	0	136	100	0	0	0	0	136
Scholarship	0	0		0	165	100	0	0	0	0	198
Construction of room in School	0	0		0	13	0.58	0	0	0	0	26
Construction of House	4	100		0	15	0.93	0	0	0	0	23
Irrigation	0		0	0	3	100	0	0	0	0	9
Employment	21	100	33	0	1	100	6	100	0	0	180
Work awarded	0	0	0	0	50	100	0	0	0	0	50
Subsidy	0		0		51	100	0	0	0	0	51
Grant to Project affected Landless families	63	100	0	0	35	100	0	0	0	0	98
Land Compensation	53	100	50	100	145	100	18	100	3	0	364
Pension	0		77	100	0	0	0	0	0	0	77
Allowances	0		117	100	0	0	0	0	0	0	117
Construction of ITI collage	1	90	0	0	0	0	0	0	0	0	1
Construction of Hospital	1	100	0		0	0	0	0	0	0	1

Tar = Target, Ach = Achievement,

Table-3.4 : Details of financial achievements under R&R plan

Activities	Projects									
	Budhil		Binwa		Neogal		AD		Fozal	
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)
Connectivity	10.00	80	0	0	7.12	100	99.90	100	0	0
C/O Comm. centre	0	0	0	0	0	0	44.33	100	0	0
Sanitation	14.00	100	0	0	6.00	100	32.33	100	0	0
Street Light	0	0	0	0	0	0	2.25	100	0	0
Drinking Water	0	0	0	0	9.76	100	29.46	100	0	0
Health Services	30.39	100	0	0	0	0	51.90	100	0	0
C/O Temple	0	0	0	0	5.00	100	37.77	100	0	0
C/O Crematorium	0	0	0	0	0	0	8.55	100	0	0
Given Training	0	0	0	0	0	0	0	0	0	0
Scholarships	9.80	100	0	0	0	0	0	0	0	0
C/O Room in School	0	0	0	0	0	0	43.40	100	0	0
C/O House	0	0	0	0	0	0	18.07	100	0	0
Irrigation	0	0	0	0	102.86	100	14.59	100	0	0
Employment	138.76	100	14.44	0	23.39	100	46	100	0	0
Work awarded	0	0	0	0	0	0	0	0	0	0
Given Subsidy	0	0	0	0	0	0	0	0	0	0
Other works	0	0	0	0	2.73	100	0	0	0	0
Grant to Project affected Landless	0	0	0	0	0	0	0	0	0	0
Land Compensation	16.00	100	1.80	0	27.25	100	956.51	100	0	0
Pension	0	0	0	0	0	0	0	0	0	0
Allowances	0	0	0	0	0	0	0	0	0	0
Construction of ITI collage	0	0	0	0	0	0	0	0	0	0
Construction of 40 beds Hospital	0	0	0	0	0	0	0	0	0	0

Tar = Target in Rs. Lakh, Ach = Achievement

Table-3.4 contd...

Activities	Projects										
	KWHEP		Sorang		RHEP		Mangland		Rukti		Total Target
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	
Connectivity	42.64	85	30.00	100	1935.30	100	0	0	0	0	2124.96
C/O Comm. centre	19.14	0	0	0	32.13	51	0	0	0	0	95.6
Sanitation	45.68	100.	0	0	3.50	100	0	0	0	0	101.51
Street Light	6.11	100		0	0	0	65.8				
C/O Room in School	0	0	0	0	67.38	64	0	0	0		110.78
C/O House	58.53	100	0	0	27.00	93.00	0	0	0	0	103.6
Irrigation	0	0	0	0	16.63	100	0	0	0	0	134.08
Employment	165.50	100	78.4	100	3.42	100	16.20	100	0	0	486.11
Work awarded	0	0	0	0	1401.96	100	0	0	0	0	1401.96
Given Subsidy	0	0	0	0	9.18	100	0	0		0	9.18
Other works	0	0	0	0	0	0	0	0	0	0	2.73
Grant to Project affected Landless	51.70	100	0	0	18.15	100	0	0	0	0	69.85
Land Compensation	78.50	100	500.00	100	2400	100	0	0	21.00	0	4001.06
Pension	0	0	51.60	100	0	0	0	0	0	0	51.6
Allowances	0	0	56.16	100	0	0	0		0	0	56.16
Construction of ITI	1000.00	90	0	0	0	0	0	0	0		1000
Construction 40 of beds Hospital	1666.80	100	0	0	0	0	0	0	0	0	1666.8

Tar = Target in Rs. Lakhs, Ach = Achievement

Table-3.5: Details of physical and financial achievements under different activities by LADC

Activities	Projects									
	Budhil		Binwa		Neogal		AD		Fozal	
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)
Physical	26	82	2	0	0	0	7	100	2	100
Connectivity										
Mahila Mandal Bhawan	0	0	0	0	0	0	0	0	0	0
Other Building	2	41	1	100	0	0	0	0	0	0
Temple	0	0	0	0	0	0	0	0	0	0
Drinking Water	8	81	0	0	0	0	1	100	0	0
Playground	2	100	0	0	0	0	0	0	0	0
Irrigation	0	0	0	0	0	0	2	100	0	0
Education	21	100	4	100	0	0	9	100	1	100
Other Works	5	90	0	0	0	0	5	100	0	0
Financial (Rs.. Lakh)										
Connectivity	40.46	82.00	6.00	0	0	0	66.39	100	3.69	100
Mahila Mandal Bhawan	0	0	0	0	0	0	0	0	0	0
Other Building	11.00	41	8.00	100	0	0	0	0	0	0
Temple	0		0	0	0	0	0	0	0	0
Drinking Water	11.00	81	0	0	0	0	25.89	100	0	0
Playground	2.96	100	0	0	0	0	0	0	0	0
Irrigation	0		0	0	0	0	5.36	100	0	0
Education	5.10	100	4.00	100	0	0	26.35	100	2.54	100
Other Works	163.28	90	0	0	0	0	12.38	100	0	

Tar = Target, Ach = Achievement

Table-3.5 contd...

Activities	Projects										Total
	KWHEP		Sorang		RHEP		Manglad		Rukti		
	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	Tar.	Ach. (%)	
Physical											
Connectivity	107	54	22	71	46	96	5	100	0	0	217
Mahila Mandal Bhawan	37	53	4	52	1	0	0	0	0	0	42
Other Building	59	54	16	68	6	67	0		0	0	84
Temple	95	51	12	62	6	67	2	100	0	0	115
Drinking Water	6	63	2	75	2	50	0	0	0	0	19
Playground	17	62	8	51	5	80	0	0	0	0	32
Irrigation	22	61	0	0	3	100	0	0	0	0	27
Education	25	100	0	0	10	90	1	100	0	0	71
Other Works	52	63	15	79	11	73	1	100	0	0	89
Financial (Rs. Lakh)											0
Connectivity	337.62	54.00	94.21	71.00	199.74	92	33.08	100	0	0	781.19
Mahila Mandal Bhawan	85.14	53.00	11.79	52.00	0.80	0	0	0	0	0	97.73
Other Building	206.73	54	105.18	68	17.39	42	0	0	0	0	348.3
Temple	411.95	51.0	219.46	62.00	28.50	42	5.00	100	0	0	664.91
Drinking Water	123.47	63.00	20.00	75	5.00	60	0	0	0	0	185.36
Playground	69.64	62	51.20	52	13.00	58	0	0	0	0	136.8
Irrigation	28.10	61	0	0	15.42	92	0	0	0	0	48.88
Education	13.10	100	0	0	43.00	44	0.40	100	0	0	94.49
Other Works	162.24	63	70.45	79	31.11	36	3.50	100	0	0	442.96

Tar = Target, Ach = Achievement

Table-3.6: Details of work execution agencies for LADC

Projects	Work allotted to (%)							
	Panchayat/ BDO/BPEO	Contractor	Govt. deptt (PWD & I&PH)	Project deve loper	NGOs	Yuvak Mandal	Mahila Mandal	Others
Budhil	100.00	0	0	0	0	0	0	0
Binwa Parai	100.00	0	0	0	0	0	0	0
Neogal	100.00	0	0	0	0	0	0	0
Allain Duhangan	29.16	20.84	50.00	0	0	0	0	0
Fozal	100.00	0	0	0	0	0	0	0
Karchham	100.00	0	0	0	0	0	0	0
Wangtoo								
Sorang	100.00	0	0	0	0	0	0	0
RHEP	100.00	0	0	0	0	0	0	0
Manglad	22.22	0	0	0	77.78	0	0	0
Rukti	0	0	0	0	0	0	0	0
Total	96.73	0.68	1.63	0	0.95	0	0	0

Table 3.7: Project wise coverage of panchayats and number of works under different activities of LADC

Activity	Budhil	Nuegal	Binwa- Parai	KWHEP	Sorang	Rukti
Connectivity	Garola-(2)	*	Diyol-(2)	Brua -(4) Chansu- (4) Kafnoo-(2)	Chotta Khamba-(7)	
	Ghared-(8)			Kamroo- (10)	Rupi- (10) Tranda-(8)	
	Greema- (1)			Kalgaon-(6) Kilba-(5) Mebar (5)		
	Poolan- (5)			Meeru- (4)		
	Pranghala- (4)			Panvi-(4) Recongpeo- (2)		
	Sachuin-(4)			Punang-(6) Ramni-(5)		
	Ullansa- (4)			Roghi- (5) Sapni-(1) Shong-(1)		
	Khani-(1)			Urni-(2) Yangapa-(14) Yulla(12)		
				Ponda- (1) Nathapa-(1) Kalpa-(1)		
				Nichar- (2) Sangla-(1)		
Construction of Mahila Mandal Bhawan	Nil			Brua-(3) Changaon- (2) Chansu- (1) Kafnoo- (1)	Chotta Khamba-(2)	Nil
				Labrang-(2) Katgaon-(4) Mebar- (2)	Rupi- (1) Tranda- (1)	
				Meeru- (2)		
				Punang-(1) Ramni- (2) Roghi-(1)		
				Sapni- (2) Sangla-(1) Raksham- (1)		
				Shong-(2) Shudhrang- (1) Yulla- (1)		
				Ponda- (1) Nichar (3)		
				Bari-(2) Brua- (3) Chagaon- (3)	Chotta Kgamba-(8)	Nil
				Kafnoo-(7) Kamroo-(1) Karcham-(1)	Rupi-(5) Tranda- (3)	
				Katgaon- (1) Kilba- (2) Pranghala-(1)		
Other Buildings				Labrang- (1) Mebar- (2) Meeru- (2)		
				Naccko- (1) Panvi-(2) Punang- (1)		
				Rabni- (6) Roghi-(3) Spillo- (10)		
				Sapni-(2) Shohn- (3) Yangapa- (2)		
				Yulla- (5) Recongpeo-(1) Meeru-(2)		

Table 3.7: Contd...

Activity	Budhil	Nuegal	Binwa- Parai	KWHEP	Sorang	Rukti
Temple	Nil			Bari- (4) Brua- (3) Chagaon- (3) Kafnoo- (6) Kamroo- (3) Katgaon- Kothi- (1) (5) Kilba- (9) Labrung- (1) Mebar- (2) Meeru- (4) Nichar- (1) Panvi- (4) Punang- (3) Purbani- (1) Ramni (4) Roghi- (4) Sapni- (3) Sangla- (3) Shong- (3) Sungra- (1) Urni- (4) Yangapa- (5) Yulla- (9) Ponda- (1) Nathpa- (2) Nichar- (2)	Chota Khamba- (13) Rupi- (10) Tranda- (4)	Nil
Drinking Water	Bharmour- (1) Garola- (1) Greema- (3) Poolan- (1) Sachuin- (1)			Brua- (1) Chagaon- (1) Meeru- (1) Ponda- (1) Rup- (1) Sapni- (1) Shong (1) Urna- (1)	Chotta Khamba- (1) Rupi- (4) Tranda- (3)	Nil
Playgrounds	Poolan (3) Bharmour- (1)			Changaon- (1) Kachrang- (1) Kafnoo- (1) (2) Kamroo- (1) Katgaon- (3) Meeru- (1) Ponda- (1) Punang- (1) Ramni- (1) Shong- (1) Yulla- (2) Nichar- (2)	Chotta Khamba- (2)	
Irrigation	Nil			Changaon- (2) Kamroo- (5) Kilva- (1) Meeru- (2) Panvi- (2) Punang- (1) Sapni- (3) Yulla- (6) Shong- (1)	Nil	Nil
Education	Bharmour- 1			Nichar- (1) Katgaon- (1) Urmi- (1) Chagaon- (1) Tranda- (1) Rup- (1) Kalpa- (1) Pang- (1) Recongpeo- (1) Sangla- (1) Powari- (1) Sapni- (1) Raksham- (1) Kilba- (1) Kothi- (1) Pooh- (2) Riba- (1) Jangi- (1) Lippa- (1) Murang- (1) Giabung- (1) Ljiyo- (1) Chango- (1) Kanam- (1)	Nil	Nil
Others	Poolan- (1) Bharmour (1) Greema (1) Pranghala (1) Ullansa- (1) Sachuin- (1)					

Table-3.7: Contd...

Activities	ADHEP	FozalHEP	RHEP	Manglad
Pucca Path	Vashisth(1)	Duware(1,) Vill. Bhujnoo(1)	Duttnagar(9), Gadej(8), Bahwa(3) Tunan(3), Badi(3), Poshna(8), Kharga(5), Bahwa(1), Duttnagar(1)	Dofda(4)
Road	Prini(1), Jagatsukh(4), Vill. Koshala(3),		Gadej(1) Poshna(1), Kushwa(1)	Dofda(1), Vill. Koshala(3),
Bridge			Bahwa(1), Duttnagar(1)	
Mahila Mandal Bhawan			Duttnagar(1), Gadej(1) TunanB/W(1), Bahwa(2)	
Panchayat Bhawan			Gadej(1)	
Sanitation			Tunan(1), Bahwa(1)	
Street Light			Tunan(1),	
Drinking Water	Vill. Bhanara(1)		Gadej(1), Kharga(1), Poshna(1), Badi(1)	Dofda(2)
Rain Shelter			Poshna(1)	
Temples			Gadej(1), Kharga(1), Bahwa(1) Poshna(4), Tunan(1)B/W	
Crematorium				
School Rooms	Jagatsukh(1) Vill. Haripur(1)			
Fencing of school	Manali(1)	Duware(1)		
Furniture for				
School				
Play Ground	Vill. Shuru(1)		Duttnagar(3) Kharga(1), Badi(1)	Dofda(1)
Stadium			Tunan(1)	
Irrigation	Prini(1), Vill. Seri(1)		Gadej(3) Tunan(1)	Dofda(1)
Plantation				
Soil Conservation				
C/O House	Vill. Patiala(1) Vill. Shuru(1)			
Miscellaneous	Nagar(1)			
(i) Computer for B.D.O	Karata Fedd. H.P.(1), Student Welfare Ass. HPU Shimla(1)			
(ii) For Games	Kullu(1), Manali(1)			
(iii) Furniture(D.C. office)/(SDM)	Katerain(1)	Ani(1)	Kullu(1), Ani(2), Nirmand(1)	
(iv) Gosadan				
(v) Other				

Chapter 4

Socio-Economic Impact of Local Area Development Activities

Various socioeconomic developmental activities are carried out in the hydroelectric projects for the benefit of the project affected area and population. The funds for these activities are already earmarked under the guidelines in effect. These activities pertain to infrastructure or employment generation etc depending upon the local demand, relevance and requirements. The activities under LADC undertaken in hydroelectric projects under consideration have been categorized under ten heads and their impact presented separately for each of the projects.

4.1 Socioeconomic impact of Local Area Development Activities in Budhil HEP

Activities in the project affected area of this project mainly pertained to water supply and creation and/or improvement in connectivity. The following text presents the details of these activities.

4.1.1 Water supply: Impact of water supply activities under LADF in Budhil hydroelectric project has been presented in Table 4.1 wherein it may be seen that out of total five schemes listed under water supply only one has been designed for construction of water storage tanks under Garola Panchayat and benefitted the population of five villages. Due

to construction of water storage tanks, the villagers perceived the benefit of regular supply of fresh water which ultimately would impact their health in positive manner and reduce the expenditure on utensils or tanks etc for water storage at household level. This scheme was expected to benefit about 263 persons out of the population of 928. Water supply scheme in Greema was designed to benefit human and livestock population, benefitting about 118 persons in addition to livestock. The other schemes of construction of paniharas were meant solely for providing the water to livestock population. These schemes were located in Poolan, Sachuin and Greema panchayats and covered four villages. The social benefit of these schemes were thought to be availability of required amount of water to animals and would save labour in tending the animals leading to direct economic gains or increase in the leisure time, especially of women. The works were executed by concerned panchayats.

4.1.2 Employment, health and other activities: In five affected panchayats, 57 persons were provided employment raising their incomes from Rs. 6300 to Rs. 8000 and resulting in better living standards for the benefitted families (Table-4.2).The

employment was provided by Budhil hydroelectric project. A dispensary was constructed in Poolan benefitting about 988 persons. This on one hand has been able to ensure better health facilities for the residents, on economic front; each family has been able to save about Rs. 200 on account of consultancy fees to private doctors or other practitioners.

A crematorium was constructed at Greema benefitting about 1080 persons. This was constructed on the demand of local population and as such had no economic benefits. The construction of community centre at Paldha

concerned gram panchayats.

4.1.3 Connectivity: The activities like construction of paths, bridges, ropeways etc have been clubbed under 'connectivity' (Table-4.3). There were eight such works undertaken in six panchayats benefitting nine villages. The construction of path in Poolan was meant to provide connectivity to school and hence benefitting the children. It was surprising to find that due to construction of this path not only the cleanliness increased among the children, it also led to saving of about Rs. 100 per student

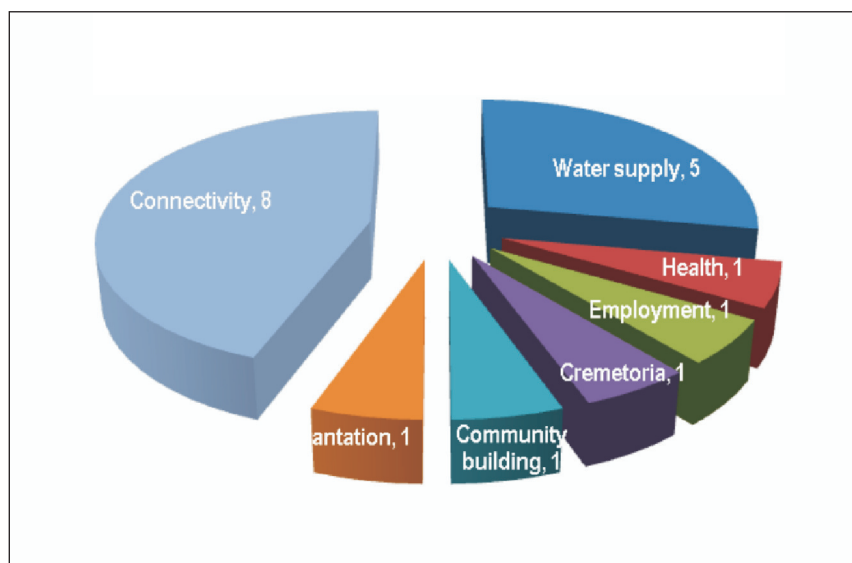


Fig-4.1 : Number of activities under LADC in Budhil HEP

benefitted about 670 persons and was considered to be an asset of Panchayat. It was stated that the construction of community centre has resulted in saving of about Rs. 6000 per annum on account of hiring charges for buildings necessitated by organization of functions and meetings etc. Toilets at Kharamukh were constructed with a view to provide sanitation facility to about 890 local residents and more importantly to pilgrims to Manimahesh. All the works, except employment generation were executed by

per annum due less wear and tear of school uniform and shoes etc. This activity benefitted 298 school children and other population. All other connectivity activities were meant to provide facilities to villagers resulting better living conditions to them and facilitating the transport and movement with obvious positive economic consequences to local population. Each of these activities benefitted from about 200 to more than 300 of the population. All these activities were executed by concerned gram panchayats.

4.2 Socioeconomic impact of Local Area Development Activities in RampurHEP

Rampur Hydro Electric Power Corporation Ltd. is one of the largest power projects under consideration. Majority of the activities under LADC carried out under RHEP pertain to connectivity. However, other activities of drinking water, irrigation, play grounds etc have also been carried out. The details of these activities have been presented below.

4.2.1 Water supply, education and activities related with temple:

Details of these activities have been presented in Table 4.4 wherein it may be seen that there were two activities related with drinking water supply, one at Tunan (construction of water storage tank) and changing of low diameter pipes with higher diameter at Bhawa. These activities would not only mean assured water supply but would also save time and reduce drudgery of women among the target villages. In addition to these there is an irrigation scheme at Tunan under which a storage tank has been constructed. This storage capacity is likely to result in higher standard of living as the farm income has increased due to largely assured irrigation. About 5 Kms of kuhl was repaired in Gadej benefitting a population of 400 residents. This repair resulted in irrigation of an additional 400 bighas of cultivated land due to almost no water seepage and saved 10 days of labour every year which had to be put in for annual repairs, no more needed.

The activities clubbed under education relate to construction of school rooms, creating facility of playground and fencing etc (Table 4.4). Four rooms were constructed in Gadej school and two rooms were constructed in senior secondary school at Kharga. These activities were reported to be directly benefitting 100 and 450 students respectively by way of better education

facilities and improving health conditions by reducing congestion in classrooms. Community satisfaction was an additional benefit of this activity. Playgrounds were constructed at Badi and Kharga, directly benefitting about 250 and 200 students by providing facilities for sports and hence raising their interest in this activity of sport which could also mean better employment opportunities for the students. Fencing of playgrounds at Badgai and Bhadrash provided protection to students without any tangibly visible economic benefits. Breast wall was erected at school in Gundi.

The activities concerned with temple appear to be quite popular here with construction of temple at Kharga satisfying the religious sentiments of population without any economic gains. Retaining wall was provided at Badi temple and retaining wall and fencing at Gadej temple. Temple at Nirsu was repaired by RHEP satisfying the religious feelings of population.

4.2.2 Connectivity: This is the largest component of LADC activities under RHEP with 37 different works carried out (Table-4.5). In this also 36 works were about metaling of existing roads. These works provided the benefit of easy movement, cleanliness and less fear of minor accidents like tripping over and skidding etc. On economic front the metaling of roads improved the carriage of goods and agricultural produce. It saved both on time and cost. Only activity, other than metaling was erection of foot bridge at Gadej improving connectivity for about 2000 persons and saving time and cost of carriage besides other benefits like easy movement etc.

4.2.3 Community buildings and sanitation:

Panchayat Bhawan was constructed at Tunan benefitting about 1800 persons (Table-4.6) and many respondents find that new Panchayat Bhawan has improved the status of their Panchayat. Community Bhawan was constructed at Gadej which could accommodate 40-50 persons at a time. According to villagers it

facilitated the religious gatherings and other social functions and ceremonies. The villagers felt that community meetings were now regular phenomenon wherein local issues were discussed and taken care of, boosting the economic development of the area. The community Bhawan at Duttnagar was reported to directly benefit about 1500 persons with the same benefits as reported in Gadej.

Under sanitation two activities were taken up; construction of roadside pucca drain in Duttnagar and construction of toilets near

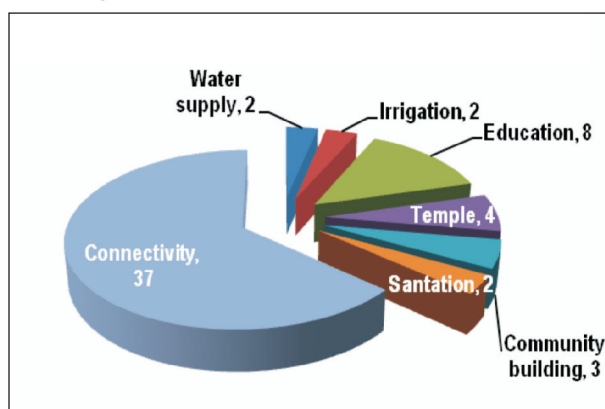


Fig-4.2: Number of activities under LADC in RHEP

Devdhank in Bayal. These were reportedly benefitting 650 and 3000 persons respectively. The drain ensured cleanliness of road and enhanced its life considerably. In case of toilets, villagers reported that it has resulted in better cleanliness and the fear of spreading infections is now significantly lower. It doesn't have any direct economic benefits but indirect benefits flow out of the fact that low incidence of disease would definitely mean less off days from work and hence higher incomes.

4.3 Socioeconomic impact of Local Area Development Activities in Sorang HEP

Sorang HEP being a small project has very few activities under LADC, results have been presented in table-4.7 wherein it may be

seen that this power project had only five activities under LADC, following text presents details.

4.3.1 Drinking water: This activity pertains to construction of bowari which was supposed to provide safe drinking water to about 75 people, total population of the village. The villagers also thought that it will lower the incidence of water born diseases among the villagers.

4.3.2 Education: There were two activities related with education; construction of two rooms in school at Rupi benefitting about 30 students by way of better education and comfort leading to better health. It was also to the satisfaction of villagers. Another activity was indirectly related to education and was erection of retaining wall in the school.

4.3.3 Connectivity: Construction of mule pathway at Taranda was the only activity under connectivity. This activity provided easy movement to the villagers with reduced fear of accidents but most importantly it led to reduction in carriage cost of apple boxes from Rs. 100 to Rs. 75 per box, a significant reduction.

4.3.4 Panchayat bhawan: Electric wiring was laid in the Bhawan which indirectly benefitted about 2500 people and increased the convenience for people and made the Panchayat Bhawan more usable.

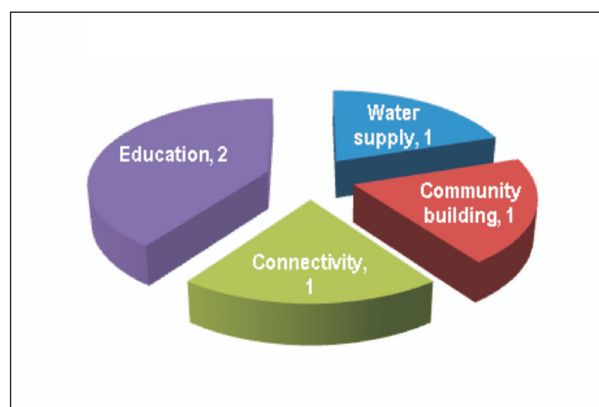


Fig-4.3: Number of activities under LADC in Sorang HEP

4.4 Socioeconomic impact of Local Area Development Activities in Karcham-Wangtu HEP:

Karcham-Wangtu HEP is quite big from investment and power generation point of views and as such is expected to have a variety of activities under LADA. However, it did not have any activity for providing drinking water to affected population but had almost all other type of activities. The details have been provided in the following text :

4.4.1 Impact on irrigation, education and temple. The results of analysis in this respect have been presented in Table-4.8 and details presented below:

Irrigation: There were two irrigation schemes one at Kilba and other at Yulla, and both pertained to cementing of about 200 and 250 meters kuhl respectively. These respectively benefitted about 180 and 500 people and led to higher standard of living for beneficiary households. The irrigation scheme at Kilba irrigated about 100 bighas and at Yulla irrigated about 120 bighas of land and made an annual saving of 7 and 8 days of labour required for repairing the kuhl.

Education: There were five activities in all which could be listed under the category of education. These activities were related with construction of play ground in schools at Yengpa and Yulla and construction of

retaining and two boundary walls in school at Yengpa. These activities, though not directly linked with education have been categorized as such because of the fact that these indirectly improve the education and ancillary scenarios. The main objective of undertaking these activities was to enhance the safety of students and to provide them facility of playground, so important for overall development of children.

Temple: There was large variety of works carried out under this head. This varied from construction of new temple at Shong and Kilba to fencing to painting and repairing at Katgaon and Ramni temples. In total 12 works were carried out related with different aspects of temple. The main purpose of these works was only to satisfy the religious sentiments of people. There was hardly any economic benefit of these activities except perhaps to provide means of livelihood to the priests of these temples. Another objective appears to improve the aesthetics of the temples and to improve the facilities and enhance the life of these structures.

4.4.2 Local Area Development Connectivity:

This is one of the largest components of LADC activities under KWHEP with 11 different works carried out (Table-4.9). In these works 6 works were about metaling of present roads providing the benefit of easy movement, cleanliness and less fear of minor accidents like tripping over and skidding etc. The economic benefit of metaling of roads was reported to be improvement in the

carriage of goods and agricultural produce. It saved both on time and cost. The path in Ramni was improved with soling with the same socio-economic benefits as those of metaling of the roads. The activities, other than metaling, were construction of welcome gate at Yulla, repairing of bridge at Yangpa, provision of span at Ramni and street light at Kamroo. These works benefitted all the people living in the village or in nearby area likely to use these facilities. Like other schemes of connectivity, these also improved the movement and positively impacted the cost involved in carriage of different goods, indicating the efficacy of such works. In improving the socio-economic condition of target groups.

4.4.3 Community buildings and sanitation : The results of analysis of activities of community buildings and sanitation works have been presented in Table-4.10 and details presented below.

Community buildings: In total nine buildings were constructed for the benefit of panchayats, Mahila Mandals etc. Four community bhawans were constructed, two at Ramani and Chanshu were in the temple campus and other two were for general purpose. Whereas the first two were concerned more with the religious satisfaction and functions others satisfied the social needs, other than religious, to a large

extent. Irrespective of location of these buildings they satisfied the important aspect of social gatherings and community meetings which many times have economic connotations to it. One hall of 25ft X 18 ft for Panchayat Bhawan was constructed at Chansu which improved the social standing of the concerned Panchayat and led to frequent meetings with the end result of better area development. In addition to this kitchen items and furniture was purchased for Mahila mandal Bhawan at Roghi, which not limiting to the members of Mahila mandal only benefitted the entire community by facilitating the community feasts etc. This also resulted in low hiring charges for the mandal and for individual households as well. Mahila mandal Bhawan was also constructed in Mebar with toilet and kitchen facilities. Club Bhawan at Kamroo was also repaired.

Sanitation: Six works were taken up for improving the sanitation status of the area. These included provision of toilets at both monastery at Yangpa and Mahila mandal Bhawan at Chanshu. Sulabh Shochalaya was constructed at Reckong Peo, greatly improving the sanitary conditions and resulted in an efficient sanitary system. This benefitted the local and floating population of about 15000 people. The other works included construction of cemented side drain at Kamroo and water supply to toilet at bus stand at Sangla. All these works were instrumental in improving the cleanliness of the area and more importantly helped in inculcating the habit of cleanliness among the people.

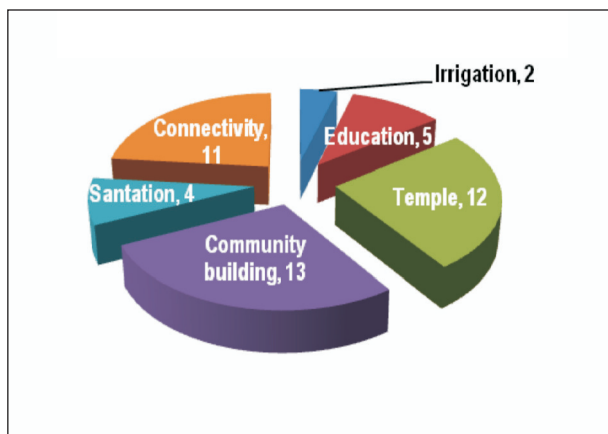


Fig-4.4: Number of activities under LADC in KWHEP

4.4.4 Other activities: Other activities included provision of financial assistance to Sony Star Club at Urni for purchase of jewelry and other items to be used in cultural activities like dramatics and folk dancing etc. Kinnaur Association was provided financial assistance to facilitate their cultural activities. These activities improved the social functions and gathering and helped in preserving the ethnic culture of the area.

4.5 Socioeconomic impact of activities under Local Area Development Activities in Manglad HEP

Under this project a total of six activities were taken up (Table 4.11.) as explained below :

4.5.1 Education: A playground was constructed at school of Thada, benefitting about 50 students by creating interest for sport in them.

4.5.2 Temple: Fencing was provided at the temple at Majhewali, benefitting about 600 people by satisfying their religious feeling and providing protection from wild animals and unscrupulous elements. A new temple was also constructed at Funga/Unchi which satisfied the long standing demand of local people.

4.5.3 Connectivity: About 100 meters of path was metaled improving the connectivity and lowering the cost of carriage.

4.5.4 Community bhawan: One room was constructed for facilitation of social functions and community meetings etc.

4.5.5 Other works: Cracks in about 115 houses were treated eliminating the danger of further damage to these buildings. This step saved the individuals from incurring the repair charges and ensured the long life of buildings.

