

**MID TERM EVALUATION REPORT OF PROJECT**

**WAKAL RIVER BASIN WATERSHED DEVELOPMENT**  
**PROJECT – PHASE 2**



**Supported by**  
**WELLS FOR INDIA, UK**

**Implemented by**  
**Gandhi Manav Kalyan Society**  
**Udaipur**

**Evaluated by**

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## **EXECUTIVE SUMMARY**

### **1.1 The Study**

The mid-term evaluation study focuses on analyzing the initiatives taken up by Gandhi Manav Kalyan Society (GMKS) in the Wakal River Basin villages located in the Kotra Block of Udaipur District with the financial support of Wells for India (WFI), India office. GMKS has been implementing the Wakal Development Project in two phases. In the Phase I work was undertaken in six villages and in the Phase II seven villages, located in the upper reaches of the Wakal River Basin of Udaipur District. The present study deals with the Phase II of the project. The villages are predominantly tribal. The main objective of the project is securing livelihoods of the poor tribal people through Integrated Natural Resource Management, i.e., land, water and biomass management.

In this midterm evaluation study both quantitative and qualitative methodologies have been used. Quantitative data pertaining to the sample villages was collected through a household survey. Qualitative textures were captured through Focus Group Discussions with women and men in the sample villages and key informant interviews.

A sample of 4 villages was taken up for detailed evaluation. These sample villages were selected on the basis of performance. With the help of the project staff we identified two better performing villages, and two villages, which were low in terms of performance.

### **1.2 The Back Drop**

Udaipur district is situated in the Aravali range in southern part of Rajasthan. Administratively, the district constitutes 6 sub-divisions and 10 tehsils. The project area is situated in Kotra tehsil of Udaipur situated within the Aravali ranges from north to South. The project area is dominated by tribal population, as per the population Census 2001 the Scheduled Tribe (ST) population accounts for 61.9 and 52.5 per cent of total population in Kotra and Gogunda tehsils respectively.

Sex ratio is an important indicator of status of women in any area. The sex ratio in the district was recorded as 920 in the year 1901, 965 in 1991 and 972 in 2001. Though unfavorable in other parts of the State sex ratio is in favour of females in the Udaipur district.

The average annual rainfall in the district is 650.3 mm. As per the rainfall records for the two tehsils the years 2005 and 2007 were normal years. In the year 2008 the rainfall was 696 mm, which is a rainfall of normal year, but in reality most of the project villages had drought conditions.

Approximately 80 per cent of the area under cultivation in the district is on undulating lands and suffer from the problem of soil erosion, causing removal of top soils consequently resulting in shallowness of depth of the soil and poor fertility.

### **1.3 Characteristics of Project Villages**

The demographic characteristics about the 7 project villages are reported in Table 3.3. In total there are 356 households with a total population of 1918 in these villages. Of these 985 are male and 933 are female. The overall sex ratio is 974 per thousand persons. Sex ratio is favourable in two villages and in three villages it is unfavorable as the sex ratio is less than 900.

The basic amenities available in the selected villages are reported in the Chapter III. Education facility is available in 71.4 per cent villages while drinking water facility is available in all the sample villages. The other basic amenities namely, health, Post and telephone, transport (bus) and bank facility in none of the sample villages.

Agriculture was reported as the main and subsidiary occupation followed by non-agricultural labour activity. Agriculture is not able to support livelihood of the existing population, therefore, they diversify their activities mostly by out-migrating in search of wage labour in urban and rural areas and within and outside the state.

#### **1.4 Implementing Agency and Project Description**

Gandhi Manav Kalyan Society (GMKS) is an NGO run by a group of members hailing from tribal community. GMKS is a non-profit and non government organization working in 110 villages across the two blocks of Udaipur district in the Bhomat region of the Aravali ranges in the southern Rajasthan. GMKS work for 5 “J” which are “Jal” (Water), Jameen (Land), “Jan” (People), “Jungle” (Forest), and “Janwar” (animal).

The project undertaken by the GMKS is titled as Wakal River Basin Watershed Development Project (WRBWDP) for a period of five years. In the project preparatory stage the GMKS had a base line survey of the project area and also conducted LFA exercises to understand the socio-economic issues, natural resource base, needs of the people and constraints in economic and social development in the project area. The discussions, meetings and dialogues with the village community have led to working out of a joint strategy between the villagers and GMKS.

In order to achieve the project objectives through proposed set of activities financial provisions were made. The proposed total project cost of Rs. 20,002,453 (for the period of October 2006 to September 2011), was distributed over five years with a break up into program activities and Personnel costs (Table 3.1). The Wells for India contribution is Rs 15,336,953.

In order to carry out the proposed project activities and achieve the targeted outputs a set of project staff comprises of the Program Director and Program Coordinator two Community Organizers to work in the seven project villages.

#### **1.5 Assessment of Aims and Activities**

The target population identified for the project consists of resource poor 439 tribal families in 6 villages residing in the Wakal River Basin. The specific objectives of the project are:

- To increase the availability and access of water during ‘Normal Years’
- To improve / increase food and fodder availability in the project area
- To establish functional village level organizations

In order to attain these objectives the problems were identified, solution suggested by the community and technical experts along with the proposed activities to address the problems are

reported in the box (in Chapter IV). The four broad interventions identified and the numbers of proposed activities are:

1. Augmentation and conservation of water (6 activities)
2. Soil conservation (4 Activities)
3. Agriculture and livestock development (9 activities)
4. Human capacity building and new institution (7 activities)

In total the project envisaged twenty six main activities in the 7 project villages. To achieve the project objectives GMKS worked towards creating two institutions namely-Village Development Committee (VDC) and Self Help Groups (SHG) at the village level. The SHGs are thrift societies created basically to have an entry point in the village and bring about social change through a community platform. In tribal areas indebtedness is common, moreover, exploitation by moneylenders is oppressive, hence the SHG formation. VDCs were formed to undertake all the development activities in the village. All the households are members of VDCs and they meet to discuss the village development plans and intervention activities at regular intervals.

### **1.6 Assessment of Planning**

As far as planning of activities is concerned the organisation is actively involved in undertaking regular planning activity at various level and monitoring outcomes regularly. There are not many gaps in what was proposed and achieved. There was high beneficiary participation in all the project activities. Beneficiaries from four sample villages reported that they had full participation in decision making about the project activities, their planning, selection of work and site for it, work execution and maintenance of the asset created in the project except the village Kunti ka Leva lagging behind in few activities. 100 per cent respondents also participated as wage labourer in the project activities.

### **1.7 Assessment of Quality of Implementation**

The overall perception of the implementation of the programme and project activities indicates that the works were mostly completed within the stipulated time frame, quality of construction was adhered to, and work was technically appropriate, with active participation of the

beneficiaries. The respondents were fully satisfied with the quality of works undertaken in the project.

The organisation seems to be conscious about the capacity building of project staff and beneficiaries through various training and awareness building activities. Training's have been organised within and outside the village for less than a week and the participants have benefited with the inputs provided. Study shows a very good participation in village meetings, trainings and exposure visits. This was also evident in the meetings organised by the evaluation team in villages in the form beneficiaries' level of confidence while interacting, putting their problems and sharing their exposure visit experiences.

### **1.8 Assessment of the quality of Project Management**

GMKS has tried to put a management system in place by planning an organizational structure with defined roles and responsibilities of the staff members. The objectives of the project are well defined along with the output and input parameters. The overall quality of project management of the GMKS is satisfactory. However, more supervision by senior members is required. There is lack of technical staff to guide and implement NRM works. At the time of evaluation completely new team of workers was deployed.

### **1.9 Effectiveness in Development terms**

The activities proposed under the project mainly concern land, water and vegetation management with people's participation.

The project villages have benefited significantly through the project interventions causing reduction in number of poor households from 70 per cent to 20 per cent and from 47 per cent to 10.5 per cent. The employment generated per household range between 37 to 68 days while income received per household ranges between Rs. 4160 to 8170. The migration pattern in the sample villages shows that both the male and female member in the household migrates. Out migration reduced during the project period despite drought in the area, except in Hathni village, mainly because of project activities that created employment within village.



The impact on land quality, storage of water, increase in irrigation, rise in groundwater levels, soil moisture, domestic water availability and drinking water for livestock was recorded. The improvement in these indicators as reported by the sample households are as follows: Improvement in land quality 100 per cent beneficiaries had the view that there was significant improvement, storage of water 80 per cent, increase in availability of water for irrigation 63.3 per cent, increase in agricultural area and production 80 per cent, increase in ground water availability 73.3 per cent, increase in soil moisture 93.3 per cent and drinking water availability for human and livestock 76.7 per cent. It clearly indicates the significant contributions made by the WDP activities in the project villages.

Various awareness activities within and outside villages were undertaken and the responses of beneficiaries are reported in Chapter VI. The sample households were asked to respond to whether they are aware about the project, its objectives and the proposed activities. Almost all the sample respondents were aware about the project and its activities and also very much familiar with the project staff. However there was gap in knowledge about the overall objectives of the project. Generally this information is given in the beginning of the project in a larger meeting. People generally forget the conceptual part and remember activities that benefits directly to individuals or their village as a whole. Therefore, the overall objective of the project should be repeated time and again in different capacity building activities to build project perspective of the beneficiaries.

The beneficiaries' perception about individual and community impact of the project was captured by 20 different questions capturing direct and indirect effects. These were either benefiting individuals, group of persons or the whole village in terms of either improving employment, income, access to water, fodder or other resources and/or improvement in status of land quality, productivity and biomass generation. The beneficiary reported that 100 per cent of the activities were directly beneficial to individuals and villagers or community. The project activities were grouped into three categories, namely, relating to (i) environment, (ii) economic and (iii) reduction in drought vulnerability.

In the impact on environment category, 93.3 per cent sample respondent reported improvement

in land and soil quality, 66.7 reported increases in well capacity, 86.7 increases in groundwater recharge, and 100 percent were of the view that soil erosion has reduced by the project interventions. As regards the economic impact of the project activities 100 per cent respondents were happy about creation of employment locally, 80 to 87 percent were of the view that increase in irrigated agriculture has resulted in change in cropping pattern, and increase in food and fodder production. Almost all respondents' were of the view that project activities provided relief during drought period both through increase in food security, cash income and better access to drinking water for human and animals. The envisaged outcome of NRM activities was increase in water supply and reduction in distance of drinking water sources, which could have provided reduction in drudgery of women. 96.7 per cent respondents believed that there was reduction in the distance fetching drinking water. The overall impact of project was positive and significant in improving the livelihoods of tribal population.

## **1.10 Recommendations**

### **1. Agriculture and Watershed Management**

Besides increasing productivity of agricultural crops, there is ample scope for growing horticultural and medicinal crops in the project area. A Programme can be initiated with the technical support and training of farmers. It will also require a marketing network to sell the produce. Bhomat Vikas Manch can provide those services. GMKS experience in the marketing of cash crops need to be incorporated in the farmers training and GMKS can employ marketing specialist having experience of cooperative marketing in other parts of country for further strengthen their capacity to deal with market. Selection of crops will be extremely important in viability and sustainability of the activity.

Agriculture technology is the other neglected field in the hilly areas. The technology development efforts at national and state level are mostly for better-endowed areas. Marginal areas suffer, as there is lack of appropriate technology. Special efforts are needed to practice productive agriculture in the area based on its niche and comparative advantages. Vermin compost activity needs reexamination of its viability and need in the area.

The existing activities of development of seed, manure technology and organic farming require more efforts so that they become popular and are adapted by farmers. More intensive training is required along with follow up programs. As women are intensively involved in agricultural activities there is need for special training to be imparted to women in seed selection, storing, and treatment on scientific basis. More exposure visits and expert advice is required to upgrade their skills along with financial support to purchase technological inputs. SHGs can provide this support from their fund.

*Livestock sector:* For southern hilly areas of Rajasthan the State Government has no clear livestock development policy, particularly for non-descript animals. Presently buffaloes are preferred for milk and are usually purchased from outside the district. Cows in the area are known for being less productive. Livestock sector needs greater attention to increase income of households in the project area and make the system more sustainable. Present intervention in the livestock sector is limited, that to with sectoral approach rather than integrated approach. Animal health is identified as a problem instead of productivity enhancement and management practices. There is good scope for improvement both large and small ruminants to make livestock enterprise a profitable and sustainable activity. The MGKS limited experience of different breeds can be further extended by involving competent livestock development specialist. Given the availability of biomass there is ample scope for practicing goat rearing as a commercial activity.

## **2. Support to grass root level institutions**

**SHGs-** Women are key actors in the natural resource management therefore, any development planning effort has to take into account the differential needs of women and men. There is a need to understand the underlying factors that determine the gender division of labour and gender related control over resources and benefits. Considerations related to gender issues would influence success and sustainability of any project. Self Help Group is the most appropriate institution to bring women together and discuss their position condition and address gender specific issues

SHGs platform can be used to assess their situations and come up with some broad plan for improving their livelihoods. Skill building is a critical part which has to be weaved in at all stages, so that any activity taken up by the group is competitive in the open market. The next step would be to build linkages with institutions like Banks and other support agencies. The SHGs would finally derive their strength from federating and carrying out various activities as a collective. Presently only women SHGs are functional, that too are not on priority activity of the GMKS. There is need for strong SHGs in the area therefore, special efforts should be made to make them viable and vibrant institution.

**VDC:** There should be a clear cut role and responsibilities assigned to the VDC members. More village level meetings should be organized and total village population be made aware of activities in the village. Panchyat members should also be invited to these meetings to inform villagers about the government programmes and execution of programmes in their village. The plan for future activities should also be made clear to the village beneficiaries.

Bhomat Vikas Manch should be made popular among villagers by discussing about its structure, aims, objectives, functioning and activities and seek their active participation.

### **3. Soil Conservation/Watershed development**

Presently each activity in the project is seen as separate activity and executed independently rather than in an integrated way. For example, the forest/grazing land development, soil conservation activities and livestock development activities should be planned in an integrated way rather than independently. The linkages between activities and the resultant short and long run outputs are clearly not understood both by the project staff and the beneficiaries.

