

CERTIFICATE

Certified that the undersigned have proposed the appropriate and need based activities required in the watershed project area with active participation of beneficiaries along with consultation of Watershed Committees (WCs). Approval of watershed project plan and DPR has been obtained from WC, Gram Sabha. The plan and DPR document of IWMP **BIKANER-43** project, at P.S.- **LUNKARANSAR** District **BIKANER** is technically sound, viable and appropriate for implementation during the period **2012-13 to 2016-17**.

We recommend that this plan be sanctioned and put to implementation.

| | | | | | |
|------------------------|------------------------------|--------------------------|---|--|--|
| Signature Chairman/ | Signature Secretary WC | Signature WDT members | Signature Junior Engineer P.S.- Lunkaransar | Signature Assistant Engineer & PIA P.S.-Lunkaransar | Signature Project Manager,WCDC Distt.-Bikaner |
|------------------------|------------------------------|--------------------------|---|--|--|

1. Engg.

2. Ag.

3. Vet.

4. Social

**GOVERNMENT OF RAJASTHAN
RURAL DEVELOPMENT & PANCHAYATI RAJ DEPARTMENT
(WATERSHED DEVELOPMENT & SOIL CONSERVATION)**



**NAME OF PROJECT: IWMP- BIKANER-43
EFFECTIVE AREA OF PROJECT: 6600 Ha.
COST /HA - 15000.00
COST OF PROJECT: 990LAC.
BLOCK: LUNKARANSAR
DISTRICT: BIKANER**

**PIA – ASSISTANT ENGINEER
W.D. & S.C., P.S. - LUNKARANSAR**

**PROJECT MANAGER, WCDC
W.D. & S.C., DISTRICT - BIKANER**

Detail of Project

1. Name of Project : IWMP Bikaner-43
2. Sanction No. & date of Project : F18(I-51)WDSC/IWMP/2011-12/4800-5087/05.08.11
3. Macro & Micro Nos : Cluster
4. Deviation from Project Sanctioned : Nil

| Items | As per Project Sanctioned | As per proposed in DPR |
|----------------------------|---------------------------|------------------------|
| Project Area | 6600 ha. | 6600 ha. |
| Macro/Micro No | Cluster | Cluster |
| Name of Gram Panchayats | Mahadevwali | Mahadevwali |
| Name of Villages | Sadolai, Gorisar | Sadolai, Gorisar |
| Project Cost (Rs in Lakhs) | 990 lakh | 990 Lakh |

DPR TEMPLATE

Index

S.No **Topics** **Page no.**

1 Chapter

- Location
- General Features of watershed (Cost and Area details)
- Climatic and Hydrological information
- Other Development Schemes in the project area
- Details of infrastructure in the project areas
- Institutional arrangements (WCDC, PIA, WDT, WC)
- Base line Survey Format for IWMP MIS Website

2 Chapter Basic Data, Analysis and Scope

- 2.1 Demography Details
- 2.2 Development Indicators
- 2.3 Land use
- 2.4 Agriculture status and Productivity Gap Analysis
- 2.5 Horticulture/Vegetable/Floriculture status
- 2.6 Land holding pattern
- 2.7 Livestock status With Per Capita Production
- 2.8 Fodder status
- 2.9 Farm Implements
- 2.10 NREGS Status
- 2.11 Migration details
- 2.12 Livelihood Details.
- 2.13 Existing SHG
- 2.14 Ground Water details
- 2.15 Drinking Water Status
- 2.16 Water use efficiency
- 2.17 Slope details
- 2.18 Water Budgeting
- 2.19 Soil Details
- 2.20 Soil erosion status