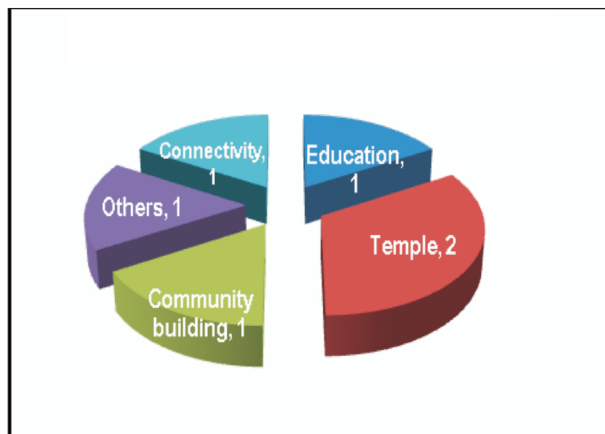


Fig-4.5: Number of activities under LADC in Manglad HEP

4.6 Socioeconomic impact of activities under Local Area Development Activities in ADHEP

The details of works carried out under LADC in Allain-Duhangan HEP have been summarized in Table-4.12 and presented below :

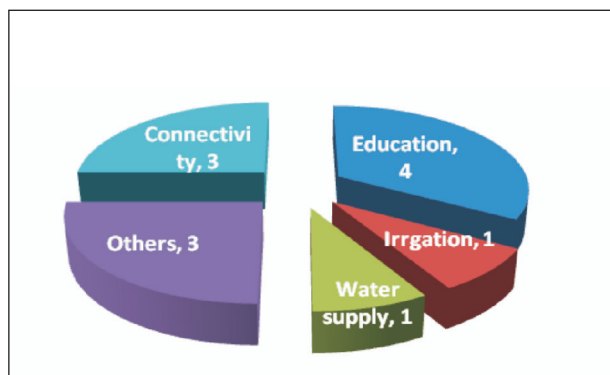


Fig-4.6: Number of activities under LADC in ADHEP

4.6.1 Drinking water: The drinking water supply scheme at Jagatsukh has benefitted about 200 people by way of assured and timely water supply. Most importantly, it has been able to save about 2-3 hours of each household in fetching water.

4.6.2 Irrigation: This work pertained to repairing and metaling of kulh at village Shuru in Prini, benefitting about 1600 people by way of saving about 8 hours of labour of each household and assured water for irrigation resulting in higher yield and production leading to higher living standards for benefitted households.

4.6.3 Education: There were four activities related directly or indirectly with education. Four school rooms were constructed at Jagatsukh benefitting about 300 students by way of better education and better classrooms. This also satisfied the village community at large. Toilets were constructed at school in Soyal benefitting about 200 students. Other works were playground at Prini school and boundary wall to school at Manali.

4.6.4 Connectivity: Under connectivity, three works were undertaken, two in Vashisht and one in Prini. In Vashisht, in total, about one kilometer of roads were repaired and metalled. In Prini about 1200 meters of road was repaired and tarred. In total about 1400 people were benefitted from these activities. The outcome of these activities, on economic front, was that it improved the economics of transportation of goods and helped in tourism development in the area.

4.6.5 Other activities: A gosadan was constructed in Katrain housing about 300 cows. The social impact of this activity was that it satisfied the religious sentiments of people but more importantly it averted the crop damage by these stray animals and improved the road safety for traffic. Financial assistance was provided to Karate Federation of Himachal Pradesh and Student Welfare Association of Himachal Pradesh University, Shimla for social and cultural activities and improvement in sports.

4.7 Socioeconomic impact of activities under Local Area Development Activities in Fozal HEP

In Fozal HEP only three activities were undertaken, one pertaining to education and two to connectivity. In Duwara school retaining wall was constructed benefitting about 40 students and on path and one road were constructed benefitting about 170 and 900 people respectively and improving the economics of goods carriage.

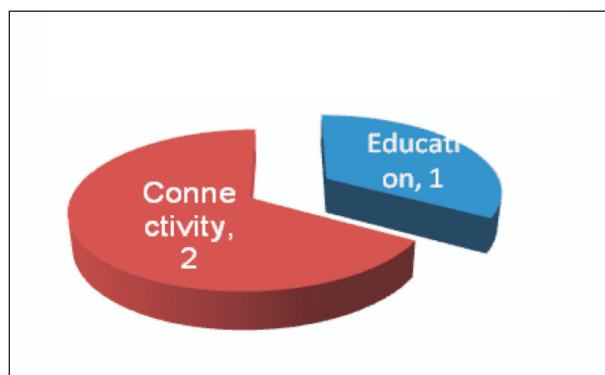


Fig-4.7: Number of activities under LADC in Fozal HEP

4.8 Summing up

In Budhil hydroelectric project water supply activities under LADC, out of five schemes listed under water supply only one is for construction of water storage tanks under Garola Panchayat and benefitted 263 persons in five villages. Other schemes were of paniharas meant solely for providing the water to livestock population. In five affected panchayats, 57 persons were provided employment raising their incomes from Rs. 6300 to Rs. 8000 and resulting in better living standards for the benefitted families. The employment was provided by Budhil hydroelectric project. A dispensary was constructed in Poolan benefitting about 988 persons. A crematorium was constructed at Greema benefitting about 1080 persons. The construction of community centre at Paldha benefitted about 670 persons. Toilets at Kharamukh were constructed. There were eight works of connectivity undertaken in six panchayats benefitting nine villages. The construction of path in Poolan was meant to provide connectivity to school and led to saving of about Rs. 100 per student per annum due less wear and tear of school uniform and shoes etc. This activity benefitted 1288 school children along with other population. All other connectivity activities were meant to provide facilities to villagers resulting better living conditions to them and facilitating the transport and movement with obvious positive economic consequences to local population.

In Rampur Hydro Electric Power Corporation Ltd. there were two activities related with drinking water supply, one at Tunan (construction of water storage tank) and changing of low diameter pipes with higher diameter at Bhawa. In addition to these there is an irrigation scheme at Tunan under which a storage tank has been constructed. About 5 Kms of kuhl was repaired in Gadej benefitting a population of 400 residents. This repair resulted in irrigation of an additional 400 bighas

of cultivated land. Four rooms were constructed in Gadej school and two rooms were constructed in senior secondary school at Kharga. Playgrounds were constructed at Badi and Kharga, directly benefitting about 250 and 200 students. Fencing of playgrounds at Badgai and Bhadrash provided protection to students. Connectivity is the largest component of LADC activities under RHEP with 36 different works carried out of which 35 works were about metaling of existing roads. Panchayat Bhawan was constructed at Tunan benefitting about 1800 persons and Community Bhawan was constructed at Gadej which could accommodate 40-50 persons at a time. The community Bhawan at Duttnagar was reported to directly benefit about 1500. Under sanitation two activities were taken up; construction of roadside pucca drain in Duttnagar and construction of toilets near Devdhank in Bayal.

Sorang HEP being a small project has very few activities under LADC, and had only five activities under LADC. The activity of drinking water pertains to construction of bowari which was supposed to provide safe drinking water to about 75 people. There were two activities related with education; construction of two rooms in school at Rupri benefitting about 30 students and activity indirectly related to education was erection of retaining wall in the school. Construction of mule pathway at Taranda was the only activity under connectivity.

Karcham-Wangtu HEP is quite big from investment and power generation point of view but had almost all other type of activities except for drinking water. There were two irrigation schemes one at Kilba and other at Yulla, and both pertained to metaling of about 200 and 250 meters kuhl respectively. There were five activities in all which could be listed under the category of education. These activities were related with construction of play ground in schools at Yengpa and Yulla and construction of retaining and two boundary walls in school at Yengpa. There was large variety of works

carried out under the head of temple. This varied from construction of new temple at Shong and Kilba to fencing to painting and repairing at Katgaon and Ramni temples. In total 12 works were carried out related with different aspects of temple. This is one of the largest components of LADC activities under KWHEP with 11 different works carried out. In these works 6 works were about metaling of present roads providing the benefit of easy movement etc. The path in Ramni was improved with soling. The activities, other than metaling, were construction of welcome gate at Yulla, repairing of bridge at Yangpa, provision of span at Ramni and street light at Kamroo.

In total nine community buildings were constructed for the benefit of panchayats, Mahila Mandals etc. Four community bhawans were constructed, two at Ramani and Chanshu were in the temple campus and other two were for general purpose. In addition to this kitchen items and furniture was purchased for Mahila mandal Bhawan at Roghi. Mahila mandal Bhawan was constructed in Mebar with toilet and kitchen facilities. Club Bhawan at Kamroo was also repaired. Six sanitation works were taken up for improving the sanitation status of the area. These included provision of toilets at both monastery at Yangpa and Mahila mandal Bhawan at Chanshu. Sulabh Shochalaya was

constructed at Reckong Peo.

Under Manglad HEP A playground was constructed at school of Thada. Fencing was provided at the temple at Majhewali, benefitting about 600 people. A new temple was also constructed at Funga/Unchi. About 100 meters of path was metaled improving the connectivity and lowering the cost of carriage. One room was constructed for facilitation of social functions and community meetings etc. Cracks in about 115 houses were treated eliminating the danger of further damage.

Under LADC in ADHEP, the drinking water supply scheme at Jagatsukh has benefitted about 200 people. The irrigation work pertained to repairing and metaling of kulh at village Shuru in Prini, benefitting about 1600 people by way of saving about 8 hours of labour of each household. There were four activities related directly or indirectly with education. Four school rooms were constructed at Jagatsukh benefitting about 300 students by way of better education and better classrooms. Toilets were constructed at school in Soyal. Under connectivity, three works were undertaken, two in Vashisht and one in Prini.

In Fozal HEP only three activities were under taken, one pertaining to education and two to connectivity.

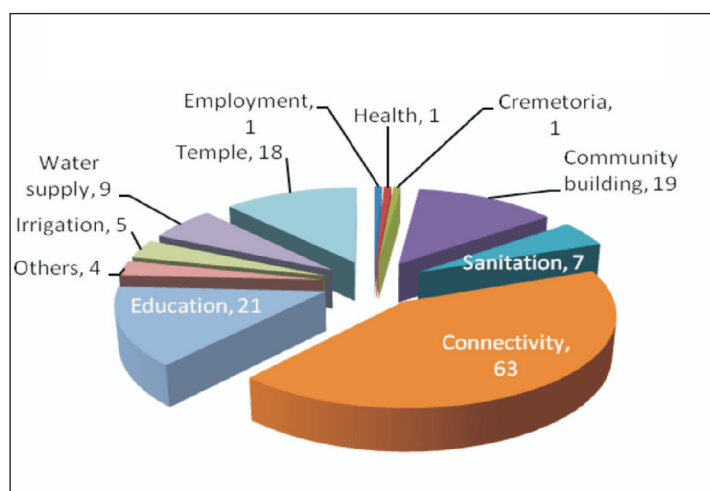


Fig-4.8 : Number of activities under LADC in HEPs under study

Table-4.1 : Impact of water supply activities under Local Area Development Activities in Budhil hydroelectric project

Activity	Work	Name of Panchayat	Name of Villages	Purpose	Benefits perceived	Total population benefited	Activity impact		Executing agency
							Social	Economic	
Water Supply	Construction of water storage tanks	Garola	Swai, Kakari, Pilli, Guwar and Beauty	Water for human consumption	Regular supply of fresh water	928	Better health, time saving	Low expenditure on water keeping utensils, time saving	Concerned Panchayat
Water Supply	Construction of water storage tanks and panihara	Greema	Greema	Water for human and animals consumption	Regular supply of fresh and clean water	1080	Better health, time saving	Time saved can be used for productive purposes	Concerned Panchayat
Water Supply	Construction of panihara	Poolan	Sirdi	Drinking water for animals	Regular supply of water to animals	1288	Availability of required water to animals	Low labour requirement	Concerned Panchayat
Water Supply	Construction of panihara	Sachuin	Badi	Drinking water for animals	Regular supply of water to animals	14908	Availability of required water to animals	Low labour requirement, less animal fatigue	Concerned Panchayat
Water Supply	Construction of panihara	Greema	Atnichala and Fanar	Drinking water for animals	Regular supply of water to animals	1080	Availability of required water to animals	Low labour requirement, better animal health	Concerned Panchayat

Table-4.2 : Impact of employment, health and other activities under Local Area Development Activities in Budhil hydroelectric project

Activity	Work	Name of Panchayat of Villages	Name.	Purpose	Benefits perceived	Total population	Population benefited	Activity impact Social	Economic	Executing agency
Employment	Employment to affected villagers	Poolan	Ghared, Greema, Sachuin Poolan, Paranghala families	To compensate directly affected families	Higher standard of living for PAF	6784	57	Higher standard of living	Income increased from Rs. 6300 to 8000 per family per month	Hydro electric project Budhil
Health Services	Construction of dispensary	Poolan	Poolan	To provide facilities health to PAF	Provision of better health	1288	988	Improved health conditions	Saving of about Rs. 200 rupees per month/ family	Concerned Panchayat
Construction of Crematoria	Construction of samshanghat	Greema	Greema	To provide decent facilities for the villagers	Lastrites can be performed in bad weather also	1080	1080	Fulfillment of villagers demand	None	Concerned Panchayat
Community Centre	Construction of community centre	Pengala	Paldha	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	1578	670	Increase in social status 6000 as rent for the Panchayat	Savings of about Rs. 6000 as rent for the Panchayat	Concerned Panchayat
Sanitation	Construction of toilet	Ullansa	Kharamukh	To ensure cleanliness and creation of facility	Sanitation facilities	1375	890	Facility for villagers and pilgrims of Manimesh	Environment protection, no direct economic benefit	Concerned Panchayat

Table-4.3 : Impact of connectivity activities under Local Area Development Activities in Budhil hydroelectric project

Activity	Work	Name of Panchayat	Name of Villages	Purpose	Benefits perceived	Total population	Population benefited	Social	Economic	Executing agency
Path	Construction of path to school	Poolan	Poolan	Improved connectivity of school	Easy walk, less injuries due to falling	1288	298	Improved cleanliness, low injury rate, higher attendance in school	Net savings of Rs. 100 per student per month	Concerned Panchayat
Connectivity	Construction of path	Garola	Bansda	Easy movement of persons and goods	Efficient carriage/transportation	928	276	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat
Connectivity	Construction of galli	Ghared	Bartka	Easy movement of persons and goods	Efficient carriage	1628	302	Better living conditions	Cost reduction in carriage	Concerned Panchayat
Connectivity	Construction of pucca path	Greema	Bandha	Easy movement of person and goods	Efficient carriage/transportation	1080	218	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat
Connectivity	Construction of pucca path	Ghared	Nalda	Easy movement of persons and goods	Efficient carriage/transportation	1628	242	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat
Connectivity	Construction of pucca path	Prenghala	Paldha	Easy movement of persons and goods	Efficient carriage/transportation	1578	230	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat
Connectivity	Construction of jeep-able road	Prenghala	Kutyia Razore	Easy movement of persons and goods	Efficient carriage/transportation	1578	308	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat
Connectivity	Construction of pucca path	Sachuin	Sachuin to Sawanpur	Easy movement of persons and goods	Efficient carriage/transportation	1490	318	Better living conditions	Cost reduction in carriage, quality maintenance of farm produce and other goods	Concerned Panchayat

Table-4.4 : Impact of water supply, education and activities related with temple under Local Area Development Activities in RHEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact		Executing agency
							Social	Economic	
Drinking water	C/o Store tank	Tunan	Water for human consumption	Regular supply of fresh water	550	450	Better social status	Time saving, drudgery reduction of women	I&PH
Drinking water pipe	Change dia. 0.5 to 1.0 inch of 900mt.	Bahwa	Water for human consumption	Increased supply of fresh water	250	250	Happiness level increased	Time saving and reduction of drudgery of women	I&PH
Irrigation	C/O RCC store tank	Tunan	To augment irrigation	Higher gross irrigated area	550	120	Higher standard of living	Higher farm income by about Rs. 5000 per farm	I&PH
Irrigation	Repairing of 5 km. Kulh	Gadej	To reduce water losses due to leakages	Higher water availability for irrigation	400	400	Higher standard of living	Irrigates 400 bigha land & Save 10 days of labor for repairing	I&PH
School building	C/O 4 rooms	Gadej	To accommodate higher number of students	Low congestion and better teaching	100	100	Community satisfaction	Better quality education and learning	RHEP
School ground	Retaining wall	Rundal	Prevent erosion of ground	Safety of ground	100	100	Feeling of safety	Future expenditure on repairs averted	RHEP
GPS ground	Fencing of Ground	Badgai & Poshna	Safety & prevention of encroachment	Safety & protection	50	50	Safety of students	None	RHEP

Table-4.4 : Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact		Executing agency
							Social	Economic	
School ground	Fencing of Ground	Bhadrash & Duttanagar	Safety & prevention of encroachment	Safety & protection	50	50	Safety of students	None	RHEP
School ground	Playground	Badi	Safety & prevention of encroachment	Safety & protection	250	250	Interest in sports	Better sports avenues	RHEP
GMS ground	Playground	Kharga	Safety & prevention of encroachment	Safety & protection	200	200	Interest in sports	Better sports avenues	RHEP
GSS School	C/O- 2 rooms of 14*18ft.	Kaharga	To accommodate higher number of students	Low congestion and better teaching	450	450	Community satisfaction	Better education, good health	RHEP
GPS	B/ Wall	Gundi, (Tunan)	Prevent erosion of ground	Safety of ground	30		Feeling of safety	Safety of school building	RHEP
Temple	C /O temple	Kharga	To satisfy religious sentiments	To satisfy religious sentiments	500	500	Religious feelings satisfied	None	RHEP
Temple	Retaining wall	Badi	To satisfy religious sentiments	To satisfy religious sentiments	300	300	Religious feelings satisfied	None	RHEP
Temple	Retaining wall & Fencing	Gadej	To satisfy religious sentiments	To satisfy religious sentiments	2500	2500	Religious feelings satisfied	None	RHEP
Temple	Repairing	Nirsu	To satisfy religious sentiments	To satisfy religious sentiments	500	500	Religious feelings satisfied	None	RHEP

Table-4.5 : Impact of activities related with connectivity under Local Area Development Activities in RHEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population benefited	Population benefited	Social	Activity impact	Economic	Executing agency
Connectivity	Metaling of 500 mt. path	Pipaladhar Chembu (Bahwa)	Easy movement of persons and goods	Efficient carriage/ transportation	500	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage		RHEP
Connectivity	Metaling of 500 mt. path	Nirmand	Easy movement	Social satisfaction	600	250	Easy movement, cleanliness, low fear of accidents	None		RHEP
Connectivity	Metaling of 300 mt. path	Averi Shattaldhar	Easy movement of persons and goods	Efficient carriage /transportation	300	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage		RHEP
Connectivity	Metaling of 1000 mt. path	Jagatkhana Maidhel, (Tunan)	Easy movement of persons and goods	Efficient carriage /transportation	350	350	Easy movement, cleanliness, low fear of accidents	Labor cost reduced from Rs.100 to 70/bag		RHEP
Connectivity	Metaling of 100 mt. path	Jagatkhana Tunan	Easy movement of persons and goods	Efficient carriage /transportation	550	550	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage		RHEP
Connectivity	Metaling of 500 mt. path	Bilage Daman	Easy movement of persons and goods	Efficient carriage /transportation	250	250	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage		RHEP
Connectivity	Metaling of 1000 mt. path	Kasholi (Badi)	Improved connectivity of school	Easy walk, less injuries due to falling	500	500	Safety of children and time saving	Reduction in cost of school dress and footwear etc (About Rs. 80/month)		RHEP
Connectivity	Metaling of 500 mt. path	Pantla	Easy movement of persons and goods	Efficient carriage /transportation	400	400	Safety of children and time saving	Reduction in cost of school dress and footwear etc		RHEP

Table-4.5 : Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total popu- lation benefited	Activity impact		Executing agency	
						Social	Economic		
Connectivity	Metaling of 400 mt. path	Khadeh Nung	Easy movement of persons and goods	Efficient carriage /transportation	800	800	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Brow (Poshna)	Easy movement of persons and goods	Efficient carriage /transportation	150	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 200 mt. path	Brow	Easy movements of persons and good	Efficient carriage /transportation	100	100	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Randal	Easy movement of persons and goods	Efficient carriage /transportation	350	350	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Poshana dhar	Easy movement of persons and goods	Efficient carriage /transportation	200	200	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 200 mt. path	Kated Banjon	Easy movement of persons and goods	Efficient carriage /transportation	250	250	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Khadir	Easy movement of persons and goods	Efficient carriage /transportation	100	100	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path		Easy movement of persons and goods	Efficient carriage /transportation	150	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Badgai Tapar	Easy movement of persons and goods	Efficient carriage /transportation	150	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Brow	Improved connectivity of school	Easy walk, less injuries due to falling	250	250	Safety of children and time saving	Reduction in cost of school dress and footwear etc (About Rs. 100/month)	RHEP

Table-4.5 : Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total popu- lation benefited	Activity impact		Executing agency	
						Social	Economic		
Connectivity	Metaling of 1000 mt. path	Kumhar, (Kharga)	Easy movement of persons and goods	Efficient carriage /transportation	250	250	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 1000 mt. path	Chilage Duga Matla	Easy movement of persons and goods	Efficient carriage /transportation	500	500	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 1500 mt. path	Sharga Nal	Easy movement of persons and goods	Efficient carriage /transportation	400	400	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 1000 mt. path	Kanded	Easy movement of persons and goods	Efficient carriage /transportation	150	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 1000 mt. path	Nandi Bel (Gadej)	Easy movement	Social satisfaction	800	800	Easy movement, cleanliness, low fear of accidents	None	RHEP
Connectivity	Metaling of 500 mt. path	Polchine Morla	Easy movement of persons and goods	Efficient carriage /transportation	160	160	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Mareha	Easy movement of persons and goods	Efficient carriage /transportation	120	120	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 400 mt. path	Lashnin Manubie	Easy movement of persons and goods	Efficient carriage /transportation	200	200	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Pepubil Khadher	Easy movement of persons and goods	Efficient carriage /transportation	80	80	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 1000 mt. path	Koyal	Easy movement of persons and goods	Efficient carriage /transportation	500	500	Easy movement of animals for treatment	Reduction in cost of veterinary expenses.	RHEP

Table-4.5 : Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population benefited	Activity impact		Executing agency
						Social	Economic	
Connectivity	Metaling of 500 mt. path	Daropa Kandali	Easy movement of persons and goods	Efficient carriage /transportation	200	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 450 mt. path	Chhohto Dhamota	Easy movement of persons and goods	Efficient carriage /transportation	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 200 mt. path	Talai, (Duttnagar)	Easy movement of persons and goods	Efficient carriage /transportation	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 100 mt. path	Upper Talai,	Easy movement of persons and goods	Efficient carriage /transportation	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Nirsu	Easy movement	Social satisfaction	550	Easy movement, cleanliness, low fear of accidents	None	RHEP
Connectivity	Metaling of 100 mt. path	Chilari	Easy movement of persons and goods	Efficient carriage /transportation	150	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 300 mt. path	Bhadrash Sain Basti	Easy movement of persons and goods	Efficient carriage /transportation	250	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Metaling of 500 mt. path	Bhadrash Cannal gram	Easy movement of persons and goods	Efficient carriage /transportation	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	RHEP
Connectivity	Foot bridge	Achhua (Gadej)	Easy movement of persons and goods	Efficient carriage /transportation	2000	Better connectivity	Time saving, lower cost of carriage	RHEP

Table-4.6 : Impact of activities related with community buildings and sanitation under Local Area Development Activities in RHEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population benefited	Population benefited	Social	Activity impact	Economic	Executing agency
Panchayat Bhawan	C/O BW	Tunan	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	1800	1800	Improved status	Frequent meetings leading to better area development		RHEP
Community Bhawan	C/O BW	Gadej	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	2000	2000	Facilitates religious gatherings and social functions	Community meetings for taking care of local issues		RHEP
Community Bhawan	C/O BW	Duttnagar	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	1500	1500	Facilitates social functions	Community meetings for taking care of local issues		RHEP
Alongside of road	C/O Pucca Drain	Duttnagar	Protection of road	Maintenance of road surface and cleanliness	650	650	Clean road	Longer road life and drainage of rain water		RHEP
Near Devdhanak	C/O Toilets	Bayal	To ensure cleanliness and creation of facility	Sanitation facilities	3000	3000	Cleanliness, low spread of infections	None		RHEP

Table-4.7 : Impact of activities related with community buildings and sanitation under Local Area Development Activities in Sorang HEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Social	Activity impact Economic	Executing agency
Drinking water	C/O Bawari		Water for human consumption	Regular supply of fresh water	75	75	Safe drinking water	Lower water born diseases	Concerned Panchayat
GMS School	Retaining wall		Prevent erosion of ground	Safety of ground	30 student	30 student	Feeling of safety	Safety of school building	Concerned Panchayat
C/O room in school	2 rooms of (11*12 sq. ft.)	Rupi	To accommodate higher number of students	Low congestion and better teaching	30 student	30 student	Community satisfaction	Better education, good health	Concerned Panchayat
C/O. Path	Mules pathway	Taranda	Easy movement of persons and goods	Efficient carriage /transportation	50	50	Easy movement, cleanliness, low fear of accidents	Reduced labor cost from Rs.100 to Rs.75/box	Concerned Panchayat
P. Bhawan	Electrical wiring	Neugalseri	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	2500	2500	Increased convenience	None	Concerned Panchayat

Table-4.8 : Impact of activities related with irrigation, education and temple under Local Area Development Activities in Karcham-Wangtu HEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact Social	Economic	Executing agency
Irrigation	c/o kulh metaling of 200mt.	Kilba	To reduce water losses due to leakages	Higher water availability for irrigation	180	180	Higher standard of living	Irrigation to 100 bigha land and save 7 days of labor for repairing	KWHEP
Irrigation	c/o kulh metaling of 250mt.	Yulla	To reduce water losses due to leakages	Higher water availability for irrigation	500	500	Higher standard of living	Irrigates 120 bigha land & Save 8 days of labor for repairing	KWHEP
G.P. School	c/o retaining wall	Yengpa	Prevent erosion of ground	Safety of ground	20 student	20 student	Safety of students	None	KWHEP
G.P. School	c/o Boundary wall in between way and playground	Yengpa	Safety & prevention of encroachment	Safety & protection	20 student	20 student	Safety of students	None	KWHEP
GP School	c/o Boundary wall in between way and ground	Yengpa	Safety & prevention of encroachment	Safety & protection	30 student	30 student	Safety of students	None	KWHEP
G. School	c/o Playground	Yengpa	Safety & prevention of encroachment	Safety & protection	250 student	250 student	Interest in sports	Better avenues for students	KWHEP
G. School	c/o Playground	Yulla	Safety & prevention of encroachment	Safety & protection	50 student	50 student	Interest in sports	Better avenues for students	KWHEP
Temple & Room	New const.	Kilba	To satisfy religious sentiments and comfort to devotees	To satisfy religious sentiments and comfort to devotees	860	860	Religious satisfaction	None	KWHEP
Stair in Temple	C/O Staircase	Kilba	To satisfy religious sentiments and comfort to devotees	To satisfy religious sentiments and comfort to devotees	200	200	Religious satisfaction	None	KWHEP

Table-4.8 : Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact Social Economic	Executing agency
Renovation of temple	Change roof from slate to Chadder, Tiling in ground & rooms	Sangla	To protect the temple	Aesthetics improved and protection provided	1200	1200	Religious satisfaction stay for travelers and pilgrims, meetings	KWHEP
C/O Temple	Fencing, Tiling	Kilba	To protect the temple	Aesthetics improved and protection provided	850	500	Religious satisfaction, better safety	KWHEP
Temple	c/o retaining wall	Katgaon	To protect the temple	Aesthetics improved and protection provided	500	500	Religious satisfaction	KWHEP
Temple	Painting, Repairing	Katgaon	To protect the temple	Aesthetics improved and protection provided	500	500	Religious satisfaction life	KWHEP
Temple	Painting	Ramni	To protect the temple	Aesthetics improved and protection provided	150	150	Religious satisfaction life	KWHEP
C/O Chaura in Temple	Widening	Ramni	Religious sentiments	Satisfaction of villagers	400	400	Religious satisfaction	KWHEP
Maati devta temple	c/o temtle	Shong	Religious sentiments	Satisfaction of villagers	400	400	Religious satisfaction	KWHEP
Bodh temple	c/o bodh chosten Kaccha to pucca	Mebar	Religious sentiments	Satisfaction of villagers	300	300	Religious satisfaction, easy movement	KWHEP
Temple	For completion wood convert into Bricks & cement	Sangla	Religious sentiments	Satisfaction of villagers	1200	1200	Religious Road satisfaction safety	KWHEP
Temple	c/o campus	Punang	Religious sentiments	Satisfaction of villagers	250	250	Religious Better satisfaction aesthetics	KWHEP

Table-4.9 : Impact of activities related with connectivity under Local Area Development Activities in Karcham-Wangtu HEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact		Executing agency
							Social	Economic	
C/O Path	Metaling of 300mt	Kamroo	Easy movement of persons and goods	Efficient carriage/ transportation	600	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Path	Metaling of 300mt	Kamroo	Easy movement of persons and goods	Efficient carriage/ transportation	600	600	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Path	Metaling of 10mt	Yangpa	Easy movement of persons and goods	Efficient carriage/ transportation	300	300	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Path	Metaling of 10mt	Yangpa	Easy movement of persons and goods	Efficient carriage/ transportation	250	250	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Path	Kaccha (Soling)	Ramni	Easy movement of persons and goods	Efficient carriage/ transportation	400	400	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Path	Metaling of 500mt	Yulla	Easy movement of persons and goods	Efficient carriage/ transportation	60	60	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP

Table-4.9 :Contd...

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact		Executing agency
							Social	Economic	
C/O Path	Metaling of 400mt	Yulla	Easy movement of persons and goods	Efficient carriage/ transportation	160	160	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	KWHEP
C/O Welcome gate	C/O gate	Yulla	To enhance aesthetics	Village beautified	500	500	Community satisfaction	Safety from stray animals and theft etc	KWHEP
Bridge	(i)Woody soling replace by Iron sheet (ii)c/o protection wall	Yangpa	Easy movement of persons and goods	Efficient carriage/ transportation and protection	250	250	Easy movement, low fear of accidents	Time saving, lower cost of carriage	KWHEP
Span	R/O Span	Ramni	Easy movement of persons and goods	Enhanced connectivity	400	400	None	Easy and economic carriage	KWHEP
Street light	Installation of street light	Kamroo	Easy movement	Safer village	270	270	Low crime rate	Longer working	WHEP

Table-4.10 : Impact of activities related with community buildings and sanitation under Local Area Development Activities in Karcham-Wangtu HEP

Activity	Work	Name of Panc hayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact Social	Economic	Executing agency
Community Bhawan at Temple	Metalting of & c/o additional rooms	Ramni	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	1800	1800	Improved status	Frequent meetings leading to better area development	KWHEP
Community Bhawan at Temple	C/O Hall 10*15 sq. ft.	Chansu	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	900	900	Religious satisfaction, facilitates religious meetings	Community meetings for taking care of local issues	KWHEP
Panchayat Bhawan	c/o room of 25*18 Sq. Ft.	Chansu	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	900	900	Improved status	Frequent meetings leading to better area development	KWHEP
Community bhawans	Metalting of 20*20 sq.ft.	Katgaon	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	500	500	Facilitates social functions	Community meetings for taking care of local issues	KWHEP
Community hall	c/o retaining wall		To provide safety	Functions celebration etc will be facilitated	900	900	Facilitates social functions	Community meetings for taking care of local issues	KWHEP
Club bhawans	Repairing of Bhawan	Kamroo	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	270	270	Better social interactions	None	KWHEP
Mahila bhawans	Purchase of kitchen items and furniture	Roghi	Community benefits during functions	Facilitated community feasts	All population	All population	Facilitation of social functions	Low hiring charges for benefitted households	KWHEP

Table-4.10 : Contd.....