Presently, under the watershed development activities the resources are thinly distributed in 7 villages. The watershed development concept requires treatment of the landscape from top to bottom. Construction of few anicuts or soil conservation structures does not show cumulative impact. It generally benefits few individuals and that too in a limited area. Impact is visible when structures are more in number, concentrated systematically and each rivulet/ Nalah is treated. Such experiments have been successfully conducted in eastern parts of Rajasthan. In the project

there are more individual gains than community gains. For attaining sustainable impact in the project villages require concentrated efforts. What is needed is identification of a site and mobilizing resources. If a micro-watershed be treated properly a good demonstration site can be developed.

#### **4. Project Administration and infrastructure**

The staff needs improvement in documentation skills. GMKS should make provisions to support capacity building activities both financially and technically. Process documentation, best practices documentation, SHG, and VDC activity documentation, etc. requires special skill, and outside trainers are required to impart these skills. Staff member may even be sent for training courses outside state in some identified institution for longer duration. If there is financial provisions in the existing budget it is fine otherwise make new provisions.

#### **5. Training and Awareness building and Project Implementation**

There is a need to review the quality of training imparted and plans of follow up activities, for better results. More care has to be taken in selection of exposure visits, selection of experts, training curriculum, and duration of training. It was observed that there is need to strengthen the concept of gender in development interventions. Also special training be planned to improve understanding on the role and responsibility of the institutions namely, SHGs, and VDCs.

# **CHAPTER I**

## **INTRODUCTION**

### **1.0 Introduction**

Gandhi Manav Kalyan Society's project, which is supported by Wells for India, is being implemented with the objectives of providing food and fodder security, increased water availability and to create a village level institution to sustain the developmental efforts with a participatory approach. Few interventions were planned to address problems of rural areas particularly the hilly areas of Udaipur district, which are predominantly tribal. Tribal areas in Rajasthan have historically been economically backward with high incidence of poverty. These conditions are related to erosion of entitlements of the poor people to access and utilise natural resources, low levels of infrastructure development and social exclusion. The present mid-term evaluation study focuses on analysing the initiatives of Gandhi Manav Kalyan Society (GMKS) in Kotra block of Udaipur District. GMKS implemented proposal called 'Wakal River Basin Watershed Development Project – Phase 2' from 1<sup>st</sup> January 2007 in the 7 villages of Kotra block of Udaipur district with support from Wells for India (Maps of the Project area). The main objective of the project is developing and managing water resources with an understanding of the existing village natural resources, traditional village system and social mobilization.

The objectives of the project were as follows:

1. To increase the availability and assess of water during normal year.
2. To improve /increase food and fodder availability in the project area.
3. To establish functional village level organization.

To assess the implementation and achievements of the project an evaluation strategy was chalked out by listing few objectives and specific issues to be addressed followed by a specific methodology. Each of these elements is given in the subsequent sections.

### **1.1 Objectives of the Mid-term Evaluation Study**

The mid-term evaluation of Wakal River Basin Watershed Development Project was conducted with the following objectives:

1. To assess the project status on output and outcome desired under the project;

2. To validate the relevance of approach and processes adopted by organization in the local context;
3. Assess the sustainability components in the project;
4. Assess the effectiveness of the project objectives and activities;
5. To identify withdrawal strategies adopted by organization;
6. To document lessons learned and make recommendations to improve for subsequent period of implementation of the project.

The mid-term evaluation had emphasis on following aspects;

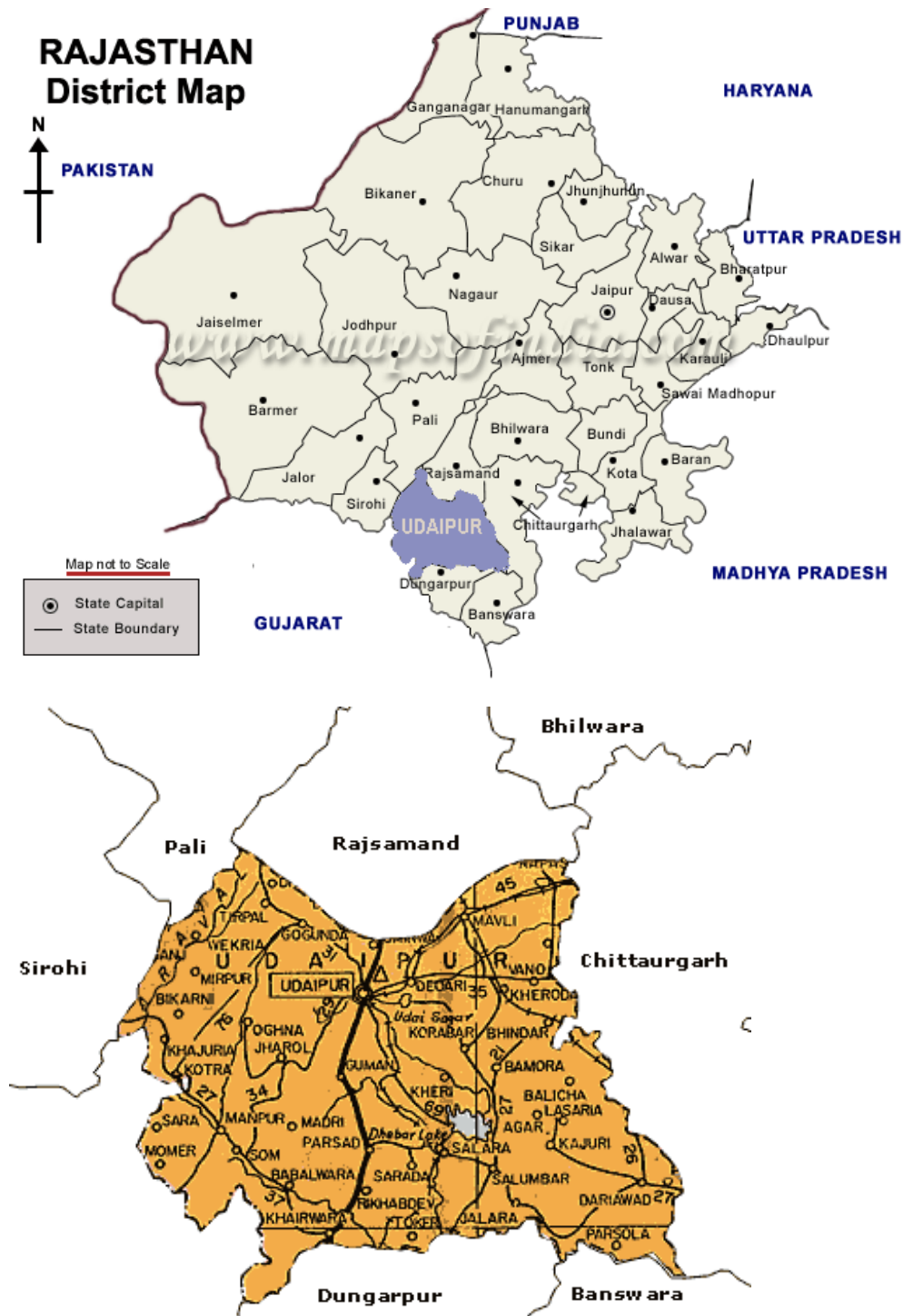
- Relevance of the project in context with the area and community;
- Logical linkages between activity, output and outcome;
- Validity of risk and assumptions;
- Issue of gender and social equality - Extent of women's and socially excluded member's participation in projects activities, their access to projects' resources and benefits, capacity building and empowerment aspects;
- Potential for up-scaling and replication of the good practices;
- To assess the technical soundness of the structures;
- Clarity of the staff on project purpose;
- Process and manpower deploy under the project.

## **1.2 Methodology**

The present evaluation made use of both quantitative and qualitative methodologies. Quantitative data pertaining to the sample villages was collected through a household survey. Qualitative textures were captured through Focus Group Discussions with women and men in the sample villages and key informant interviews. The evaluation team visited all the project villages and had meetings with SHGs and VDCs members individually and in groups in the sample villages. Separate interview/discussions were also organised with implementing project staff and WFI representatives. Physical verification of the infrastructure created was also carried out during fieldwork. Beside these, secondary data was also collected.

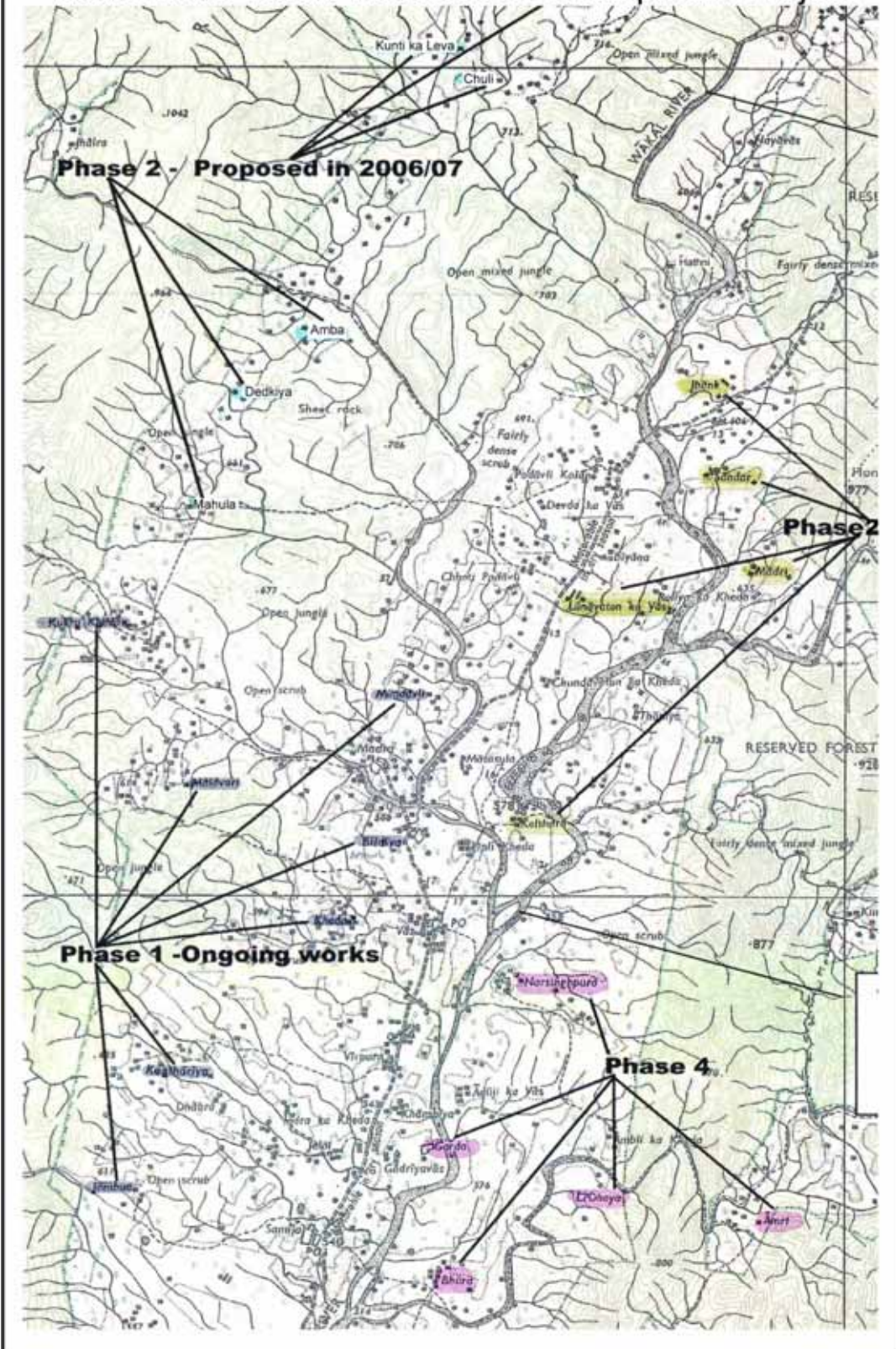
After visiting the 7 project villages to assess the work a sample of 4 villages was taken up for detailed evaluation. These sample villages were selected on the basis of performance. With the help of the project staff we identified two better performing villages, and two villages which were low in terms of performance. In total there were 284 households in the four sample villages and all of them were considered as project beneficiary households. For each sample village a list of beneficiary was prepared and 10 per cent of beneficiary households were randomly selected for detailed evaluation. In total 24 households were selected for detailed survey, the village wise

break up is shown in the Table 1.1. Both male and female respondents were interviewed. Details on the sample villages and sample households are as follows;





# Map of Proposed Villages under Wakal River Basin Watershed Development Project



**Table 1.1: Selection of sample villages and households for primary survey**

Name of Village	No. of Fala	Total Household (No.)	Beneficiary Household (No.)	Sample Household (No.)	Respondents Sex		
					Male	Female	Total
Mahula	3	49	49	5	2	3	5
Amba	4	93	93	10	6	4	10
Kunti ka Lewa	5	102	102	10	8	2	10
Hathni	3	40	40	5	4	1	5
<b>Total</b>	<b>24</b>	<b>284</b>	<b>284</b>	30	20	10	30

Village and Household questionnaire were prepared to collect the quantitative and qualitative data from the sample villages and households. The data so collected were codified and were analysed. The preliminary findings were also shared with the GMKS staff and WFI functionaries.

### **1.3 Timeframe for evaluation**

The evaluation study was conducted in 1.5 months starting from Feb15, 2010 to March 31, 2010.

### **1.4 Evaluation Team**

The evaluation team comprised of three researchers with specialization in NRM with special skills in conducting socio-economic research studies in rural areas using participatory methods.

The team consisted of following members:

Dr. M. S. Rathore, Director, Centre for Environment and Development Studies, Jaipur.

Mr. Narendra Pratap Singh, Research Officer, CEDSJ.

Mr. Ladu Lal Sharma, Junior Research Officer, CEDSJ.

## **CHAPTER II**

### **GENERAL CONDITIONS - SOCIO-ECONOMIC AND POLITICAL**

The success of any physical, social, or economic intervention in an area depends on the understanding of the history, geography, socio-economic, political conditions and the macro and micro level problem's of development in the region. Along with the past history, the State's sectoral policies and interventions made provides conditions for NGOs intervention. Interventions are required as the State always bypassed certain areas and section of population for lack of funds or other reasons and here is the role of NGOs to meet the gap. This Chapter presents the general characteristics and conditions of Udaipur district, the project area comprising namely Kotra block and the 7 Project villages to understand the area and its problems.