3 Chapter Proposed Development Plan

4 Chapter Activity wise Total Abstract of cost

5 Chapter Annual Action Plan

- 5.1 Project fund
- 5.2 Convergence Plan

6 Chapter Project outcomes

7 Technical designs and estimates for proposed activities

8 Enclosures

8.1 Maps

- b. Location –District, block, village, watershed location map
- c. Map of Project with Watershed Boundary demarcation in cadastral map
- d. Land Use Land Cover map
- e. Existing water bodies, DLT
- f. PRA Map (along with photos & paper drawing)
- g. GIS based intervention map

h. Treatment map ie proposed works on revenue map

8.2 Documents of Agreements:

- Proceedings of Gram Gabha for EPA approval
- Proceedings of Gram Sabha Resolution for committee constitution
- Documents related to PRA exercise
- Proceedings of Gram Sabha for DPR approval
- Proceedings of Panchayat Samiti General body for DPR approval
- Proceedings of Zila Parishad Standing Committee for DPR approval

• **CHAPTER – I**

INTRODUCTION

Location:

IWMP Bikaner-43 Project is located in Lunkaransar Block, of Bikaner district. The project area is between the latitudes **28°29'29" -28°56'18" North** & longitudes **72°26'15"-73°15'26"East**. It is at a distance of 80 km from its Block head quarter and 120 Km from the district head quarter. There are 342 no. of habitations in the Project area and other details are given below.

| | | |
|-------|--|-------------------------|
| S.No. | Name of Project(as per GOI) | BKN-43,(IWMP) |
| (a) | Name of Catchment | Sadolai, Gorisar |
| (b) | Name of watershed area(local name) | BKN – 43 |
| © | Project Area | 6926 Ha |
| (d) | Net treatable Area | 6600 Ha |
| e) | Cost of Project | 990 Lacs |
| f) | Cost/hectare | 15000 .00 |
| g) | Year of Sanction | 2011-12 |
| h) | Watershed Code | Cluster |
| i) | No. of Gram Panchayats in project area | 1 |
| j) | No. of villages in project area | 2 |
| k) | Type of Project | Desert |
| l) | Elevation (metres) | ----- |
| m) | Major streams | Nil |
| n) | Slope range (%) | 0-3% |

General features of watershed

The watershed falls in Agroclimatic Zone -IC. The soil texture is sandy. The average rainfall is 31.73cm. The temperatures in the area are in the range between 28°-49° centigrade during summer and 2°-24° centigrade during winter. The major crops in the area are Guar, Bajra, Moth, moong, til etc. 74.76% land is under cultivation, 22.89% land fallow, 0.16% land is wasteland, and 0.0% land is irrigated through cannel and tubewell.

69 No of households are BPL (14.58% households) 188 are landless households (39.74% households) and 106 household are small and marginal farmers (22.41% household). Average land holding in the area is 10.69 Ha. 80.80% area is single cropped area and 0.0% is double

cropped. The main source of irrigation is No existing. The average annual rainfall (last 5 years) in the area is 421.6 mm. The Major streams in the Watershed are Nil. The major festivals in the village are Holi, Eid, Deepwali & Rakshabandhan. At present this village is having 2365 population with Communities like Jat, Rajput, Brahmaan, Meghwal, Kumbhar and Muslim.