Activity	Work	Name of Panc hayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact Social	Economic	Executing agency
Mahila Bhawan	c/o retaining wall	Yangpa	Protection of building	Building now safe	900	900	Feeling of safety	Safety of MM Bhawan	KWHEP
Mahila bhawans	c/o M.M. Bhawan with toilet & kitchen	Mebar	To provide facility of meeting place to villagers	Functions celebration etc. will be facilitated	1200	1200	Cleanliness, low spread of infections,	Training and demonstration facility	KWHEP
Sony Star Club	To purchase jewelry & other items	Urni	Improvement in cultural activities	Standard of cultural activities increased			Social function and entertainment	None	KWHEP
Kinnaur association	For cultural activity		Improvement in cultural activities	Standard of cultural activities increased			Preservation of ethnic culture	None	KWHEP
Bodh Monastery	c/o toilet	Yangpa	Improvement in cultural activities	Standard of cultural activities increased	45	45	Religious satisfaction, cleanliness,	None	KWHEP
Mahila Bhawan	c/o toilet	Chansu	Improvement in cultural activities	Standard of cultural activities increased	850	400	Cleanliness, low spread of infections	None	KWHEP
Dhobighat	c/o cemented dhobighat	Kilba	Facility for women	Drudgery of women reduced	1200	1200	Ease of washing, less drudgery	Time and energy saving can be utilized for other productive purposes	KWHEP
C/O Side drain	Cemented 400mt.	Kamroo	Sanitation	Cleanliness and protection of road	300	100	Clean road	Longer road life and drainage of rain water	KWHEP
Sanitation	Water supply to toilet at bus stand	Sangla	Improvement in sanitation	Better sanitary standards	3000	3000	Cleanliness, efficient sanitary system	Health safety	KWHEP
Sanitation	c/o sulabh shochalya	Reckong -peo	Improvement in sanitation	Better sanitary standards	15000	15000	Cleanliness, efficient sanitary system	Health safety	KWHEP

Table- 4.11: Impact of activities under Local Area Development Activities in Manglad HEP

Activity	Work	Name of Panchyat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact Social	Economic	Executing agency
School	Playground	Thada	Safety & prevention of encroachment	Safety & protection	50 student		Interest in sports	Better avenues for students	Concerned Panchayat
Temple	Fencing	Majhewali	To protect the temple	Aesthetics improved and protection provided	600	600	Religious feelings satisfied	Safety from animals and thieves	Concerned Panchayat
Temple	C/O New temple	Funga/ Unchi	Religious satisfaction of villagers	Happiness level increased			Religious feelings satisfied	None	Concerned Panchayat
Connectivity	Metalling of 100mt. path		Easy movement of persons and goods and protection	Efficient carriage/ transportation	200	200	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	Concerned Panchayat
Community bhawans	c/o Room of 11*12 sq.ft.	Shaha	To provide facility of meeting place to villagers	Functions celebration etc will be facilitated	750	750	Facilitates social functions	Community meetings for taking care of local issues	Concerned Panchayat
Other development Work	Cracks in building	Shaha	To repair cracks	Houses protected	115 H.H.	115 H.H.	Danger of further damage to building eliminated	Long life of building Repair charges saved	Concerned Panchayat

Table-4.12 : Impact of activities under Local Area Development Activities in ADHEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population benefited	Activity impact		Executing agency
						Social	Economic	
Drinking water	Pipe laying	Jagatsukh	To augment the existing water scheme	Water supply improved	200	Assured supply	Save time of 2-3 hrs./day /H.H.	Concerned Panchayat
Exp. On Irrigation	Repair& C/O (Metalting of) Kulh	Shuru, Prini, Manali	Reduce the water wastage	Higher water availability for crops	1600	Higher standard of living	Save 8 days of labour	Concerned Panchayat
School building	C/O 4 Rooms	Jagatsukh	Better teaching and reduce crowding in rooms	Quality education	300 student	Community satisfaction	Better education, good health	Concerned Panchayat
School building	C/O Toilets	Soyal	Improved sanitation	Use of open space reduced	200 Student	Improved sanitation	None	Concerned Panchayat
School building	Playground	Prini	Safety & prevention of encroachment	Safety & protection	225 students	Interest in sports	Better avenues for students	Concerned Panchayat
School building	Boundary Wall	Manali	Safety & prevention of encroachment	Safety & protection	150 Students	Safety of students	None	Concerned Panchayat

Table-4.12 Contd....

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population benefited	Activity impact		Executing agency
						Social	Economic	
Connectivity	Metaling of Path, 400mt.	Vashisht	Easy movement of persons and goods	Efficient carriage/ transportation	200	Easy movement, cleanliness, low fear of accidents	Time saving, lower cost of carriage	Concerned Panchayat
Connectivity	Tiring/ Repairing, 1200mt.	Prini	Easy movement of persons and goods	Efficient carriage/ transportation	700	Improved accessibility	Economical carriage of goods and transportation, boost for tourism	Concerned Panchayat
Connectivity	Tiring/ Repairing, 550mt.	Vashisht	Easy movement of persons and goods	Efficient carriage/ transportation	500	Improved accessibility	Economical carriage of goods and transportation, boost for tourism	Concerned Panchayat
Gosadan	Cattle shed	Katrain	To protect stray animals	Stray animals and crop damage protected	300 cows	Satisfaction of religious sentiments	Aversion of crop damage, improved road safety	Concerned Panchayat
Karate Federation H.P.	Financial assistance		To boost karate sport in the area	More people now intereste in the sport		Sport improvement	None	Concerned Panchayat
Student Welfare	Financial assistance		To facilitate students' cultural	More students		Social activity	None	Concerned Panchayat
Association HPU Shimla			activities	interested in cultural activities				

Table-4.13 : Impact of activities under Local Area Development Activities in Fozal HEP

Activity	Work	Name of Panchayat	Purpose	Benefit perceived	Total population	Population benefited	Activity impact		Executing agency
							Social	Economic	
School	Retaining wall	Duwara	Prevent erosion of ground	Safety of ground	40 students	40	Safety of students	None	Concerned Panchayat
Path	C/O Path	Duwara	Easy movement of persons and goods	Efficient carriage /transportation	170	170	Improved accessibility	Economical carriage of goods and transportation	Concerned Panchayat
Road	C/O road	Duwara	Easy movement of persons and goods	Efficient carriage /transportation	900	900	Improved accessibility	Economical carriage of goods and transportation, boost for tourism	Concerned Panchayat

Chapter 5

Involvement of Local Population in LADC and Meetings' Background

The Hydro Power Policy, 2006, provides that 1.5% of the final cost of the projects above 5 MW and 1% of the final cost of projects up to 5 MW shall be contributed to a Local Area Development Fund (LADF). This provision is applicable for new as well as ongoing projects at the time of notification of the policy.

Thereafter Government of HP brought in additional provisions in line with the provisions of Government of India's new Hydro Power Policy, 2008. This includes following:

- ★ Additional 1% (one percent) free power after commissioning of hydro power projects shall be earmarked for the LADF to provide a regular stream of revenue for income generation and welfare schemes, creation of additional infrastructure and common facilities etc. on a sustained and continued basis over the life of the project.
- ★ The government of Himachal Pradesh may also provide a matching 1% from its share of 12% free power through plan/budgetary provisions for schemes where the normal plan/budgetary provisions and the 1% free power provided by the Developer(s) to the LADF is not adequate to meet the requirement for infrastructure or schemes. This entire contribution towards Local Area Development Activities is to be maintained

in the shape of LADF which will be administered by a committee called Local Area Development Committee (LADC) comprising of various stakeholders including Government departments, project developers and public representatives/nominated members from Project Affected Areas.

5.1 Aims and objectives

While developing hydro power projects, there is an impact on the environment, existing infrastructure, individual and community resources, etc. This needs to be addressed by making appropriate and adequate provisions in the project design and cost. Provision for mitigating these adverse consequences is provided for in schemes like Environment Management Plan (EMP), Catchment Area Treatment Plan (CAT Plan), restoration of loss of environment through Compensatory Afforestation and Net Present Value payment, Rehabilitation and Resettlement Plans and compensation for damage to crops due to pollution, etc. In addition, a special provision of Local Area Development Fund (LADF) has been made under the State Hydro Power policy to carry out local development activities so as to ensure visible additional benefit to local

communities in the project area as part of the cost of a project. Further allocation of this LADF contribution to schemes and purposes needs to be based on pre-determined, objective parameters. The people of the affected area should be aware of the allocations likely to flow to them so that on the one hand gainful infrastructure and local development activities can be planned well in advance and on the other hand local communities develop an interest in expeditious completion of projects.

5.2 Contribution towards LADF

The LADF shall comprise of contribution by project based on project cost and free power after commissioning as envisaged in the state and national hydro power policies. The hydro project developers in the State shall contribute towards LADF in two stages.

5.2.1 Prior to Commissioning of the Project: The Project developer shall contribute a minimal of 1.50 % of final cost of the project for projects of more than 5 MW capacity and a minimum of 1 % for projects of capacity up to 5 MW. While the project authorities have, to contribute-minimum of 1.5% or 1% (as the case may be) of project cost to LADF, they may contribute more if they so desire. Initially the LADF, will be worked out on the basis of the project cost as per DPR for depositing with the concerned DC. After completion of the Project, the LADF will be worked out on the final completed cost. The balance amount of LADF worked out on final cost shall be deposited by the Developer within one year of Commercial Operation Date (COD) of the Project.

5.2.2 After Commissioning of the Project: Project developers of all capacities

shall contribute 1% free power for LADF over and above the rates of royalty, agreed to be paid to the State Government in the 'Implementation Agreement/ Supplementary Implementation Agreement,' as the case may be. This additional free power, over and above the royalty component provided to the host State will be a pass through in tariff. The revenue collected, by the Nodal Agency (Directorate of Energy) from sale of such 1% free power contribution from the project Developer will be transferred to the Local Area Development Fund.

5.3 Realization of LADF Contribution

5.3.1 Prior to Commissioning of the Project: Contribution to be made prior to commissioning of the project shall be released by project developers in the following manner:

- ★ 10% amount within three months of signing of Implementation Agreement
- ★ 15% amount within 18 months of signing of the Implementation Agreement.
- ★ Balance 75% amount in three equal annual instalments during construction period of the project.

5.3.2 After commissioning of the Project: The 1% free power contribution to LADF shall be sold by state government along with its share, of free power. The amount equivalent to average net realization per unit multiplied by the number of units for which 1% is to be paid will be placed at the disposal, of LADC annually. The average price per unit will be worked out on the basis of net proceeds of total free power sale by GoHP divided by total number of units involved, after allowing 1 paisa per unit to be retained by the State Government' as the expenses of Directorate of Energy.

5.4 Institutional arrangements for administration of LADF

There shall be a State Level Committee headed by Additional Chief Secretary (MPP & Power) to monitor the operation of the LADF arrangements, adherence to guidelines and time lines for deposit in the fund at various stages. The State Level Committee is empowered to clarify any un-addressed issues and remove any difficulties to facilitate smooth functioning in implementation of these guidelines. The Directorate of Energy will be the nodal agency at State level and will keep a record of the LADF activities, amounts to be deposited by each project developer and manage the allocation of revenue generation, from, 1% additional free power to the concerned LADF to be constituted.

The LADF will be administered by a committee called the Local Area Development Committee (LADC) which will be constituted for each Project separately, immediately after signing of the Implementation Agreement. All the LADCs constituted within the District shall function under the overall superintendence and control of the Deputy Commissioner.

5.5 Functions and responsibilities of the LADC

Each LADC shall be responsible for:

- ★ Realization of contributions to LADF from project promoters as per norms fixed by the State Government.
- ★ Overall management, control and administration of LADF including documentation and maintenance of accounts.
- ★ Scrutiny of the proposed schemes to ensure adherence to these guidelines.
- ★ Approval of shelves of schemes and

finalization of Annual Action Plan (AAP) in respect of each REP and allotment of funds to executing agencies. Each scheme included in the shelf or AAP shall be only on the basis of recommendation of Gram Panchayat. The committee will not thrust any scheme in to the shelf at its level and ensure no ineligible scheme is sanctioned by it.

- ★ Monitoring and supervision of implementation of schemes approved under LADF.

5.6 Preparation of shelf of schemes

The Member Secretary, LADC will after approval by the Chairman; inform the concerned Panchayat about the tentative amount that will be available for each project affected Panchayat. A comprehensive shelf of projects for the entire amount would then be prepared by the concerned Panchayat /block /district and approved by the Gram Sabha LADC as the case may be, along with a yearly plan. The annual plan may be discussed again by the Gram Sabha LADC every year and altered if required. The shelf so approved would then be sent to the Member Secretary of concerned LADC.

Eligibility of schemes for preparation of shelf of schemes shall be based on the following parameters:

- i) Facilities meant for a Panchayat only will be considered as Panchayat level schemes like cement concrete internal paths, ropeways, street light, sanitation, rain water harvesting, Ropeways, buildings etc.
- ii) Facilities serving more than one Panchayat will be considered as Block Level schemes e.g. school, cement concrete link road, primary health centre, etc.

- iii) Facilities for district level infrastructure like Bus Stand, Hospital, College, Training Institutes, Fire Tenders, Ambulances, etc. or any- other district level needs, will be considered as District level schemes.

The following schemes/activities will not be covered out of LADF allocations:

- i) Kutcha Paths/Roads
- ii) Purchase of Light Vehicles associated with monitoring of the LADF activities.
- iii) Renovation/Repairs/Maintenance of individual houses (if compensation has been received or is being made available).

5.7 Implementing agency

The implementing agency for sanctioned schemes can either be a Gram Panchayat or a Govt. Department or the Project Developer. The decision on choice of agency for Panchayat level schemes shall lie with the Gram Panchayat. For schemes beyond Panchayat level, the Chairman of the LADC shall decide the implementing agency.

5.8 Execution and monitoring

The funds for sanctioned schemes would be released by the LADC to the implementing agency in installments "based on the progress of schemes/actual utilization. The Executing Agency shall furnish accounts along with Utilization Certificate and Completion Certificate to the LADC. The progress of financial allocation and implementation of schemes shall be monitored regularly by LADC. Appropriate reporting arrangements will be made by the LADC to submit on line information on a web based programme to be specified by the State Level Committee.

5.9 Adjustment of expenses under LADF incurred by developers prior to hydro power policy- 2006.

The expenditure incurred by project developer on Local Area, Developmental Activities in respect of the Hydroelectric Projects allotted prior to Hydro Power Policy 2006, shall be admissible for adjustment against the contribution related to the period prior to commissioning of a project.

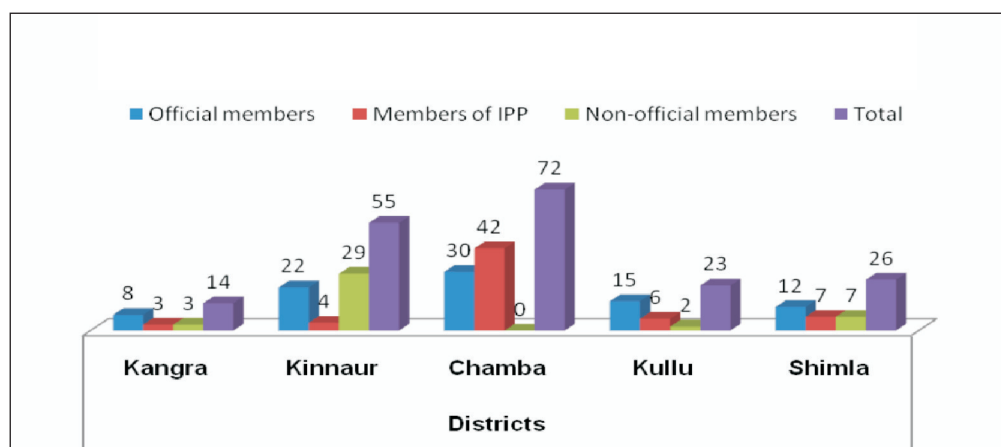
5.10 Representation of local population in LADC

According to new guidelines each project should have separate LADC catering specifically to that project. The constitution of LADC varies according to the size of the project. However, LADCs have not been constituted for each of the projects and the projects continue to be served by the LADC constituted at district level. Presently, there are three types of members in each of the LADC which are official members, non-official members and members of IPPs. The non-official members who are Chairman and Vice-Chairman of Zila Parishad, Chairman and Vice-Chairman of Panchayat Samitis, Pradhan(s) of all affected Gram panchayats can be considered to be representation of local population in LADC. No individual in own capacity or in capacity of being resident of PAA or being PAF can be its member. Thus, local population has indirect representation on the board of LADC. The number of these members in concerned districts has been presented in Table-5.1.

It is indicated from the table that there is no representation of local population in district Chamba. The largest representation in this concern has been in district Kinnaur with as high as 29 non-official members in its board.

Table-5.1: Representation of local people in LADCs

Type of members	Districts				
	Kangra	Kinnaur	Chamba	Kullu	Shimla
Official members	8	22	30	15	12
Members of IPP	3	4	42	6	7
Non-official members	3	29	0	2	7
Total	14	55	72	23	26

**Fig-5.1: Representation of local people in LADCs (No. of members)**

5.11 The scenario of projects under consideration

The LADC duly constituted for the projects, is responsible for realization of contributions to LADF from project promoters as per norms fixed by the State Government and most importantly to ensure the overall management, control and administration of LADF. It is also responsible for adherence of schemes to the guidelines in this respect. LADC approves shelves of schemes and finalizes the Annual Action Plan (AAP) in respect of each REP and allots funds to executing agencies. It has to ensure that each scheme included in the shelf or AAP is only on the basis of recommendation of concerned Gram Panchayat, Panchayat

Samitis or Zila Parishad. The committee will ensure that no in-eligible scheme is sanctioned nor it will thrust any scheme in to the shelf of AAP at its own level. The LADC duly constituted monitors and supervises the implementation of schemes approved under LADF.

5.12 Meetings of LADC

The meetings of LADC are a regular event for discussing the status and taking stock of progress of various activities taken up with LADF. The present section of the study highlights such activities under various projects. The objective of this presentation is to provide the snapshot of type of activities undertaken.

5.12.1 Karchham-Wangtu hydro-electric project at district Kinnaur, Meeting #1:

In the LADC meeting held on 26.12.2008 of Karchham-Wangtu Hydro Electric power project, under the chairmanship of Sh. Tejwant Singh Negi, local MLA and Chairman of LADA of district Kinnaur following activities were discussed. This meeting was attended by 55 member of LADC among which 22 were official members of the government, 29 of non-government members and remaining 5 were project officials.

Agenda items discussed:

The following items were discussed in the meeting, decision taken about these items have also been presented along with.

1) Supply of water to sheep reproduction

farm at Kaksthal: The matter should closed for discussion as the Farm In charge informed that the water supply has been made available by the KWHEP.

2) Regarding Path up to cremation

point: The chairman directed KWHEP not to shift old cremation ground at village Kanei/Baltrung and to repair the damaged path leading to it.

3) About dumping surrounding

cremation points: The chairman ruled that due to sentiments of people, it is not possible to shift cremation grounds at Urni and Meeru villages. Therefore, it was decided that old cremation ground should be maintained and developed properly.

4) Dumping at the site of sand and crusher and provision of sand and

crusher to the villagers: The representatives and members of village Urni and Meeru pointed out that due to dumping, the old mines have been damaged and it has become difficult for the villagers to collect sand etc for their domestic as well as public works. The project representative assured that the company will ensure availability on concessional rates. The village representatives further requested the project authorities to make available vehicles up to the bus stop of Chagaon and Urni from where affected villagers can lift the same easily. The proposal was accepted by project representative. The member LADC further demanded that instead of concessional rates the sand should be provided free to the affected villages. Concequently, Sh. Pankaj Gour representative KWHEP assured that company will clear the mines' sites from dumping material so that problems of the affected villagers is solved. Lastly the chairman of the meeting ordered that provision of sand on concessional rate should be enforced within three days by the company.

5) About deposit of funds of LADC:

It was pointed out that 1.5 percent of the project cost has not been deposited in Deputy Commissioner's office against LADC fund. However, the representative of the project assured that 5 Crores of rupees will be deposited within a week in LADC fund. The chairman stressed that the decisions taken in the meeting should be implemented immediately. It was assured that the decisions will be implemented regularly by the company.

- 6) Enquiry of environment management programme:** The house demanded the details of EMP funds from the project which was agreed to be submitted in next meeting.
- 7) Cracks in houses of affected areas:** The Pradhan of the Chagaon Panchayat pointed out that unscientific blasting has caused huge damages to the houses in affected areas. SDM Nichar checked the houses but still no compensation has been provided to the affected households. It was asserted that representatives of company were misleading the people in this concern. The representatives of Urni, Meeru and Yulla panchayats demanded that these payments be made without any further delay. In this concern the Deputy Commissioner, Kinnaur assured that the committee has been formed for estimating the losses in which the Pradhans of the Panchayats are also members. The house unanimously decided that the members of LADC will also be the members of assessment committee which will produce videographic report of the damaged houses.
- 8) Disobeying the transportation rules by the company:** The chairman, vice-chairman, police officers, and other members of the house, pointed out that the drivers of the company do not obey traffic rules and park vehicles on road sides creating traffic hazards. It was pointed out that a few vehicles of the company ply without number plates. In this concern, the house decided that company should train their drivers properly so that they obey the traffic rules.
- 9) Construction of retaining wall to right side of Tapri and security of dumping site:** Pradhan of Panchayat Chagaon pointed out that KWHEP is not dumping its material in proper manner consequently the river bed is becoming narrow which may result in overflow of water during rainy season and may cause floods. The Regional Manager, HRTC also pointed out that the company is dumping on HRTC land at Tapri. To solve this problem a committee has been formed in which the Pradhan of the Panchayat will also be the member. In reply sh. Pankaj Goud the representative of company assured that the dumping near Tapri will be utilized for preparation of aggregate and thereafter protection wall will be constructed by January 10, 2009. The Pradhan, Chagaon Panchayat again pointed out that the company is making only assurances since long without any concrete work. In this response sh. Pankaj Goud assured that unsafe points will be shortly taken care of. In this concern the house directed that protection wall should be prepared and in future the advice of the Committee should be incorporated properly.
- 10) Karcham Wangtu road :** The Pradhan of Panchayat Kamroo informed that the condition of the road of Karcham Wangtu is highly damaged. In this concern the chairman of the house directed the company to take necessary action.
- 11) Regarding construction of cremation ground :** The Pradhan of Panchayat Panvi pointed out that the road leading to cremation ground has been blocked by

dumping material. The chairman of the house revealed that the process of withdrawing land from company is in progress but local people had made illegal agreement with the company. Therefore, it was decided that after enquiring the facts the matter will be discussed in next meeting.

12)Information, education and commun-

ication: The house unanimously agreed that 5 percent of the LADA fund will be utilized for information availability, broadcasting and communication etc. The instruments related on above mentioned items may be distributed to the people.

13)Land erosion: It was pointed out that there is tendency of land sliding on both banks of the river which is very dangerous. Further the member stated that instead of constructing community bhawans the company should focus on schools and hospitals on priority. The chairman directed the company to take a suitable action on the problem.

14) Inclusive of village in affected areas:

The pradhan of Panchayat Chansu point out that village Chansu has neither been included in CAT plan nor in affected area of the project. The house authorized Deputy Commissioner to merge this village into project affected area as per norms.

15)About measuring of norms for acceptance of schemes : Sh. Goutam Singh member of LADC from chabang directed the house that for proper

distribution of funds of LADC there should be definite norms under which it must have measured that a particular area may classified into highly affected , less affective and directly or indirectly affected areas. In this concern the Deputy Commissioners clarified that these norms have already have been defined and the present distribution of funds are as per the norms.

16)About editing of the LADC works assigned previously :

The pradhan of Panchayat Meeru and other members demanded that more works be taken up in this Panchayat as well as higher allocation of funds be made on priority as this Panchayat is highly affected. The pradhan of Panchayat Kamroo urged to the chairman that the funds should be provided as per the decision taken in previous meeting. On this demand the other members of the house disagreed and suggested that the distribution of funds should be followed as per the degree of effect on the area and norms should be followed as per previous sanction of the schemes. It was the opinion of the house that sanctioned schemes should be appropriately edited.

5.12.2 Karcham- Wangtu hydro-electric project at district Kinnaur, Meeting # 2:

The LADC meeting held on 27.11.2009 of Karcham-Wangtu Hydro Electric power project (1000MW) under the chairmanship of Sh. Tejwant Singh Negi, local MLA and Chairman of LADC of district Kinnaur. The agenda items, discussion and decisions taken in the meeting have been presented below. This meeting has been attended by 54 member of LADC among

which 21 were official members of the government, 29 of non-government members and remaining 4 were from project officials.

Agenda items discussed:

The following items were discussed in the meeting, decision taken about these items have also been presented along with.

- 1) About deposit of funds of LADC :** In the meeting, the representatives of the KWHEP conveyed that Rs. 9 Crores have been spent on developmental works but had not been included in LADC works. As per information received, the meeting held under the chairmanship of the Chief Secretary instructed that amount of Rs. 9 Crores spent by the company be considered as a part of LADC fund. Member secretary LADC informed the house that copy of the details of the amount spent by company on other development works has been received in the office and will be discussed in the presence of all the concerned SDMs and finally be sent to the office of the Deputy Commissioner Kinnaur.
- 2) Village level Micro Plan:** In this scheme the KWHEP has deposited Rs. 2 Crores in the office of the Deputy Commissioner Kinnaur. The village micro plan has been prepared through a private agency and submitted in the office of Deputy Commissioner under which the provision of benefit for affected families has been defined.
- 3) Construction of offices:** The chairman ordered SDO, PWD that after registering

the land in revenue record the work of community Bhawan be started immediately.

- 4) Information regarding employment :** The representative of the KWHEP announced that it has given employment to 33 people of the affected panchayats and the total employment has gone to 824 persons of affected areas. The list of employed person in the company was also presented in the house.
- 5) About selection of the post of JE in LADC:** The house approved the selections of the JEs in LADC and demanded that the chairman may kindly approve these selections on contract basis as per the rule of the government. It has also been decided in the house that LADC works should be supervised through the concerned JE of the block for which honorarium @ of Rs. 1550 (per month) may be provided.
- 6) The construction of HPPWD rest house at Karcham-Wangtu :** The pradhan of Kilba Panchayat informed that land for construction of rest house has already been made available and now it is requested that the chairman may order SDO, PWD that work of the rest house may be started as early as possible.
- 7) Construction of toilet at Karcham Wangtu:** The representative of the KWHEP informed the house that temporary toilet has been constructed at Karcham and after provision of land at Wangtu the work will be started immediately.

- 8) About provision of drinking water at Recong Peo and Tapri chowk:** Member secretary of LADC informed the house that provision of land for drinking water has been completed at Recong Peo. The chairman stressed that provision of drinking water is the necessity at Tranda Mandir. In reply the representative of KWHEP assured that they were trying to identify the water source after which installation work will be completed at the earliest. It has been decided in the house that after installation of taps by KWHEP, the maintenance will be done by the IPH department. The chairman ordered SDM Kalpa and Nichar and the SDO IPH to implement the drinking water schemes at mentioned points.
- 9) About construction of rain shelter and washing point at Ramni:** The selection of land should be completed by 4.12.2009, positively and the SDM Nichar will hand over the report to KWHEP.
- 10) About Supply of drinking water to the institute of ITI and student hostel :** Sh. B. Sethi the adviser of RWHEP informed that pipes have been laid down up to 2 Km. and the rest of the work is in progress and within two months the remaining works of the pipe line for water supply will also be completed.
- 11) Regarding another videography of damaged houses:** The SDM Nichar informed the house that the videogrphical report has been prepared for 1200 houses on due dates and the sanctioned amount of compensation has been received from the office of the Deputy Commissioner and the payment to affected families will be made as early as possible.
- 12) About air pollution:** The chairman informed the house that under the chairmanship of SDM of Nichar and Kalpa there will be a technical committee to access the losses to orchards caused due to air pollution and the report will be submitted to Deputy Commissioner. There after the assessment report will follow to be implemented through the Hydro project officials.
- 13) About construction of play ground at Bhawanagar:** Sh B. Sethi, Adviser, KWHEP informed the house that for construction of playground, the matter has already been referred to the DFO Kinnaur at Recong Peo . It was decided that the chairman may take up matter with forest department.
- 14) Appointment of computer operator/ clerk for LADC works:** The house decided that appointments of operator/clerk be made immediately on contract basis by following norms of the government.
- Other matters:**
- 1) About street light to Special Area Development Authority (SADA) area in Recong Peo:** Member, LADC informed the house that though there is a provision of light in LADC but in place of ordinary bulbs there is a need of CFL bulbs so that cost of electricity may be reduced. On this ground the chairman said that it will be better if said contribution is made by KWHEP at its own will. On this proposal the representatives of the KWHEP said that though the company is providing all types of such helps in the area but in this case the authorities will decide the matter

and the decision will be submitted in the next meeting.

- 2) About shed for stray animals at Recong Peo:** It was discussed that there is a need for construction of animals sheds at different places in district Kinnaur as there is large number of stray animals. In this concern the representatives of KWHEP informed that they have already erected a shed near Sherpa colony. The Deputy Director, Animal Husbandry also submitted that there is a provision of construction of animal shed during next year through the department of animal health and reproduction system. After a long discussion in the house it was finalized that the animal sheds should be erected in different areas of district Kinnaur, near to pastures so that in future some NGO may take the responsibility of these stray animals.

5.12.3 Karchham-Wangtu hydro-electric project at district Kinnaur, Meeting # 3 :

The LADC meeting was held on 7.10.2010 of Karcham-Wangtu Hydro Electric power project (1000MW) under the chairmanship of Sh. Tejwant Singh Negi, local MLA and Chairman of LADC of district Kinnaur. The discussion and results of the meeting have been presented below. This meeting has been attended by 64 member of LADC among which 30 were official members of the government, 30 of non-government members and remaining 4 were from project officials.

Agenda items discussed:

The following items were discussed in the meeting, decision taken about these items have also been presented along with.

1) About construction of office and rest house in Karcham : The chairman of the house directed SDO, PWD that the construction work of rest house at Karcham should start immediately and make sure that the work is completed in a short period so that the progress report may be discussed in next meeting of LADC.

2) Regarding employment : The chairman directed the representatives of KWHEP that 70 percent employment opportunities should be provided to the Himachal's persons. In this concern the representatives of the company assured that the due care has already been taken.

3) About appointment of Junior Engineer and Computer Operator/ Clerk for LADC work : In this concern the Member Secretary of LADC informed the house that these appointments have been made therefore item may be closed.

4) About construction of toilets at Karcham and Wangtu: The representative of KWHEP informed the house that the work of toilet is in progress at Karcham whereas; it has been completed in Wangtu. The department of IPH confirmed that water connection has also been provided to the toilet of Wangtu and opened for use.

5) About installation of drinking water facilities at Recong Peo chowk and Tapri : In this concern it was informed that drinking water facilities have been installed hence, the matter may be closed.

6) Regarding editing of ITI institute and hostel at Urni:

In the discussion of the matter the member LADC from Urni informed that the KWHEP is not providing employment to the local contractors and outsiders are being promoted. In reply the members from KWHEP asserted that due to priority of work, all skilled contractors are considered. Member LADC of Urni informed that the KWHEP is constructing play ground with dumping material but it has been delayed for long time and the chairman instructed KWHEP that the construction should be finalised in proper order. The representatives of the KWHEP informed about the different trades to be available in ITI constructed by it. In this concern many members demanded trades of motor mechanic, electrical, computer, mechanical, welding, fitter, tailoring and embroidery which are very useful to the local people. The adviser KWHEP Sh. B. Sethi informed the house that the courses will be started in the institute from next year.

7) About payment of damage of houses and crop compensation:

Regarding this matter the pradhan of Chabang informed that assessment of damaged houses was wrong and further pointed out that the blasting has caused a huge damage and the rocks slides have become regular. In this concern the chairman said that resurvey be conducted if there is any discrepancy. Resurvey of damaged houses at Chagaon and Punang was ordered. Regarding distribution of sand etc to the affected villagers, Sh.B. Sethi informed that this work is in progress and material will be provided in sufficient quantity. Sh. Ashok, a

member LADC of Chanbag pointed out that the villagers have lost their customary rights and company members assured that genuine compensation will be provided to the affected groups. The members of the house demanded that compensation of crop damage and Sh. Pankaj Goud the members of the KWHEP demanded that data of crop production for three years back should made available for the purpose.

8) About T.A. and D.A. to the members :
No discussion could be made on this matter.

9) About establishment of solid waste management project at Recong Peo and Kafnoo:

Member Secretary informed that still selection of the site has not been finalised in kafnoo hence; the matter will be discussed in next meeting.

10) About reservation of treatment for patients of affected areas:

The members of KWHEP informed about the facilities available to the patients of PAA. The P.A.F. cards will be provided to project affected areas. It was informed that on an average 250-300 patients attended in OPD each month.

11) About cable way from Recong Peo to Kinner Kelash : The matter closed after discussion.

12) About sitting hall and drinking water facilities at Tranda tample and toilet at Choura :

It was informed that work of beautification has been started under which everything will be covered.

13) About deposit of funds to LADC:

Chairman directed KWHEP that funds be deposited in the Deputy Commissioner's office. But KWHEP informed that the matter is before the H.P. government and due amount of LADC will be paid with interest as per the guidelines of the state government.

5.12.4 Budhil hydro- electric project at district Chamba, Meeting # 1:

The LADC meeting held on dated 23.06.2009 under the chairmanship of Deputy Commissioner of district Chamba and the matters of previous meeting held on 09.04.2008 were discussed whereas, the new matters considered for discussion which have been presented below. In this meeting 28 members were present, of which 8 were Panchayat representatives, 3 project officials and the remaining 17 were from different departments of the state government.

Agenda items discussed:

The following items were discussed in the meeting, decision taken about these items have also been presented along with:

1) Restoration of facilities adversely affected due to implementation of projects :

It was instructed that reports from different departments regarding the losses caused by the construction of the project should be submitted as early as possible. It was also informed that video graphical report has been prepared under which household wise damages have been marked. Objection was raised by the president of Panchayat Samitee Bharmour that in order to nullify the effect of dust pollution, water should be sprinkled on Kharamukh to Thalla road and the SDO,

PWD was ordered to monitor the action taken by the project authorities.