#### **2.1 Profile of the Target Area**

Udaipur district is situated in the Aravali range in southern part of Rajasthan. The district is oval in shape with a very narrow strip stretching towards the north. It lies between 23°46` and 25°5` north latitudes and 73°9` and 74° 35` east longitude. It is bounded on the north by Rajsamand district, on south by Dungarpur and Banswara, on the east by Bhilwara and Chittorgarh and west by Pali and Sirohi district. The district covers an area of 11,630.66 sq. km. Administratively, the district constitutes 6 sub-divisions and 10 tehsils. The project area is presently situated in Gogunda block of Udaipur.

Gogunda block is situated within the Aravali ranges from north to South. The sub-division borders Girva sub-division in north, Jhadol in the east, Kotra in west and Khedphrama Gujarat state in South. The northern part of the sub-division consists generally of elevated plateaus while the eastern part is covered with rocks, hill and dense forests whereas the western portion known as the hill tracts of Mewar is composed of Aravali ranges.

##### **2.1.1 Geology**

The geological antiquity of the region belongs to Pre-Aravali, Aravali, Railao and Delhi system. The Aravali series has an important place in the geology of Udaipur district. The rock formations

of this series cover the major part of the district. Mica schist, quartzite, dolomite, hornblende schist, genesis etc., comprise the Pre-Aravali rocks (2,550 million year old) in the district. The Aravali super group is represented by the meta sediments consisting of quartzite, conglomerate phyllite, dolomite, mica schist and meta volcanic rocks. Some of the dolomites present evidences of perhaps the most ancient life on the east in form of organo-sedimentary structures called 'Stromatolite'. Metamorphic rocks of the Delhi super group occupy the main Aravali hill ranges and are highly folded and intruded by the Erinpura granites.

### **2.1.2 Flora and Fauna**

*Flora:* The botany of the district belongs to the Northern Tropical Dry Deciduous type as classified by Mr. Champion, the well known expert on forestry. The canopies at all levels are more or less deciduous, the composition and quality however vary a great deal with the variation in soil conditions, geological formations and topography. There is a very rich collection of various types of trees, shrubs and herbs, climbers, grasses etc.

*Fauna:* The area is also rich in wild life, which includes a large variety of animals, birds, reptiles and fish, many of which such as tiger, panther, deer, wild boar etc. are recognized as the fauna of sport.

### **2.1.3 Climate**

The district has on the whole a dry climate. The cold season is from December to February and is followed by the hot season, which lasts till about the middle of June. Mid-June to mid-September constitutes the southwest monsoon season. The post-monsoon period from the middle of September to end of November is one of transitions from monsoon to winter conditions.

#### *Rainfall*

The district has a network of six rain-gauge stations. Two of them is located in the project area. The average annual rainfall in the district is 650.3 mm. Rainfall generally decreases from the southwest to the northeast in the district. On an average the number of rainy days in a year is 31. Table 2.1 provides rainfall in the last 10 years in the two tehsils namely Kotra and Gogunda the work site of GNKS. As per the rainfall records for the two tehsils the years 1999, 2000, 2002,

2004 and 2008 were drought years and even the year 2009-10 is also bad year. The variability in rainfall is high in the project area.

**Table 2.1: Tehsil wise rainfall in the WDP project area (In mm)**

Years	Kotra	Gogunda	Udaipur
1995	600.0	519.0	385.0
1996	604.0	729.0	693.0
1997	795.0	626.0	653.0
1998	765.0	579.0	710.0
1999	353.0	416.0	395.0
2000	547.0	448.0	998.8
2001	774.0	712.0	399.9
2002	403.0	325.0	633.3
2003	1031.0	720.0	575.0
2004	663.0	382.0	577.5
2005	1054.0	851.0	797.8
2006	1564.0	1670.0	1265.1
2007	1173.0	606.0	
2008	696.0	459.0	594.2

Source: Land and Revenue Record department District Collector Udaipur. Rajasthan.

#### 2.1.4 Population

The first enumeration of population in the Mewar region took place in 1881 A.D. This was to count the number of tribal population like Bhils and other communities. The next census took place in 1891 and subsequently every tenth year there was a population census conducted. The population growth rate in the area was always very high, i.e. above 20 per cent, except for two decades of 1921 and 1931. The caste wise, sex wise population distribution in the two project area tehsils is reported in Table 2.2. The project area is dominated by tribal population, as per the population Census 2001 the ST accounts for 61.9 and 52.5 per cent of total population in Kotra and Gogunda tehsils respectively.

*Sex ratio:* Sex ratio is an important indicator of status of women in any area. Mostly unfavorable in other parts of the State sex ratio is in favour of females in the Udaipur district and in the two tehsils. The sex ratio in the district was recorded as 920 in the year 1901, 965 in 1991 and 972 in 2001. The sex ratio in the project area is 979 and 981 in Kotra and Gogunda respectively. Women continue to face discrimination in access and control over resources. Patriarchal practices and norms are deeply embedded in the psyche, which manifest in everyday life situations.

**Table 2.2: Caste wise, sex wise population in Kotra and Gogunda Tehsils**  
(Percent)

<b>Kotra</b>	<b>1981</b>	<b>1991</b>	<b>2001</b>
Male	51.6	51.2	50.5
Female	48.4	48.8	49.5
Total	100.0	100.0	100.0
Sex ratio	937	954	979
<b>Caste</b>			
<b>SC</b>			
Male	0.8	0.7	0.5
Female	0.7	0.6	0.5
Total	1.5	1.3	1.0
<b>ST</b>			
Male	44.4	45.3	45.0
Female	42.3	43.8	44.3
Total	86.7	88.4	89.3
<b>Gogunda</b>			
Male	50.2	50.6	50.5
Female	49.8	49.4	49.5
Total	100.0	100.0	100.0
Sex ratio	990	975	981
<b>Caste</b>			
<b>SC</b>			
Male	4.5	4.3	4.2
Female	4.3	8.8	4.0
Total	8.8	13.1	8.2
<b>ST</b>			
Male	19.5	21.6	22.8
Female	12.8	20.4	21.9
Total	32.3	42.0	44.7

Source: Directorate of Economics and Statistics Rajasthan, Jaipur. District Statistical Handbook of Udaipur district, 1987 pages 19, 57, in 1997, pages 9, and 25 and 2002 pages 9, and 27.

*Religion and Caste:* According to Census of India report, the principal religious groups found in the district are those of Hindu, Jain, Muslim, Christian, Sikh and Buddhist in descending order of strength. The society is composed of various social groups, which are further divided into smaller sects, castes and sub-castes. Their social customs and obligations vary largely according to their particular traditions and local circumstances. As per the Census 2001 the Tribals dominate the population, as Scheduled Castes and Scheduled Tribes are 1 per cent and 89.3 per cent respectively in Kotra 8.2 and 44.7 percent respectively in Gogunda. Bhil, Meena, Gharasia, Damour and Saharia are the main Scheduled Tribe groups. Generally they are isolated living in

scattered hamlets mostly in forest areas with close social network and kinship. The stereotypical image of the tribal population is presented in terms of their backwardness and superstitions.

### **2.1.5 Agriculture**

*Soil Erosion:* With hilly ranges in most parts and fast-flowing rivers and *nallahs* during the monsoon, water erosion is the main problem of the district. Approximately 80 per cent of the area under cultivation in the district is on undulating lands and suffer from the problem of soil erosion, causing removal of top soils consequently resulting in shallowness of depth of the soil and poor fertility. Adoption of soil conservation practices becomes an essential activity of the agriculturists in the area.

*Soils:* No regular soil survey of the district has been conducted. However, on the basis of a general reconnaissance survey conducted by the State Agriculture Department, soils of the district can be broadly classified into the following five associations:

1. Lithosols and Regosols of the hills
2. Yellowish brown soils of foot hills
3. Brown soils (Saline Phase)
4. Red loams
5. Black soils.

Red soil is more prominent on high elevations and black soil in low lying areas of the district. The black soils are loam or clay loam having normal fertility except where the problem of salinity or alkalinity occurs. Gogunda, Kotra, Jhadol, Girwa, Badgaon, Mavli and Bhinder Panchayat Samitis have mostly clay loam soil, which is suitable for maize, cotton, wheat and groundnut and also for sugarcane, etc. All types of soils in the district are deep to moderately deep except over hard rocks or partially weathered rocks, where they are shallow, 4 to 6 feet or even less. The red loam type of soil is fairly distributed in Panchayat Samitis Kherwara, Sarada, Salumber and Dhariyawad and suits the growth of maize and wheat crops. In general, soils in the western parts of the district are mostly stony. In small portions of eastern and southern parts, yellowish brown soil is also met with and has shallow depth. All these soils, in general, are medium in nitrogen, phosphorus and potash contents.

*Political Scenario:* Since independence the people in the district were supporters of a single party, namely Congress. Tribal areas have got special status in the national political and development planning. Large number of special development plans and programmes are designed and financial allocations have been made in the National and State Five-Year Plans. Despite all these Tribal Area development plans and sub plans the development in the region has been slow compared to other areas of Rajasthan. Social change is difficult needing special attention. In recent years decentralization become a central issue all over the state, discussions on Tribal self-rule has also been initiated. Given the fact that state development initiatives and delivery mechanisms have not been able to address the social and economic problems of the region a number of CSO and non-government organisations have been working in the tribal regions of the district with different mandates, i.e., welfare, equality, poverty reduction and empowerment.

## 2.2 Characteristics of Project Villages

The demographic characteristics about the 7 project villages are reported in Table 2.3. In total there are 356 households with a total population of 1918 in these villages. Of these 985 are male and 933 are female. The overall sex ratio is 974 per thousand persons. Sex ratio is favourable in two villages and in three villages it is unfavorable as the sex ratio is less than 900.

**Table 2.3: Demographic characteristics of the Project Villages**

Name of Village	Total Household (No.)	Geographical area (Ha.)	Population (Numbers)			Sex Ratio
			Male	Female	Total	
Chooli	25	102	79	79	158	1000
Kunti ka leva	74	410	186	190	376	1022
Hathni	32	184	81	79	160	975
Mahula	39	163	112	99	211	884
Dedkiya	46	236	131	117	248	893
Lambi Semal	73	259	207	181	388	874
Amba	67	224	189	188	377	995
Total	356	1578	985	933	1918	947

Source: GOI, Census2001

The basic amenities available in the selected villages are reported in Table 2.4. Education facility is available in 71.4 per cent villages while drinking water facility is available in all the



sample villages. The other basic amenities namely, health, Post and telephone, transport (bus) and bank facility in none of the sample villages.

**Table 2.4: Availability of Basic Amenities in the Project Village**

Name of Village	Education facility	Medical facility	Drinking water	Post and Telephone	Bus facility	Bank facility
Chooli	No	No	Yes	No	No	No
Kunti ka leva	Yes	No	Yes	No	No	No
Hathni	No	No	Yes	No	No	No
Mahula	Yes	No	Yes	No	No	No
Dedkiya	Yes	No	Yes	No	No	No
Lambi Semal	Yes	No	Yes	No	No	No
Amba	Yes	No	Yes	No	No	No

Source: GOI, Census 2001

The area is underdeveloped and the government development programmes have not reached the people. The effort by GMKS with the support of WFI is a great help to the people for their sustainable livelihood and basic amenities.

### 2.3 Demographic Characteristics of Sample Households

The demographic characteristics of the sample households are reported in Tables 2.5 to 2.6. Favourable sex ratio was found in the entire sample villages except Amba village. The average family size was 7 persons per household with 3 adults and 4 dependent children (Table 3.6).

**Table 2.5: Sex wise distribution of population in sample households**

Name of Village	Population					Sex Ratio
	Male	Female	Male child	Female child	Total	
Amba	13	15	25	16	69	816
Hathni	10	10	11	20	51	1429
Kunti ka Leva	16	16	13	14	59	1034
Mahula	6	7	3	12	28	3111
Total	45	48	52	62	207	1134

**Table 2.6: Family Size by sex of sample household**

Name of Village	Population				
	Male	Female	Male child	Female child	Total
Amba	1.3	1.5	2.5	1.6	6.9
Hathni	2.0	2.0	2.2	4.0	10.2
Kunti ka Leva	1.6	1.6	1.3	1.4	5.9
Mahula	1.2	1.4	0.6	2.4	5.6
Total	1.5	1.6	1.7	2.1	6.9

The main and subsidiary occupation of the sample households is reported in the Table 2.7. Agriculture seems to be the main occupation of the people in the project villages. The project interventions in NRM activities and agricultural activities had direct impact on the productivity of land. Merbandi, soil conservation works and increase in area under irrigation has improved the land productivity. This has directly affected the occupation pattern of the beneficiaries as shown in Table 2.7. People use to migrate or seek jobs as wage labourer in small towns or cities. Because of employment generation within village and increased productivity of land more people diverted to agriculture as their main occupation.

**Table 2.7: Main occupation pattern of the head of sample household**

(Percentages)

Name of Village	Main Occupation		
	Cultivator	Non Ag. Labour	Total
<b>2007</b>			
Amba	50.0	50.0	100.0
Hathni	100.0	0.0	100.0
Kunti ka Leva	80.0	20.0	100.0
Mahula	40.0	60.0	100.0
<b>2009</b>			
Amba	70.0	30.0	100.0
Hathni	100.0	0.0	100.0
Kunti ka Leva	100.0	0.0	100.0
Mahula	40.0	60.0	100.0

The project intervention has directly affected the income of the beneficiaries. Table 2.8 shows that before the project 33 percent of households had their annual income less than 12 thousand per annum and after the project intervention in the year 2009-10 none of the sample household had annual income is less than 12 thousand. The household in the income category more than 30 thousand has increased from 6.7 percent to 46.7 percent. This significant increase in household income can be directly ascribed to the impact of increase in irrigated agriculture and soil moisture conservation caused by field bunding and deepening and digging of wells.