2) Implementation of rehabilitation and relief plan, employment related monitoring:

The additional Sub-Divisional Magistrate informed that there is no house in the project affected area which was destroyed due to construction of the project hence, rehabilitation is not been required.

3) Employment to Local People:

The Director of the project informed that 70 percent employment has been provided to Himachal candidates. This claim was contested by local representatives. The chairman ordered to submit a detailed report to the office of the additional Magistrate in this concern. The Project Director cleared the position by saying that some of the local people do not prefer to join the duty assigned by the project and at the same time there is a need for skilled persons not available locally. Sometimes, labour from other states is employed by the contractors.

4) Implementation of Catchment's Area Treatment Plan (CAT), Compensatory Afforestation, Environmental Management Plan, Environment Impact Assessment (EIA) Plan, Quality Control Mechanism of the Project:

In this meeting the Director of the project intimated that the funds for CAT plan have been given to the Department of Forest. The DFO of Bharmour informed that the received funds have not been allocated under different activities because of the reason that matter is in the High court.

5) Local Development activities related to development of agriculture, horticulture, animal husbandry, irrigation and public health (I&PH), forest, fisheries, rural development, education, PWD, power and other social religious and cultural activities:
Creation of various facilities like college, inn at Kharamukh and dispensary at project premises were discussed and orders passed for speedy execution of such activities.

6) Payment on account of LADC funds :
It was decided that funds to the LADC should be deposited regularly and the Chairman, LADC directed the project authorities to deposit the due amount within 15 days. The Chairman further suggested that local people need not disturb the work of the project as the same has already been approved by the State Government but project authorities should accommodate the genuine problems of the local people. In this meeting it was also decided that compensation for damaged houses to be provided to the villagers shortly.

5.12.5 Budhil hydro electric project at district Chamba, Meeting # 2

The LADC meeting was held on 11.11.2009 under the chairmanship of Deputy Commissioner of district Chamba. The discussion and results of the meeting have been presented below. In this meeting 30 members were present, of which 8 were Panchayat representatives, 3 were project official and the remaining 19 were from different departments of the state government.

Agenda items discussed:

The following items were discussed in the meeting, decision taken about these items have also been presented along with.

1) Damages to houses and properties of the villagers : There were about 15-20 houses left out for survey for damages hence, an order was passed that Tehsildar may submit report of damages of remaining houses within a week.

2) Sanctioning of funds for Kharamukh to Thalla road : It was observed that the funds have been deposited with PWD but the work is very slow. The SDO, PWD was ordered to complete the remaining work as per schedule.

3) CAT Plan : The DFO, forest intimated that the amount of CAT plan has been deposited by the project officials in the forest office and the work will start very shortly.

4) Construction of road to village Khanni : In this meeting A.G.M. informed that after completion of powerhouse, the construction of road will start immediately.

5) Construction of college at Bharmour: Representative of Budhil project intimated matter was under consideration of higher authorities and may be approved shortly. The chairman LADC requested that matter should be considered within one month.

6) Availability of medicines at Bharmour hospital : In this matter it was found that there is regular supply of medicines.

7) Construction of inn at Kharamukh : It was discussed that the present design of inn required a change and therefore, new map may be prepared with the help of SDO, PWD.

8) Water supply to village Lahal: Mr. Inder Singh, member from non-government officials, demanded that an estimate of the water supply scheme may be prepared through IPH department so that work may start. The Chairman directed that it should be prepared within a month. Further, the Chairman intimated that for flow irrigation schemes from Pranghals to Phanar and Lahal, and Brahmani nala to Lahal, amounts of Rs. 1.54 Crores and Rs. 46.85 Lakhs respectively have been sanctioned. The chairman ordered to SDO, PWD that work should start immediately.

9) About LADC funds: The ADM, Bharmour intimated that an amount of Rs. 1.100000 and Rs. 70000 have been deposited by project officials for directly affected area and for indirectly affected area of Khani Panchayat respectively. The deposited amount will be spent for local development and irrigation. The Chairman of the meeting directed that sanctioned amount may be spent immediately as per directions of the Committee.

10)Purchase of loader for clearance of road from Chamba to Bharmour: As per the decision taken in previous meeting, the LADC purchased a loader and has been

handed over to HPPWD. In this meeting it was demanded that due to this old loader became idle due unavailability of driver which was causing delay in work. The chairman decided that project authority will train a person for driving the loader at its own expenses for which the project members agreed.

11)Sanitation provision for Bharmour:

In previous meeting it was decided that contract may be given to Sulabh international Chandigarh for cleanliness of the town. In this concern 15 dumpers were made available but required platforms for placing these therefore, it was decided that said expenditure may be provided from LADC fund.

12)Purchase of Twin Lift Placer: As per previous meeting the Twin lift Placer was purchased and handed over to municipal committee, Bharmour. Therefore, the matter be deleted for the from the agenda.

13)Purchase of a Jeep for HRTC: It was decided that a jeep be purchased from LADC fund, for transport of villagers in those areas where bus service was not available.

14)Security purposes: Unanimously it was decided that CCTV cameras be purchased from LADC fund for maintaining security at the time of Manimahesh yatra. In the meeting BMO, Bharmour pointed out that there should be a provision of vehicle from the project for Pulse Polio Abhiyan but this

proposal was not accepted by the project officials.

5.12.6 Om (Binwa- Parai) hydroelectric power project at district Kangra: The first LADC meeting was held on 28.06.2011 under the chairmanship of Mr. Ashish Singh, Sub-Divisional Magistrate, Palampur of district Kangra. In this meeting 14 members were present in all, of which 3 were Panchayat representatives, 3 project officials and remaining 8 were from different departments of the state government. During the meeting the Chairman introduced the members about the decision of state government that 1 percent of the total cost of the project, with a capacity of less than 5 megawatt, should be spent in local area developmental activities. The Chairman directed that after approval of Gram Sabha, the local works should be taken up through local Panchayats. In this concern the Mr. Dinesh Kumar, the representative of Om hydro-Electric project, informed the house that the project has already spent 9.66 Lakhs of rupees for various developmental activities in the local area and process of inclusion of this amount into LADC is in progress. Further, it has also been intimated that an amount of Rs. 15 Lakhs will also be deposited for which higher authorities of the project are taking decision shortly. The president of Orela Panchayat complained that the officials of the project are not taking care of damages like paths and water channels under different works and, therefore, the expenditure should not be included in LADC funds as these losses have to be met by project authorities. This proposal was accepted unanimously. The chairman distributed a copy of guidelines for LADC works to the Pradhans and further assured that now the developmental works

should be handled as per the guidelines of the state government.

5.12.7 Sorang hydroelectric project at district Kinnaur, Meeting # 1: The LADC meeting held on 27.12.2008 for different mini Hydro Electric power projects, including Sorang, under the chairmanship of Sh. Tejwant Singh Negi, Local MLA and Chairman of LADC, district Kinnaur. This meeting was attended by 44 members among whom 20 were non government members and 3 members from project and the remaining were government officials. The discussions on Sorang project took place as per item number 5 of the agenda. Under this item the Chairman enquired about the provision of employment for local labour in the project and timely supply of LADC funds. In reply, the representative of the project explained that provision of employment to directly and indirectly affected families have been made available. However, enquiry through the representatives of local people revealed that the percentage of employment to local people is marginally lower than mandatory. After hearing this discussion the chairman of the meeting directed to the project authorities that employment to local people should be given on priority basis. The Chairman further directed that both type of classes like directly and indirectly affected families should be included for providing employment opportunities in the project. The representative of the project intimated that the project has also made provision of pension to the project affected families. In the case of delays in depositing funds with LADC, the representative of the project informed that due to some internal problems and the remaining funds will be made available before January 2009. The Chairman informed that the developmental activities

among highly affected areas of the project have been taken up on priority basis and about 60 developmental activities in different panchayats have been approved in the meeting.

5.12.8 Sorang hydroelectric project at district Kinnaur, Meeting # 2:

The LADC meeting held on 30.11.2009 for different mini Hydro Electric Power Projects (up to 100 MW), under the chairmanship of Sh. Tejwant Singh Negi, Local MLA and Chairman of LADC of district Kinnaur. This meeting was attended by 51 member of LADC among which 20 were official members of the government, 20 of non-government members and remaining 11 were representatives from different projects. The discussion on Sorang project was placed in agenda at item number 4 in the LADC meeting. In this meeting Sh. Baldev Singh, member, LADC from Sorang pointed out that construction of road in the affected area of the project required widening as well as there was a need for construction of retaining wall. Though, some work has been completed but it has been observed that the work process is slow.

Member LADC from Rupri Panchayat intimated that work of road construction at Panchayat Rupri is very slow. The representative of the project objected by informing that the work was in progress and the contract for this road was given to M/S Satyam Company. In this concern, the Chairman and Vice-Chairman of the Committee pointed out that this matter was discussed in every meeting but in fact, this road was already under Pradhan Mantri Gram Sadak Yojna and concerned department is looking after the matter. The project authorities were directed to submit a report regarding the matter to Deputy Commissioner, Kinnaur before 10 Dec.2009.

In addition to above, Sh. Baldev Singh member LADC, Sorang, pointed out that Neugalseri-Chottakhamba road is very narrow at some places which needed to be widened so that heavy vehicles may ply. He also informed that damage caused by blasting has not been paid to the affected families. In reply, the official of the project intimated that though the widening work of the road has already been completed but if it requires the retaining walls, these will be constructed. In case of provision of compensation due to blasting the funds will be provided for which copy of the report is needed from SDM, Nichar so that payment may be made before 10th December 2009.

5.12.9 Sorang hydroelectric project at district Kinnaur, Meeting # 3:

The LADC meeting held on 06.10.2010 was held under the chairmanship of Sh. Tejwant Singh Negi, Local MLA and Chairman of LADC of district Kinnaur. This meeting was attended by 49 members of LADC among which 32 were official members of the government, 17 non-government members and remaining 9 were different project officials. The discussion on Sorang project was placed at item number 3 in agenda. In this meeting Sh. Baldev Singh member LADC Sorang informed that the land area below the village of Sorang is sliding and any mishap can be taken place in near future and hence the matter was placed before project officials to take corrective measures well in time. In this concern, the SDM, Nichar informed that the matter was sent to Tehsildar Nichar for enquiry and the reply is still awaited and after receiving the report, action will be immediately taken. The Chairman instructed the project officials to carefully handle the villagers' problems and at the same time stressed that poor condition of road can cause accidents and

hence necessary action may be taken for maintaining the road condition. The member of LADC from village Rupri pointed out the problem of drinking water in village Dubling and that the repair of local path was already approved in previous meeting but still no action was taken in the matter. The chairman ordered IPH department that the report on the subject should be made available within a week.

5.12.10 Sorang hydroelectric project at district Kinnaur, Meeting # 4: The LADC meeting held on 23.2.2011 under the chairmanship of Sh. Tejwant Singh Negi, Local MLA and Chairman of LADC of district Kinnaur. This meeting was attended by 49 member of LADC among which 27 were official members from different departments of the government, 12 non-government members and remaining 10 were different project officials. The discussions on Sorang project was placed at number 3 in agenda of the meeting. In this meeting the Chairman enquired from the Pradhans of different Panchayats about the progress of project officials in concern with decision taken in the previous meeting. The Pradhans intimated that they have no proper knowledge about the progress and Chairman may himself visit the work sites so that progress may be evaluated and placed in next meeting of LADC. The pradhan of Panchayat Rupri and Chottakhamba demanded that there was a need to repair the road and path in the villages as heavy rains had damaged these. However, the member project said that they had no knowledge of the problem hence, after assessment of damage the work could be started accordingly. The chairman directed SDO to prepare a report on the matter. In

addition to above, the Pradhans of affected Panchayats demanded that though, the HRT work had been completed but the villagers have not received their compensation of damaged houses caused by blasting. In this concern the SDM remarked that assessment report on damages has been prepared and the payments will be made after receiving the amount of damage from Project authorities.

5.12.11 Allain Duhangan hydroelectric project at district Kullu, Meeting # 1: The LADC meeting held on 4.05.2011 under the Chairmanship of Deputy Commissioner of district Kullu. In this meeting Sh. Govind Singh Thakur (MLA) was the chief guest of the house. The Chairman of the meeting thanked the members of the house and member secretary of LADC informed the house that previous meeting was held on dated 31.7.2009 under the chairmanship of D.C. Kullu. In this meeting the matters discussed in previous meeting were highlighted. The discussion and results of the meeting have been presented below:

- 1) The repair of sub health centre at Shuru:** The SDO, PWD, Kullu-II, informed the house that the work of sub health centre has been started. For this, Rs. 13.15 Lakhs were sanctioned out of which Rs. 5 Lakhs were received and balance of amount was still awaited. In this concern the chief guest requested that said work should be completed before October.
- 2) Construction of sub health centre at Jagatsukh :** Sh Jog Raj Rana the pradhan of Jagatsukh informed that the land

selected for this centre had number of share holders and as per the opinion of these shareholders they required compensation before the land is transferred to health department. The Chairman of the house directed that firstly the land should be transferred to health department so that required amount may be sanctioned.

3) Supply of drinking water at Aleu and Chachoga:

The representative of I&PH department informed that an amount of Rs. 28.40 Laks was sanctioned for this work which had been utilized and the work was complete in all respect.

4) CAT Plan: Member secretary informed the house that Rs. 1.50 Crores were spent by project management for plantation of trees through local Mahila Mandals and other helping groups. The DFO, Manali replied that for plantation, the Department of Forest was not taken into confidence. In this regard the Chairman of the house directed DFO, Kullu that inspection report should be sent within 15 days with the help of project management, members of LADC, Mahila Mandals and other helping groups.

5) Payment of balance of amount to LADC :

The Chairman directed to HDHPL that revised cost of the project may be submitted within 7 days so that final shape may be given to the selected development works in the area. In this regard Sh. Surya Kant kharey, the Director of the project informed that revised cost will be made available shortly. The chairman directed

that on the basis of new procedure the percentage share of funds may be allocated to different affected areas with the help of project Director, SDM Manali , members of LADC and pradhan of the concerned panchayats.

6) Construction of link road in village Chhalait :

The member secretary informed that Rs. 11.38 Lakhs were sanctioned for this road and 40 percent of the work was complete. The representative of the PWD informed that due to some reasons this work was not awarded. The Chairman of the house directed that the problems may be sorted out so that above work could be awarded.

7) Repair of canal at village Chhanala:

The chairman directed the BDO that above work should be completed at the earliest.

8) Problem of drinking water at Prini, Shuru and Shaminala:

The representative of I&PH department informed that the department had sanctioned Rs. 46.72 Lakhs for above problem and the work will be completed up to 30th June, 2011.

9) Crate wall from Bal Bhanu to Duhangan Nala :

The representative of I&PH informed that Rs. 12 Lakhs were sanctioned from MNREGA for this work.

10)Construction of kuhal at Bayans Shuru:

The representative from block development office informed the house that Rs. 8.55 Lakhs were sanctioned out of

which Rs. 4 Lakhs were received and the remaining Rs. 4.55 Lakhs are still awaited.

11)Shortage of drinking water at village

Bhanara: The representative of I&PH department informed the house that Rs. 25.89 Laks were sanctioned and work to be completed by 30.6. 2011.

12)Construction of link road up to village Jagatsukh:

The SDO, PWD, Kullu-II informed the house that Rs. 8.10 Lakhs were sanctioned for above work out of which Rs. 3 Lakhs were received and the work was in progress.

13)Problem of toilets at Prini: The pradhan of the Panchayat Prini informed the house that the toilets constructed at Prini were in worst condition. It was due to the fact that the staff recruited for maintenance work by the project authorities was retrenched. In this concern the Chairman directed the Director project, Sh. Surya Kant Kharey to take the necessary action against the problem and intimate the progress to the house in next meeting.

14)Street light at Prini and Jagatsukh :

The Project Director informed the house that street lights were installed at Prini and the expenditure incurred on these lights was born by the project. The member of the LADC (Non- Government member) pointed out that the street lights of Prini were not in working order. In this response the Director of the project made it clear that for proper working of these lights, the electricity meters

should be registered in the name of Panchayat so that all sorts of expenditure including electricity charges could be paid by the project. Hence, the Chairman directed the officials of HPSEB, pradhan gram Panchayat Prini and project director that joint inspection be made regarding the matter and after completion of all formalities the report may be submitted in the house.

15)Other matters: Member secretary informed the house that the total cost of the project was estimated to Rs. 715.793 Crores and at the percentage of 1.5 Rs. 10.74 crores were needed to be deposited for LADC works. For local development the project had spent rupees 11.29 Crores out of which only rupees 1.50 Crores were deposited with D.C. office Kullu. It was decided that prior of starting any development works in the affected areas it was essential to work out the percentage of allocation of funds to different panchayats.

16)The Chairman of the house, and the pradhan of Panchayat Jagatsukh demanded that for the construction of government middle school at Jagatsukh the funds may be made available from LADC and project itself. For this construction rupees 10.33 Lakhs has been estimated. In this concern rupees 3.00 Lakhs has been sanction unanimously in the house. Thereafter, the meeting closed and the chairman of the house thanks the members.

5.12.12 Fozal hydroelectric project at district Kullu, Meeting # 1:

The LADC meeting was held on 16.06.2011 under the chairmanship of Deputy Commissioner of district Kullu. This meeting was attended by 23

member of LADC among which 16 were official members, 2 non-government members and remaining 5 were project officials. The Tehsildar, Kullu informed the house that the total cost of project, Fozal was Rs. 63 Crores and the total fund of LADC amounted to Rs. 94.50 Lakhs. There were two panchayats viz Duara (95% affected area) and Hurang (5% affected area) falling under affected areas of the project. Still the project authorities have deposited only Rs. 10 Lakhs in the office of the Deputy Commissioner, Kullu against LADC fund. The chairman informed the members that this is the first meeting under LADC and Panchayat wise detailed discussion of developmental activities has been presented below :

Panchayat Hurang

- 1) The pradhan of Hurang Panchayat pointed out that vary small (5%) portion of the area was marked as affected area by the project authorities. Further, the pradhan of this Panchayat remarked that the loss in this Panchayat was higher as compared to that of Duara Panchayat where area under forest was more hence, the demarcation of affected area should be conducted again. In this concern the Chairman informed that the funds of LADC were to be utilized proportionately as well as under the rules and directions of the government hence, the project management was ordered to submit the new proposal after analyzing the facts.
- 2) The Pradhan of the Hurang Panchayat informed that the construction of the road from Zhakhari to dam site was illegal without clearly demarcating the area acquired for the road. The project management assured the house that the

land for road belonged to forest area and the demarcation was taken from the concerned department. DFO, Kullu made it clear that there were some forest trees in the line of the road for which papers were sent to Forest Corporation for seeking permission of falling of said trees. The Chairman directed that there should be a solid demarked boundary points by the side of the road.

- 3) The Pradhan of Panchayat Hurang informed that in Bhulang road there was a slanting ridge where land slide had become a serious problem. This problem arose due to digging by the project which had caused loss of water in natural resources. In Bhulang Panchayat this was the only source of water which needed to be saved. In this concern, the authorities of project informed that demarcation of land was in progress for last 9 months and the construction work had been started in the presence of pradhan of the Panchayat. Now it was not possible to change the alignment of the path. However the authorities will deal the problem sympathetically.
- 4) The Pradhan of Panchayat Hurang pointed out that in two schools, viz Bhujanu and Duara, the appointments of two teachers of PTA were made by the project but both the teachers were not getting their salary. The chairman directed to the project authorities that proper arrangement of salary be made for these teachers.
- 5) The SDO, I&PH, Kullu pointed out that dumping material thrown by the project authority has damaged the irrigation schemes in the village. In this concern the management of the company assured that this problem will be taken seriously at their own cost and efforts.

Panchayat Duara

1) Danger to middle school at gram panchayat Duara:

The pradhan of Panchayat Duara pointed out that there was a danger to Govt. Middle School, Duara due to sliding of retaining wall for which Rs. 253584 had been estimated and sanctioned in the house of LADC meeting. In this concern the chairman of the house ordered that this work should be completed on priority.

2) Demand for construction for road from village Bhujanu to school:

Pradhan gram Panchayat Duara submitted an estimate of Rs. 1.01Lacks for construction of this road and the proposal was recommended in the house unanimously.

3) Pucca road up to Meha Nala:

Pradhan, Gram Panchayat, Duara submitted an estimate of Rs. 15200 for construction of this road and the proposal was recommended in the house unanimously.

4) Construction of roads :

Pradhan Gram Panchayat Duara submitted an estimate for two proposals of roads i.e. Rs. 2.67Lacks

and Rs. 1.76 Lacks for metalling and tarring from village Duara to Panchayat ghar and from Panchayat ghar to village Deugara respectively. Both the proposals were recommended in the house unanimously.

5.13 Summing up

The present analysis highlights the composition of LADC and LADF. the pattern of realization of LADC contribution prior to commissioning of the project and after commissioning of the project has been presented. the institutional arrangements for administration of LADF have been highlighted. The functions and responsibilities of the LADC have also been presented in details. The preparation of shelf of schemes execution agency details provides the reference for undertaking the works under LADC. Execution and monitoring of the works under LADC and adjustment of expenses under LADF incurred by developers prior to Hydro Power Policy-2006 is one of the highlights of the chapter. The representation of local population in LADC has also been highlighted. The agenda items of important meetings of LADC, decisions made and other aspects of such meetings have been presented in details.

Chapter 6

Implementation of Rehabilitation & Resettlement Policies

In the project-affected areas the project developers have implemented Rehabilitation and Resettlement Plan (R&R Plan) whose provisions are to provide land to those who became landless after their land acquisition, construct house/cash for house acquired, provide employment to one family member of landless PAFs, compensation for acquisition of shop, assistance for physical mobilization for displaced families etc.

6.1 Rehabilitation and resettlement policy for the project

The hydro electric projects have followed the resettlement and rehabilitation policy formulated in consultation with the Government of Himachal Pradesh to provide assistance and rehabilitation measures to all those who are affected by the project. Its provisions include:-

- i. Developed agricultural land to landless PAFs equivalent to the area acquired or 5 bighas whichever is less. This 5 bighas would include any land left with the family after acquisition. Allotment of land will be made on the basis of landless certificate issued by the SDM.

- ii. Alternative house with a plinth area of 60 280 square meter or a payment of compensation according to their choice, to each PAFs whose house were acquired.
- iii. Allotment of plots for shops at the market for displaced shopkeepers or cash compensation.
- iv. Providing technical education and merit scholarship to students of PAFs and PAA.
- v. Compensation for damage of crops due to dust, blasting.
- vi. Income generation scheme for PAFs.
- vii. Provision of suitable employment to one member of each landless PAFs according to his capacity and qualifications, subject to availability of vacancy.

6.2 Resettlement of landless families

Approximately 51.58 hectares of private land has been acquired from 633 families for all the projects (see Table 6.1). The owners of the land acquired have been compensated for their land as per the rates fixed by the Government of Himachal Pradesh. Those families who were left with more than 5 bighas land after acquisition of part of their land were paid cash compensation only. However, those families,

which were rendered landless their remaining land being (less than 5 bighas) have been provided alternative developed land by the projects. Under the **antyodaya** programme of poverty alleviation, the Government of Himachal Pradesh implemented a scheme wherein those families who owned land less than 5 bighas (one acre) were provided additional land from out of the village common land so as not to live any rural family with less than 5 bighas land.

6.3 Resettlement of houseless families

The houses were acquired in KWHEP and RHEP projects. In KWHEP 4 families houses acquired and each oustee family which has been rendered houseless on account of acquisition of house land for the project has been provided house plot of 60 sq meters and cash compensation of Rs 2.10 lakh for construction of house. In RHEP 15 families rendered houseless and provided house plot of 280 sq meters along with Rs 1.60 lakh compensation for house construction. The project wise details of houseless families, size of plot and compensation for construction of house are given in Table 5.1. The water supply, electricity, street and approach paths in the rehabilitation colony have been provided at the project cost. Majority of the village houses in the project area were temporary Kaccha (mud wall with tin/ slate roofs) structures. Those PAFs who were given cash compensation had now built permanent (pucca) and bigger houses. The PAFs feel that compensation grants in lieu of old house was sufficient to build a new permanent house. Some households have built bigger houses (more than square meters) with compensation money plus some

money from their own sources.

6.4 Resettlement of shopkeepers

A total of 10 shopkeepers have been displaced by the KWHEP. An amount of Rs 2000 per shop was given as compensation per shop by the project. The details are presented in Table 6.1.

6.5 Employment to members of landless families

In the rehabilitation and resettlement plan of the projects there is a provision that the projects would provide employment to one member each of the landless PAFs. The identification of landless families who are affected by the project has been done by the Sub-Divisional Magistrate of concerned project area. Besides landless families, the employment has been also provided to persons of project affected families and project affected area. Project wise details of employment provided by the projects are given in Table 6.1. In RHEP 35 families rendered landless and an amount of Rs 52 thousand has been given as grant to each landless family. In addition of this grant, the project developer offered jobs to 8 families, 7 students were sponsored for ITI, vehicle of one family was hired for project works.

6.6 Resettlement of families who got cash compensation only

The project developers paid compensation to PAFs for the land acquired according to the compensation rates fixed by the Rural Development Department for various types of lands. Project wise number of families whose land was acquired and compensation given is presented in Table 6.1. Out of this cash compensation some of the PAFs have

purchased vehicles (cars and trucks) for commercial purposes and thus acquired an asset, which yields regular flow of income and employment to the family. Some of the households have constructed permanent houses out of the land compensation money received by them and have rented-out the new house, earning regular monthly income for the family. Some households have put their compensation money in the term deposit accounts in the banks and are earning interest on it. However, there are some households, who have used the cash compensation of their land acquired by projects on non-productive expenditures marriages of their sons and daughters, treatment of diseases, purchase of household goods, etc .

6.7 Grants provided under income generation scheme

The scheme of income generation to assist project affected families has been started by RHEP. Under this scheme 165 families have been provided with a grant of Rs 7.79 lakh. Under the income generation scheme some unemployed members of PAFs are encouraged to take up non-land-based income generation activities, such as weaving, knitting, beekeeping, tailoring, grocery shop, small dairy, etc. for diversifying their household incomes. The details persons benefited and amount of financial grant under this scheme are presented in Table 6.1. Since the people of Himachal Pradesh have tradition of mostly working in paid jobs in government, semi-government and private sectors, they lack desired entrepreneurship and risk taking attitudes, which are required for taking up self-employed income generation activities. Therefore, the income generation scheme of projects did not achieve desired success.

Firstly the response for availing the benefits of this scheme was poor. Secondly, the rate of diversion of grant to other activities than the required ones was very high. It was suggested by the villagers that while providing financial assistance for self-employment income generation, the technical and marketing know-how should also have been provided to them. The lack of previous experience has resulted in failures and low profits in the new ventures started by PAFs with financial assistance from the Income Generation Scheme of the projects. The identified families feared to lose their claim for employment if they opted for this scheme. The amount of assistance was also reported to be very low and they reported that it was not possible to start the new venture with the small amount.

6.8 Mobile health unit and hospital

The Mobile health unit (MHU) of the RHEP and KWHEP started functioning in the project area. The unit has a team consisting of a male medical doctor, a pharmacist and a driver, who tour villages in the van which is fitted with medical equipments. The common ailments are diagnosed in the van itself and the patients are provided medicines there itself. However, the chronic patients are referred to the hospital for further thorough examinations. In general the village people are not fully aware about their various health problems. But, as a result of visits by MHU, the awareness of the villagers about basic hygiene, balanced diet, and symptoms of common diseases is increasing. Villagers informed that they are happy with the services of and medicines provided by the MHU. But they suggested that the MHU time period of visit per village is not sufficient which should be increased. Rural women told that MHU team should also have a lady doctor with

them, because most of the health problems of rural areas are related to women and children who are least mobile. Nevertheless, the people in the project area have now become more health conscious and they more often seek advice, because of availability of diagnostic facilities of MHU at their doorsteps. The common ailments found by MHU among the males of the project are worm, hypertension, vitamin deficiency, and stray cases of T.B. Among females the problem of anemia, leucorrhoea, and malnutrition are common. Rural children frequently suffer from cold, fever, and vitamin deficiency. The main problems faced by the MHU are: (i) frequent breakdown of its mobile van (it has been suggested that there should be a ready-made health van, instead of this locally fabricated van), and (ii) the quantity of vitamins, de-worming and iron tablets supplied to MHU by the hospital should be increased. At secondary level the establishment of the project hospitals is also providing health facility to the local people. A 20 beds hospital constructed at Bayal by the RHEP and 40 beds hospital constructed at Karcham by KWHEP are in operational in the project areas. Hence, there has been an overall improvement in the health care facilities in the project area for the betterment of the local people.

6.9 Regular employment in projects to local persons

The project developers provided regular employment to local people in the project. However, most of the jobs are class III, but the local people are satisfied with the working conditions and salary provided to them. The contractors working with project were also provided employment to technical and non technical local persons. Project wise regular

employment provided and other detail are presented in Table 6.1.

6.10 Compensation towards losses caused to the crops

The compensation for crop damage due to dust was given in RHEP. The variation in compensation amount across the panchayats and villages was resented by the farmers. The project authority's response was that it is based on the recommendations of the committee (constituted under LADC).

6.11 Petty contracts to local contractors

D- Class works have been earmarked for contractors from project affected areas. Besides project developers, the major civil contractors of the project are also further subcontracting their works to the contractors from project affected area. The contractors resented the diverting of money for development purposes to LADC as this makes the procedure very lengthy and involves the local politics putting them at disadvantageous position. PAFs feel that they should be given job opportunities particularly for office job and they do not seem to be interested for main construction works jobs.

6.12 Compensation for repair of house cracks developed due to blast damage

The compensation has been provided to affected families of RHEP only. The affected families have shown their discontentment regarding the survey of damage and amount of compensation. It has been observed that after receiving the compensation, none of the families has properly repaired the cracks and has utilized the money for other purposes including consumption.

6.13 Hiring of taxies of PAFs and PAAFs

Some project developers have hired the taxies of PAFs. The interviews with the persons who have deployed their vehicles as taxies with project revealed two types of complaints. Firstly, they may be paid higher rate of hiring charges. Secondly, the bad road condition is making this venture uneconomic.

6.14 Provision of technical education to PAFs

The project developers provided technical education to the students of PAFs. The students were sponsored for technical education in various it is. The parents of students sponsored were largely satisfied with the scheme but they thought that monthly amount was inadequate by any standards.

6.15 Merit scholarship to PAFs

Merit scholarships have been provided by the project developers to the students of PAFs application. All the students/ parents were satisfied with the amount of the scholarship and its disbursement.

6.16 Compensation for losses caused due to blast damage

The families residing very near to the blasting for project work have been provided compensation by the project developers. The houses of affected families were inspected by a Committee constituted in the project which estimated the cost of repair. The compensation was provided to affected families of the project. The affected families were discontented regarding the survey of damage and amount of compensation. It was observed that after receiving the compensation, none of the families properly repaired the cracks but utilized

the money for other purposes including consumption.

6.17 Resettlement of pollution (dust and blasting) affected families

The families which have been suffering on account of heavy dust from dumping yard have been assisted by providing cash compensation. The assistance has been twofold; the affected families have been provided rent for transit residences and also they have received assistance for loss of crop. All the families are satisfied from the assistance. Simultaneously, the families in some villages have not moved out and are also cultivating their field. The benefits are therefore doubled for the families affected by dust. The R&R department has very conveniently, for the benefit of affected families, has ignored the fact that the houses of these families are constructed on government land.

6.18 Support services for horticultural /agricultural activities

Some project developers providing training to project affected families in modern techniques in agriculture, horticulture, animal husbandry and post harvest management of farm products through organizing farmers training camps in project affected areas. People responded positively to organization of these camps.

6.19 Activities under sustainable community development programmes (SCDP)

The infrastructure and community development works have been initiated after the resolution to the effect and prioritizing the works on the basis of local needs was passed

by Gram Sabhas. This clearly indicates that the works undertaken were based on local needs and aspirations. The activities undertaken by the project developers are:

6.19.1 Irrigation: The project developers constructed water channel for irrigation in the PAA which increased the flow of water saving the time required for irrigation. The provision of masonry channel has also greatly reduced the repair works which were frequently required earlier.

6.19.2 Foot path and foot bridges: Project developers constructed and repaired foot bridges across rivers/nullahs, footpaths were paved with plain cement concrete in the villages. Steps have been provided at many places where the slope is more than 25-30 ° making the paths safer especially during the rainy season. The community as a whole has been satisfied with the paving of footpath but felt that the activity should be extended to other places also. They felt that width should also be increased.

6.19.3 The street light: The street light works in project affected villages have been executed by the project developers. Despite the heavy expenditure there is much left to be desired. Only half tubes are used on full height poles making the light dim. Full tubes must have been used. The people claimed that flexible wires of substandard quality have been used which is not a standard practice and especially with such a large investment. A few persons felt that alternative layout of poles would have been more effective. Solar light could also be used. People also demanded mercury lights.

6.19.4 Local fairs and festivals: It is very prudent to facilitate local fairs and festivals by providing financial grants. It is effective way of earning peoples goodwill. The project developers also facilitated sports activities by providing grants to tournaments. Cricket kits were distributed to Panchayats under project. The people largely appreciated the goodwill gesture of project developers.

6.19.5 School infrastructure: The activities under this head included construction of classrooms, store, basket ball and badminton courts and leveling of play grounds, retaining walls etc. The work was executed as per norms and end users are satisfied from it. In some schools of PAA were provided with infrastructure like computers, furniture etc. In order to generate environmental awareness, schools were provided financial assistance for purchase of sapling for tree plantation etc. The students and their parents were satisfied with the activities.

6.19.6 Other community works: The temple and community hall in project affected villages were provided by the project developers. The RCC Panchayat ghars, Crematorium were constructed in project affected villages. People appreciated the activity but felt that such works should be taken up on priority and work execution be expedited. People of Koyal wanted the roof on crematorium and some provision for people to sit on.

6.20 Eco-development in the project area

The river water impounded by the projects dam is covering small areas. Thus it has little ecological effect or displacement of people at the dame sites. In fact there is a provision of

funds for development of fisheries in the reservoirs, which will generate regular income for the local fishermen. Afforestation programmes have also been supported by the project developers. In place of government land acquired by the projects, the project developers are supporting afforestation programme on denuded land of the Forest Department with the amount deposited to CAT plan. The soil and water conservation programmes have also been undertaken in the catchments area of the projects. In the group discussion villagers suggested that in the tree planting programmes in the project area top priority should be given to the plantation of multiple purpose tree species which could provide them fodder, fruit, fuel-wood, small timber, etc.

6.21 Summing up

The implementation of majority of the components of R&R has largely progressed as per time schedule. The delays whenever these occurred were mainly due to delays in authentication of beneficiaries by the district administration. The delays were also because of the fact that the concerned individuals could not complete the requisite formalities in time. The development works got delayed due to involvement of LADC and this has been resented by people. The activities like provision of medical facilities, merit scholarship, hiring of vehicles from PAF and provision of awarding petty contracts to PAF have played a significant role in promoting the socioeconomic well-being of PAFs. Such facilities have been appreciated by the people.

The SCDP activities has played a significant role in promoting the socio-cultural fabric of the community on one hand and its

components like foot bridges, village paths, provision of drinking water etc. has made their life better than before by making the communication easier and provision of facilities. The income generation activities are most important for providing the sustainable livelihoods but this activity has taken up due to very low interest of target groups as they are more interested in permanent employment in the project for which the project authorities find themselves constrained.

The support services like farmers' training camps have been appreciated and there is demand for higher number of such camps especially aimed at income generation activities. The people had to suffer on account of higher air, water and noise pollution, but it is the price one has to pay for the development and is confined to the duration of project implementation, the PAFs appears to be adequately compensated for such inconveniences. It has been observed that the dissent to decisions and policies of R&R, many times is not genuine and arose due to political influence and raised aspirations of PAF.

It has been observed that the land compensation has not been uniform in the projects under study. The inadequacy of construction grant and delay in disbursement has given rise to unwanted litigations. The families rendered houseless due to acquisition were assured employment for one family member in the project. But in RHEP the concerned Tehsildar even took affidavits from the families for not claiming employment for more than one member but no further progress in this regard has been made resulting in resentment among the affected families. Similarly, the persons who received technical education are also demanding the employment in the project. The employment generation for

skilled, semi-skilled and unskilled persons through some project developers, contractors have been a welcome step. No efforts for containing the dust and protection of environment have been initiated as should have been in the form of plantation drives etc. Despite all the efforts of project authorities, the incidence of diseases etc. has increased substantially as indicated by the number of registered patients and the population of PAA. The inadequate provision of street lighting is not only creating general problem in movement it is also leading to increased incidence of thefts in the area. All the project affected villages were already having motor-able roads, and had electricity and piped water supply. All the villages were already having access to health centers and primary schools. However, the villagers are appreciative of measures taken by the project developers for improvement in road facilities, creation of pathways, and bailey bridges across nullahs, and rivulets, which have reduced travel time and distances of the villages with nearby towns and among villages of the area. Development of transport and communication facilities not only make travel easy, but they also increase the frequency of travel and provide easy and fast accessibility of villagers to the markets, and also encourage production of high value perishable farm products for market sale. The creation of

infrastructure by project developers in the project affected areas will help farmers in switching from the traditional subsistence farm production system to the high value cash crops, which would ultimately increase farm income and employments of the people in the vicinity of the projects. Private taxies and trucks are hired by projects, which enhanced family earnings of PAFs engaged in transportation activities. A sizeable market for agricultural products such as vegetables, fruits, and milk has emerged in area since many out sides people have moved to project activities in that area.

The project developers have helped in building additional class rooms and development of playgrounds in the government schools operating in the villages in the project area. Financial assistance provided for construction of school buildings in the villages is also appreciated by the people who are very conscious about the better education for their children. Establishment of schools, playground and additional rooms to existing schools will go a long way in improving the quality of education and sportsmanship in the villages in the project area. People in the project area are happy about these developments in their villages, which they feel will immensely help in their overall socio-economic development.

Table-6.1: Rehabilitation and resettlement activities undertaken by project developers in different hydroelectric projects

R&R Activities	Projects										All projects
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
Land acquired											
No. of families	185	50	18	41	53	24	7	202	3	50	633
Land area acquired (ha)	10.41	0.50	0.10	1.55	0.88	0.64	0.50	29.92	0.15	6.93	51.58
Amount of compensation (Rs lakh)	16.067		1.80	190.124	78.50	22.087	27.25	2400.3	21.00	500.00	3257.128
Landless families											
No.											0
Grant paid (Rs lakh)								35			35
Houses acquired								18.15			18.15
No. of families					4			15			0
Amount of compensation (Rs lakh)					8.40			25.20			19
Size of house plot allotted (sq. m)					60			280			33.6
Shop acquired											340
No.					10						0
Compensation (Rs lakh)					2.00						10
Education facilities											2
No. of scholarship		21						165	5		0
Amount of scholarship (Rs lakh)		0.40						56.00	0.50		191
Health											56.9
MHV					1			1			0
Hospitals					1			1			2
Dispensaries											2
Income generation											0
No. of families								136			0
Amount (Rs lakh)								7.79			136
Employment											7.79
No. of persons employed	17	57	18		21	6	27	1		33	0
Average monthly salary (Rs.)	7500	6800	6200		6500	7500	5600	9500		6600	180
Crop damage											56200
No. of families											0
Compensation (Rs lakh)								4271			4271
House cracks								217.13			217.13
No. of families											0
Compensation (Rs lakh)								1942			1942
								127.25			127.25

Chapter 7

Socioeconomic Impacts of Rehabilitation and Resettlement Programmes of Hydroelectric Projects

Development projects have both direct and indirect effects on the people living in the project area. Some of the effects may be beneficial to the people, while some of them may have adverse impacts on the economic status of the people. In this chapter an attempt has been made to analyze the impact of project development activities on socio economic features of project affected families.

7.1 Impact on demographic features of project affected families

The socio demographic impacts of project activities assessed in this study are: (i) Impact on family size and sex ratio (ii) Impact on Literacy rate and educational level (iii) Impact on work force and occupational pattern. The impact wise broad results are highlighted in the following paragraphs.

7.1.1 Impact on family size of project affected families: Average family size and sex ratio are presented in Table 7.1 wherein it may be seen that the family size of project affected families has decreased from 5.01 persons before the project to 4.95 persons per

family now among project affected families. However, sex ratio has increased from 845 females per thousand males before the project to 884 females per thousand males after the project. The changes in both the demographic features are positive and good sign of development. This can be attributed to increased awareness of people as a result of exposure provided to them due to project implementation. In case of sampled households of project affected area the family size has also declined from 4.95 to 4.76 persons per family, whereas sex ratio declined from 926 to 866 females per thousand of males.

Table- 7.1: Average family size

Persons	Project affected families		Project affected area	
	Before	After	Before	After
Male	2.71	2.63	2.57	2.55
Female	2.30	2.32	2.38	2.21
Total	5.01	4.95	4.95	4.76
Sex ratio	845	884	926	866

7.1.2 Impact on work force and occupational pattern of project affected families:

The proportion workers in the family indicate the economic development and status of the family. The changes in the proportion of workers among project affected families and sampled families of project affected area have been presented in Table 7.2. It may be seen from the Table that proportion of workers among all the sampled households has increased after the project as compared to before project situation. Consequently, dependency rate has decreased and number of dependent has decreased from 0.78 non worker per worker before the project to 0.68 non worker per worker presently i.e. 2011. In case of sampled households of project affected area the dependency rate has decreased from 0.76 to 0.56 during the period.

The changes in occupational pattern of workers has been analysed and presented in Table 7.3 wherein it may be seen that before project agriculture was the occupation of about 84 percent worker of project affected families, which has now decreased to 73 percent. The major changes have been observed in case of workers engaged in regular service. The workers reported service as their main occupation was about 10 percent of total workers before the project, which has now increased to 22 percent. This is due to increase in literacy and emolument scheme implemented by the project developers. In case of sampled households of project affected area the declined in agriculture as the occupation is marginally. The same trend has been observed in case of workers engaged in service, petty business and wage labour.

Table-7.2: Number of workers and dependency rate on sampled households

Particulars	Project affected families		Project affected area	
	Before	After	Before	After
Workers/family				
Males	1.51	1.60	1.50	1.65
Females	1.30	1.34	1.31	1.40
Total	2.81	2.95	2.81	3.05
% of Workers	56.09	60.00	56.77	4.01
Dependency rate	0.78	0.68	0.76	0.56

Table-7.3: Average number of family members in different occupations on sampled households

Occupations	Project affected families				Project affected area			
	Before		After		Before		After	
	No.	%	No.	%	No.	%	No.	%
1. Agriculture								
Male	1.15	40.93	1.01	34.24	1.04	37.01	1.03	33.77
Female	1.22	43.42	1.15	38.98	1.2	42.70	1.36	44.59
Total	2.37	84.34	2.16	73.22	2.24	79.72	2.39	78.36
2. Wage labour								
Male	0.04	1.42	0.04	1.36	0.17	6.05	0.21	6.89
Female	0.01	0.36	0	0.00	0	0.00	0	0.00
Total	0.05	1.78	0.04	1.36	0.17	6.05	0.21	6.89
3. Service								
Male	0.25	8.90	0.47	15.93	0.19	6.76	0.27	8.85
Female	0.03	1.07	0.19	6.44	0.11	3.91	0.08	2.62
Total	0.28	9.96	0.66	22.37	0.3	10.68	0.35	11.48
4. Petty Business								
Male	0.07	2.49	0.07	2.37	0.1	3.56	0.11	3.61
Female	0.03	1.07	0.01	0.34	0	0.00	0	0.00
Total	0.1	3.56	0.08	2.71	0.1	3.56	0.11	3.61
Total								
Male	1.51	53.74	1.6	54.24	1.5	53.38	1.65	54.10
Female	1.3	46.26	1.34	45.42	1.31	46.62	1.4	45.90
Total	2.81	100.00	2.95	100.00	2.81	100.00	3.05	100.00

7.1.3 Impact on literacy rate and educational level of project affected families: Education plays an important role in development of the area and is an important indicator of human resource development. The literacy among males and females in sampled households has been presented in Table 7.4. The project developers have implemented various programmes for enhancing the education level of project affected families. They implemented scholarship programmes, development of educational infrastructure for in the project areas. Consequently, literacy rate in project affected households has increased from 79.1 percent to 82.61 percent after the project implementation. Similarly, literacy among households of project affected area has

increased from 77 percent before the project to 79.86 percent presently during 2011. It may be seen from the table that the females are less literate than that of males during both the situation. However, literacy among females has also increased among sampled households.

Education level of literate persons has been presented in Table 7.5. The analysis reveals that the education level of literate persons of project affected families has increased after establishment of the project. The number of graduates and post graduates were more after the project implementation than that of earlier situation. Similar trend has been observed in case of sampled households of project affected area.

Table- 7.4: Literacy rate among sampled households

Particulars	(%)			
	Project affected families		Project affected area	
	Before	After	Before	After
Male	81.90	86.04	79.85	86.69
Female	75.80	78.73	74.18	79.31
Total	79.10	82.61	77.12	79.86

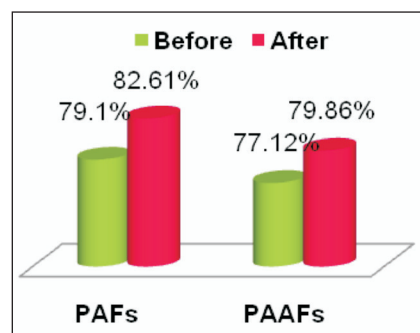


Fig- 7.1: Changes in literacy rates

Table-7.5: Education status of family members of sampled households

Educational level	(Number /Household)							
	Project affected families				Project affected area			
	Before		After		Before		After	
	No.	%	No.	%	No.	%	No.	%
1.Primary								
Male	0.54	11.49	0.47	10.01	0.55	11.96	0.48	10.70
Female	0.48	10.21	0.45	9.49	0.40	8.70	0.41	9.16
Total	1.02	21.70	0.92	19.50	0.95	20.65	0.89	19.86
2. Middle								
Male	0.50	10.64	0.42	8.82	0.49	10.65	0.44	9.68
Female	0.45	9.57	0.39	8.33	0.42	9.13	0.38	8.51
Total	0.95	20.21	0.81	17.15	0.91	19.78	0.82	18.19
3. Matric								
Male	0.60	12.77	0.61	12.91	0.56	12.17	0.61	13.62
Female	0.40	8.51	0.43	9.10	0.42	9.13	0.46	10.33
Total	1.00	21.28	1.04	22.01	0.98	21.30	1.07	23.78
4. Sr. Sec.								
Male	0.35	7.45	0.42	8.81	0.31	6.74	0.35	7.81
Female	0.29	6.17	0.34	7.20	0.22	4.78	0.25	5.57
Total	0.64	13.62	0.76	16.01	0.53	11.52	0.60	13.33
5. Graduate								
Male	0.18	3.83	0.26	5.41	0.18	3.91	0.22	4.91
Female	0.12	2.55	0.16	3.46	0.13	2.83	0.15	3.32
Total	0.30	6.38	0.42	8.87	0.31	6.74	0.37	8.23
6. Post Grad.								
Male	0.03	0.64	0.06	1.28	0.05	1.09	0.08	1.69
Female	0.02	0.43	0.03	0.62	0.04	0.87	0.05	1.19
Total	0.05	1.06	0.09	1.90	0.09	1.96	0.13	2.88
7. Illiterate				0.00		0.00		0.00
Male	0.32	6.81	0.29	6.18	0.34	7.39	0.26	5.88
Female	0.42	8.94	0.40	8.38	0.49	10.65	0.35	7.86
Total	0.74	15.74	0.69	14.56	0.83	18.04	0.62	13.74

7.1.4 Impact on residential facilities of project affected families:

Changes in residential facilities of project affected families are shown in Table 7.6. The data reveal that with respect to residential facilities all categories of households are now better-off as compared to their situation before establishing the projects. Now more families live in permanent pucca houses, more have separate kitchens, separate baths, latrines etc. in the houses. Earlier most houses were temporary (Kaccha) structures and were without these essential amenities. From sanitation and

cleanliness point of view also, the situation is now better in private houses. The projects where houses were acquired by the project Resettlement colony by providing plots and other facilities established. The houses have been built by the affected families according to their need. Single as well as double story houses were built in these resettlement colonies. In hilly areas farmers generally have two story houses; while the ground floor of the house is used for housing animals during winter and rainy seasons and for storing grains and fodder, the first floor of the house is used for family living.

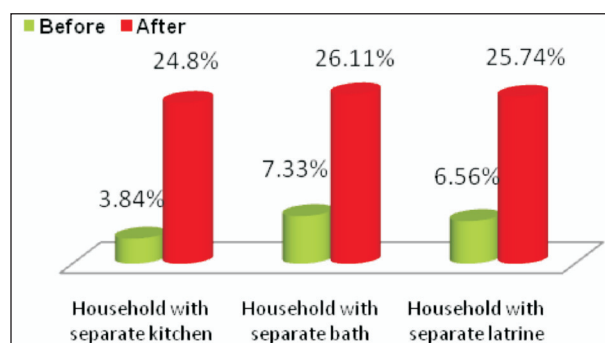


Fig-7.2 : Changes in residential facilities in PAFs (% of hh)

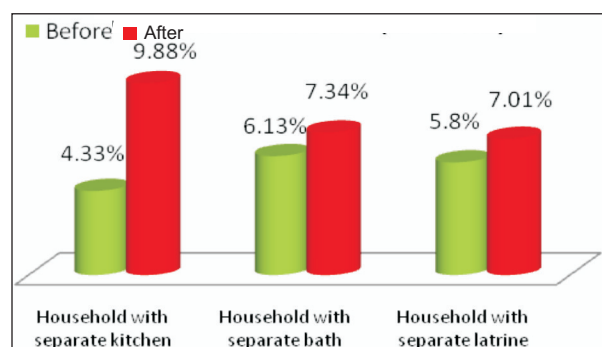


Fig-7.3 : Changes in residential facilities in PAAFs (% of hh)

Table-7.6: Past and present average residential facilities in sampled households

(per household)

Particulars	Project affected families			Project affected area		
	Before	After	%Change	Before	After	%Change
Size of plot	673.15	787.34	16.96	682.44	682.45	0.00
Size of house	593.88	682.33	14.89	594.41	594.41	0.00
Kaccha structure (# of rooms)	1.21	0.45	-63.21	0.73	0.68	-6.87
Pucca structure (# of rooms)	1.19	2.42	103.28	2.65	2.71	1.90
% Household with separate kitchen	3.84	24.80	+20.96	4.33	9.88	+5.55
% Household with separate bath	7.33	26.11	+18.78	6.13	7.34	+1.21
% Household with separate latrine	6.56	25.74	+19.18	5.80	7.01	+1.21
% Household with separate animal shed	31.32	43.37	12.05	58.15	59.73	+1.58

7.2 Economic status of project affected population/area

The economic impacts of project activities assessed in this study are: (i) impact on employment pattern of project affected families, (ii) impact on income pattern of PAFs, (iii) impact on commercial assets of the families, (v) impact on household durables (vi) impact on holding size and cropping pattern, (vii) impact on crop yields, (viii) impact on livestock assets, (ix) impact on investment pattern of the households, and (x) impact on consumption pattern of project affected families. The impact wise broad results are highlighted in the following paragraphs.

7.2.1 Impact on income and employment pattern of affected families :

Impacts of the projects on income and employment of different categories of PAFs are shown in Tables 7.7 and 7.8. A comparison of before and after situations reveals that average annual employment of project affected households has increased from 538 days to 653 days per household. The average annual income has increased from Rs 62286 to Rs 222870 per household. The share

of agriculture in the household income has declined because of reduction in the size of their land holdings. But their income from wage labour and service has increased significantly as compared to their before project income. In case of employment on sampled households of project affected area annual employment has increased from 544 days before the project to 655 days per households after the project. The average income of project affected area households has increased from Rs 26300 to Rs. 290162 /household. In the group there has been a significant increase both in employment and in income earned from agricultural activities, the employment and income from regular jobs have also increased significantly. The income from business has increased by 630 percent after the project. This change has been mainly due to increase in petty business/trading activities, which have increased due to increased demand for daily need items from residents of new project colony and also due to the increased purchasing power (income) of PAFs. The income of sampled families in project affected area after the projects is given in Table 7.8 .

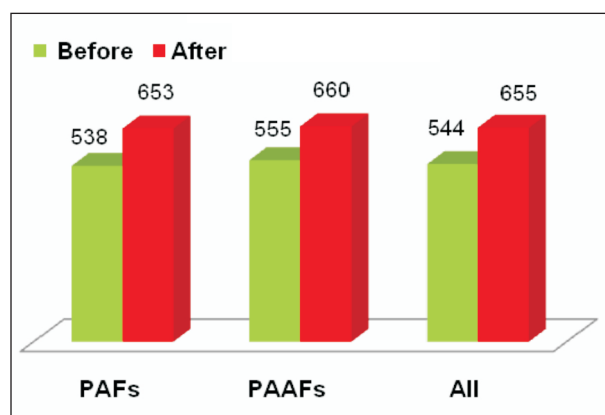


Fig-7.4: Changes in annual employment on sampled households (days/hh)

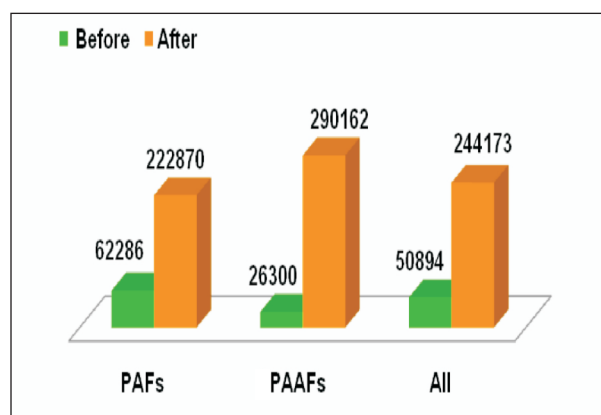


Fig-7.5: Changes in annual income on sampled households (Rs/hh)

Table-7.7: Past and present average annual employment in sampled households

(Days per household)

Activities	Project affected families	Project affected area	All
Agriculture			
Before	268.68	243.82	260.81
After	242.53	251.81	245.47
%Change	-9.73	3.28	-5.88
Livestock			
Before	119.41	112.96	117.37
After	136.68	127.32	133.72
% change	14.46	12.71	13.93
Wages			
Before	14.84	26.75	18.61
After	13.93	27.89	18.35
% Change	-6.13	4.26	-1.40
Service			
Before	101.39	110.86	104.39
After	227.43	215.74	223.73
% Change	124.31	94.61	114.32
Business			
Before	33.84	38.79	35.41
After	28.86	36.90	31.40
% Change	-14.72	-4.87	-11.32
Total employment			
Before	538.16	555.26	543.58
After	653.48	659.81	655.48
% Change	21.43	18.83	20.59

Table-7.8: Past and present average annual income in sampled households

(Rs / household)

Activities	Project affected families	Project affected area	All
Agriculture			
Before	42381.40	10664.52	32340.38
After	139326.79	166918.84	148061.96
% Change	228.75	1465.18	357.82
Livestock			
Before	4520.02	1924.70	3698.39
After	17805.53	26316.21	20499.87
% Change	293.93	1267.29	454.29
Wages			
Before	3658.17	1349.23	2927.20
After	11459.49	7537.55	10217.87
% Change	213.26	458.66	249.07
Service			
Before	9856.67	6793.65	8886.97
After	46195.33	72015.25	54369.47
% Change	368.67	960.04	511.79
Business			
Before	3535.30	2380.95	3169.85
After	10342.95	17393.75	12575.11
% Change	192.56	630.54	296.71
Total income			
Before	62286.11	26300.48	50893.67
After	222869.55	290162.17	244173.24
% Change	257.82	1003.26	379.77

7.2.2 Impact on commercial assets of project affected families:

Commercial assets purchased and incomes accrued from them to different categories of families are shown in Table 7.9. The emerging new avenues for earning income have been tapped by some of the interested enterprising households. Eight families out of a sample of 544 of project affected families, have purchased taxies and now earn extra net income of Rs.1,82,546 per year. One person has purchased truck and earning Rs 4 lakh annually. Thirteen persons have opened general store earning Rs 308161 annually and three persons from project affected families have opened tea shop, earning net income of Rs 176250 per annum. Tractor for transporting material for construction works has been purchased by two families and each family earning Rs 246797 annually. Three persons opened guest house and earning income of Rs166069 annually each.

The demand for taxi service has increased in the projects area for project officials and for others. Three persons out of total sample of 252 families of project affected area, have purchased taxi, one persons have purchased truck, and a taxi is earning annual net income of Rs.1,81,150 and annual income from truck is about 2 lakh. Three persons from this category of households have opened tea shop earning Rs.111117 annually and seven persons have opened general store, earning net income of Rs.156635 per annum. Three persons have established guest house earning Rs.177200 annually. Thus there is a good trend that some PAFs who were earlier dependent on agricultural activities only have now created some commercial assets and are earning extra income by taxies, general stores, teashops, guesthouses etc., and thus, have diversified their sources of incomes. These trends have been facilitated and enhanced by the projects activities in the project affected area.

Table-7.9: Status of commercial assets and income accrued by sampled households

Particulars	Project affected families		Project affected area	
	Before	After	Before	After
1. Taxi				
No.	9	8	0	3
Income/Year	142550	182546	0	181150
2. Truck				
No.	0	1	0	1
Income/Year	0	400044	0	20066
3. General Store				
No.	21	13	4	7
Income/Year	128316	308164	92173	156635
4. Tractor				
No.	0	2	0	1
Income/year	0	246797	0	427429
5. Gust House				
No.	1	3	1	3
Income/Year	148167	166069	202571	177200
6. Tea Stall				
No.	1	3	0	1
Income/Year	238900	167250	0	111117
7. Other				
No.	2	2	0	0
Income/ Year	204971	310216	0	0
8. Total income	9139.44	14584.20	2163.03	9636.58

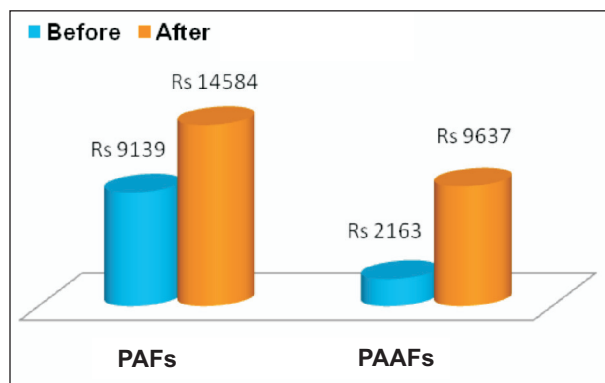


Fig-7.6: Changes in income from commercial assets (Rs/hh)

7.2.3 Impact on modern durables of project affected families:

After establishing hydro electric projects the income of the local people has increase significantly. Hence, household modern durable have been purchased by the households, which have enhanced standard of living of the project affected families. The per household average number of modern durables possessed by sampled families are presented in Table 7.10. It may be seen from the table that number of T.V per household increased by 14 percent in case of project affected families after establishing projects. However, largest change has been observed in VCR, motor cycles, car/jeeps and refrigerators. The number of cooking gas

connections among project affected families have increased by about 32 percent after the project establishment. In case of sampled families of project affected area the changes in the number of T.V, VCR and cooking gas are very less as compared to project affected families. But numbers of car/jeep are increased significantly and higher than that of changes in project affected families.

Further, it may be seen from the Table 7.11 that the value of modern durables possessed by project affected families is Rs 60788 per household, which is 37 per cent higher than the value of all durables possessed before the project. In case of sampled families of project affected area the per household value of modern durable was Rs 30682 before the project, which has now increased to Rs 36546.

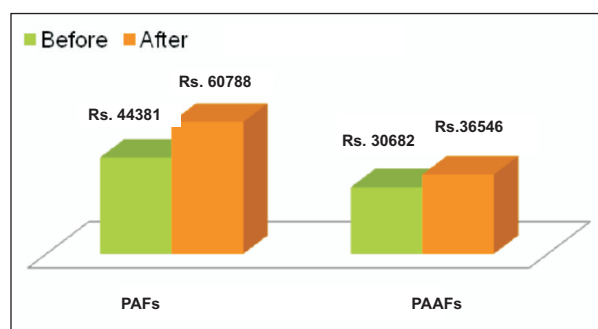


Fig-7.7: Changes in value of modern durables (Rs/hh)

Table- 7.10: Changes in number of household durables of sample households

	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
T.V.	0.84	0.96	14.29	0.95	0.96	1.05
VCR	0.12	0.28	133.33	0.12	0.12	0.00
Refrigerator	0.40	0.65	62.50	0.50	0.62	24.00
Motor-Cycle	0.01	0.02	100.00	0.00	0.00	N.A.
Car/Jeep	0.09	0.15	66.67	0.05	0.09	80.00
Cooking Gas	0.73	0.96	31.51	0.95	0.96	1.05

Table- 7.11: Changes in value of household durables of sample households

(Value in Rs./hh)

	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
T.V.	5973.2	5450.1	-8.76	6452.2	5400.7	-16.30
VCR	1520.7	1584.5	4.20	517.25	347.87	-32.75
Refrigerator	4373.3	5000.4	14.34	4560.5	5045.8	10.64
Motor-Cycle	494.82	388.89	-21.41	107.14	175.4	63.71
Car/Jeep	28962	45689	57.76	16577	23714	43.05
Cooking Gas	1959.2	1873.5	-4.37	2264	1742	-23.06
Bio-gas	451.6	163.42	-63.81	203.5	120.24	-40.91
Any other	646.21	637.99	-1.27	0	0	N.A.
Total value	44381	60788	36.97	30681.6	36546	19.11

7.2.4 Impact on holding size and crop area of project affected families:

Impact of project activities on holding size and cropping pattern has been analyzed and data are presented in Tables 7.12 and 7.13. The sample survey data regarding project affected households show that the acquisition of land

from some of them has resulted in decrease in their average net area sown by 11 per cent. The average land holding size was earlier 0.64 hectare, which has decreased to 0.57 ha. Their average net area sown has decreased from 0.61 to 0.55 ha. The land holding size of sampled households of project affected area remains unchanged.

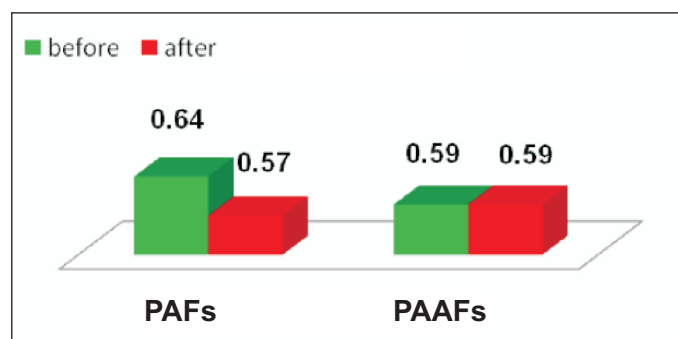


Fig-7.8 : Change in land holding (Area in ha/hh)

Among the PAFs of many HEPs, there were many households which can be termed as landless under the standard classification. Under this criterion, a

particular household is termed as landless if it owns less than 5 bighas of total land. Such households form the vulnerable section of the society, the welfare of whom

should be prime consideration while executing the HEPs or for that matter any other development programme or intervention. With this consideration, it was considered important to highlight the percentage of landless households among the sample. Table- 7.13 presents this scenario indicating that 82 percent of households under Budhil HEP were landless before the establishment of this project which increased to 94 percent after the completion of the project. This position was the worst among all the selected HEPs. The PAFs of Binwa Parai, Rukti-II and Manglad neither had any landless before the project was established nor after their completion. At overall level of 10 selected HEPs 21 per cent households were landless before their establishment but after the completion of the project 29 per cent households were landless. The analysis indicates that in majority of cases there has been increase in percentage of landless households; not a good sign. The

policy document therefore, should have a provision to safeguard the interests of this vulnerable section by making it mandatory to ensure that this number does not increase under any circumstances.

There has been decline in the area under individual crops; area of wheat crop decreased by 35 percent, paddy area 13 percent and area of maize crop by 35 percent. The net area sown of project affected households declined and consequently the area of all crops grown by them has also declined. Reduction in paddy crops area was very substantial. The land holding size of sampled households of project affected area was same and consequently the gross cropped area was marginally declined by 5 percent only. Hence, it is clear that land holding sizes of project affected families have decreased and the area of high productivity crops such as maize and wheat has decreased in the project area (see Table 7.14).