**Table 2.8: Village wise, Income group wise distribution of sample households**

(Percentages)

Name of Village	Income Group				Total
	<5000	5001-12000	12001-30000	>30001	
<b>2007</b>					
Amba	0.0	30.0	70.0	0.0	100.0
Hathni	0.0	40.0	40.0	20.0	100.0
Kunti ka Leva	0.0	20.0	70.0	10.0	100.0
Mahula	0.0	60.0	40.0	0.0	100.0
Total	0.0	33.3	60.0	6.7	100.0
<b>2009</b>					
Amba	0.0	0.0	60.0	40.0	100.0
Hathni	0.0	0.0	40.0	60.0	100.0
Kunti ka Leva	0.0	0.0	50.0	50.0	100.0
Mahula	0.0	0.0	60.0	40.0	100.0
Total	0.0	0.0	53.3	46.7	100.0

**Table 2.9: Village wise, Occupation wise annual income of sample household**

(Per household)

Village	Occupation			Total
	Main	Subsidiary	Other	
<b>2007</b>				
Amba	6920	6480	0	13400
Hathni	13600	2960	3200	19760
Kunti ka Leva	8660	10600	0	19260
Mahula	7920	5700	0	13620
Total	8780	7137	533.3	16450
<b>2009</b>				
Amba	11310	17400	0	28710
Hathni	26420	6200	10400	43020
Kunti ka Leva	13060	19300	0	32360
Mahula	17360	9460	0	26820
Total	15420	14843	1733.3	31996

The resource endowment of the sample households is reported in Table 2.10. The major assets owned by the tribal households are house, well, pump, cycle and bullock cart. There is marginal improvement in the ownership of immovable assets of beneficiary households. The number of well owner has increased in the village Kunti ka leva.

**Table 2.10: Type of assets owned by sample households**

(Percentages)

Items	Villages				Total
	Amba	Hathni	Kunti Ka leva	Mahula	
<b>2007</b>					
Own House and Land	100.0	100.0	100.0	100.0	100.0
Television	0.0	0.0	0.0	0.0	0.0
Radio	0.0	0.0	0.0	0.0	0.0
Cycle	0.0	0.0	10.0	0.0	3.3
Motor Cycle	0.0	0.0	0.0	0.0	0.0
Bullock Cart	0.0	20	10.0	0.0	6.6
Thresher	0.0	0.0	0.0	0.0	0.0
Well	0.0	60.0	10.0	0.0	13.3
Pump	0.0	20.0	10.0	0	6.6
<b>2009</b>					
Own House	100.	100.0	100.0	100.0	100.0
Television	0.0	0.0	0.0	0.0	0.0
Radio	0.0	0.0	0.0	0.0	0.0
Cycle	0.0	0.0	20.0	0.0	6.6
Motor Cycle	0.0	0.0	0.0	0.0	0.0
Bullock Cart	0.0	20.0	20.0	0.0	10.0
Thresher	0.0	20.0	0.0	0.0	3.3
Well	0.0	60.0	60.0	0.0	30.0
Pump	0.0	40.0	0.0	0	6.6

The average size of land owned by the sample households is reported in Table 2.11. The size of holding varies across sample villages. It is larger in Mahula village and smaller in Kunti Ka Lava village. Project intervention had no impact on the size of holding but had significant increase in the productivity of landholding. The productivity increased in two ways; first, by increased in the culturable area and second, increase in area under irrigation. It is mainly because of digging of wells, introduction of lift irrigation, water diversion scheme, etc. Improvement in the resource base in the project village has improved the livelihood security of the beneficiaries.

**Table 2.11: Size of land owned by sample households (2007-2009)**

(Per household)

Land (Bigha)	Village				Over all
	Amba	Hathni	Kunti Ka leva	Mahula	
<b>2007</b>					
Average size of holding	5.9	6.9	5.7	8.4	6.4
Culturable	4.8	6.9	4.9	5.4	5.3
Irrigated	0.9	2.2	0.4	0.0	0.8
<b>2009</b>					
Average size of holding	5.9	6.9	5.7	8.4	6.4
Culturable	5.2	6.9	4.9	6.4	5.6
Irrigated	0.9	3.0	1.6	1.0	1.5

In the movable category of household resources livestock is the most important asset. Livestock play significant role in the tribal household economy. Given the geographical conditions the body structure of the animals are light weight to facilitate them to climb steep slopes for grazing. Bullocks are the main source of draft power in agriculture. Buffaloes are kept as main source of milk and sheep and goats for meat purpose. Table 2.12 shows the ownership of livestock resources by the sample households and change since the project interventions. The number of livestock owned by sample households has doubled because of project interventions. This change is mainly because of the NRM interventions made resulting in increase in availability of fodder from assured irrigated agriculture. Also the animal health camp improved their physical condition. The number of animal owned for the given size of holding seems to be on higher side. The simple economics of animal raising in the tribal hilly areas is that they keep animals at minimal private cost. As there are sufficient grazing lands stall feeding is minimal and concentrate input is also limited, the only major cost is of human labour in grazing the animals in forests. Animal manure is very important input in for higher productivity of crops as the hill soil lack in humus content. Animal dung mixed with grass, tree leaves and crop residue makes good manure for field crops. The increase in number of animals seen in the above context speaks positive of the project interventions.

**Table 2.12: Livestock owned by sample households**

Items	Villages				Overall
	Amba	Hathni	Kunti Ka leva	Mahula	
<b>2007</b>					
Cattle Number	2.5	1.8	1.7	1.6	2.0
Value	4500	9400	6000	5000	5900
Buffalo Number	0.2	1.4	0.8	0.4	0.6
Value	2200	11400	4300	4000	4733.3
Goat Number	3.2	0.4	2.2	2.8	2.3
Value	3200	400	2100	3200	2366.7
Total Livestock	5.9	3.6	4.7	4.8	4.9
Total value	9900	21200	12400	12200	13000
<b>2009</b>					
Cattle Number	4.1	3.6	3.3	4.8	3.9
Value	10400	11200	11280	16100	11776.7
Buffalo Number	0.5	2.0	1.8	1.4	1.3
Value	4000	22600	9400	12000	10233.3
Goat Number	5.7	2.0	6.6	6.8	5.6
Value	6940	2000	8400	11100	7296.7
Total Livestock	10.3	7.6	11.7	13.0	10.8
Total value	21340	35800	29080	39200	29306.7

**Table 2.13: Season wise cropped area, total production and total value of agricultural produce of household**  
(Per household)

Items	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
<b>2007</b>					
Kharif area (ha)	2.4	3.9	4.6	3.0	3.5
Production (quintal)	2.3	7.7	4.1	1.4	3.6
Value ( Rs)	2200	8220	4610	1620	3910
Rabi area (ha)	0.0	2.0	0.3	0.0	0.4
Production (quintal)	0.0	2.6	0.5	0.0	0.6
Value ( Rs)	0.0	5440	500	0.0	1073.3
Zayad area (ha)	0.0	0.0	0.0	0.0	0.0
Production (quintal)	0.0	0.0	0.0	0.0	0.0
Value ( Rs)	0.0	0.0	0.0	0.0	0.0
Total area (ha)	2.4	3.5	6.1	3.0	3.9
Total production (quintal)	2.3	10.3	4.3	1.4	4.1
Total value ( Rs)	2200	13660	5170	1620	5003.3
<b>2009</b>					
Kharif area (ha)	3.6	5.2	4.8	3.4	4.2
Production (quintal)	4.7	12.3	7.3	3.2	6.6
Value ( Rs)	7540	16920	9060	5080	9200
Rabi area (ha)	0.0	3.0	0.7	0.9	0.9
Production (quintal)	0.0	4.0	1.1	0.7	1.1
Value ( Rs)	0.0	9500	1800	2720	2636.7
Zayad area (ha)	0.0	0.0	0.1	0.0	0.0
Production (quintal)	0.0	0.0	0.2	0.0	0.0
Value ( Rs)	0.0	0.0	500.0	0.0	166.7
Total area (ha)	3.6	8.2	5.2	4.3	5.0
Total production in (quintal)	4.7	16.3	8.5	3.9	7.8
Total value( Rs)	7540	26420	11360	7800	12003.3

## **CHAPTER III**

### **PROJECT DISCRPTION**

#### **3.0 Implementing agency**

Gandhi Manav Kalyan Society (GMKS) is an NGO run by a group of members hailing from tribal community. GMKS is a non-profit and non government organization working in 110 villages across the three blocks of Udaipur district in the Bhomat region of the Aravali ranges in the southern Rajasthan. Organization formally registered in the year 1985, initially with an aim to provide relief to the sufferers of drought occurred in the year 1982 to 1985. GMKS work for 5 “J” which are “Jal” (Water), Jameen (Land), “Jan” (People), “Jungle” (Forest), and “Janwar” (animal).

The people of Bhomat region are predominately tribes. The villagers are remote, traditional and isolated from mainstream society. GMKS is extending its services in the field of Natural Resources Development, Child Rights, Khatodi Rehabilitation and Sustainable Agriculture through organic farming and emergency relief to more than one lakh population of the district.

Some villages in this district are most backward. GMKS has been playing a pivotal role in all round development of the tribal areas of Udaipur region. Some of the development programs it implemented through community-based networking organizations and a majority of the programs it implemented through its own volunteers and staff. The society has a dedicated team of professionals drawn from various background and disciplines.

#### **Vision**

GMKS intends to contribute in the holistic development of tribal population and ensure sustainable livelihood by their capacity building and better management of their natural resources in a participatory manner.

#### **Mission**

GMKS strives for a self reliant tribal society in which people develop their capabilities of managing their own resources to contribute in a sustained self development process.

## **Objectives**

- To ensure development of women and children in the working area.
- To encourage women's condition in society by ensuring female participation in all programs
- To build the capacity of individuals and communities to protect their own economic, social, political and agricultural stability.
- To increase the local awareness and practices of natural management for diminishing the drought effects.
- To support and strengthen sustainable agriculture through organic farming.
- To establish linkages between the tribal communities, government departments and other civil society institutions.

GMKS have a membership of UN convention of the right of the child (UNCRC) and Organic Farming Association of India (OFAI). The condition of GMKS working area economically as well socially needs more appropriate efforts for the well being of the people. In this context GMKS provides a Rural Training Centre in Onga for human resource development. Any outsider organizations bestow trainings and workshops for villagers. For understanding and solving their current problems, GMKS has its operational office in Onga and co-ordination office in Udaipur city.

## **GMKS Activities**

- GMKS focusing on basic & quality education, health & sanitation, early child care development & nutrition and child protection & participation for the development of child and women. Through these programs, literacy rate, health practices, awareness about child rights, child participation, etc have improved.
- In the field of NRM GMKS is constantly working on the soil & water conservation and livestock development issues. Constructed water harvesting structures, loose stone check dams, community lifts, iron rahat, development of wells, new wells and field bunding to solve the water problem in the area. Community lift irrigation systems are installed by GMKS and with the help of government. These activities provide wage employment to the local inhabitant and reduced the migration ratio. In the livestock development GMKS got treated and vaccinated goats, cows, buffalos, bullock and other animals.



- GMKS is also working for the sustainable livelihood of small farmers through agriculture demonstration, constructing vermin beds, trainings regarding cash crops, manure and seeds preservation. Dharamitra Research and Demonstration Centre conduct trainings on organic farming, manuring, pesticides and also dairy techniques for farmers.
- GMKS closely work with *Kathodi* tribal for their resettlement and mainstreaming. To sustain them at one place and reducing their migration, GMKS provides training on sustainable agriculture and demonstration of new cash crops. Organization provides trainings on fisheries and plans to provide some vocational training for additional income generation. Also done some soil & water conservation work and facilitated basic education material. Constructed and repaired their houses. Timely conducted trainings and treatment camp regarding health and sanitation.
- Other then this GMKS also done construction of LSCD and field bunding under the food for community Development program and distributed wheat. The “Bhomat Vikas Parishad” continued to work towards its goal. Last BVM raised issues regarding Forest Right Act 2006, NREGA, Rebari, and networking with RVM etc. Since its inception 24 years back, GMKS actively involved in building capacity of local community to manage their own resources.

### **3.1 About the Project**

The project undertaken by the GMKS is titled as Wakal River Basin Watershed Development Project (WRBWDP) for a period of five years. In the project preparatory stage the GMKS had a base line survey of the project area and also conducted LFA exercises to understand the socio-economic issues, natural resource base, needs of the people and constraints in economic and social development in the project area. The discussions, meetings and dialogues with the village community have led to working out of a joint strategy between the villager and GMKS.

#### **3.1.1 Problem identification based on the Base Line Survey and LFA exercises.**

Due to difficult accessibility and lack of adequate transportation facilities, the outreaches of the welfare facilities have been minimal. The people, on the other hand have remained docile and exploited by the external factors, such as moneylenders and other corrupt government officials. Despite tremendous potential possessed by the tribes individually and collectively, decades of

exploitation have rendered them socially inactive with an inferiority complex. Socially analyzing their situation revealed that there is an urgent need to develop their natural resources and restore their dignity in a manner so that they have greater control over their lives and the natural resources. These findings are based on base line survey of the project area and LFA exercises. Along with these technical surveys were also done in these villages. These were some of the activities and efforts on which this proposal was designed.

Box 1: Some of the issues that came up during the LFA exercise and village meetings.