Table- 7.12: Land resources of sample households

(Area in hectare/Household)

Land use	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
Total land	0.64	0.57	-10.94	0.59	0.59	0.00
Agricultural Land	0.46	0.37	-19.57	0.39	0.35	-10.26
Irrigated	0.17	0.18	5.88	0.04	0.04	0.00
Unirrigated	0.29	0.18	-37.93	0.35	0.31	-11.43
Horticultural land	0.15	0.18	20.00	0.21	0.25	19.05
Irrigated	0.02	0.03	50.00	0	0.01	N.A.
Unirrigated	0.14	0.15	7.14	0.21	0.24	14.29
Grass land	0.05	0.04	-20.00	0.03	0.03	0.00
Waste land	0	0	N.A.	0	0	N.A.
No. of trees	2.47	2.25	-8.91	2.15	1.91	-11.16

Table- 7.13 : Extent of project affected landless households in projects

(% of total sampled households)

Project	Before the project execution	After the project execution
Budhil	82	94
Binwa Parai	0	0
Neogal	8	48
Allain Duhanagan	35	38
Fozal	13	17
Karchham Wangtoo	22	40
Rukti	0	0
Sorang	7	9
Rampur RHEP	15	24
Manglad	0	6
Total	21	29

Table- 7.14: Cropping pattern of sample farm households

(Area in hectare/Household)

Crops Grown	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
Maize	0.16	0.11	-31.25	0.22	0.2	-9.09
Paddy	0.08	0.07	-12.50	0.01	0.01	0.00
Wheat	0.23	0.15	-34.78	0.23	0.21	-8.70
Barley	0.06	0.05	-16.67	0.07	0.05	-28.57
Pulses	0.1	0.07	-30.00	0.09	0.07	-22.22
Cabbage	0	0	N.A.	0	0	N.A.
Peas	0.05	0.05	0.00	0.02	0.02	0.00
Beans	0	0	N.A.	0	0	N.A.
Tomato	0	0	N.A.	0	0	N.A.
Potato	0.02	0.01	-50.00	0.01	0.01	0.00
Chilies	0	0	N.A.	0	0	N.A.
Apple	0.14	0.16	14.29	0.17	0.23	35.29
Almond	0	0.01	N.A.	0.01	0.01	0.00
Chestnut	0	0	N.A.	0	0	N.A.
Pears	0.01	0.01	0.00	0.03	0.01	-66.67
Other/Specify	0	0	N.A.	0	0	N.A.
Gross cropped area	0.82	0.67	-18.29	0.81	0.77	-4.94

7.2.5 Impact on crop yields of project affected families:

The data on impact of project activities on the yields of various crops of project-affected families are given in Table 7.15. The yield of maize and peas crops has increased by 6 and 44 percent respectively. The productivity of other crops has decreased in the range of 1 to 98 percent. A mixed trend has been reported in the changes in productivity of crops grown by sampled families of project affected area. The productivity of their paddy and potato crops has declined by 85 percent and 27 per cent respectively. The productivity of apple orchards has increased by 9 per cent. However, yield of almond and pear has declined by 5 and 9 percent respectively. Hence, it may be concluded from the survey data that in some crops yields have increased, whereas in some crops the yield have decreased after the project. No clear-cut trend emerges from the comparison of past and present yield rates of different crops on sampled households of project affected area. The reduction in crop yields may be due to two reasons: (a) reduction in soil fertility, and (b) adverse weather conditions in the crops growing season. To maintain soil fertility the soils of hilly areas need a regular replenishment of organic humus material, which gets washed away due to soil erosion on sloping fields. Animal dung is a good source of organic

manure for agriculture, but its quantity supplied has recently decreased because of reduction in livestock population in the project area.

7.2.6 Impact on livestock assets of project affected families:

Changes in livestock assets on project affected families have been examined and the results are presented in Table 7.16. The data reveal that the numbers of all types of animals (i.e. cows, bullocks, sheep and goats) possessed by the project affected families have now decreased. Since the fodder resources in the project affected area have declined because of reduction in area of pastures and forestland, the farmers have been compelled to sell some of their livestock to reduce their number according to fodder resources as compared to their earlier situation of before the project. The projects have acquired forestland, which was earlier available to farmers for grazing of their animals. Furthermore, the private land acquired by projects for non-agricultural use was earlier used mainly for agricultural purposes, from which crop residues and by-product were available for animals, which are not available now. So these combined effects have created

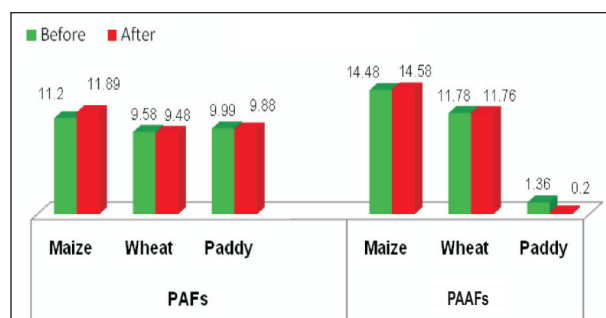


Fig-7.9 : Change in yield of major crops (Qtls/ha)

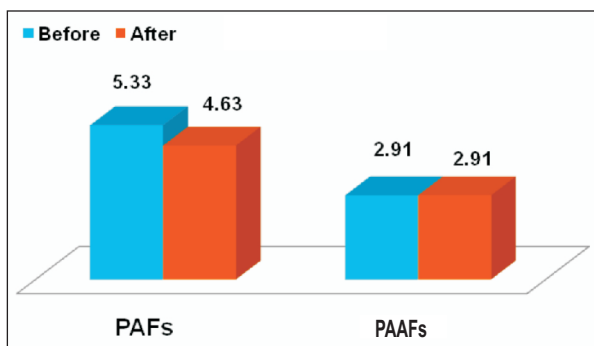


Fig-7.10 : Change in livestock holding (No./hh)

fodder scarcity in the project affected area and consequently the farmers have adjusted by reducing the number of their domestic animals. Farmers adjusted to the situation keep livestock as a source of supplementary income and as farm income stabilizer when there are high fluctuations

in crop incomes. Also livestock is a good source of manure needed for maintaining soil fertility and crop productivity. The livestock economy of the affected villages has been the main sufferer of the project activities.

Table-7.15: Productivity of crops on sample farms

(Qtls./Ha)

Crops grown	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
Maize	11.2	11.89	6.16	14.48	14.58	0.69
Paddy	9.99	9.88	-1.10	1.36	0.2	-85.29
Wheat	9.58	9.48	-1.04	11.78	11.76	-0.17
Barley	8.15	7.37	-9.57	8.11	8.12	0.12
Pulses	10.36	8.82	-14.86	10.12	10.05	-0.69
Cabbage	0	0	N.A.	1.98	2.98	50.51
Peas	5.43	7.8	43.65	2.96	4.17	40.88
Tomato	1.51	0.03	-98.01	1.22	2.06	68.85
Potato	16.43	16.1	-2.01	8.7	6.38	-26.67
Chilies	0.05	0.05	0.00	0	0	N.A.
Apple	33.32	81.58	144.84	80.71	88.07	9.12
Almond	0	18.23	N.A.	41.33	39.31	-4.89
Pears	34.82	44.07	26.57	59.47	53.92	-9.33

Table-7.16: Change in Livestock assets on sampled households

(Number/Household)

Type of Livestock	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
1. Cows						
No.	1.2	0.95	-26.32	1.02	1.02	0.00
Value (Rs)	8221.2	9656.8	17.46	9351.3	7648.7	-18.21
Cross bred	0.45	0.48	6.67	0.5	0.5	0.00
2. Bullock						
No.	0.35	0.31	-12.90	0.36	0.36	0.00
Value (Rs)	2080.3	2116.1	1.73	1477	1011.2	-31.53
3. Buffalo						
No.	0.02	0.02	0.00	0.01	0.01	0.00
Value (Rs)	386.19	470.59	21.85	158.73	79.37	-50.00
4. Sheep						
No.	1.89	1.71	-9.94	0.74	0.74	0.00
Value (Rs)	2709.5	4942.2	82.40	1636.9	2265.5	38.40
Cross bred	0.02	0.07	250.00	0.02	0.02	0.00
5. Goats						
No.	1.84	1.61	-14.29	0.75	0.75	0.00
Value (Rs)	7137.9	6384.2	-11.81	2715.1	3031.8	11.66
6. Horse etc						
No.	0.03	0.03	0.00	0.03	0.03	0.00
Value (Rs)	444.14	455.88	-2.48	1007.9	968.25	-3.94
7. Total livestock						
No.	5.33	4.63	15.12	2.91	2.91	0.00
Value (Rs)	20979	24425.77	16.43	16346.9	15004.71	-8.21

7.2.7 Impact on consumption pattern of project affected families: Consumption patterns of project affected families have been analyzed and the results are presented in Tables 7.17 and 7.18. The consumption pattern of project affected households reveals that their consumption of cereals has increased by 14 per cent. The quantity of vegetables consumed by them has also significantly increased now. The quantity of fruit and meat consumed by the family has increased by 56

and 24 per cent respectively. Per household consumption expenditure has increased by 29 percent, from Rs.36416 per annum to Rs.46828. The consumption pattern of sampled households of project affected area indicates that they have increased consumption of pulses, vegetables, fruits, milk, meat etc. The quantity of cereals consumed by them has increased by about 2 per cent and consumption of milk, vegetable, fruits and meat has increased in the range of 1 to 5 per cent.

The higher expenditure on clothes and footwear also indicate that there are improvements in their standards of living. Now the expenditure incurred on education is also higher. On the whole it is quite clear from the

survey data that the consumption patterns and standards of living of all the project affected families have improved as compared to their situation of before the project.

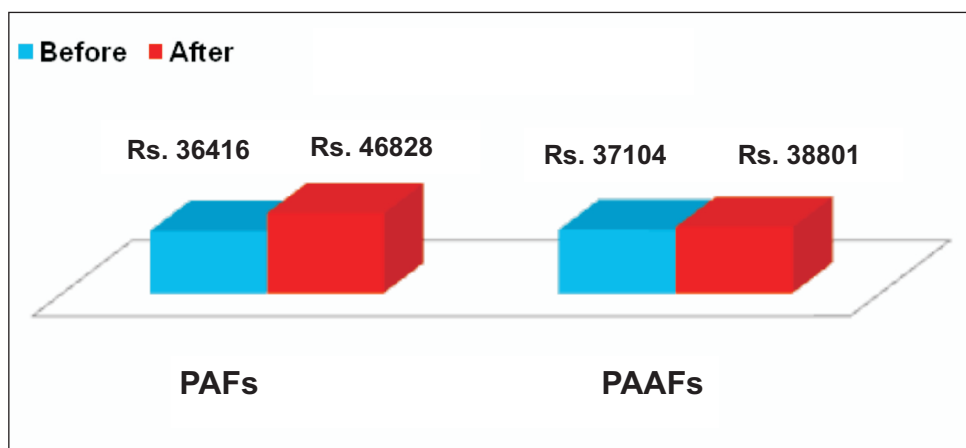


Fig-7.11: Changes in household consumption expenditure (Rs/annum/hh)

Table-7.17: Monthly consumption pattern on sampled households

(Qty. in Kgs./HH/month)

Items	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
Rice	25.71	30.52	18.71	26.31	26.94	2.39
Wheat	28.43	31.65	11.33	29.6	30.24	2.16
Maize	5.09	5.38	5.70	4.2	4.21	0.24
Barley	0.33	0.63	90.91	0.5	0.5	0.00
Pulses	4.84	5.68	17.36	4.86	4.99	2.67
Vegetables	10.99	13.21	20.20	11.55	12.12	4.94
Meat/chicken/Eggs	2.31	2.86	23.81	1.76	1.78	1.14
Fruits	5.6	8.74	56.07	5.9	6.2	5.08
Edible oil	1.42	1.9	33.80	1.7	1.78	4.71
Milk	30.44	37.03	21.65	33.36	34.44	3.24
Sugar	3.44	4.5	30.81	3.85	3.99	3.64
Salt	1.23	1.58	28.46	1.52	1.6	5.26
Tea	0.32	0.46	43.75	0.37	0.38	2.70
Tobacco etc.	0.59	0.97	64.41	0.57	0.57	0.00
Liquor	0.49	0.96	95.92	0.38	0.38	0.00

Table-7.18: Annual consumption expenditure on sampled households

(Rs./HH)

Items	Project affected families			Project affected area		
	Before	After	Change (%)	Before	After	Change (%)
Rice	256.02	314.28	22.76	255.78	262.13	2.48
Wheat	237.73	272.03	14.43	255.08	262.27	2.82
Maize	53.09	55.79	5.09	43.13	43.43	0.70
Barley	3.45	9.08	163.19	4.26	4.26	0.00
Pulses	133.20	153.50	15.24	126.23	129.40	2.51
Vegetables	147.43	166.76	13.11	267.75	276.22	3.16
Meat/chicken /Eggs	357.08	560.25	56.90	287.32	289.99	0.93
Fruits	74.60	117.62	57.67	84.97	89.81	5.70
Edible oil	66.79	85.92	28.64	80.61	85.11	5.58
Milk	559.29	663.60	18.65	653.39	680.23	4.11
Sugar	54.88	80.78	47.19	58.03	59.53	2.58
Salt	10.37	13.69	32.02	13.19	13.98	5.99
Tea	88.91	126.80	42.62	85.61	92.69	8.27
Tobacco etc.	27.26	38.25	40.32	20.71	22.54	8.84
Liquor	82.33	130.39	58.37	62.12	62.32	0.32
Value of consumption (Annual)	25829.16	33464.88	29.56	27578.16	28486.92	3.30
Clothes	3027.01	3698.03	22.17	2790.30	2929.76	5.00
Footwear	2144.45	2854.30	33.10	2207.81	2345.17	6.22
Education	1836.04	2343.14	27.62	1497.95	1604.18	7.09
Health/Medicines	400.77	648.80	61.89	523.12	656.55	25.51
Marriage/festivals /ceremonies etc.	3178.15	3818.71	20.16	2506.64	2778.04	10.83
Annual value of consumption	10586.42	13362.98	26.23	9525.82	10313.70	8.27
Total consumption	36415.58	46827.86	28.59	37103.98	38800.62	4.57
Consumption /capita	7268.58	9460.17		7495.75	8151.39	

7.2.8 Impact on Investment Pattern of project affected families:

How the compensation money received from the project was utilized by the project affected families has been investigated. The results are presented in Table 7.19. The PAFs received an average amount of Rs.1.87 lakh as compensation out of this about 58 per cent has been put in the fixed deposits in the bank. About 29.26 per cent was used for construction of new permanent houses and about 3.24 per cent amount was used for purchase of agricultural land. About three percent of this amount has been invested in petty business and about 7 percent has been used in family consumption articles and purchase of consumer durables. Hence, it is clear from the analysis of utilization pattern of compensations amount that the compensations amount received by the PAFs have

been used for productive purposes and for consumer durable items (such as TV, Washing Machine, Refrigerator, two wheelers etc.), which have enhanced income earning capacity and standard of living of the project affected families.

The reasons for utilization of compensation for home consumption has been analysed and the responses are presented in Table 7.2. The analysis reveals that out of money invested on consumption; about 40 percent has been invested on social circumstances/family ceremonies etc and 23 percent on education. The compelling circumstances leading to consumption expenditure of compensation amount on food items was 20 percent. About 17 percent of consumption amount was used for medical emergencies.

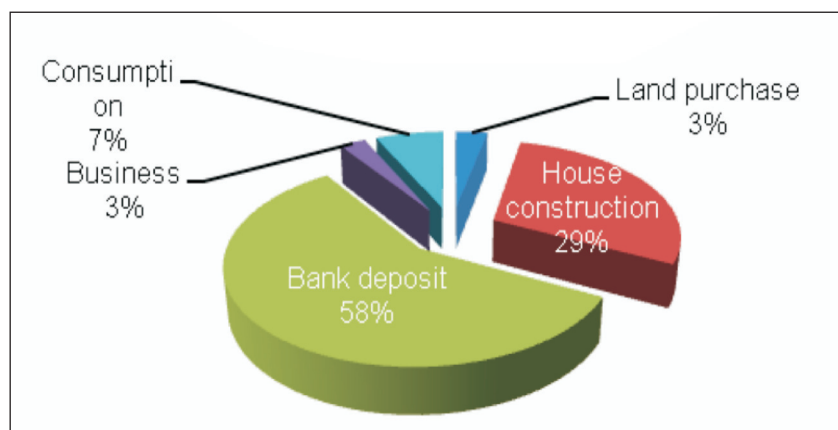


Fig-7.12: Utilization pattern of compensation

Table-7.19: Utilization of compensation received by project affected families

Use of cash compensation	Project affected families		Project affected area families	
	Average amount used (Rs/HH)	% age	Average amount used (Rs/HH)	% age
Purchase of land	6066.18	3.24	0.58	12.18
House construction	54782.12	29.26	0.07	1.47
Saving	108507.75	57.96	4.06	85.29
Loaned out	0.00	0.00	0.00	0.00
Business	4981.63	2.66	0.02	0.42
Consumption	12889.30	6.88	0.03	0.63
Total	187226.99	100.00	4.76	100.00

Table-7.20: Compelling circumstances leading to consumption expenditure by project affected families.

Circumstances	% of HH	Average amount used (Rs/HH)	% of amount
No other source of income	0.03	499.23	0.98
Medical emergencies	9.81	8516.31	16.64
Children education	7.55	11550.94	22.57
Compelling social circumstances/family ceremonies etc.	19.31	20266.89	39.61
Lax attitude	0.01	50.19	0.10
Safe to consume the small amount	8.79	10170.28	19.88
consumed Total	45.57	51167.43	100.00

7.3 Summing up

The socio economic features of sampled project affected families after the programme implementation are compared with situation before the project. The data reveal that the family size of the PAFs has declined from 5.01 to 4.95 persons per family (4.95 to 4.74 in PAAFs). The sex ratio has increased considerably (from 845 to 884 females per 1000 males). Literacy rate has increased from 79 per cent to 83 per cent. The average annual household income during the base line period was Rs. 54894 while now it is Rs 2441673. Hence, it is quite clear that after rehabilitation the income of PAFs has improved when we compare with before situation. The average per capita monthly expenditure of PAFs has increased from Rs.7269 to Rs 9460 (Rs 7496 to Rs 8151 in PAAFs), showing an improvement in their standard of living. The percent of workers engaged in regular employment has increased from 9.96 per cent to Rs 22.37 per cent, while in agriculture it has declined from 84 per cent to 73 per cent. There has been a slight decline in the proportion of workers engaged in business activities in PAFs while in case of PAAFs the proportion has increased. However, or the whole there has been no significant change in the total employment days of the family members. A significant change has been noticed in the housing situation. Now more people live in pucca (permanent) houses, more families have now separate bathrooms (26 % as compared to 7% earlier), and have separate toilets within house (26 %) as against 7 % earlier). However, the average size of land

holding of the families has declined from 0.64 ha to 0.57 ha. As compared to previous data the overall yield rate of maize has increased but that of wheat and paddy has decreased. Number of all types of livestock owned by the PAFs has declined; the major decline was in cow population. Before project on average a family owned 5.33 heads of livestock, the number of which declined to 4.63 only in 2011 which was due to the effects of project. Since holding sizes declined, the requirement of draught animals (bullocks) also declined on the farms. Earlier on average a family kept 0.35 bullock, which in 2011 declined to 0.30 bullock per family. The data collected from the sample PAFs clearly shows that the overall living standard of the families has improved due to project implementation. Following changes are noteworthy. There is significant increase in the proportion of workers in the regular employment, specially with projects and with its contractors as daily wage earners. Diversification of income and employment avenues through income generation schemes, towards business and other self employment activities, is taking place. There is improvement in the housing standard. The quality of health care has also improved due to enhancement of diagnostic facilities with the introduction of mobile health unit which tours villages in the project area. The project developers have taken measures to strengthen the existing infrastructure facilities, including health facilities and education and roads which are providing immense benefits to the PAFs in the project area.

Chapter 8

Perceptions and Responses - Stakeholders' Analysis

8.1 Project execution viz-a-viz other stakeholders

The projects being executed by different developers have many other stakeholders. The officials like Block Development Officers and other officials of this office, members of LADC, contractors, ward members etc are also concerned with the project execution and the outcome and impacts it would make on the environment, natural resources and the project affected population etc. The responses of all these concerned agencies have been analyzed to find out their responses in this concern, following text presents details.

8.2 Perception of BDOs and other officers regarding project activities

BDOs and other officers of his office is very important functionary concerned with the development activities of the respective block. However, they are not directly concerned with the affairs of the hydroelectric power projects in any significant manner but the ADM who is directly concerned with matter was reported to have feedback and guidance from the BDOs. It was due to this reason that all the BDOs or

other officers were not included in the study but the officers of block development offices concerned with Allain Duhangan, Budhil and RHEP were included in the study on a sample basis. It was found the all the respondents were satisfied with project activities (Table 8.1). They suggested that the activities like village paths (77%), roads (69%) and plantations (46%) should form the core LADC activities. Almost all the respondents were satisfied with the amount sanctioned for development activities and dissatisfaction, if any, was on account of less amount (23%), restrictions imposed on expenditure (8%) and delays in making the payments (23%), at overall level. In order to improve the scenario, they suggested that the amount should be increased for development activities (15%) and it should be released in a single installment (8%). The results of the analysis indicate that only about 46 per cent officials were happy with R&R plan. The reasons put forward for their view were no or inadequate drinking water (38%), street light (54%), health facilities (39%), sanitation (31%) and roads and paths (46%).

Table-8.1: Perception of BDOs regarding project activities, amount sanctioned and adequacy of R&R plan

Particulars	Projects			Total
	A.D	Budhil	RHEP	
1. Satisfaction with Suggested activities	100	100	100	100
Plantation	66.7	33.3	42.9	46.2
Roads	66.7	100.0	57.1	69.2
Village paths	100.0	66.7	85.7	84.6
2. Satisfaction with amount sanctioned	100.0	66.7	71.4	76.9
Reasons for dissatisfaction				
Less amount	0.0	33.3	28.6	23.1
Restriction for expenditure	0.0	0.0	14.3	7.7
Delay in payments	0.0	33.3	28.6	23.1
3. Adequacy of funds released	100.0	100.0	71.4	84.6
Improvements required				
Higher funds	0.0	0.0	28.6	15.4
In single installment	0.0	0.0	14.3	7.7
4. Adequacy of R&R plan	33.3	33.3	57.1	46.2
Reasons for counter view				
No or inadequate drinking water	33.3	66.7	28.6	38.5
No or inadequate street light	66.7	66.7	42.9	53.8
No or inadequate health facilities	66.7	33.3	28.6	38.5
No or inadequate sanitation	33.3	33.3	28.6	30.8
No or inadequate roads and paths	33.3	66.7	42.9	46.2

8.3 Perception of BDOs and other officers regarding LADC activities

The analysis indicates that about 54 per cent of the respondents have attended the LADC meetings at one or other time and of these about 30.8 per cent found the attitude of LADC officials supportive and about 15 per cent found it indifferent (Table 8. 2). About 69 per cent respondents found that coordination between LADC and block officials was proper,

the reasons put forward for poor coordination were lack of powers to BDOs (15%), Egoistic attitude of LADC members (15%) and political interference (31%). About 62 per cent of the respondents observed that developmental activities are being completed on time or are running as per time schedules. The reasons for delay were the delays in release of grants (31%), small amount of grant (23%) and mainly the political interference (39%).

Majority of the respondents felt that the grant release system was not proper, only about 39 per cent thought it to be proper. The main reasons of this view were that it was affected by the political interference (62%) and that grants are prone to be delayed (46%). The analysis of their perception about the implementation problems encountered in the projects revealed that about 39 per cent respondents thought that qualified workers not available, 84 per cent thought that wages were very high. Only about 46 per cent respondents attributed implementation problems to difficult terrain and 77 per cent to political interference. The respondents came out with some suggestions to improve the situation which were in the form of empowerment of BDOs (23%), improvement in grant release system (54%) and reduction in political interference (85%).

8.4 Contractors entrusted with execution of development works

The analysis indicates that little more than half of the contractors were assigned the work of construction of roads and bridges whereas the exactly half of the respondents were engaged in construction of village paths (Table 8.3). The percentage of contractors

engaged in construction of houses under R&R and other buildings was 4.76 and 11.90 respectively. About 38 per cent of contractors were satisfied with their coordination with Panchayat officials rest of them listed delayed payments (62%) and unrealistic time schedule (31%) as their reasons for dissatisfaction. At overall level about 88 per cent contractors provided employment to local people and this percentage was 100 per cent except for RHEP. During the execution of the assigned work the contractors faced many problems, the most important of which was un-remunerative rates as revealed by about 83 per cent contractors followed by high competition among the contractors' community (81%). Unavailability of skilled labour was cited as a reason by about 67 per cent respondents. Despite all these problems, about 67 per cent contractors' work, at overall level, was positively appraised by concerned authorities. The most important reason for dissatisfaction in this concern was undue interference in their work by supervising officials and local politicians cited by about 32 per cent contractors. Other reasons for dissatisfaction were deviations in work, time schedule and quality aspects.

Table-8.2: Perception of BDOs regarding LADC activities

Particulars	Projects			Total
	A.D	Budhil	RHEP	
1. Attendance of LADC meetings	66.7	33.3	57.1	53.8
Attitude of LADC officials				
Supportive	33.3	33.3	28.6	30.8
Indifferent	33.3	0.0	14.3	15.4
Negative	0.0	0.0	14.3	7.7
2. Proper coordination between LADC and block officials	100.0	33.3	71.4	69.2
Reasons for poor coordination				
Lack of powers to BDO	0.0	66.7	0.0	15.4
Egoistic attitude of LADC officials	0.0	33.3	14.3	15.4
Political interference	0.0	66.7	28.6	30.8
3. Timely completion of development activities	66.7	66.7	57.1	61.5
Reasons for delay				
delay in release of grant	33.3	33.3	28.6	30.8
Small amount of installment	0.0	33.3	28.6	23.1
Political interference	33.3	33.3	42.9	38.5
4. Proper grant release system	66.7	0.0	42.9	38.5
delay in release of grant	33.3	66.7	42.9	46.2
Political interference	33.3	100.0	57.1	61.5
5. Implementation problems				
-Qualified workers not available	66.7	66.7	14.3	38.5
-Higher wages	100.0	100.0	71.4	84.6
-Difficult terrain	66.7	100.0	14.3	46.2
-Political interference	100.0	33.3	85.7	76.9
6. Suggestion for improvement				
-Empowerment of BDOs	0.0	66.7	14.3	23.1
-Improvement in grant release system	66.7	33.3	57.1	53.8
-Reduction in political interference	66.7	100.0	85.7	84.6

Table-8.3: Perception of contractors regarding work assignment and satisfaction

(%, multiple responses)

Particulars	Projects						Total
	Budhil	Binwa	KWHEP	Neogal	RHEP	Sorang	
1. Assignment of contractor							
Roads/bridges	100.00	100.00	44.44	75.00	40.00	33.33	54.76
Houses(R&R)	0.00	0.00	0.00	0.00	13.33	0.00	4.76
Buildings	0.00	0.00	33.33	0.00	13.33	0.00	11.90
Village paths	100.00	100.00	22.22	50.00	33.33	66.67	50.00
2. Proper coordination with Panchayat officials	40.00	33.33	33.33	50.00	40.00	33.33	38.10
Reasons for dissatisfaction							
Delayed payments	60.00	66.67	66.67	50.00	60.00	66.67	61.90
Time schedule	20.00	33.33	33.33	25.00	33.33	33.33	30.95
3. Employment to locals	100.00	100.00	100.00	100.00	66.67	100.00	88.10
4. Problems faced							
High competition	80.00	66.67	77.78	75.00	86.67	83.33	80.95
Unremunerative rates	100.00	100.00	66.67	75.00	80.00	100.00	83.33
Unavailability of skilled labour	60.00	66.67	66.67	50.00	73.33	66.67	66.67
5. Positive appraisal work	60.00	100.00	66.67	50.00	66.67	66.67	66.67
Reasons for dissatisfaction							
Work deviation	20.00	0.00	0.00	25.00	13.33	16.67	11.90
Adherence to time schedule	40.0	0.0	50.0	22.2	50.0	6.7	15.9
Undue interference	40.0	0.0	75.0	22.2	66.7	13.3	31.7
Quality aspects	20.0	0.0	25.0	0.0	33.3	6.7	15.9

8.5 Involvement of project developers and their experiences

The employees of different designations were interviewed for quantifying their experiences and perceptions of various aspects of project activities and its impact on affected population. All these employees have been clubbed together and termed as 'project developers' in succeeding text. The sample of project employees was constituted by managers (29%), engineers (24%), assistant managers (32%) and directors (15%), the project wise

details can be seen from the Table 8.4.

8.5.1 Villagers' cooperation and impact on natural resources: About 47 per cent of the project developers found the villagers to be cooperative and did not create undue hindrances in carrying out their activities. The reasons for non-cooperation were varied. About half of the respondents felt that it was due to non-fulfillment of their demand of permanent employment which was followed by low salary (32%) and demand for house crack

8.5.4 Efficacy of LADC and project activities:

This section presents the perception of project developers about LADC and other related aspects, the results have been presented in Table 8.7. It was found that at overall level only about 29 per cent of the respondents thought the LADC to be proper instrument for bringing about the development of the respective areas. Largest percentage of respondents, about 65 per cent thought that it is more important to involve project management in LADC activities. Simultaneously, about 44 per cent thought that LADC is more or less a political body and hence development of area and PAF is not a priority for the LADC. About 38 per cent respondents also thought that the LADC redistributes the earmarked funds and hence the money deposited by project management is not properly utilized for the purposes for which it was meant. This was the reason that only about 21 per cent respondents thought that there is proper utilization of funds under LADC. The improper utilization of funds, as the respondents thought, was due to absence of project management from the body; about 71 per cent were of this view. Poor planning and political differences of LADC members were other reasons quoted by about 40 per cent respondents.

It was heartening to note that about 75 per cent respondents had knowledge of project affected families and about 82 per cent knew the R&R plan at overall level. Half of the respondents had knowledge of agitations by affected population and as per their knowledge the causes of agitations were demands for permanent employment, higher salary, higher land compensation and compensation for crop damage and house cracks. None of the

respondents thought that the agitations were justified, 44 per cent rated it as unjustified and 6 per cent had no response in this concern.

It was thought pertinent to analyze the perceptions about the problems being faced by project management in their endeavors. The main problem emerging was land acquisition as mentioned by about 59 per cent respondents. Half of the respondents also thought that the cause of problem was interference from state government. None of the respondents thought that R&R posed any problems for project management.

8.6 Local administration officials

The local administration is another agency involved in monitoring all aspects of project implementation. It was therefore considered important to record their views about LADC and other aspects, the results have been presented in Table 8.8 wherein it may be seen that according to them the development plans were prepared through Panchayat, about 89 per cent responding in this manner. About 35 per cent thought that it was through citizen demand charter and according to about 20 per cent it was through concerned MLA with involvement of Panchayat. All the 54 respondents were satisfied with the funds to LADC but only about 70 per cent thought that LADC is a proper instrument for development of respective project affected areas. There were two suggestions for improvement; more powers to panchayats and BDOs. About 70 per cent respondents thought that there is proper coordination between LADC members and the bottlenecks highlighted were that of lack of follow-up, Panchayat politics and no prioritization of development activities. In the

compensation (29%). Other demands pertained to compensation for crop damage and compensation at higher rates. Non-fulfillment or partial fulfillment of these demands led to attitude of villagers which in their view was not very cooperative.

The responses of project developers were recorded about their perception of impact of project activities on natural resources and environment and the results have been presented in the same table. It was found that half of the project developers thought it was making positive impact due to plantation and other conservation efforts. However, about 21 per cent thought the impact to be negative and in the opinion of rest of about 29 per cent the project activities were not making any impact on natural resources and environment. Further probe in this respect revealed that negative impact was perceived to be mainly on air pollution (21%) followed by crop yields and soil erosion, 14.7 per cent each. None of the respondents felt that their activities were making negative impact on human health.

8.5.2 Socioeconomic impact of projects:

The socioeconomic impact of project activities has been analyzed in this section and the results presented in table 8.5. It may be seen from the table that about 41 per cent of the respondents perceived the impact on agriculture sector to be positive and only about 3 per cent thought it to be negative. In the opinion of about 56 per cent respondents there was no impact of project activities on agriculture sector. But all the respondents perceived the impact on business activities of the respective area to be positive. The impact of project activities on farm employment was

perceived as positive by majority of about 71 per cent respondents, the rest perceived no impact in this respect and none thought the impact to be negative. As far as nonfarm employment is concerned all the respondents perceived the impact on to be positive. Same was the case with income of respective households, perception of impact being only positive. All the respondents felt that the project execution has no impact at all on the social aspects like disaggregation of society and crime rate in the area.

8.5.3 Loss compensation and development programmes:

All the respondents felt that to compensate the losses of affected population was a moral obligation for the project management, Table 8.6. They also felt that the development programmes being implemented in respective areas were sufficient to off-set any losses of the affected population. The analysis of their perception about the types of development programmes revealed that all the respondents thought that the programmes were related with development of road network in the area. This was followed by employment oriented programmes (in the opinion of about 79% respondents), programmes related with education (in the opinion of about 71% respondents) and health programmes (in the opinion of about 65% respondents). Other programmes being run pertained to plantations, drinking water and sanitation. On the implementation front, about 44 per cent thought the implementation to be proper and the rest attributed the reasons for improper implementation to be unavailability of funds (24%), political/local interference (47%), difficult terrain (38%) and inclement weather (29%).

view of respondents, major problems being faced by PAF were home crack payments (46%), crop damage payments (35%), assistance to indirectly affected families (37%) and permanent employment (35%).