<b>Problems Identified</b>	<b>Solution suggested by the community members</b>	<b>Activity proposed</b>
Scarcity of drinking water	Conservation of water, Augmentation by efficient management of groundwater, Ground water Recharge, Rooftop rainwater harvesting	<ul style="list-style-type: none"> <li>• Water Harvesting Structures –LSCD</li> <li>• Development of wells,</li> <li>• Construction of community wells</li> <li>• Construction of Masonry check dams</li> <li>• Gully plug and loose stone check dam</li> <li>• Construction of Tanka/hand pump</li> </ul>
<ul style="list-style-type: none"> <li>• Soil erosion</li> <li>• Low productivity of land</li> <li>• Lack of soil moisture</li> </ul>	Conservation of Soil by use of appropriate technology and methods Use of organic matter Rainwater harvesting and new agricultural practices	<ul style="list-style-type: none"> <li>• Medbandhi</li> <li>• Land Development programme</li> <li>• Construction of Masonry check dams</li> <li>• Gully plug and loose stone check dam</li> <li>• Vermin compost</li> </ul>
Scarcity of irrigation water	Augmentation of groundwater, Surface water harvesting	<ul style="list-style-type: none"> <li>• Construction of Anicut</li> <li>• Lift irrigation</li> <li>• Well development</li> <li>• Stream water diversion</li> </ul>
Scarcity of food and fodder	Development of agriculture and livestock Development of pasture lands Diversification of agriculture Adoption of new agricultural technology	<ul style="list-style-type: none"> <li>• Increase in area under irrigation</li> <li>• Field Bunding</li> <li>• Vermin compost</li> <li>• Livestock treatment camp</li> <li>• Promotion of cash crops</li> <li>• Installation of Iron Rehat</li> <li>• Installation of Community Lift irrigation</li> <li>• Pasture Land Development</li> </ul>
Lack of functional village level organization/institution	Organise and capacity building of community for their economic development  Formation of village level institutions to address credit needs and socio-political development	<ul style="list-style-type: none"> <li>• Formation of VDC</li> <li>• Formation of SHG</li> <li>• Training on Sustainable agriculture and Livestock Development</li> <li>• Awareness program on NRM</li> <li>• Exposure visits</li> </ul>

### **3.2 Rational of the project**

GMKS has been working in the area for about two decades. The proposed project area has undergone various sorts of exploitation. The socio economic condition of the tribal's and

environment condition in the area are deteriorating day by day. Though Government departments initiated lots of development programmes yet the condition and position of tribal population did not improve significantly. The water level in the region is dropped considerably in the last two decades owing to the recurring drought situation. People are facing problems with regard to both food and livelihood security. The emerging problem of acute shortage of drinking as well as irrigation water needs to be addressed but there are no time bond specific programmes to address the problem in the project area. On the account of the above listed problems of the area, GMKS envisaged its role to assist people in improving their socio-economic and environment condition.

The proposed project is also a part of Wakal River Basin program, which was started in 2004-05 as WDP-I. In the first phase GMKS selected 6 tribal villages and started work with the support of WFI. During the course of the project it was experienced that the project needs to be extended to second phase in the adjoining 7 villages.

The WRBWDP was initiated in 7 tribal villages of Kotra block of Udaipur district of southern Rajasthan with a broad objective of promoting the economic and social development of the tribal community and to encourage restoration of ecological balance in the project area. The seven tribal villages are, namely;

- |           |                  |
|-----------|------------------|
| 1. Hathni | 2. Kunti ka Leva |
| 3 Chuli   | 4. Lambi Semal   |
| 5 Amba    | 6 Dedkiya        |
| 7 Mahula  |                  |

The project villages are located within a circle of about 25 km. The population target group identified for the project consists of resource poor 439 tribal families residing in Wakal River Basin. The specific objectives of WRBWDP are:

- To increase the availability and access of water during ‘Normal Years’
- To improve / increase food and fodder availability in the project area
- To establish functional village level organizations

### **3.3 Operational Strategy/Approach**

The discussions meetings and dialogues with the village community have led to working out of a joint strategy between the villager and GMKS. Below mentioned guidelines was to be followed at each level of planning, implementation and monitoring.

At the Initial Stages;

- Community participation to be ensured in the entire exercise and involve people in each step of identifying problem and evolving strategies to solve these problems.
- Capacity building activities – trainings, awareness generation programs, exposure visits, culture-shows, street plays, puppet shows, posters, etc to be used by the combined participation of the village committee and GMKS team.
- Women to be involved in each and every step of planning, implementation, and monitoring. Social workers from GMKS were made responsible to impart awareness on women issues and also help in mobilization of women to form Self Help Groups (SHG), for self-reliance in future.

### **3.4 Comments on the Rational and Approach**

Review of the GMKS documents revealed that the above analysis helped in identification of the right type and nature of activities that should be taken up to meet the needs of community through WDP. The proposed interventions in the area of water augmentation and land development are supposed to provide livelihood security is well planned. The supporting village institution namely VDC and SHG are very much fitting to the objectives. However, the base line survey and LFA does not reveal the nature of social problems in the tribal communities, especially in the context of position and condition of women. The gender aspects were explicitly not addressed in the exercises. Consequently it does not find a central place in the project objectives.

The other major gap is not considering the existing government programme such as, NREGA, etc. and dovetailing with their interventions. This would have saved their budget and energy in attaining project objectives.

### **3.5 Financial Inputs**

In order to achieve the project objectives through proposed set of activities financial provisions were made. The proposed total project cost of Rs. 20,002,453 (for the period of October 2006 to September 2011), was distributed over five years with a break up into program activities and Personnel costs (Table 3.1). The detail of the 5-year budget is as under. The total cost of all the activities is Rs 20,002,453. The total contribution by the beneficiaries will be Rs 2,515,500 and Government Activities of Rs. 2,150,000. The Wells for India contribution is Rs 15,336,953.

There was a provision for raising 23.3 per cent of the total cost from local contribution, i.e., beneficiaries, implementing agency, and government agencies, and the rest amount (76.7 percent) as donor agency contribution. The activity wise costs are reported in Table 3.2. Of the total proposed the bulk costs, i.e., 80.7 per cent is as non recurring cost, 5.2 percent and 14.06 per cent as recurring and personnel costs respectively.

**Table 3.1: Water and Livelihood Programme (Wakal River Basin Watershed Development Project).**

Budget Line	Total Cost	Per cent	WFI contribution	Per cent
Water Harvesting & Conservation	12,540,000	62.69	8,072,000	52.63
Agriculture and Livestock	2,942,500	14.71	2,745,000	17.90
Capacity Building	437,000	2.18	437,000	2.85
Monitoring & Documentation	230,000	1.15	230,000	1.50
Project Personnel (Additional)	2,812,953	14.06	2,812,953	18.34
Non Recurring Items	1,040,000	5.20	1,040,000	6.78
<b>Total</b>	<b>20,002,453</b>	<b>100.00</b>	<b>15,336,953</b>	<b>100.00</b>

The detailed activity wise budget is given in Table 3.2. The water harvesting and conservation activities account for major portion of the total project budget i.e., 62.7 per cent, while the other activities namely, agriculture and livestock 14.7 per cent, capacity building 2.2 per cent, monitoring and documentation 1.2 per cent, project management 14.06 per cent and non-recurring and other costs 5.5 per cent.

**Table 3.2: Item wise budget for the Wakal River Basin Watershed Development Project (2006 – 2011) (Rs.)**

Program/Activity	No.	Unit Cost	WFI	Beneficiaries	Government	Total
<b>Water Harvesting &amp; Conservation</b>						
Water Harvesting Structure	14	325,000	2,080,000	520,000	1,950,000	4,550,000
LSCD	425	2,800	952,000	238,000	-	1,190,000
Development of Wells	35	20,000	560,000	140,000	-	700,000
Construction of New Wells	20	150,000	2,400,000	600,000	-	3,000,000
Masonry Check Dams	35	20,000	400,000	100,000	200,000	700,000
Field Bunding & Land Leveling work (running meter)	60000	40	1,680,000	720,000	-	2,400,000
<b>Sub Total</b>			<b>8,072,000</b>	<b>2,318,000</b>	<b>2,150,000</b>	<b>12,540,000</b>
<b>Agriculture and Livestock</b>						
Pasture Land Development (Hect.)	200	4,000	640,000	160,000	-	800,000
Vermi compost	250	750	150,000	37,500	-	187,500
Demonstration of Cash Crops	250	1,500	375,000	-	-	375,000
Livestock treatment camp	10	10,000	100,000	-	-	100,000
Installation of Community Lift	6	100,000	600,000	-	-	600,000

Installation of Iron Rehat	6	30,000	180,000	-	-	180,000
Off Farm Activities						
Establishment of Processing Unit	1	400,000	400,000	-	-	400,000
Hiring of Marketing Consultant	1	100,000	100,000	-	-	100,000
Hiring of Packaging & Promotion consultant agency	-	200,000	200,000	-	-	200,000
<b>Sub Total</b>			<b>2,745,000</b>	<b>197,500</b>	<b>-</b>	<b>2,942,500</b>
<b>Capacity Building</b>						
Awareness program on NRM	35	2,000	70,000	-	-	70,000
Village level Group meetings	420	100	42,000	-	-	42,000
Trg. on Watershed Development	10	6,000	60,000	-	-	60,000
Trg. on Sustainable Agriculture	10	6,000	60,000	-	-	60,000
Trg. on SHG Leaders'	10	6,000	60,000	-	-	60,000
Trg. on Livestock Development	5	5,000	25,000	-	-	25,000
Exposure tour	3	40,000	120,000	-	-	120,000
<b>Sub Total</b>			<b>437,000</b>	<b>-</b>	<b>-</b>	<b>437,000</b>
<b>Monitoring &amp; Documentation</b>	Year					
Impact monitoring	5 Yrs.	12,000	60,000	-	-	60,000
Documentation	3 Yrs.	15,000	45,000	-	-	45,000
Equipments for impact monitoring	5 Yrs.	10,000	50,000	-	-	50,000
Yearly program review	5 Yrs.	5,000	25,000	-	-	25,000
Visibility Expenses	5 Yrs.	10,000	50,000	-	-	50,000
<b>Sub Total</b>			<b>230,000</b>	<b>-</b>	<b>-</b>	<b>230,000</b>
<b>Project Personnel (Additional)</b>						
Program Director	5 Yrs.	<i>As per annexure</i>	994,615	-	-	994,615
Program Coordinator	2 Yrs.		246,000	-	-	246,000
Community Organisor (2)	5 Yrs.		397,845	-	-	397,845
Accountant & Administration	5 Yrs.		272,723	-	-	272,723
Technical field assistant	2 Yrs.		246,000	-	-	246,000
Person for Impact Monitoring	5 Yrs.		165,770	-	-	165,770
<b>Sub Total</b>			<b>2,322,953</b>	<b>-</b>	<b>-</b>	<b>2,322,953</b>
<b>Program Administration (Additional)</b>						
Stationery and Postage	5 Yrs.	6,000	30,000	-	-	30,000
Office expenses	5 Yrs.	12,000	60,000	-	-	60,000
Audit exp	5 Yrs.	5,000	25,000	-	-	25,000
Travel	5 Yrs.	60,000	300,000	-	-	300,000
Miscellaneous	5 Yrs.	5,000	25,000	-	-	25,000
<b>Sub Total</b>			<b>440,000</b>	<b>-</b>	<b>-</b>	<b>440,000</b>
<b>Non-recurring item</b>						
Motor Cycle	2	50,000	100,000	-	-	100,000
Computer	2	45,000	90,000	-	-	90,000
Const. of Field Centre cum Trg, Center (sq. ft)	2000	400	800,000	-	-	800,000
Furniture	-	50,000	50,000	-	-	50,000
<b>Sub Total</b>			<b>1,040,000</b>	<b>-</b>	<b>-</b>	<b>1,040,000</b>
<b>Contingency</b>	5 Yrs.	10,000	50,000	-	-	50,000.00
<b>Sub Total</b>			<b>50,000</b>	<b>-</b>	<b>-</b>	<b>50,000</b>
<b>GRAND TOTAL</b>			<b>15,336,953</b>	<b>2,515,500</b>	<b>2,150,000</b>	<b>20,002,453</b>

Source: Project proposal document of WDP, Gandhi Manav Kalyan Samiti

### 3.6 Personnel Input

In order to carry out the proposed project activities and achieve the targeted outputs a set of project staff was proposed with financial inputs as given below. Along with the Program Director and Program Coordinator two Community Organizers were proposed to work in the seven villages at local level in close contact with the local people. The proposed budget is reported in Table 3.3. The total cost of manpower for the project accounts for 11.6 per cent of the total project budget. Given the topography of project area, number of villages to be covered and nature of interventions the proposed staff seems to be of appropriate in number.

**Table 3.3: Project personnel and costs.** (Rupees)

Program/Activity	No.	Total Cost	%Of total budget
Program Director	1	994,615	
Program Coordinator	1	246,000	
Community Organisor	2	397,845	
Accountant & Administration	1	272,723	
Technical field assistant	1	246,000	
Person for Impact Monitoring	1	165,770	
<b>Sub Total</b>	<b>7</b>	<b>2,322,953</b>	<b>11.61</b>

### 3.7 Capacity Building Inputs

The success of the project depends on the capacity of both staff and the beneficiaries in the project. The performance of the project staff and other functionary is always a result of their capacities. Provision was made in the project for time to time capacity building of all the functionaries and beneficiaries. The budget allocation for the proposed activities is reported in Table 3.4. The project staff imparted training to the beneficiaries in the seven project villages on technical aspects of NRM, watershed development works, and agriculture and livestock related issues through number of village level group meetings and trainings organised at Rural Training Centre and Dharamitra Centre. The beneficiaries were also taken to exposure visits within and outside State to build their confidence in dealing with government officials and rest of the population in the State. All these proposed activities were extremely important for the main streaming of tribal population living in isolation for generations.

**Table 3.4: Proposed Capacity building activities. (Amount in Rupees)**

<b>Program/Activity</b>	<b>No.</b>	<b>Unit Cost</b>	<b>Req.</b>	<b>LC</b>	<b>Govt. Contri</b>	<b>Total</b>
<b>Capacity Building</b>						
Awareness program on NRM	35	2,000	70,000	-	-	70,000
Village level Group meetings	420	100	42,000	-	-	42,000
Training on Watershed Development	10	6,000	60,000	-	-	60,000
Training on Sustainable Agriculture	10	6,000	60,000	-	-	60,000
Training on SHG Leaders'	10	6,000	60,000	-	-	60,000
Training on Livestock Development	5	5,000	25,000	-	-	25,000
Exposure tour	3	40,000	120,000	-	-	120,000
<b>Total</b>			<b>437,000</b>	-	-	<b>437,000</b>



## CHAPTER IV

### ANALYSIS AND ASSESSMENT OF AIMS AND ACTIVITIES

The overall goals of the project is rightly mentioned as promoting economic and social development of the Tribal community and restore the ecological balance in the area. The emphasis on attaining the goals by encouraging optimum utilization of resources in the area with improvement in local technology is a justified as the tribal society has limited capacity to be exposed to high resource using technology. The box given below provides the identified problems, solution suggested by the community and the proposed activities to address the problems. All these items are well defined and elaborated and their respective key indicators are properly selected. The short comings pointed out in the review of watershed activities listed above are well taken care of, for example, participation of beneficiary is well ensured by formation of VDCs and listing involvement indicators and inputs. The basic principal of successful watershed programme which meets initial three principal objectives of raising income, generating employment and conserving soil and water resources are well addressed. The manifestation of success is in terms of reduction in rainwater run-off, recharge groundwater, increase availability of surface water, improve drinking water supply, increase in irrigated area, change in cropping patterns, crop intensity, increase in agricultural productivity, increase in availability of fodder, improve soil fertility and change in composition of livestock, etc. are documented in the project as reported in the box below. The overall impact of the project is reflected in terms of poverty alleviation and long term's sustainability of the eco-system.