8.7 Perception of local administration officials regarding R&R activities

The analysis revealed that about 39 per cent respondents thought that concerns of R&R are taken into consideration in planning and similar percentage was satisfied with R&R activities (Table 8.9). However, rest of the respondents thought that there were many shortcomings with R&R activities. These shortcomings pertained to lack of drinking water, lack of street lights, lack of roads, lack of disturbance allowance, lack of compensation, lack of employment opportunities and lack of assistance for education to directly affected families. The percentage of respondents confirming to these were 27.8, 18.5, 16.7, 20.4, 11.1, 9.3 and 14.8 respectively. Only about 15 per cent respondents had visited R&R sites and about 22 per cent thought that the displaced families have been settled near to their original villages. About 28 per cent respondents had knowledge of agitations by PAFs and perceived their demands as higher compensation for land and house, infrastructure creation, employment oriented demands and compensation for crop damage. Only about 15 per cent thought their demands to be justified and listed local politics, demand for higher assistance and just following others as factors behind the agitations. But they also perceived many long run benefits from the project for the PAFs and others also. Higher income, better education and tourism opportunities were the

long term benefits perceived by the respondents.

8.8 Analysis of LADC members

The members of LADC are the key persons who are in a key position to carry out and regulate the development activities. The following text presents the details of their perceptions and other variables.

8.8.1 Perception of LADC members regarding Local Area Development Activities:

The analysis of perceptions of LADC members regarding the amount sanctioned revealed that about 91 per cent respondents were satisfied with the amount, however the remaining about 9 per cent wanted this amount to be in the range of about 3 per cent of the total project cost, Table 8.10 provides details. According to about 52 per cent members the development priority was drinking water which was followed by village paths (35.7% members) and roads (30.4% members). Further, about 84 per cent respondents felt that LADC is adequate agency for development of PAF and remaining felt that funds should be released directly to panchayats for carrying out development activities. Large majority of about 93 per cent respondents felt that there was proper coordination among the LADC members the rest felt that lack of coordination was due to political interference. About 84 per cent felt that funds released system was proper and the rest again advocated the release of funds to panchayats. About 64 per cent of the respondents had visited the actual work sites and about 52 per cent had observed the timely work completion. Almost all had attended the

meetings (98.2%). About 43 per cent of the respondents were satisfied with the project activities; the reasons cited for their dissatisfaction were delay in work completion (30%), change in original work priority (36%) and because R&R plan was not fully implemented (37%).

8.9 Ward members

The ward members are the public representatives who are concerned with the development of their respective jurisdictions through the funds made available through various governmental and other agencies like the projects being constructed in their areas. Due to this fact the analysis of their perceptions and responses is very important. With this in mind the present analysis has been carried out.

8.9.1 Perception of ward members regarding Local area development activities:

As was obvious the ward members knew about the ongoing developmental activities in their wards, the details have been presented in Table 8.11. The table reveals that majority; about 80 per cent sampled members said that construction of village paths was going on in their wards. This was followed by construction of roads, 53.3 per cent. Other activities were construction of school building, forest plantation and foot bridge etc. About 68 per cent of the respondents were consulted by LADC and the suggestions of about 60 per cent were incorporated in the development plan. These activities were village paths, buildings and roads. Simultaneously, there were activities like equal benefits for PAF &PAA, special allowance to PAA and that ward members should be in LADC were not agreed

to by the members of LADC. These activities were not agreed as these demands were not in consonance as per R&R policy.

8.10 Suggested activities

There were many activities (Table 8.12) which were suggested by LADC members and these were accepted by the ward members. These activities were village path & roads, suggested by about 33 per cent members, temples suggested by about 31 per cent members and buildings suggested by about 22 per cent members. In addition to this the ward members also made representation for the demand of village path (about 5%), crematoria (about 3%), temples (about 3%), village roads (about 3%), retaining walls (about 1%) and community halls (about 39%). The only reason for not accepting the demands was cited as lack of funds.

8.11 Perception of ward members regarding project activities

The ward members discussed the development activities desired in their areas with project authorities, 23 per cent of the respondents did so, Table 8.13. It was found that about 15 per cent found the response to be positive, 6 per cent as neutral and the rest as negative attitude. About 71 per cent of the respondents observed that there was proper coordination between locals and project authorities. The suggestions to improve the coordination were to involve the ward members and give priority to village groups like Mahila and Yuvak Mandals etc. About 82 per cent respondent felt that the project activities had made positive impact on village economy and well being of the people mainly due to higher

income, employment opportunities and infrastructure creation. The ward members having counterview thought that positive impact, if any, was being neutralized due to wide spread favoritism.

8.12 Attitude of public representatives

The attitude of public representatives as perceived by ward members has been categorized in to being positive, negative and neutral. The analysis revealed that the ward members did not perceive the attitude of public representative to be very good, details have been provided in Table 8.14 wherein it may be seen that about 52 per cent respondents perceived the attitude of MLAs being negative. About 86 per cent ward members thought the attitude of MPs being indifferent. Only about 21 per cent respondents thought the attitude of Zila Parishad Chairman to be positive and majority of about 58 per cent perceived it to be indifferent. Similarly, about 62 per cent respondents perceived the attitude of BDC chairman to be indifferent and so were BDC members in the perception of about 61 per cent ward members.

8.13 Summing up

The officials like Block Development Officers and other officials of this office, members of LADC, contractors, ward members etc are also concerned with the project execution responses of all these concerned agencies have been analyzed. It was found BDOs and other officers were satisfied with project activities and suggested that the activities like plantations, roads and village paths should form the core LADC activities. They were satisfied with the amount sanctioned

for development activities and dissatisfaction was on account of low amount and restrictions imposed on expenditure etc. They suggested that the amount should be increased for development activities and it should be released in a single installment. Only about 46 per cent officials were happy with R&R plan.

The analysis of perception of BDOs and other officers regarding LADC activities indicates that about half of them had attended the LADC meetings and of these about 30.8 per cent found the attitude of LADC officials supportive and about 15 per cent found it indifferent. Majority found coordination between LADC and block officials to be proper. Majority also felt that developmental activities are being completed on time. Majority of the respondents felt that the grant release system was not proper. The main reasons of this view were that it was affected by the political interference and that grants are prone to be delayed.

About 38 per cent of contractors were satisfied with their coordination with Panchayat officials; rest of them listed delayed payments and unrealistic time schedule as their reasons for dissatisfaction. At overall level about 88 per cent contractors provided employment to local people. The most important problem they faced was un-remunerative rates and high competition among the contractors' community. Despite all these problems, about 67 per cent contractors' work was positively appraised. The most important reason for dissatisfaction in this concern was undue interference in their work by supervising officials and local politicians.

About half of per cent of the project developers found the villagers to be

cooperative, the reasons for non-cooperation were the non-fulfillment of their demand of permanent employment and low salary etc. Their responses about impact of project activities on natural resources and environment revealed that half of the project developers thought it was making positive impact due to plantation and other conservation efforts. However, about 21 per cent thought the impact to be negative and in the opinion of rest of about 29 per cent the project activities were not making any impact on natural resources and environment. About 41 per cent of the respondents perceived the impact on agriculture sector to be positive. In the opinion of about 56 per cent respondents there was no impact of project activities on agriculture sector. But all the respondents perceived the impact on business activities of the respective area to be positive. The impact of project activities on farm and non-farm employment was perceived as positive by majority. Same was the case with income of respective households. All the respondents felt that the project execution has no impact at all on the social aspects like disaggregation of society and crime rate in the area.

The perception of project developers about LADC and other related aspects revealed that at overall level only about 29 per cent of the respondents thought the LADC to be proper instrument for bringing about the development of the respective areas. Largest percentage of respondents, about 65 per cent thought that it is more important to involve project management in LADC activities. Simultaneously, about 44 per cent thought that LADC is more or less a political body.

The majority of members of local

administration felt that the development plans were prepared through Panchayat. All the 54 respondents were satisfied with the funds to LADC but only about 70 per cent thought that LADC is a proper instrument for development of respective project affected areas. Only about 39 per cent respondents thought that concerns of R&R are taken into consideration in planning and similar percentage was satisfied with R&R activities. However, rest of the respondents thought that there were many shortcomings with R&R activities. Only about 15 per cent respondents had visited R&R sites and about 22 per cent thought that the displaced families have been settled near to their original villages. Higher income, better education and tourism opportunities were the long term benefits perceived by the respondents. The perceptions of LADC members regarding the amount sanctioned revealed that about 91 per cent respondents were satisfied with the amount. According to about 52 per cent members the development priority was drinking water. Further, about 84 per cent respondents felt that LADC is adequate agency for development.

The ward members knew about the ongoing developmental activities in their wards and majority said that construction of village paths was going on in their wards. About 68 per cent of the respondents were consulted by LADC and the suggestions of about 60 per cent were incorporated in the development plan.

The attitude of public representatives as perceived by ward members revealed that they did not find it to be very good with about 52 per cent respondents perceiving the attitude of MLAs being negative.

Table-8. 4: Perception of project developers regarding villagers' cooperation and impact on natural resources

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. Designation of employee	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manager	25.0	25.0	33.3	100.0	33.3	33.3	33.3	20.0	33.3	20.0	29.4
Assistant Engineer	50.0	25.0	33.3	0.0	0.0	0.0	33.3	60.0	0.0	0.0	23.5
Assistant Manager	25.0	25.0	33.3	0.0	33.3	66.7	33.3	20.0	33.3	40.0	32.4
Project Director	0.0	25.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	40.0	14.7
2. Perception about villagers being cooperative	100.0	25.0	0.0	100.0	0.0	100.0	0.0	80.0	33.3	40.0	47.1
Reasons for non-cooperation											
House cracks compensation	0.0	75.0	0.0	0.0	100.0	0.0	33.3	20.0	0.0	40.0	29.4
Crop damage compensation	0.0	75.0	0.0	0.0	33.3	0.0	33.3	20.0	0.0	40.0	23.5
Low salary	0.0	50.0	100.0	0.0	66.7	0.0	66.7	0.0	66.7	0.0	32.4
Permanent employment	0.0	75.0	100.0	0.0	100.0	0.0	100.0	20.0	66.7	40.0	50.0
Higher compensation	0.0	25.0	66.7	0.0	33.3	0.0	66.7	20.0	0.0	20.0	23.5
3. Project impact on natural resources and environment											
positive impact	100.0	25.0	66.7	100.0	33.3	100.0	0.0	60.0	0.0	40.0	50.0
Negative impact	0.0	25.0	0.0	0.0	33.3	0.0	66.7	20.0	0.0	40.0	20.6
No impact	0.0	50.0	33.3	0.0	33.3	0.0	33.3	20.0	100.0	20.0	29.4
Negative impact on											
Pollution	0.0	25.0	0.0	0.0	33.3	0.0	66.7	20.0	0.0	40.0	20.6
Health	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural resources	0.0	0.0	0.0	0.0	0.0	0.0	66.7	20.0	0.0	0.0	8.8
Crop yield	0.0	0.0	0.0	0.0	33.3	0.0	66.7	0.0	0.0	40.0	14.7
Soil erosion	0.0	0.0	0.0	0.0	33.3	0.0	66.7	0.0	0.0	40.0	14.7

Table- 8.5: Responses of project developers regarding socioeconomic impact of project

Impact on	Projects										(%)
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	Total
Agriculture											
+ve	50.0	50.0	66.7	0.0	66.7	0.0	66.7	40.0	0.0	40.0	41.2
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	2.9
-No impact	50.0	50.0	33.3	100.0	33.3	100.0	33.3	60.0	100.0	40.0	55.9
Business											
+ve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Farm employment											
+ve	50.0	100.0	100.0	0.0	100.0	33.3	100.0	60.0	0.0	100.0	70.6
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	50.0	0.0	0.0	0.0	0.0	66.7	0.0	40.0	100.0	0.0	26.5
Non-farm employment											
+ve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income											
+ve	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Disaggregation of society											
+ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Crime rate											
+ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-ve	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-No impact	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table-8. 6: Perception of project developers regarding loss compensation and development programmes

(%, multiple responses)

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. To compensate losses is moral obligation of project developer	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2. Sufficiency of development programmes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3. Development programmes related with											
Plantation	50.0	50.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	20.6
Roads	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Health	100.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	0.0	60.0	64.7
Drinking water	100.0	100.0	0.0	0.0	100.0	0.0	100.0	60.0	0.0	60.0	58.8
Employment	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	79.4
Education	100.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	100.0	40.0	70.6
sanitation	100.0	50.0	0.0	0.0	100.0	0.0	0.0	60.0	0.0	0.0	35.3
4. Proper implementation of programmes	50.0	50.0	66.7	100.0	33.3	66.7	0.0	60.0	0.0	40.0	44.1
Reasons for improper implementation											
Unavailability of funds	25.0	50.0	0.0	100.0	0.0	0.0	33.3	0.0	33.3	40.0	23.5
Political/local interference	50.0	50.0	0.0	200.0	66.7	0.0	100.0	40.0	33.3	40.0	47.1
Difficult terrain	50.0	25.0	33.3	100.0	33.3	0.0	66.7	0.0	66.7	60.0	38.2
Inclement weather	25.0	0.0	0.0	0.0	33.3	33.3	33.3	0.0	100.0	60.0	29.4

Table-8. 7: Perception of project developers regarding LADC and project activities

(%, multiple responses)

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. LADC is proper instrument	50.0	25.0	33.3	100.0	33.3	66.7	0.0	0.0	0.0	40.0	29.4
Reasons for counterview											
-Involvement of project	25.0	75.0	66.7	0.0	66.7	33.3	100.0	100.0	66.7	60.0	64.7
-management is important											
-LADC is political body	50.0	25.0	33.3	0.0	33.3	33.3	66.7	80.0	66.7	20.0	44.1
-It redistributes earmarked funds	50.0	25.0	33.3	0.0	33.3	33.3	33.3	60.0	33.3	40.0	38.2
2. Proper utilization of funds	0.0	25.0	33.3	100.0	33.3	66.7	0.0	0.0	0.0	20.0	20.6
Reasons for counterview											
-Poor planning	25.0	50.0	33.3	0.0	66.7	33.3	100.0	60.0	0.0	40.0	44.1
-Political differences of members	75.0	50.0	33.3	0.0	33.3	33.3	0.0	80.0	0.0	40.0	41.2
-Absence of project management	50.0	75.0	66.7	0.0	66.7	33.3	100.0	100.0	100.0	60.0	70.6
3. Knowledge of PAF	75.0	75.0	100.0	100.0	66.7	66.7	66.7	100.0	33.3	60.0	73.5
4. Knowledge of R&R plan	100.0	100.0	100.0	0.0	100.0	0.0	66.7	100.0	66.7	100.0	82.4
5. Knowledge of agitations	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	50.0
Demands of agitators											
-Permanent employment	0.0	75.0	0.0	0.0	66.7	0.0	0.0	60.0	0.0	60.0	32.4
-Higher salary	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	8.8
-Higher land compensation	0.0	50.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	40.0	17.6
-Compensation for crop damage and house cracks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	8.8
6. Justification of agitation											
-Justified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Unjustified	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	60.0	44.1
-No response	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	5.9
-Agitation was successful	0.0	75.0	0.0	0.0	66.7	0.0	0.0	60.0	0.0	40.0	29.4
7. Problems faced by project management											
-Land acquisition	0.0	100.0	0.0	0.0	100.0	0.0	100.0	60.0	100.0	80.0	58.8
-R&R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-LADC	0.0	50.0	0.0	0.0	66.7	0.0	100.0	0.0	66.7	40.0	32.4
-State government	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	80.0	50.0

Table-8. 8: Perception of local administration officials regarding LADC activities

(%)

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. Method for development plan process											
-In LADC meeting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Through Panchayat	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	88.9
-Through revenue officials	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Through MLA & Panchayat	0.0	0.0	0.0	0.0	28.6	0.0	100.0	0.0	0.0	50.0	20.4
-Group consultation with PAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Citizen demand charter	0.0	62.5	66.7	0.0	0.0	0.0	0.0	0.0	0.0	50.0	35.2
2. Adequacy of funds to LADC	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0
3. LADC is proper instrument	100.0	37.5	50.0	100.0	42.9	100.0	83.3	100.0	0.0	50.0	70.4
Suggestions for improvement											
-More powers to Panchayat	0.0	25.0	16.7	0.0	14.3	0.0	33.3	0.0	0.0	16.7	13.0
-More powers to B.D.O.	0.0	50.0	33.3	0.0	42.9	0.0	33.3	0.0	0.0	33.3	24.1
4.Coordination among LADC	100.0	50.0	66.7	100.0	71.4	100.0	0.0	100.0	0.0	66.7	70.4
Bottlenecks											
-Lack of follow up	0.0	50.0	0.0	0.0	42.9	0.0	0.0	0.0	0.0	50.0	18.5
-Panchayat politics	0.0	50.0	0.0	0.0	71.4	0.0	83.3	0.0	0.0	33.3	29.6
-No prioritization	0.0	50.0	33.3	0.0	28.6	0.0	33.3	0.0	0.0	16.7	20.4
-LADA does not exists	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	11.1
5. Major problems of PAF											
Home crack payments	0.0	75.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	50.0	46.3
-Crop damage payments	0.0	37.5	0.0	0.0	57.1	0.0	0.0	100.0	0.0	50.0	35.2
-Assistance to indirectly affected families	0.0	87.5	0.0	0.0	28.6	0.0	33.3	100.0	0.0	0.0	37.0
-Permanent employment	100.0	12.5	16.7	0.0	42.9	100.0	66.7	0.0	0.0	33.3	35.2

Table-8. 9: Perception of local administration officials regarding R&R activities

(%, multiple responses)

Particularst	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. Consideration of R&R concerns	0.0	25.0	33.3	0.0	42.9	0.0	50.0	100.0	0	33.3	38.9
2. Satisfaction with R&R Shortcomings in R&R	0.0	75.0	66.7	0.0	57.1	0.0	16.7	55.6	0	16.7	38.9
Lack of drinking water	0.0	25.0	33.3	0.0	57.1	0.0	50.0	0.0	0	66.7	27.8
Lack of street lights	0.0	37.5	33.3	0.0	42.9	0.0	16.7	0.0	0	16.7	18.5
Lack of roads	0.0	25.0	33.3	0.0	28.6	0.0	16.7	0.0	0	33.3	16.7
Lack of disturbance allowance	0.0	25.0	50.0	0.0	28.6	0.0	33.3	0.0	0	33.3	20.4
Lack of compensation	0.0	0.0	0.0	0.0	28.6	0.0	33.3	0.0	0	33.3	11.1
Lack of employment opportunities	0.0	25.0	0.0	0.0	28.6	0.0	16.7	0.0	0	0.0	9.3
Lack of assistance for education to directly affected families	0.0	25.0	16.7	0.0	28.6	0.0	16.7	0.0	0	33.3	14.8
3. Visit to R&R sites	0.0	0.0	0.0	0.0	42.9	0.0	0.0	100.0	0	0.0	22.2
4. Settlement near to village	0.0	0.0	0.0	0.0	42.9	0.0	0.0	100.0	0	0.0	22.2
5. Knowledge of agitations	0.0	50.0	0.0	0.0	42.9	0.0	50.0	33.3	0	33.3	27.8
Demands of agitators											
-Higher compensation for land and house	0.0	50.0	0.0	0.0	42.9	0.0	50.0	33.3	0	33.3	27.8
-Infrastructure creation	0.0	25.0	0.0	0.0	42.9	0.0	33.3	33.3	0	0.0	18.5
-Employment oriented demands	0.0	37.5	0.0	0.0	28.6	0.0	50.0	33.3	0	33.3	24.1
-Compensation for crop damage	0.0	50.0	0.0	0.0	42.9	0.0	50.0	33.3	0	33.3	27.8
6. Justification of agitation	0.0	25.0	0.0	0.0	28.6	0.0	33.3	0.0	0	33.3	14.8
Factors behind agitation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
-Local politics	0.0	50.0	0.0	0.0	42.9	0.0	50.0	33.3	0	50.0	29.6
-Demand for higher assistance	0.0	50.0	0.0	0.0	57.1	0.0	50.0	0.0	0	50.0	25.9
-Following leader	0.0	12.5	0.0	0.0	28.6	0.0	16.7	0.0	0	16.7	9.3
7. Long run benefits of projects	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0	100.0	100.0
Reasons for justification											
-Higher income	66.7	37.5	50.0	50.0	57.1	100.0	50.0	44.4	0	50.0	51.9
-Better education	33.3	50.0	50.0	50.0	28.6	0.0	33.3	100.0	0	50.0	50.0
-Tourism opportunities	33.3	37.5	33.3	100.0	42.9	0.0	16.7	100.0	0	33.3	48.1

Table-8. 10: Perception of LADC members regarding LADC activities

(%, multiple responses)

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. Satisfaction with amount If dissatisfied, amount required (3%)	25.0 75.0	100.0 0.0	100.0 0.0	0.0 0.0	100.0 0.0	0.0 0.0	100.0 0.0	90.0 10.0	100.0 0.0	100.0 0.0	91.1 8.9
2. Priority of development activities undertaken											
Roads	50.0	37.5	40.0	0.0	40.0	0.0	40.0	5.0	66.7	50.0	30.4
Foot bridges	25.0	0.0	0.0	0.0	60.0	0.0	0.0	5.0	0.0	0.0	8.9
Village paths	25.0	50.0	100.0	0.0	60.0	0.0	60.0	0.0	33.3	50.0	35.7
Drinking water	0.0	37.5	0.0	0.0	60.0	0.0	60.0	90.0	0.0	33.3	51.8
3. Adequacy of LADC for PAF development	50.0	100.0	100.0	0.0	100.0	0.0	0.0	90.0	100.0	100.0	83.9
Suggestion, funds to be released to Panchayat	50.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	7.1
4. Proper coordination among LADC members	50.0	100.0	100.0	0.0	100.0	0.0	100.0	90.0	100.0	100.0	92.9
No cooperation due to politics	50.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	7.1
5. Funds release system is proper	50.0	100.0	100.0	0.0	100.0	0.0	0.0	90.0	100.0	100.0	83.9
Funds should be released directly to Panchayat	50.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	7.1
6. Site visits by LADC members	50.0	50.0	40.0		80.0		0.0	95.0	66.7	50.0	64.3
Observation of timely work completion	0.0	37.5	20.0	0.0	60.0	0.0	0.0	90.0	66.7	33.3	51.8
Observation that work likely to be delayed	50.0	12.5	20.0	0.0	20.0	0.0	0.0	5.0	0.0	16.7	12.5
7. LADC meeting attendance	100.0	100.0	100.0	0.0	100.0	0.0	100.0	95.0	100.0	100.0	98.2
Discussion issues				0.0		0.0					
All aspects discussed	100.0	100.0	100.0	0.0	100.0	0.0	100.0	95.0	100.0	100.0	98.2
Guidelines for work sanctioning	100.0	100.0	100.0	0.0	100.0	0.0	100.0	95.0	100.0	100.0	98.2
8. satisfied with project activities	50.0	50.0	40.0	0.0	40.0	0.0	0.0	50.0	33.3	50.0	42.9
Reasons for dissatisfaction											
Delay in work completion	25.0	12.5	40.0	0.0	40.0	0.0	0.0	40.0	66.7	16.7	30.4
Priority of work changed	25.0	25.0	60.0	0.0	40.0	0.0	0.0	45.0	33.3	33.3	35.7
R&R plan not fully implemented	50.0	25.0	40.0	0.0	40.0	0.0	0.0	40.0	66.7	50.0	37.5

Table-8.11: Perception of ward members regarding LADC activities

(%, multiple responses)

Particulars	Projects										
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	Total
1.Activities undertaken in the Ward											
School building	11.1	23.1	0.0	0.0	66.7	40.0	37.5	13.3	0.0	13.3	21.3
Forest plantation	16.7	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	4.9
Construction of road	72.2	100.0	100.0	8.3	80.0	0.0	100.0	0.0	0.0	80.0	53.3
Construction of path	100.0	100.0	100.0	8.3	100.0	40.0	100.0	83.3	0.0	66.7	80.3
Street light	38.9	30.8	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	17.2
Foot bridge	5.6	0.0	0.0	0.0	66.7	0.0	75.0	0.0	0.0	0.0	13.9
Irrigation facilities	100.0	0.0	0.0	0.0	80.0	0.0	100.0	10.0	0.0	0.0	33.6
Other	5.6	23.1	0.0	8.3	66.7	20.0	87.5	6.7	0.0	46.7	26.2
2. Ward members consulted by LADC	100.0	38.5	0.0	100.0	46.7	100.0	0.0	100.0	0.0	40.0	68.0
Member whose suggestions incorporated	100.0	23.1	0.0	100.0	20.0	100.0	0.0	100.0	0.0	13.3	59.8
Activities suggested and agreed											
Village paths	100.0	15.4	0.0	100.0	20.0	100.0	0.0	100.0	0.0	13.3	59.0
Roads	0.0	7.7	0.0	0.0	13.3	0.0	0.0	0.0	0.0	6.7	3.3
Buildings	0.0	7.7	0.0	0.0	20.0	0.0	0.0	0.0	0.0	6.7	4.1
Activities suggested but not agreed											
Equal benefits for PAF &PAA	0.0	15.4	0.0	0.0	26.7	0.0	0.0	0.0	0.0	26.7	8.2
Special allowance to PAA	0.0	7.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	6.7	2.5
Ward members should be in LADC	0.0	15.4	0.0	0.0	13.3	0.0	0.0	0.0	0.0	6.7	4.1
Reasons for disagreement											
Demands not as per R&R policy	0.0	15.4	0.0	0.0	26.7	0.0	0.0	0.0	0.0	26.7	8.2

Table- 8.12: Perception of ward members regarding suggested activities

(%, multiple responses)

Particulars	Projects										
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	Total
1. Activities suggested by LADA and agreed by ward members											
Village path & roads	0.0	76.9	83.3	0.0	80.0	0.0	0.0	0.0	0.0	86.7	32.8
Temples	0.0	61.5	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	31.1
Buildings	0.0	46.2	0.0	0.0	73.3	0.0	0.0	0.0	0.0	66.7	22.1
2.Members made representation for demand	100.0	23.1	0.0	25.0	20.0	60.0	0.0	100.0	0.0	13.3	50.8
Demand in representation									0.0		
Village path	0.0	23.1	0.0	8.3	0.0	20.0	0.0	0.0	0.0	6.7	4.9
Crematoria	0.0	7.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	6.7	2.5
Temples	0.0	0.0	0.0	8.3	20.0	0.0	0.0	0.0	0.0	0.0	3.3
Village roads	0.0	0.0	0.0	16.7	0.0	20.0	0.0	0.0	0.0	0.0	2.5
Retaining walls	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.8
Community hall	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	39.3
Reasons for not accepting											
Lack of funds	0.0	0.0	0.0	75.0	0.0	40.0	0.0	0.0	0.0	0.0	9.0

Table-8.13: Perception of ward members regarding project activities

(%, multiple responses)

Particulars	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
1. Consultation of development activities with project authorities	0.0	69.2	0.0	0.0	53.3	0.0	62.5	0.0	0.0	40.0	23.0
Response of authorities											
Positive	0.0	38.5	0.0	0.0	40.0	0.0	50.0	0.0	0.0	26.7	15.6
Neutral	0.0	23.1	0.0	0.0	13.3	0.0	12.5	0.0	0.0	6.7	5.7
Negative	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	1.6
2. Proper coordination between local people and project authorities	100.0	30.8	66.7	100.0	26.7	100.0	50.0	100.0	0.0	40.0	71.3
Suggestions for proper coordination											
Involvement of ward members	0.0	38.5	33.3	0.0	40.0	0.0	25.0	0.0	0.0	33.3	16.4
Priority to village groups	0.0	30.8	0.0	0.0	33.3	0.0	25.0	0.0	0.0	26.7	12.3
3. Positive impact of project	100.0	84.6	100.0	83.3	66.7	100.0	25.0	83.3	0.0	86.7	82.0
Reason for positive impact											
Higher income	50.0	61.5	66.7	50.0	33.3	60.0	12.5	66.7	0.0	33.3	50.0
Employment opportunities	55.6	53.8	50.0	16.7	40.0	60.0	25.0	33.3	0.0	26.7	38.5
Infrastructure creation	83.3	46.2	83.3	16.7	33.3	100.0	12.5	83.3	0.0	33.3	56.6
Reason for counterview											
Favoritism	0.0	15.4	0.0	16.7	33.3	0.0	75.0	16.7	0.0	13.3	18.0

Table-8.14: Perception of ward members regarding attitude of public representatives about development activities

(%, multiple responses)

Representative/attitude	Projects										Total
	A.D.	Budhil	Binwa	Fozal	KWHEP	Manglad	Neogal	RHEP	Rukti	Sorang	
MLA											
+ve	16.67	76.92	83.33	41.67	13.33	60.00	25.00	46.67	0.00	60.00	43.44
-ve	83.33	23.08	16.67	58.33	66.67	40.00	75.00	53.33	0.00	20.00	51.64
Indifferent	0.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	20.00	4.92
MP											
+ve	0.00	7.69	16.67	0.00	6.67	0.00	37.50	0.00	0.00	33.33	9.02
-ve	0.00	0.00	33.33	0.00	6.67	0.00	12.50	0.00	0.00	13.33	4.92
Indifferent	100.00	92.31	50.00	100.00	86.67	100.00	50.00	100.00	0.00	53.33	86.07
ZP chairman											
+ve	0.00	61.54	66.67	0.00	6.67	0.00	62.50	0.00	0.00	53.33	21.31
-ve	0.00	38.46	16.67	0.00	73.33	0.00	12.50	0.00	0.00	46.67	20.49
Indifferent	100.00	0.00	16.67	100.00	20.00	100.00	25.00	100.00	0.00	0.00	58.20
BDC Chairman											
+ve	0.00	53.85	66.67	0.00	20.00	0.00	62.50	0.00	0.00	53.33	22.13
-ve	0.00	15.38	16.67	0.00	66.67	0.00	25.00	0.00	0.00	26.67	15.57
Indifferent	100.00	30.77	16.67	100.00	13.33	100.00	12.50	100.00	0.00	20.00	62.30
BDC Member											
+ve	0.00	53.85	66.67	0.00	13.33	0.00	25.00	0.00	0.00	46.67	18.03
-ve	0.00	30.77	16.67	0.00	73.33	0.00	62.50	0.00	0.00	33.33	21.31
Indifferent	100.00	15.38	16.67	100.00	13.33	100.00	12.50	100.00	0.00	20.00	60.66

Chapter 9

Performance of Environmental Activities Under The Hydroelectric Projects

9.1 Introduction

The impact of development intervention in the form of hydroelectric projects on surrounding ecosystem is inevitable (Box-1 and Box-2). Hence to minimize these impacts and to increase the life span of the power projects, a Catchment Area Treatment (CAT) plan is absolutely necessary. CAT plan is carried out to control the rate of soil erosion in the catchment of a water source for the hydroelectric power project and also to check the silt inflow in the reservoir of a dam or water harvesting structure, thereby increasing the life of such structures. This plan leads to arresting and preventing deposits of silt and sediment and to improve the hydrology of the catchment. Another impact of CAT plan implementation is the improvement in density of degraded forests thereby helping the development of flora and fauna of the area and consequently increases production of timber, fuel wood, fodder and raw material for the local population.

Compensatory afforestation is a condition stipulated by the central government while approving proposals for de-reservation or diversion of forest land for non-forest uses. With all proposals that are submitted to the

central government for clearance, a comprehensive scheme for compensatory afforestation must be formulated and submitted. While compensatory afforestation is usually raised over non-forest land, under certain conditions and for certain type of activities, such compensatory afforestation may be raised over degraded forest land.

The Ministry of Environment and Forests, Government of India has introduced "The Compensatory Afforestation Fund Bill, 2008" in the Lok Sabha on 5th May, 2008. This bill provides for the establishment of a Fund and crediting thereto the monies received from the user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980; constitution of an Authority for administration of the Fund and to utilize the monies so collected for undertaking artificial regeneration (plantations), assisted natural regeneration, protection of forests, infrastructure development, etc. The details of environment activities under projects under study are presented below:

Box-1: Eager to tap each potential unit of hydropower available in Himachal Pradesh, it is the forests which are bearing the brunt during the last 30 years. As much as 6287.55 hectares of forests have been diverted for either constructing hydro power projects or for laying power transmission lines. Since 1981-82 a total of 10245.5 hectares of forest land had been diverted for non-forestry purposes by obtaining permission under Forest Conservation Act (FCA). As many as 180 permissions involving 4,028.817 hectares of forest land were granted for constructing hydro power projects and 97 permissions involving 2,258.74 hectares were for laying transmission lines under FCA. "Lest the state is criss-crossed by transmission lines and more damage to forests is done, the state government has taken a decision to lay valley wise power evacuation grids that will pool in power generated by all projects in a basin for on ward transmission. Forest land being cheapest in the state project developers instead of buying expensive private land apply for forest land and the

state readily agrees. The net asset value of one of forest land at about 9 Lakh whereas private land would cost many times more. The very viability of a hydropower project would become untenable if private land has to be bought instead diverting forest land for commercial ventures. Whereas over 61 per cent of forest diversions have taken place in just for the hydropower sector, 662 permissions involving 1855 hectares of forests have been diverted for road constructions, 49 permissions involving 824 hectares for mining purposes involving cement plants, 61 permission for diverting 70 hectares of forest lands for irrigation purposes, two permissions involving 12 hectares for railways and 283 permissions involving 1196.5 hectares of forest lands have been diverted for other purposes since 1981-82. Till November 2011, a total of 1334 FCA permissions stood granted making 1116.295 hectares of forest lands diverted.