The issue that requires greater attention in the document is ensuring equity in sharing the costs and benefits accruing out of project activities by different section of the community members/beneficiaries. Efforts to integrate small and marginal farmers, women and the landless into the process require conscious efforts and target indicators. However, it has to be kept in mind that compared to non-tribal areas social and economic disparities are less in tribal areas.

<b>Problems Identified</b>	<b>Solution suggested by the community members</b>	<b>Activity proposed</b>
Scarcity of drinking water	Conservation of water, Ground water Recharge. Augmentation of groundwater Roof top Rain water harvesting	<ul style="list-style-type: none"><li>• Water Harvesting Structures –LSCD</li><li>• Development of wells,</li><li>• Construction of community wells</li><li>• Construction of Masonry check dams</li></ul>

		<ul style="list-style-type: none"> <li>• Gully plug and loose stone check dam</li> <li>• Roof top rainwater harvesting</li> </ul>
Soil erosion	Conservation of Soil.	<ul style="list-style-type: none"> <li>• Medbandhi and check dam.</li> <li>• Land Development programme</li> <li>• Construction of Masonry check dams</li> <li>• Gully plug and loose stone check dam</li> </ul>
Scarcity of irrigation water	Augmentation of groundwater, Water harvesting.	<ul style="list-style-type: none"> <li>• Anicuts at all the selected sites,</li> <li>• Lift irrigation</li> </ul>
Scarcity of food and fodder	Development of agriculture and livestock Development of pasture land	<ul style="list-style-type: none"> <li>• Pasture Land Development</li> <li>• Field Bunding</li> <li>• Vermin compost</li> <li>• Livestock treatment camp</li> <li>• Promotion of cash crop on Organic Practices</li> <li>• Iron Rehat</li> <li>• Community Lift Installation</li> </ul>
Establish functional village level organizations	Enhanced capacity of community for development and maintenance of physical & social infrastructures  Different development committees understand their roles/responsibilities and future action even after withdrawal of the project	<ul style="list-style-type: none"> <li>• Baseline survey and PRA</li> <li>• Formation of WDC</li> <li>• Village level group meetings Formation of SHG</li> <li>• Training on watershed management</li> <li>• Training on SHG</li> <li>• Training on Sustainable agriculture Training on Livestock Development Awareness program on NRM</li> <li>• Exposure tour</li> </ul>

#### 4.1 The Proposed Project Activities

Based on the problem identification and suggested solutions few activities were proposed for the development of peoples' livelihood in the project villages. The proposed activities are as follows:

##### Construction of five masonry anicuts

The masonry anicut construction planed to conserve run-off water and increase the ground-water table in the nearby areas and facilitate use for lift-irrigation.



### **Land Development**

To preserve fertility of agricultural land and to avoid erosion field bunding are proposed. The excess run-off water is to be controlled by the construction of outlets and small ravines, to allow excess water to downhill catchment area.



### **Constructions of loose stone check-dams and gully plugs**

To stabilize the run-off water ravines at slopes it is planned to fix stones at exposed critical sites of the ravines as well as to construct loose stone check-dams for reducing the velocity of the run-off water.



### **Repair of wells**

In many villages existing wells are fallen dry due to the decreased ground water table. Deepening and renovation of wells to increase the groundwater availability.



### **Community Lift Irrigation Scheme**

Installation of pump to lift water for irrigation and domestic needs from well or water storage created under the project. Also construction of diversion channels from the main river course for irrigation. It is also a traditional method of irrigation in hilly areas.





### **Farmers training**

Training on agricultural and horticulture programmes to introduce cash crop in the project villages.

### **Live stock health camps**

Health camps for livestock to improve the productivity of animals and reduce malnutrition and mortality of animals.

### **Organisation of Self Help Groups**

As the success of the project depend to a large extent on the active participation of the target-groups, it is envisaged to develop and support already existing as well as new grass-root level organisations. At least one SHG in each village was started.

### **Rain roof water harvesting structures**

The technique through which rain water is captured from the roof area and stored in underground reservoir.



## **4.2 Building Institutions: SHG and VDC**

To achieve the project objectives GMKS worked towards creating three institutions namely- Village Development Committee (VDC) and Self Help Groups (SHG) at the village level and Bhomat Vikas Manch (BVM) a forum for people of Bhomat Region. The SHGs are thrift societies created basically to have an entry point in the village and bring about social change through a community platform. These are the small groups of men and women with their respective rules and regulations who are doing small savings. In tribal areas indebtedness is common and exploitation by moneylenders is oppressive, hence the SHG formation becomes the prime activity of most NGOs working in tribal areas.

VDCs were formed to undertake all the development activities in the village. All the households are members of VDCs and they meet on regular intervals to discuss the village development plans and intervention activities.

#### 4.2.1 Membership of the Institutions

A membership in any of these institutions is empowering, as participation in these institutions helps build capacity of members in terms of articulation, leadership quality and reaping the benefits from government rural development activities. Respondents were asked about their membership to any of these organisations. More than 96.5 per cent of the respondents were members either of these institutions. In the meetings organised with the members of the two institutions it was evident that members were clearly articulating village problems and functioning of these units. They were informed about the objectives of these institutions and also the present and future gains of VDCs and SHGs.

**Table 4.1: Respondents member of village institutions**

(Percentages)

Village	Member any of the three institution (Yes)	VDC	SHG
Amba	100.0	100.0	50.0
Hathni	80.0	60.0	80.0
Kunti Ka leva	100.0	100.0	50.0
Mahula	100.0	100.0	60.0
Total	96.7	93.3	56.7

#### 4.2.2 Self Help Groups (SHGs)

In recent years there has been a concentrated effort to involve women in SHGs and these community level micro-institutions have been promoted extensively both by government and NGO sectors for channeling credit to the poor. SHGs are seen as small informal associations created for the purpose of enabling members to reap economic benefit out of mutual help, solidarity and joint responsibility. The overt mandate is economic empowerment of women.

In the WFI project SHGs have been formed in villages chosen for water management programme to initiate savings and thrift among women. It is envisaged that the SHG slowly undertakes some income generation activity for the development of women in particular.

Four sample villages were chosen for evaluation. The position and condition of women in tribal communities is influenced by a range of factors i.e gender differences in work and roles with family and community, restricted mobility, poor health and educational levels, the prevalence of

bride price, practice of *nata* etc. It is in this social and cultural context that any intervention has to be understood and analysed.

SHGs formed by the GMKS it is mostly women groups are in operation, at least one in each village, contributing very small monthly amounts yet very useful for women empowerment. Besides the financial support the SHGs play a significant role in bringing women together to share their problems. The Men SHGs are missing, the reason assigned are; firstly the project focus was on women empowerment, and secondly, tribal men are difficult to organise them as a thrift group, as most of them are used to heavy drinks, absent from village for long period in forest or on migration outside, etc. Table 4.2 gives account of sample village wise nature of SHGs, membership and monthly contribution. Meeting with SHG members provided lots of qualitative information about their working and benefits derived by the members. The SHGs are ineffective in terms of thrift society as the amount collected is very small and also there is lack of efforts on the part of GMKS to motivate them, create their linkages with bank and small enterprises to look for alternative livelihoods. Also there is need to provide corpus fund to each SHGs to make them a viable entity in short period.

Generally tribal men and women are shy in nature but when organised in groups they are vocal, even women become vocal and do articulate their problems. As the groups were taken to exposure visits the members were free in expressing their views. This change in tribal women is a significant achievement, as now they are capable of talking to state government line department officials to take advantage of numerous tribal area development schemes. Despite all this it will take long time to mainstream the tribal population as they are settled sparsely in remote places not in the normal reach of government officials.

**Table 4.2: Membership of SHGs in sample villages**

Name of Village	Name of SHG	Membership	No. of Members	Monthly contribution (Rs.)
Amba	Jail & Kali Mata	Women	24	20
Hathni	Jail Mata	Women	10	20
Kunti ka Leva	Jai Ambe Mahila	Women	40	20
Mahula	Joginiya Mata	Women/Male	10	30
Total	Jai Durga	Women	84	90

### **4.3 Capacity building of SHG groups**

Training programmes have been organised by GMKS for beneficiaries and SHG members at their Rural Training Centre in Ogra. These include, training on sustainable agriculture and horticulture, organic farming, livestock development, NRM, and human resource development. As a result of trainings organised by GMKS, women have become articulate, are confident and have become more aware as was evident in the meetings with women individually and in the groups. They were aware of the credit rules and procedures being followed in the group. The meetings provide platform for the women members to also discuss other issues such as, health and hygiene, education of girls etc.

It is also evident that becoming members of the SHG had facilitated them to move out of the boundaries of the household and engage in the public sphere with men. In the context of Rajasthan this shift in sharing of public spaces with men is crucial as segregation is a norm strongly adhered to. Another critical issue is the aspect of mobility and many women members shared that they have the confidence to travel on their own to nearby towns for meetings and trainings. Many women members have got the opportunity to attend meetings/training outside the village.

Ultimately the change in the condition and position of women would be reflected in women working as a collective in the area, around common concerns and by their active participation in social, economic and political institutions. The project should facilitate conditions, which can help attain these goals.

Formation of SHGs is being seen as a major initiative for women's empowerment in Rajasthan and other parts of the country. However the assumption that merely by making credit available to women they will be empowered is problematic. The strength of a good SHG lies in their intrinsic capability of generating social capital amongst the members, which leads to mutual trust, an attitude of cooperation and the readiness to coordinate activities for a common purpose. The fact that women are entering the area of financial management, which traditionally has been considered a 'male domain', it is important to assess if SHGs have created a substantive impact upon the social status and autonomy of women. Women need to work as a collective towards



their social and political empowerment. They need to be empowered to understand and act against fundamental factors responsible for their subordination. GMKS would have to build its strategy in the wider context of women's economic and social empowerment.

# **CHAPTER V**

## **ANALYSIS AND ASSESSMENT OF THE QUALITY OF PROJECT MANAGEMENT**

### **5.1 Background**

The basic function of management includes planning, controlling, directing, coordinating activities to attain certain defined goals supported by leadership, communication, motivation and morale. Management also deals with creation and maintenance of internal environment in an enterprise where individuals working together in groups can perform efficiently and effectively towards the attainment of goals. Management is needed for effective utilisation of resources and attains best performance in given situation to achieve predetermined objectives. Management by Objectives (MBO) is a very popular tool in today's organizational setup. MBO entails clearly defined set of objectives/goals/targets with a provision of performance evaluation. It also forces managers to think about planning for results rather than merely planning activities or work. Decision making as a process and function of management is very vital as many critical aspects of management depend upon the right decision and at right time. Decision making process can be either centralized or decentralized. Efficiency in management is considered high when the decision making process is participatory along with provision for performance monitoring from time to time. The ideal condition of management is when there is self-control, assessment and self-direction.

Our experience suggests that all the above listed concepts of management are usually found in NGO managed by professionals. In many other NGOs are formed around ideology by committed person(s) with certain well-defined objectives/goals. It is later that the group acquires management skills through deliberate capacity building activities.

### **5.2 GMKS Management Systems**

In the present context, GMKS has tried to put a management system in place by planning an organizational structure with well-defined roles and responsibilities of the staff members as discussed in Chapter IV. The goals of the organization are also very clear, given their long

experience of working in the region. The teams comprise good workers and decentralized, participatory method of decision making process is largely being followed.

The overall quality of project management of the GMKS is satisfactory. However, more supervision by senior members is required. There is lack of technical staff to guide and implement NRM works. At the time of evaluation completely new team of workers was deployed. The explanation given was that the organisation lost an old team member and also one member left organization before the evaluation. They showed their inability to answer many of the questions on the pretext that they were new. Care should have been taken that the implementation of the project should not be affected by change in staff members. It is necessary that capacity building and appropriate training of new staff be undertaken before deputing them in a project.

Field discussions with project staff, Coordinator revealed that regular monitoring is carried out through monthly meetings and field visits. Village level staff prepares monthly reports and those are discussed in monthly meetings at the project level. The Project Director submits quarterly progress reports to the donor agency.

### **5.3 Quality of Planning and Implementation**

The success of any development intervention is often measured by the extent of community participation. Involving people in decision-making, planning, work and site selection, work execution and maintenance of assets created are considered as indicators for efficiency and sustainability of development projects. After awareness building the next step is to seek participation of beneficiaries in project activities. Sample households participation in the activities is reported in Table 5.1. Beneficiaries from four sample villages reported that they had full participation in decision making about the project activities, their planning, selection of work and site for it, work execution and maintenance of the asset created in the project except the village Kunti ka Leva lagging behind in few activities. 100 per cent respondents also participated as wage labourer in the project activities. Project staff should find out reasons for one village lagging behind and try to improve their participation.

**Table 5.1: Respondents participation in the project activities**

(Percentage)

Items	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
Participate in decision making	100.0	80.0	80.0	80.0	86.6
Planing	10.0	80.0	40.0	80.0	43.3
Work selection	100.0	80.0	90.0	100.0	93.3
Site selection	100.0	100.0	90.0	100.0	96.7
Work execution	100.0	100.0	100.0	100.0	100.0
Maintenance of assets	100.0	100.0	90.0	80.0	93.3
As wage labourer	100.0	100.0	100.0	100.0	100.0

#### 5.4 Financial Transparency

Financial transparency is an essential parameter to judge the project's credibility among people. It builds confidence of people in the organisation and in turn the donor, that funds are appropriately utilized. Accountability and transparency are important indicators for better performance of a project. Particularly financial transparency makes lot of difference in project performance, as this is the major drawback of all the government led rural development programmes. Many NGOs put extra emphasis on transparency and accountability. Attempt was made to seek opinion about transparency in the working of NGO in implementation of project and related activities. As far as financial and other transparency is concerned Table 5.5 shows that a financial aspect of the project was not shared with the beneficiaries. It means the cost incurred in creating infrastructure and other activities were not known to the project beneficiaries.

As it has become a routine practice even in the government development works to put up a sign board or paint on the physical structure itself about the amount spent, date of initiation and completion and name of scheme or donor, this practice can also be adopted under this project.

**Table 5.2: Respondents opinion about financial transparency in the project activities**

(Percentage)

Village	Satisfied	Not Satisfied	No Response
<b>Amba</b>	0.0	0.0	100.00
<b>Hathni</b>	0.0	0.0	100.0
<b>Kunti Ka leva</b>	0.0	0.0	100.0
<b>Mahula</b>	0.0	0.0	100.0
<b>Total</b>	0.0	0.0	100.0

## 5.5 Implementation

The discussions at the field level (at the village and project level) on the implementation process revealed that once the villages were identified the project staff made several visits and interacted with members of the community. In this process a VDC was formed, which was given the responsibility of identifying site for NRM work, its management, its execution and monitoring as well repair and maintenance.

The works can be classified into two types:

- Work where individuals benefited such as field bunding.
- Works where the benefits accrue to the larger community i.e., lift scheme, anicut.
- In the first case certain conditions prevailed. In case of medbandi the owner of the land has to contribute labour.

The overall perception of the implementation of the programme and project activities indicates that the works were mostly completed within the time frame, quality of construction was adhered to, technically appropriate, with active participation of the beneficiaries. The respondents were fully satisfied with the quality of works undertaken in the project as reported in the Table 5.3 below.

**Table 5.3: Respondent opinion about quality of work undertaken in the project activities**

(Percentage)

Village	Satisfied	Not Satisfied	No Response
<b>Amba</b>	100.00	0.0	0.0
<b>Hathni</b>	100.0	0.0	0.0
<b>Kunti Ka leva</b>	100.0	0.0	0.0
<b>Mahula</b>	100.0	0.0	0.0
<b>Total</b>	100.0	0.0	0.0

### 5.5.1 Capacity building of Project Staff and Beneficiary

The organisation seems to be conscious about the capacity building of project staff through various activities, such as, trainings, exposure visits, etc. Capacity building activities for the beneficiaries was built in the project activities that included training of project staff, members of self-help groups and village development committee. Capacity building in the area of agricultural activities and livestock rearing was organised. The capacity building activities undertaken are reported in the Table 5.4.

**Table 5.4: Capacity building activities undertaken during 2007-09.**

Activities	No.	Participants	Average Duration	For whom	Where
Watershed Training	7	168	2 day	Villagers	Ogna
Sustainable Agriculture Training	5	166	2 day	Villagers	Ogna
SHG's Training	7	203	2 day	SHG's	Ogna
Livestock Development Training	3	48	2 day	Villagers	Ogna
Urad Demonstration	1	90	1 day	Villagers	Ogna
Exposure Visit	2	44		Villagers	Maharashtra Gujarat
<b>Total</b>		<b>719</b>			

Note: we also discussed health & hygiene issues and importance of education during the trainings.

Source: From the statement provided by GMKS.

Beneficiaries' perceptions about these capacity building interventions are reported in Table 5.5. It shows a very good participation in village meetings, trainings and exposure visits. This was also evident in the meetings organised by the evaluation team in villages in the form beneficiaries' level of confidence while interacting, putting their problems and sharing their exposure visit experiences. The trainings were organised within and outside villages. The participation was better in case of training outside village.

**Table 5.5: Respondents perception about capacity building activities**

(Percentage)

Village	Participation In any of the village meeting	Participation in training	Details of training			
			If yes, Where		Period	
			Within Village	Out of Village	<Week	>Week
<b>Amba</b>	100.0	90.0	11.1	88.9	77.8	22.2
<b>Hathni</b>	100.0	80.0	0.0	100.0	100.0	0.0
<b>Kunti Ka leva</b>	100.0	90.0	22.2	77.8	88.9	11.1
<b>Mahula</b>	100.0	80.0	25.0	75.0	75.0	25.0
<b>Total</b>	100.0	86.7	15.4	84.6	84.6	15.4

The outcome of the trainings can be further enhanced if beneficiary feedback is incorporated while designing the training courses, contents and trainers. The beneficiary were of the views that training contents were heavy and too many subjects at a time that makes difficult for the illiterate tribal's, both men and women, to comprehend and retain the information.

## **5.6 Withdrawal Strategy**

GMKS a well planed withdrawal strategy and it is as follows; the select intervention area and villages based on certain parameters, such as, remoteness, lack of basic facilities, neglected or deprived of state development interventions and support, etc. Once the area is selected a baseline survey is conducted to identify the problems. Funding for the planned interventions is obtained and work is started, but a line is drawn that as an outcome of intervention a certain level of capacity is build. Also community leadership is prepared by identifying potential people. A regional organisation is formed called Bhomat Vikas Manch (BVM) for the people of Bhomat region. This organisation is supposed to look after the well being of the tribal population and get them their rightful share in the state development interventions. GMKS supports this organization in all respect and tried to establish it as a strong tribal peoples' representative organisation "voice of Tribal people". Once the people of intervention villages are linked to the BVM with certain level of capacity building GMKS withdraws from the villages. It seems to be good strategy but a population isolated for generations, deprived of basic education and amenities five to ten years are too short to bring them to a level where they can be mainstreamed. Therefore, some more input is needed to strengthen people and the BVM. It is too early to analyse the withdrawal strategy as the potential of tribal people to independently organize and work is yet not established.

## CHAPTER VI

### EFFECTIVENESS OF THE PROJECT INTERVENTIOS IN DEVELOPMENT TERMS

#### 6.1 Impact of the project

The project envisaged number of natural resource management activities, such as soil conservation by construction of field bunding, anicuts, gully plugging, water lifting/diversion etc. and water harnessing by undertaking site specific construction of anicuts and other structures. These have resulted in increase in income, employment, agriculture production and reduction in migration. Table 6.1 provides household information on out migration of family members. The migration pattern in the sample villages shows that both the male and female member in the household migrates. Out migration reduced during the project period despite drought in the area, except in Hathni village, mainly because of project activities that created employment within village.

**Table 6.1: Out migration pattern of Sample household during 2007-2009**

Items	Villages			
	Amba	Hathni	Kunti Ka leva	Mahula
		<b>2007</b>		
Migration Reported HH	4	2	3	0
Male	5	2	3	0
Female	0	0	0	0
Total	5	2	3	0
Male days	720	280	330	0
Female days	0	0	0	0
Total days	720	280	330	0
		<b>2009</b>		
Migration Reported HH	1	1	2	0
Male	1	2	2	0
Female	0	0	0	0
Total	1	2	2	0
Male days	100	365	210	0
Female days	0	0	0	0
Total days	100	365	210	0

Table 6.2 provides information on employment generated and wages received under the project activities for both male and female in the project area. The employment generated per household



range between 37 to 68 days while income received per household ranges between Rs. 4160 to 8170.

**Table 6.2: Employment and income generated by WDP Works**

Employment/income	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
<b>Number of household participated</b>	10	5	10	5	30
Employment Male(No.)	10	6	12	4	32
Days employed	240	92	325	114	771
Payment(Rs.)	24000	10400	39600	11400	85400
Employment Female(No.)	10	6	12	5	33
Days employed	240	92	350	144	826
Payment(Rs.)	24000	10400	42100	14400	90900
<b>Total persons employed</b>	20	12	24	9	65
Days employed	480	184	675	258	1597
Total amount paid	48000	20800	81700	25800	176300
<b>Number of beneficiary contributed</b>	10	5	10	5	30
Labour contribution (in days)	430	104	535	258	1327
Wages contributed (Rs.)	43000	10400	53500	25800	132700
<b>Per household employment (days)</b>	48	36.8	67.5	51.6	53.2
<b>Per household wages received (Rs)</b>	4800	4160	8170	5160	5876.6

## 6.2 Perception of Beneficiaries

To assess the impact of project activities the perception of beneficiaries were recorded and analysed. These are presented in Table 6.3. The impact on land quality, storage of water, increase in irrigation, rise in groundwater levels, soil moisture, domestic water availability and drinking water for livestock was recorded. The improvement in these indicators as reported by the sample households are as follows: Improvement in land quality 100 per cent beneficiaries had the view that there was significant improvement, storage of water 80 per cent, increase in availability of water for irrigation 63.3 per cent, increase in agricultural area and production 80 per cent, increase in ground water availability 73.3 per cent, increase in soil moisture 93.3 per cent and drinking water availability for human and livestock 76.7 per cent. It clearly indicates the significant contributions made by the WDP activities in the project villages.

**Table 6.3: Respondents reporting personal benefits from WDP activities.**

(Percentages)

Items	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
<b>2007</b>					
Land benefited	100.0	100.0	100.0	100.0	100.0
Storage of water	80.0	100.0	60.0	100.0	80.0
Increase water for irrigation	70.0	80.0	60.0	40.0	63.3
Increase in Agriculture area & production	80.0	100.0	100.0	80.0	80.0
Increase in Ground Water	50.0	100.0	70.0	100.0	73.3
Increase in soil & moisture	90.0	100.0	90.0	100.0	93.3
Increase in domestic water availability	60.0	100.0	70.0	100.0	76.7
Increase in Water for livestock.	70.0	100.0	60.0	100.0	76.7

One of the significant activities proposed under the project was awareness building of the beneficiaries to reap full benefits from the project. The awareness building was for all the stakeholders in the project and the participants in various project activities. Various awareness activities within and outside villages were undertaken and the responses of beneficiaries are reported in Table 6.4. The sample households were asked to respond to whether they are aware about the project, its objectives and the proposed activities. Almost all the sample respondents were aware about the project and its activities and also very much familiar with the project staff. However there was gap in knowledge about the overall objectives of the project. Generally this information is given in the beginning of the project in a larger meeting. People generally forget the conceptual part and remember activities that benefits directly to individuals or their village as a whole. Therefore, the overall objective of the project should be repeated time and again in different capacity building activities to build project perspective of the beneficiaries.

**Table 6.4: Awareness of respondents about WDP Project and the activities**

(Percentages)

Items	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
Know about the project	100.0	100.0	100.0	100.0	100.0
Objective of the project	0.0	40.0	0.0	0.0	6.7
About activities	100.0	100.0	100.0	80.0	96.7
NGO Workers	100.0	100.0	100.0	100.0	100.0
Any other	10.0	0.0	0.0	0.0	3.3

The beneficiaries' perception about individual and community impact of the project was captured by 20 different questions capturing direct and indirect effects. These were either benefiting individuals, group of persons or the whole village in terms of either improving employment, income, access to water, fodder or other resources and/or improvement in status of land quality, productivity and biomass generation. The perceptions are reported in Table 6.5. It was reported that 100 per cent of the activities were directly beneficial to individuals and villagers or community. The project activities were grouped into three categories, namely, relating to (i) environment, (ii) economic and (iii) reduction in drought vulnerability.

In the impact on environment category, 93.3 per cent sample respondent reported improvement in land and soil quality, 66.7 reported increases in well capacity, 86.7 increases in groundwater recharge, and 100 percent were of the view that soil erosion has reduced by the project interventions. As regards the economic impact of the project activities 100 per cent respondents were happy about creation of employment locally, 80 to 87 percent were of the view that increase in irrigated agriculture has resulted in change in cropping pattern, and increase in food and fodder production. Almost all respondents' were of the view that project activities provided relief during drought period both through increase in food security, cash income and better access to drinking water for human and animals. The envisaged outcome of NRM activities was increase in water supply and reduction in distance of drinking water sources, which could have provided reduction in drudgery of women. 96.7 per cent respondents believed that there was reduction in the distance fetching drinking water. The overall impact of project was positive and significant in improving the livelihoods of tribal population.

**Table 6.5: Respondents perception about the impact of the project activities on income, environment, and vulnerability.**

(Percentage)

Items	Villages				
	Amba	Hathni	Kunti Ka leva	Mahula	Total
<b>Personally Benefited</b>	100.0	100.0	100.0	100.0	100.0
<b>Community benefited</b>	100.0	100.0	100.0	100.0	100.0
<b>(i) Environment</b>					
Improvement in land & soil	80.0	100.0	100.0	100.0	93.3
Improvement in well capacity	50.00	100.0	80.0	40.0	66.7
Ground Water recharge	90.0	100.0	100.0	40.0	86.7
Decrease in soil erosion	100.0	100.0	100.0	100.0	100.0
<b>(ii) Economic</b>					
Creation of employment locally	100.0	100.0	100.0	100.0	100.0
Increase availability of fodder	70.0	100.0	100.0	80.0	86.7
Increase in irrigation	70.0	100.0	100.0	40.0	80.0
Increase in agriculture production	90.0	100.0	90.0	90.0	80.0
Increase in livestock Production	10.0	0.0	10.0	80.0	20.0
Change in cropping pattern	70.0	100.0	100.0	80.0	86.7
Increase in wage earning	100.0	100.0	100.0	100.0	100.0
<b>(iii) Reduction in drought vulnerability</b>					
Decrease in out migration	70.0	100.0	80.0	60.0	76.7
Increase food Security	100.0	100.0	100.0	100.0	100.0
Reduction in distance of water source	90.0	100.0	100.0	100.0	96.7
Water for livestock	90.0	100.0	100.0	60.0	90.0

Some of the other approaches advocated by the national and international organizations are Farming system approach, food security and livelihood approach etc. The WDP project approach is closer to Watershed Management Programme. The activities proposed under the project mainly concern land, water and vegetation management with people's participation by creating two institutions at village level (SHG and VDC). The lift schemes seems to be new innovative idea to serve the hill top settled households. The other new intervention is the roof top rainwater harvesting even in case of thatched/ Kelu made roofs to reduce the drudgery of women in fetching water from the deep gorges'/ nahala for households settled on the top of the hillocks. The enthusiasm of beneficiaries and community at large was very encouraging. It will be a big step in providing drinking water security to hill population.