The Times of India, New Delhi/Chandigarh, Wednesday, January 4, 2012-Page 4

Box-2: There is growing concern that hundred of hydroelectric projects being constructed in Himachal Pradesh may be adversely impacting the ecology of the state. The vanishing aquatic life, depleting vegetation, increasing water pollution and reduction in irrigation water are some of these impacts. The problems are likely to deepen in near future. The villagers are complaining of drying up of the traditional water sources particularly at Sainj, Manikaran valley and Jagatsukh areas. The villagers downstream the Jagatsukh river complained that reduced water in the river has left the irrigation structures useless and the vegetation alongside the river is vanishing fast. Small and medium power projects are posing threat to fish and other aquatic life in Kullu and Kangra districts despite that NOC have been granted to 42 of the 58 proposed projects. Water is being diverted from its natural course resulting in diminishing vegetation and breed of plants are fast replacing the old varieties.

In Duhanagan river, near Manali, reduced water mass has resulted in higher water temperature and also the temperature of vicinity. Water temperature of reservoirs is increasing and timing of rains has altered. It is also feared that the underground blasting is altering the course of underground water and its impact would be visible in the very near future. It has been stated that over 500 hydel projects have been allotted to government and private sector in the state. Till July 2011, about 271 projects had applied for NOC from fisheries department but only half-a-dozen were rejected, 230 cleared and the rest were still under consideration.

Source: *Hydel Projects pose threat to vegetation, aquatic life Environmentalists warn of loss of livelihood, The Times of India, July 17, 2012.*

9.2 Environmental activities under projects

Different environmental activities under the projects have been presented in Table-9.1. and details of individual projects are separately presented.

Table-9.1: Land acquired and funds deposited under NPV, CA, CAT Plan by different projects

Projects	Land acquired (ha)			NPV (Rs lakh)	CA (Rs lakh)	CAT Plan (Rs lakh)		Fishery Deptt.	Pollution control board
	Forest	Private	Horti			Allocation	Deposited		
Budhil		0.56	0	170.35	55.11	495.36	472.22	50.00	
Binwa		0	0	18.00	0	0	0	0	
Neogal	15.75	0.24	0	144.90	9.84	62.39			
AD	47.18	9.75	10.67	468.34	0	615.74	269.52		
Fozal	2.89	1.67	0	28.59	0	0	0		
KWHEP	136.5			971.06	254.50				
Sorang			0	83.00	27.62	647.00		20.00	35.00
RHEP	69.38	28.57	0	402.38	74.50	2337.00	1983.00	75.00	36.81
Manglad	4.54	1.07	0	26.32					
Rukti		0.08	0						

9.2.1 Budhil hydroelectric project

In this project under compensatory afforestation (CA) an amount of Rs. 55.11 lakh was to be released and total amount was deposited by project authorities to Bharmour forest division (Table-9.1). As such there is no outstanding amount to be realized. Similar is the case with net present value (NPV) under which an amount of Rs. 170.35 lakh was to be realized and same amount was deposited with Bharmour forest division. It was observed that this project has deposited the total amount to be realized under all heads viz. amount of afforestation of safety zone and also the sale tax of fence posts provided in CA and afforestation in safety zone under which an amount of Rs.49250 and Rs.355950 was released and the same amount was deposited. Under CAT plan an amount of Rs.495.36 lakh was to be realized whereas the amount actually realized was Rs.472.23 lakh and the same amount was deposited by project authorities leaving and outstanding balance of Rs.25.13 lakh which was to be realized in kind. Under CAT plan there were five activities undertaken. The post important activity from financial outlay point of view was rising of plants in plastic bags under which 1.60 lakh plants were to be raised in seven nurseries with a total financial outlay of Rs.6.40 lakh. It was found that both physical and financial targets were achieved up-to 31.3.2011. Stabilization of land slips was another activity under which 20 land slips were treated at the cost of Rs.4.00 lakh. An amount of Rs.2.00 lakh was spent on the maintenance of one building. Improvement of nurseries including Vermicompost and polyhouses was the activity for which an amount of Rs.1.81 lakh

was spent. An amount of Rs.2.00 lakh was spent on the stabilization of four stream banks. In the project affected area a total of 917 trees were planted by forest department. The trees were planted as per the local needs identified in the gram Sabha meetings and broad leaf trees were preferred for meeting out the fuel wood, timber and fodder needs.

Other activities (Table-9.2) under environment included fisheries development under which a financial outlay of Rs.50 lakh was earmarked and total amount was spent under this activity. An amount of Rs.432 lakh was total financial outlay for muck disposal plan against which an amount of Rs. 373.19 was spent. The best performance was observed under green belt development under which activity an amount of Rs. 28.12 were spent against the outlay of Rs.13 lakh only. Under environment monitoring programme Rs.30.15 lakh were spent against the financial outlay of Rs.40 lakh. Similarly for fuel arrangements there was provision of Rs.5.45 lakh and an expenditure of Rs.3.50 lakh was made against it.

Table- 9.2: Details of environmental activities of Budhil HEP

Name of activity	Financial outlay (Rs lakh)	
	Total	Expenditure
Afforestation	495.36	477.19
Fishery development	50.00	50.00
Muck disposal plan	432.00	373.19
Green belt development	13.00	28.12
Environment monitoring programme	40.00	30.15
Fuel arrangement	5.45	3.05

Source: Budhil HEP

9.2.2 Binwa hydroelectric project: In this project an amount of Rs.18 lakh was deposited by project authorities with LADA (Table-9.1) . No further details of amount spent on different heads were available.

9.2.3 Neogal hydroelectric project: Under Neogal hydro electric project forest land to the tune of 15.75 hectares was acquired for carrying out different project activities (Table-9.1). Under this project the authorities deposited an amount of Rs.62.39 lakh with forest department under CAT plan and the amount deposited under compensatory afforestation was Rs.9.84 lakh. In addition to this the project authorities spent an amount of Rs. 191.36 lakh for protection works carried out to protect the trees and muck. Protection work for dumping sites was also undertaken at the cost of Rs. 23.65 lakh. Both these works were carried out by the project authorities at their own level and perhaps initiative.

9.2.4 Allain Duhangan hydroelectric project : In this project significant amount of land was acquired for carrying out the project activities and this included 47.18 hectares of forest lands, 9.75 hectares of private lands and 10.67 hectares of land belonging to horticulture department of the state (Table-9.1). In this project an amount of Rs.468.34 lakh was deposited with forest department under NPV and CA jointly. Under CAT plan there was allocation of Rs.615.74 lakh against which an expenditure of Rs.269.52 lakh was made. This included an expenditure of about Rs.141.69 lakh on a afforestation, Rs.180.36 lakh on pasture development, Rs.453.69 lakh on soil conservation works and Rs. 45.96 lakh on roads and buildings (Table-9.3). Thus, a total amount of about Rs.821.70 lakh was spent under CAT plan till March 2012. In this project trees were planted by forest department. The trees were planted as per the local needs

identified in the gram Sabha meetings and broad leaf trees were preferred for meeting out the fuel wood, timber and fodder needs.

Table- 9.3: Details of environmental activities of Allain Duhangan HEP (up to March 2012)

Expenditure activities	Amount (Rs lakh)
Afforestation	141.69
Pasture development	180.36
Soil conservation	453.69
Roads and buildings	45.96
Total	821.70

Source: Range office, Manali and Naggar

9.2.5 Karchham-Wangtu hydroelectric project: In this project 136.5 ha. of forest land was acquired for the project activities. The amount of compensatory afforestation was Rs. 254.50 lakh and NPV was Rs. 971.06 lakh.

9.2.6 Fozal hydroelectric project: The project authorities of this project acquired 2.885 hectares of forest land and 1.6657 hectares private land for carrying out the project activities. An amount of Rs.28.59 lakh was deposited with forest department under NPV and CA jointly (Table-9.1). The forest department authorities planted trees under the project affected area. The trees were planted as per the local needs identified in the gram Sabha meetings and broad leaf trees were preferred for meeting out the fuel wood, timber and fodder needs.

9.2.7 Sorang hydroelectric project: Under this project an amount of Rs.647.00 lakh were deposited under CAT plan (Table-9.1) and Rs.35.00 lakh were deposited under environment monitoring. Under NPV an amount of Rs.83.00 lakh was deposited with

forest department which planted tree as per the local needs identified in the gram Sabha meetings and broad leaf trees were preferred for meeting out the fuel wood, timber and fodder needs. Under compensatory afforestation an amount of Rs.27.62 lakh was deposited. For laying of transmission lines an amount of Rs.131.00 lakh was spent and for fisheries development an expenditure of Rs.20.00 lakh was incurred (Table-9.4).

Table-9.4: Details of environmental activities of Sorang HEP

Activities	Amount in Rs lakh
Environment monitoring	35.00
Tree plantation	17.00
Transmission line	131.00
Fishery	20.00
CAT Plan	647.00
NPV	83.00
CA	27.62

Source: Sorang HEP

9.2.8 Rampur hydroelectric project:

Significant amount of land was acquired under this project which amounted to 69.376 hectares of forest lands and 28.5672 hectares of private lands (Table-9.1) . This project had a total outlay of Rs.88.28 lakh and the same was deposited with forest department. Similarly, an amount of Rs.4.02 Crores and 23.37 Crores was the total outlay for net present value and CAT plan against which Rs.4.02 Crores and Rs. 19.83 Crores were deposited with the forest department Rs. 36.81 lakh were deposited with HP state pollution control board against the total outlay of Rs.75.00 lakh under the environment mentoring during construction and operation stage. For the development of fisheries an amount of Rs.75 lakh was

deposited with HP state fisheries department against the outlay of Rs. 1.00 Crores.

9.2.9 Manglad hydroelectric project:

The project authorities of Manglad HEP had to acquire 4.537 hectares of forest lands and 1.07 hectare of private lands for construction of project infrastructure (Table-9.1). A total amount of Rs. 26.32 lakh was deposited with forest department under NPV and CA. The trees were planted as per the local needs identified in the gram Sabha meetings and broad leaf trees were preferred for meeting out the fuel wood, timber and fodder needs.

9.3 Summing up

The activities undertaken in different projects don't have the uniform pattern. It was observed that, generally, the larger projects have higher number of activities. The activities pertained to amount of land acquired from forest and horticulture departments as well as the private sources. Highest cases were the land acquisition from private sources and only one case of land being acquired from horticulture department was in Allain Duhangan. Net present value of forests acquired was highest in Allain Duhangan followed by Budhil and Neogal. Amount of compensatory afforestation was highest in RHEP followed by Budhil. Total amount due under CAT plan was not paid by any of the power projects till the date of survey. Highest amount due and actually paid was by RHEP. There were variety of other environmental activities undertaken by the project including afforestation, fisheries development, green belt development, muck disposal, soil conservation and pasture development etc.

Chapter 10

Conclusions, Suggestions and Recommendations

The main findings of the study have been summarized as follows:

10.1 Performance of LADC

- ★ LADC has been operational in all the power projects except for Neogal HEP.
- ★ Project developers have spent money for development activities prior to LADC being effective.
- ★ Activities pertaining providing and/or improving the connectivity was most important component of LADC in all the selected projects. This component had the highest financial allocation.
- ★ Construction of community centers, provision of sanitation, street lighting, drinking water, irrigation and health services were other activities undertaken under LADC.
- ★ LADC laid significant emphasis on construction of temples which was a popular demand of the PAFs of most of the projects.
- ★ LADC mainly awarded the work execution to agencies like panchayats, BDOs and BPEOs. These agencies considered together were executing about 97 per cent

of works. Other agencies involved were contractors, government departments like PWD and I&PH and NGOs.

10.2 Socioeconomic impact of Local Area Development Activities

Budhil HEP

- ★ Out of five water supply schemes, only one is for construction of water storage tanks in Garola Panchayat benefitting 263 persons in five villages. Other schemes were for providing the water to livestock.
- ★ Under employment generation activities, 57 persons were provided employment raising their incomes from Rs. 6300 to Rs. 8000, in five affected panchayats.
- ★ A dispensary was constructed in Poolan benefitting about 988 persons and crematorium at Greema benefitting about 1080 persons.
- ★ The construction of community centre at Paldha benefitted about 670 persons.
- ★ Works of connectivity were undertaken in six panchayats benefitting nine villages.
- ★ The construction of school path in Poolan led to saving of about Rs. 100 per student per annum due less wear and tear of school

uniform and shoes etc and benefitted 1288 students and other population.

Rampur HEP

- ★ There were two drinking water supply activities, Tunan and Bhawa. A water storage tank for irrigation was constructed at Tunan. Repair of kuhl in Gadej benefitted 400 residents and additional 400 bighas of cultivated land was irrigated.
- ★ Four school rooms were constructed in Gadej and two in Kharga. Playgrounds were constructed at Badi and Kharga, directly benefitting about 450 students. Fencing of playgrounds at Badgai and Bhadrash provided protection to students.
- ★ Out of 37 works of connectivity, 36 were of metaling of existing roads.
- ★ Panchayat Bhawan was constructed at Tunan benefitting about 1800 persons and Community bhawans at Gadej and Duttnagar directly benefitted more than 1500 persons.
- ★ There were two activities under sanitation; construction of roadside pucca drain in Duttnagar and toilets near Devdhank in Bayal.

Sorang HEP

- ★ Sorang HEP had only five activities under LADC. Construction of Bowari provided safe drinking water to about 75 people.
- ★ Two school rooms and retaining wall were constructed at Rupi benefitting about 30 students.
- ★ Construction of mule pathway at Taranda was the only activity under connectivity.

Karcham-Wangtu HEP

- ★ This project had all other type of activities under LADC except for drinking water.

There were two irrigation schemes Kilba and Yulla, pertaining to metaling of about 200 and 250 meters kuhl respectively irrigating 100 and 120 bighas of land and saving 7 and 8 days of labour in repairing, respectively.

- ★ Play grounds were constructed in schools at Yengpa and Yulla and retaining and two boundary walls were constructed in school at Yengpa.
- ★ New temples at Shong and Kilba were constructed along with fencing, painting and repairing of temples at Katgaon and Ramni temples. In total 12 works were carried out related with different aspects of temple.
- ★ Under connectivity, 11 different works were carried out with 6 works about metaling of present roads providing the benefit of easy movement etc. The path in Ramni was improved with soling. The activities, other than metaling, were construction of welcome gate at Yulla, repairing of bridge at Yangpa, provision of span at Ramni and street light at Kamroo.
- ★ Nine community buildings were constructed. In addition to this kitchen items and furniture was purchased for Mahila mandal Bhawan at Roghi. Mahila mandal Bhawan was constructed in Mebar with toilet and kitchen facilities. Club Bhawan at Kamroo was repaired.
- ★ Six sanitation works were taken up including toilets at bodh monastery at Yangpa and Mahila mandal Bhawan at Chanshu. Sulabh Shochalaya was constructed at Reckong Peo.

Manglad HEP

- ★ A playground was constructed at school of Thada.

- ★ Fencing was provided at the temple at Majhewali, benefitting about 600 people. A new temple was constructed at Funga/Unchi.
- ★ About 100 meters of path was metaled lowering the cost of carriage.
- ★ One room was constructed for facilitation of social functions and community meetings etc.
- ★ Cracks in about 115 houses were treated eliminating the danger of further damage.

Allain Duhangan HEP

- ★ Drinking water supply scheme at Jagatsukh has benefitted about 200 people. The irrigation work of repairing and metaling of kulh at Shuru in Prini, benefitted about 1600 people by way of saving about 8 hours of labour of each household.
- ★ Four school rooms constructed at Jagatsukh benefitted about 300 students. Toilets were constructed at school in Soyal.
- ★ Under connectivity, three works were undertaken, two in Vashisht and one in Prini.

Fozal HEP

- ★ Only three activities were under taken, one pertaining to education and two to connectivity.

10.3 LADC meetings

- ★ The constitution of LADC for five selected districts was 8 official members, 3 members of IPP and 3 non official members in Kangra, was 22 official members, 4 members of IPP and 29 non official members in Kinnaur, was 30 official members and 42 members of IPP in Chamba, was 15 official members, 6

members of IPP and 2 non official members in Kullu and was 12 official members, 7 members of IPP and 7 non official members in Shimla.

- ★ During the meetings highlighted in the study following agenda items were discussed.

Karchham- Wangtu hydro-electric project at district Kinnaur, Meeting #1

- ★ Supply of water to sheep reproduction farm at Kaksthal
- ★ Regarding Path up to cremation point:
- ★ About dumping surrounding cremation points:
- ★ Dumping at the site of sand and crusher and provision of sand and crusher to the villagers: About deposit of funds of LADC.
- ★ Enquiry of Environment Management Programme:
- ★ Cracks in houses of affected areas.
- ★ Disobeying the transportation rules by the company
- ★ Construction of retaining wall to right side of Tapri and security of dumping site Karcham Wangtu road
- ★ Regarding construction of cremation ground:
- ★ Information, education and communication
- ★ Land erosion
- ★ Entry of village in affected areas
- ★ About measuring of norms for acceptance of schemes
- ★ About editing of the LADC works assigned previously

Karcham-Wangtu hydro-electric project at district Kinnaur, Meeting #2

- ★ About deposit of funds of LADC
- ★ Village level Micro Plan
- ★ Construction of offices
- ★ Information regarding employment

- ★ About selection of the post of JE in LADC
- ★ The construction of HPPWD rest house at Karcham-Wangtu
- ★ Construction of toilet at Karcham Wangtu
- ★ About provision of drinking water at Recong Peo and Tapri Chowk
- ★ About construction of rain shelter and washing point at Ramni
- ★ About Supply of drinking water to the institute of ITI and student hostel
- ★ Regarding another videography of damaged houses
- ★ About air pollution
- ★ About construction of play ground at Bhawanagar
- ★ Appointment of computer operator/clerk for LADC works

Karchham-Wangtu hydro-electric project at district Kinnaur, Meeting # 3

- ★ About construction of office and rest house in Karcham
- ★ Regarding employment
- ★ About appointment of junior engineer and computer operator/ clerk for LADC work
- ★ About construction of toilets at Karcham and
- ★ About installation of drinking water facilities at Recong Peo chowk and Tapri
- ★ Regarding editing of ITI institute and hostel at Urni
- ★ About payment of damage of houses and crop compensation
- ★ About T.A., D.A. to the members
- ★ About establishment of Solid Waste Management project at Recongpeo and Kafnoo
- ★ About reservation of treatment for patients of affected areas

- ★ About cable way from Recongpeo to kinner Kelash
- ★ About sitting hall and drinking water facilities at Tranda Temple and toilet at Choura
- ★ About deposit of funds to LADC.

Budhil hydro- electric project at district Chamba, Meeting # 1

- ★ Restoration of facilities adversely affected due to implementation of projects
- ★ Implementation of rehabilitation and relief plan, employment related monitoring
- ★ Employment to Local People
- ★ Oversee the implementation of Catchment's Area Treatment Plan (CAT) , Compensatory Afforestation, Environmental Management Plan, Environment Impact Assessment (EIA) Plan, Quality Control Mechanism of the Project
- ★ Local Development activities related to Development of Agriculture, Horticulture, Animal Husbandry, Irrigation and Public Health (I&PH), Forest, Fisheries, Rural Development, Education, PWD, Power and other social religious and cultural activities

Budhil hydro electric project at district Chamba, Meeting # 2

- ★ Damages to houses and properties of the villagers
- ★ Sanctioning of funds for Kharamukh to Thalla road
- ★ CAT Plan
- ★ Construction of road to village Khanni
- ★ Construction of collage at Bharmour
- ★ Availability of medicines at Bharmour hospital

- ★ Construction of inn at Kharamukh
- ★ Water supply to village Lahal
- ★ About LADC funds
- ★ Purchase of loader for clearance of road from Chamba to Bharmour
- ★ Sanitation provision for Bharmour
- ★ Purchase of Twin Lift Placer
- ★ Purchase of a Jeep for HRTC
- ★ Security Purposes

Allian Duhangan hydroelectric project at district Kullu, Meeting # 1

- ★ The repair of sub health centre at Shuru
- ★ Construction of sub health centre at Jagatsukh
- ★ Supply of drinking water at Aleu and Chachoga
- ★ CAT Plan
- ★ Payment of balance of amount to LADC
- ★ Construction of link road in village Chhalait
Repair of canal at village Chhanala
- ★ Problem of drinking water at Prini, Shuru and Shaminala
- ★ Crate wall from Bal Bhanu to Duhangan Nala
- ★ Construction of kuhl at Bayans Shuru
- ★ Shortage of drinking water at village Bhanara
- ★ Construction of link road up to village Jagatsukh
- ★ Problem of toilets at Prini
- ★ Street light at Prini and Jagatsukh

10.4 Implementation of R&R policies

- ★ The implementation of majority of the components of R&R has largely progressed as per time schedule.

- ★ The development works got delayed due to involvement of LADC and this has been resented by people. The activities like provision of medical facilities, merit scholarship, hiring of vehicles from PAF and provision of awarding petty contracts to PAF have played a significant role in promoting the socioeconomic well-being of PAF. Such facilities have been appreciated by the people.
- ★ The SCDP activities like foot bridges, village paths, provision of drinking water etc. have made PAFs life better.
- ★ The income generation activities are most important for providing the sustainable livelihoods.
- ★ The support services like farmers' training camps have been appreciated and demanded for income generation activities.
- ★ The dissent to decisions and policies of R&R, often are not genuine and due to political influence and raised aspirations of PAF.

10.5 Socio-economic impact of R&R programmes

- ★ Literacy rate has increased from 79 per cent to 83 per cent.
- ★ The average annual household income during the base line period was Rs. 54894 while now it is Rs. 2441673.
- ★ The average per capita monthly expenditure of PAFs has increased from Rs.7269 to Rs 9460 (Rs 7496 to Rs 8151 in PAAF's).
- ★ The percent of workers engaged in regular employment has increased from 9.96 per cent to Rs 22.37 per cent, while in agriculture it has declined from 84 per cent to 73 per cent.
- ★ A significant change has been noticed in the

housing situation. Now more people live in pucca (permanent) houses, more families have now separate bathrooms (26 % as compared to 7% earlier), and have separate toilets within house (26 %) as against 7 % earlier). However, the average size of land holding of the families has declined from 0.64 ha to 0.57 ha.

- ★ Productivity of maize has increased but that of wheat and paddy has decreased.
- ★ Number of all types of livestock owned by the PAFs has declined.
- ★ The quality of health care has also improved due to enhancement of diagnostic facilities with the introduction of mobile health unit which tours villages in the project area.

10.6 Perceptions and responses-stakeholders' analysis

- ★ BDOs and other officers were satisfied with project activities and suggested that the activities like plantations, roads and village paths should form the core LADC activities. Only about 46 per cent officials were happy with R&R plan.
- ★ About half BDOs and other officers had attended the LADC meetings and of these about 30.8 per cent found the attitude of LADC officials supportive. Majority found coordination between LADC and block officials to be proper.
- ★ About 38 per cent of contractors were satisfied with their coordination with Panchayat officials. At overall level about 88 per cent contractors provided employment to local people.
- ★ About half of the project developers found the villagers to be cooperative. Half of the project developers thought that project activities were making positive impact due to plantation and other conservation efforts. About 41 per cent of them perceived the

impact on agriculture sector to be positive. In the opinion of about 56 per cent respondents there was no impact of project activities on agriculture sector.

- ★ The impact of project activities on farm and non-farm employment was perceived as positive by majority.
- ★ Only about 29 per cent of the project developers thought the LADC to be proper instrument for bringing about the development of the respective areas. Largest percentage of respondents, about 65 per cent thought that it is more important to involve project management in LADC activities.
- ★ The majority of members of local administration thought that the development plans were prepared through Panchayat. All the 54 respondents were satisfied with the funds to LADC but only about 70 per cent thought that LADC is a proper instrument for development.
- ★ Only about 39 per cent project developers thought that concerns of R&R are taken into consideration in planning and similar percentage was satisfied with R&R activities.
- ★ The ward members knew about the ongoing developmental activities in their wards and majority said that construction of village paths was going on in their wards.

10.7 Performances of environmental activities under the HEP's.

- ★ The activities undertaken in different projects don't have the uniform pattern.
- ★ Highest cases were the land acquisition from private sources.
- ★ Net present value of forests acquired was highest in Allain Duhangan followed by Budhil and Neogal.

- ★ Amount of compensatory afforestation was highest in RHEP followed by Budhil.
- ★ There were variety of other environmental activities undertaken by the project including afforestation, fisheries development, green belt development, muck disposal, soil conservation and pasture development etc.

10.8 Problems being faced by project affected families

The problems being faced have been presented in Table 10.1 wherein it may be seen that the adverse impact on local environment was perceived at major problem both by project affected families and project affected area families about 77 and 73 percent respondents respectively perceived this problem. This problem was mainly due to increased air pollution and apprehension that the project

activities may have adverse impact on natural water resources. About 60 per cent of project affected family respondents and 56 per cent of the project affected area family respondents observed that the project activities have resulted in building cracks. They felt that they should be adequately compensated for this loss. About 46 and 36 per cent respondents experienced crop damage due to project activities and they thought that the compensation being paid was not adequate and this was a major problem for them affecting adversely their livelihoods. Other problems listed by both categories of respondents pertained to the fact that the project developers have no or very little job quota and in their view the construction activities of the project were unscientific and unregulated. About 25 per cent respondents of each category opined that there was no compensation for crops and other damages.

Table- 10.1: Problems faced due to project

Problems	Project affected family respondents		Project affected area family respondents	
	No.	%	No.	%
1. Low crop damage compensation	253	46.51	90	35.71
2. Building cracks	328	60.29	142	56.35
3. Adverse impact on the local environment.	421	77.39	184	73.02
4. Project developer is releasing very less money to the LADC Fund.	203	37.32	118	46.83
5. Project developer has no job quota	246	45.22	160	63.49
6. Unscientific and unregulated construction activities	208	38.24	118	46.83
7. No compensation for crops & other damages	146	26.84	64	25.40

10.9 Suggestions for mitigating the problems

In order to mitigate the problems listed above and to improve the living conditions of project affected and other families, the respondents came out with several suggestions, the details have been presented in Table 10.2. These suggestions primarily emerged from above problems and about 77 and 73 per cent of the project affected family respondents and project affected area family respondents felt that the adverse impact on local environment should somehow be minimized. About 60 and 56 per cent

respondents respectively wanted adequate compensation for house building cracks. Another popular suggestion was that there should be 75 to 100 per cent job quota for local affected families. This suggestion was made by about 45 and 63 per cent respondents respectively. There were about 47 and 36 per cent respondents respectively who wanted higher compensation for crop damage. The respondents also suggested that the construction activities of the project should be regulated by Government. This suggestion was made by about 31 and 28 per cent respondents respectively.

Table-10.2: Suggestions for mitigating the problems due to project

Problems	Project affected family respondents		Project affected area family respondents	
	No.	%	No.	%
1. Higher compensation for the crop damage.	253	46.51	90	35.71
2. Compensation for building cracks.	328	60.29	142	56.35
3. Adverse impact on the local environment be minimized.	421	77.39	184	73.02
4. Primary health facilities must improve.	193	35.48	118	46.83
5. 75% or 100% job quota to the local affected families.	246	45.22	160	63.49
6. Construction activities must be regulated by the Govt.	169	31.07	70	27.78

10.10 Recommendations for improvement in LADC

From the interaction with different stakeholders, data analysis and observations of the field investigators, following

recommendations emerge for improvement in the effectiveness of LADC:

1. Streamlining the LADC contribution by power projects and strictly enforcing the time limits. Invariably, there are

outstanding funds to be paid by the power projects. Strict time limits should be enforced for payment of such balance funds and failure in this regard should be penalized with stiff interest payments. The ambiguity of funds already utilized for development activities by some of the projects should be regularized after strict scrutiny under some policy guidelines.

2. LADC should be formed at project level instead of district level for taking care of local issues and aspirations. This was the demand raised by almost all the stakeholders. This suggestion already finds place in the revised LADC policy guidelines and hence has been adequately taken care of.
3. Frequency of meetings should be increased so that each agenda item can be dealt with in proper manner. There should be calendar of meetings finalized before the financial year and it should be made mandatory for the members to attend the meetings. Any lapse in this regard should be taken note of. This will not only form a fixed time schedule for attending to the agenda items but will also facilitate the disposal in efficient manner. Additionally, there should invariably be fixed time limit for execution of its decisions, as decided in the meetings.
4. LADC should minimize the time lag between the submitting the resolution by the panchayats and release of money. This suggestion will be taken care of, if the suggestion at No. 3 above is operationalized. Frequent meetings will definitely reduce the time lag. This is important for avoiding the cost overruns and achieving the PAFs satisfaction. The cost overruns can be avoided if time limit for

execution set as suggested above.

5. LADC should continue with the stress on activities related with connectivity. This should not be limited to laying down new paths etc, but larger stress should be given to maintenance of existing paths, roads, foot bridges etc for improving the quality and making them more efficient. In addition, it should also give due importance to providing irrigation as most of the PAFs have agriculture as main occupation and irrigation is vital input for improving the crop productivity. There should be an ideal combination of traditional and modern technology in this concern. Although, the kuhls (Field Channels) should continue to receive the importance, other means like rain water harvesting, irrigation water storage devices like tanks and ponds should also be included.
6. LADC should make it a point to monitor the environmental activities as it was found that these activities were not being taken up seriously by the concerned agencies. This is perhaps due to lack of awareness about the importance of these activities for efficient production activities and health sector, both for human and animals. There should be provision of awareness programmes for field level workers so that they can appreciate the problem in larger perspective. The suggestion of provision of sprinkler system at dumping sites was found to be an important intervention that can be made for avoiding the dust having detrimental impact on the health of human and animals. Such dumping sites should eventually be converted in to plantation sites having multi specie trees providing fuel, fodder and timber to the affected population.

7. The money deposited by power projects should only be spent in the respective areas only. Any diversion of funds to other areas creates discontentment among the PAFs of that area.
8. There are a few specific recommendations made on the basis of demand of PAF and observation of research team. These are following.

★ **Income generation activities:** The popular demand of PAP is employment in the projects which most often is not feasible, keeping in view the qualifications etc of the aspirants. In order to dilute this situation, the LADC should invest in providing the income generation activities to PAFs. This can be in the form of either infusion of latest production techniques in the existing activities of agriculture, horticulture and animal husbandry etc or in the form of introduction of new avocations like apiculture, pisciculture, poultry farming etc. Honing and sharpening of skills of local people can be another field for intervention. This can be in the form of sponsoring students to technical institutes, improving their value in the job market.

Simultaneously, it can be in the form of providing training to local workers to transform them from unskilled to skilled category. Such trained persons will be an asset for the HEPs and also they will have better employability in other areas also.

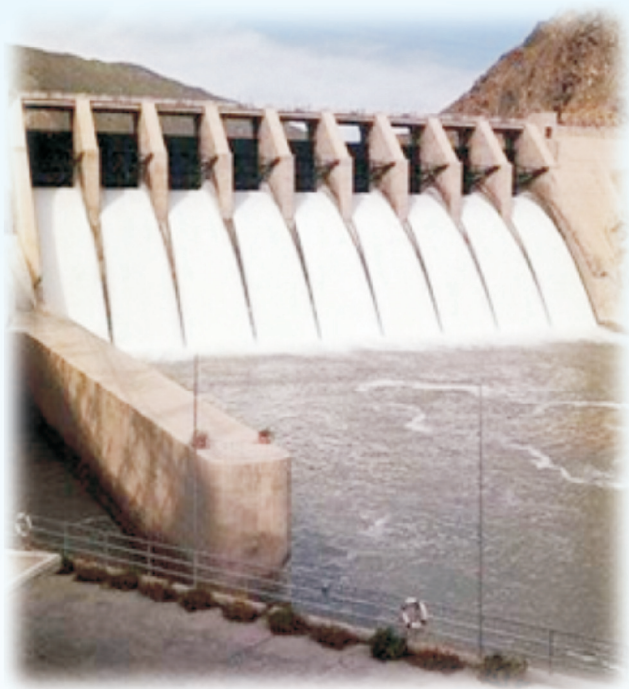
★ **Menace of wild animals:** The menace of wild animals damaging the crops is on the rise over the years. The situation has become so alarming that in many areas the farming has lost its importance and farmers are looking for alternate venues for employment putting stress on HEPs. One way to tackle the situation is plantation of wild fruit trees in adjoining forest areas for diverting the wild animals and saving the crops.

★ **Check dams:** The LADC should invest in making check dams over nullahs for reducing the soil erosion and providing the source of water for agriculture and animal husbandry. It is found that percolation of stored water in such dams helps in rejuvenating the natural water resources, so important for agriculture sector of the area.

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