Livestock sector need greater attention to immediately increase income of households and make the system more sustainable. Present intervention in the livestock sector is limited within sectoral approach rather than integrated approach. Livestock health is identified as a problem instead of

productivity of the animal and the management practices that marginalize this important component of the system. There is large scope for improvement both in case of large and small ruminants to make livestock enterprise as a profitable and sustainable activity. The experience of cattle by the NGO can serve as a good guide. Presently small ruminants are treated as ready cash for household and they play an important role in the household income. Study is required on the contribution of small ruminants in the household economy in tribal areas for designing strategies for development of these animals.

Agriculture technology is the other neglected field in the hilly areas. The technology development efforts at national and state level are for better endowed areas. Marginal areas suffer for want of appropriate technology and its dissemination. This project also suffers on this count. Special efforts are needed to practice productive agriculture in the area based on its niche and comparative advantages.

Horticulture has good scope in the hilly areas. The GMKS should draw a plan for introduction of plantation crops in the area to enhance household income. Their own hands-on experience at Onga farm can be very helpful in drafting strategies. Special care has to be taken in selection of type of plants and location.

Women are key actors in the eco-system and any development planning effort has to take into account the differential needs of women and men. There is a need to understand the underlying factors that determine the gender division of labour and gender-related control over resources and benefits. Considerations related to gender issues would influence success and sustainability of any project.

## **CHAPTER VII**

### **MAIN FINDING AND RECOMMENDATIONS**

The activities proposed under the Wakal Development Project (Phase II) are mainly concern with land, water and vegetation management with people's participation by creating three institutions, at village level (SHG and VDC) and regional level Bhomat Vikas Manch (BVM). The Projects approach is closer to State and National Government Watershed Management Programme and Livelihood Approach. Given the geo-physical condition watershed development cum sustainable livelihood was the appropriate and sustainable approach selected for the project villages. Some of the main findings and recommendations emerging out of the present midterm evaluation are presented in this chapter.

#### **7.1 Main Findings**

##### **7.1.1 General Background of the Project Area**

The Wakal Development Project (Phase II) was implemented in 7 villages of Kotra Block of Udaipur districts since 2007. In the region livelihood opportunities are limited compared to other plain areas, levels of poverty are high and there is inefficient use of natural resources. The project area is predominantly tribal, as per the population Census 2001 the ST accounts for 61.9 and 52.5 per cent of total population in Kotra and Gogunda tehsils respectively. The sex ratio in the project area is 979 and 981 in Kotra and Gogunda respectively. Women continue to face discrimination in access and control over resources. Patriarchal practices and norms are deeply embedded in the psyche, which manifest in everyday life situations.

Availability of irrigation water is one of the major constraints in sustainable livelihood of poor tribal people. Productivity of agricultural crops and livestock are low. Out migration of human population in search of jobs in the adjoining forest area and within and outside state is the common livelihood coping strategy.

### **7.1.2 Project activities and their impact**

The project envisaged four broad categories of activities were identified to attain the listed goal and objectives. The four broad interventions and the number of related activities are (see box in Chapter IV):

- 1 Augmentation and conservation of water (6 activities)
- 2 Soil conservation (4 Activities)
- 3 Agriculture and livestock development (9 activities)
- 4 Human capacity building and creation of new institutions (7 activities)

The set of activities under each category, the corresponding budget outlay and the time frame is well defined in the project document. The activities were evaluated based on their planning, management, and quality of implementation, monitoring and their impact and reported in Chapter III to VII. The activity wise main findings are reported below:

### **7.1.3 Agriculture and watershed management**

Agriculture was reported as the main occupation of 67 percent of sample households and 33 percent as non-agricultural labour activity. The people in the village mostly use to live in the forest area and use to survive on forest produce. Collection and sale of minor forest produce was the main activity and very few household used to cultivate lands. GMKS tried to settle them and motivated to start agriculture. As agriculture in its present form is unable to support livelihood of the existing population, therefore, they diversified their activities mostly by out-migrating in search of wage labour in rural and urban areas within and outside the state.

There is a shift in occupation partly because of the project interventions. Agriculture as occupation has increased and non-agriculture labour occupation declined, particularly in villages where soil conservation activities have been undertaken. People use to migrate or seek jobs as wage labourer in small towns or cities. Because of employment generation within village and increased productivity of land more people diverted to agriculture as their main occupation.

The average number of animals owned by sample households increased from 5 to 11 during the first two years of the project. The number of livestock owned by sample households has doubled because of project interventions. This change is mainly because of the NRM interventions made

resulting in increase in availability of fodder from assured irrigated agriculture. Also the animal health camp improved their physical condition. Animal health programme is undertaken with the support of Animal Husbandry department to further improve the economics of animal keeping.

Area and production, both in Rabi and Kharif seasons, increased in all the project villages. This is because of the land development and soil conservation measures undertaken in the project during the evaluation period. There is a positive gain in production as reflected in the reported incomes of the households. Out migration reduced during the project period, mainly because of project activities creating employment within or nearby village.

The target group identified for the project consists of Scheduled Tribe and Scheduled Caste households (altogether approx. 9.100 people, i.e., about 49 % of the total project village's population), living below Poverty Line. The beneficiaries of the project were to be selected in close participation with local people and organisations to address their specific livelihood issues.

Except for the site selection and maintenance of assets, there was high participation in all the project activities. 82.6 per cent of the respondents even participated as wage labourer in the project activities. However, the participation of women when compared to men is weak in both planning and maintenance. The participation of women as labour is extensive.

Employment and income generation is one of the objectives of the watershed development initiatives. The project intervention has directly affected the income of the beneficiaries. Table 2.8 shows that before the project 33 percent of households had their annual income less than 12 thousand per annum and after the project intervention in the year 2009-10 none of the sample household had annual income is less than 12 thousand. The household in the income category more than 30 thousand has increased from 6.7 percent to 46.7 percent. This significant increase in household income can be directly ascribed to the impact of increase in irrigated agriculture and soil moisture conservation caused by field bunding and deepening and digging of wells.

This change was immediate because of the income from wage employment in the project construction works and partly because of enhanced agricultural activity in the villages. Sustaining the income stream in future has to be carefully planned by project staff.



Income from the main and subsidiary occupation increased in since the year 2007 in all the villages under project (Table 2.8). People have tried to increase agricultural income as well as tried to diversify their livelihood by going for subsidiary occupations to enhance their income. This is reflected in the rise in income of households in all the sample villages.

The impact of soil conservation activity such as field bunding, and plantation of trees and grasses on steep slope was evident from the increase in agriculture income of the sample households.

#### **7.1.4 Project implementation and management**

*Training and awareness building:* Provision was made in the project for capacity building of all the staff and beneficiaries. The organisation seems to be conscious about the capacity building of community members and project staff through various activities. It shows that the participation in these training was very high in all the sample villages. Training's both short and long have been organised both within and outside the village and the participants expressed satisfaction with the inputs provided. The participation was better in case of training outside village. The outcome of the trainings can be further enhanced if beneficiary feedback is incorporated while designing the training courses, contents and trainers. The beneficiary were of the views that training contents were heavy and too many subjects at a time that makes difficult for the illiterate tribal's, both men and women, to comprehend and retain the information. There is still scope for better management of training based on needs assessment of the beneficiaries.

*Project implementation and management:* The overall quality of project management of the GMKS is satisfactory. However, more supervision by senior members is required. There is lack of technical staff to guide and implement NRM works. At the time of evaluation completely new team of workers was deployed. They showed their inability to answer many of the questions on the pretext that they were new. Care should have been taken that the implementation of the project should not be affected by change in staff members. It is necessary that capacity building and appropriate training of new staff be undertaken before deputing them in a project.

Field discussions with project staff, Coordinator revealed that regular monitoring is carried out through monthly meetings and field visits. Village level staff prepares monthly reports and those are discussed in monthly meetings at the project level. The Project Director submits quarterly progress reports to the donor agency.

Beneficiaries from four sample villages reported that they had full participation in decision making about the project activities, their planning, selection of work and site for it, work execution and maintenance of the asset created in the project except the village Kanti ka Leva lagging behind in few activities. 100 per cent respondents also participated as wage labourer in the project activities.

The functioning of SHGs reveals that at the individual/personal level it is evident that women have become articulate, are confident and have become more aware. The women could clearly articulate the need for a savings group and recognize how regular savings has helped them move out from the clutches of the moneylender and avoid debt traps. They are aware of the credit rules and procedures being followed in the group. The meetings have also enabled women to discuss issues such as health and hygiene, education of girls etc.

As far as financial and other transparency is concerned Table 5.5 shows that a financial aspect of the project was not shared with the beneficiaries. It means the cost incurred in creating infrastructure and other activities were not known to the project beneficiaries. As it has become a routine practice even in the government development works to put up a sign board or paint on the physical structure itself about the amount spent, date of initiation and completion and name of scheme or donor, this practice can also be adopted under this project.

The overall perception of the implementation of the programme and project activities indicates that the works were mostly completed within the time frame, quality of construction was adhered to, technically appropriate, with active participation of the beneficiaries

## 7.2 Recommendations

### 6. Agriculture and Watershed Management

Besides in the context of increasing productivity of agricultural crops, there is ample scope for growing horticultural and medicinal crops in the project area. A Programme can be initiated with the technical support and training of farmers. It will also require a marketing network to sell the produce. Bhomat Vikas Manch can provide those services. GMKS experience in the marketing of cash crops need to be incorporated in the farmers training and GMKS can employ marketing specialist having experience of cooperative marketing in other parts of country for further strengthen their capacity to deal with market. Selection of crops will be extremely important in viability and sustainability of the activity.

Agriculture technology is the other neglected field in the hilly areas. The technology development efforts at national and state level are mostly for better-endowed areas. Marginal areas suffer, as there is lack of appropriate technology. Special efforts are needed to practice productive agriculture in the area based on its niche and comparative advantages. Vermin compost activity needs reexamination of its viability and need in the area.

The existing activity of development of seed, manure technology and organic farming require more efforts so that they become popular and are adapted by farmers. More intensive training is required along with follow up programs. Women are intensively involved in agricultural activities. Special training should be imparted to women in seed selection, storing, and treatment on scientific basis. More exposure visits and expert advice is required to upgrade their skills along with financial support to purchase technological inputs. SHGs can provide this support from their fund.

*Livestock sector:* Livestock Development: For southern hilly areas of Rajasthan the State Government has no clear livestock development policy, particularly for non-descript animals. Presently buffaloes are preferred for milk and are usually purchased from outside the district. Cows in the area are known for being less productive. Livestock sector needs greater attention to increase income of households in the project area and make the system more sustainable. Present intervention in the livestock sector is limited, that to with sectoral approach rather than

integrated approach. Animal health is identified as a problem instead of productivity enhancement and management practices. There is good scope for improvement both large and small ruminants to make livestock enterprise a profitable and sustainable activity. The MGKS limited experience of different breeds can be further extended by involving competent livestock development specialist. Given the availability of biomass there is ample scope for practicing goat rearing as a commercial activity.

## **7. Support to Grass root level organisation**

**SHGs-** Women are key actors in the eco-system and any development planning effort has to take into account the differential needs of women and men. There is a need to understand the underlying factors that determine the gender division of labour and gender related control over resources and benefits. Considerations related to gender issues would influence success and sustainability of any project.

The SHGs need to assess their situations and come up with some broad plan for improving their livelihoods. Skill building is a critical part which has to be weaved in at all stages so that any activity taken up by the group is competitive in the open market. The next step would be to build linkages with institutions like Banks and other support agencies. The SHGs would finally derive their strength from federating and carrying out various activities as a collective. Presently only women SHGs are functional, that too are not on priority activity of the GMKS. There is need for strong SHGs in the area, therefore special efforts be made to make them viable and vibrant institution.

**VDC:** There should be a clear cut role and responsibilities be assigned to the VDC members. More village level meetings should be organized and total village population be made aware of activities in the village. Panchyat members be invited to these meetings to inform villagers about the government programmes and execution of programmes in their village. The plan for future activities be also made clear to the village beneficiaries.

Bhomat Vikas Manch be made popular among villagers by discussing about its structure, aims, objectives, functioning and activities.

## **8. Soil Conservation/Watershed development**

Presently each activity in the project is seen as separate and executed independently rather than in an integrated way. For example, the forest/grazing land development, soil conservation activities and livestock development activities should be planned in an integrated way rather than independently. The linkages between and the resultant short and long run outputs are clearly not understood both by the project staff and the beneficiaries.

Presently, under the watershed development activities the resources are thinly distributed in 7 villages. The watershed development concept requires treatment of the landscape from top to bottom. Construction of few anicuts or soil conservation structures does not show cumulative impact. It generally benefits few individuals and that too in a limited area. Impact is visible when structures are more in number, concentrated, and systematically built and each rivulet/ Nalah is treated. Such experiments have been conducted in eastern parts of Rajasthan. In the project there are more individual gains than community gains. For attaining sustainable impact in the project villages require concentrated efforts. What is needed is identification of a site and mobilizing resources. If a micro-watershed be treated properly a good demonstration site can be developed.

## **9. Project Administration and infrastructure**

The staff needs improvement in documentation skills. GMKS should make provisions to support capacity building activities both financially and technically. Process documentation, best practices documentation, SHG, and VDC activity documentation, etc. requires special skill, and outside trainers are required to impart these skills. Staff member may even be sent for training courses outside state in some identified institution for longer duration. If there is financial provisions in the existing budget it is fine otherwise make new provisions.

## **10. Training and Awareness building and Project Implementation**

There is a need to review the quality of training imparted and plan follow up activities for better results. More care has to be taken in selection of exposure visits, selection of experts, training curriculum, and duration of training. It was observed that there is need to strengthen the concept of gender in development interventions. Also special training be planned to improve understanding on the role and responsibility of the institutions namely, SHGs, and VDCs.