Climatic and Hydrological information

| 1. Average Annual Rainfall(mm) | | | | |
|---|--|-----------------------------|----------|--------------|
| | Year | Average Annual Rainfall(mm) | | |
| 1 | 2003 | 283 | | |
| 2 | 2004 | 103 | | |
| 3 | 2005 | 342 | | |
| 4 | 2006 | 207 | | |
| 5 | 2007 | 348 | | |
| 6 | 2008 | 387 | | |
| 7 | 2009 | 383 | | |
| 8 | 2010 | 783 | | |
| 9 | 2011 | 574 | | |
| 10 | 2012 | 475 | | |
| 2. Average Monthly rainfall (last ten years) | | | | |
| | Month | Rainfall(mm) | | |
| i) | June | 46.10 | | |
| ii) | July | 108.40 | | |
| iii) | August | 85.80 | | |
| iv) | September | 48.90 | | |
| 3. Maximum rainfall intensity (mm) | | | | |
| | Duration | rainfall intensity(mm) | | |
| | i) 15 minute duration | 6.30 | | |
| | ii) 30 minute duration | 12.60 | | |
| | iii) 60 minute duration | 25.00 | | |
| 4. Temperature (Degree C) | | | | |
| | Season | Max | Min | |
| | i) Summer Season (May-June) | 49 | 28 | |
| | ii) Winter Season (Dec- Jan.) | 24 | 2 | |
| | iii) Rainy Season (July-August) | 38.50 | 28.30 | |
| 5. Potential Evaporation Transpiration (PET) (mm/day) | | | | |
| | Season | PET | | |
| | i) Summer (May2012) | 26.60 | | |
| | ii) Winter (June2012) | 14.26 | | |
| | iii) Rainy (August2012) | 29.70 | | |
| 6. Runoff | | | | |
| | i) Peak Rate (cum/hr) | Nil | | |
| | ii) Total run off volume of rainy season (ha.m.) | 1.5mm | | |
| | iii) Time of return of maximum flood | 5 years | 10 years | In-Year |
| | iv) Periodicity of Drought in village area | 1 | 3 | Occasionally |

Other Development Schemes in the project area

| S.No | Scheme | Name of the department | Key interventions under the Scheme | Targeted Beneficiaries | Provisions under the Scheme |
|------|--------|------------------------|------------------------------------|------------------------|---|
| 1 | MNREGA | Panchayatiraj | Employment | 576 | 100days |
| 2 | JSY | Medical & Health | Decrease the MMR | 361 | Rs 1700/Woman |
| 3 | SGSY | Panchaytiraj | SHG Development | 61 | Micro Enterprises |
| 4 | NRHM | Health Dept. | Health improvement | 1800 | Toilet subsidy, Free Dot kit for TB Patient & All type of medicines |

Details of infrastructure in the project areas

| Parameters | | Status | | | |
|------------|--|-----------------------------------|-----|------|------|
| (i) | No. of villages connected to the main road by an all-weather road | 2 | | | |
| (ii) | No. of villages provided with electricity | 2 | | | |
| (iii) | No. of households without access to drinking water | 70 | | | |
| (iv) | No. of educational institutions : | (P) | (S) | (HS) | (VI) |
| | Primary(P)/ Secondary(S)/ Higher Secondary(HS)/ vocational institution(VI) | 2 | 1 | Nil | Nil |
| (v) | No. of villages with access to Primary Health Centre | 1 | | | |
| (vi) | No. of villages with access to Veterinary Dispensary | Nil | | | |
| (vii) | No. of villages with access to Post Office | Nil | | | |
| (viii) | No. of villages with access to Banks | Nil | | | |
| (ix) | No. of villages with access to Markets/ mandis | Nil | | | |
| (x) | No. of villages with access to Agro-industries | Nil | | | |
| (xi) | Total quantity of surplus milk | 333620 Ltr. | | | |
| (xii) | No. of milk collection centres | (U) | (S) | (PA) | (O) |
| | (e.g. Union(U)/ Society(S)/ Private agency(PA)/ others (O)) | - | 2 | 2 | 2 |
| (xiii) | No. of villages with access to Anganwadi Centre | 2 | | | |
| (xiv) | Any other facilities with no. of villages (please specify) | Nil | | | |
| (xv) | Nearest KVK | LUNKARANSAR & BIKANER | | | |
| (xvi) | cooperative society | LUNKARANSAR | | | |
| (xvii) | NGOs | Urmul Seva Sansthan | | | |
| (xviii) | Credit institutions | | | | |
| | (i) Bank | SBBJ CHHATARGARH | | | |
| | (ii) Cooperative Society | CHHATARGARH | | | |
| (xix) | Agro Service Centre's | KVK BIKANER, ATC & KVK LUNKARNSAR | | | |

Institutional arrangements (SLNA,WCDC,PIA,WDT,WC, Secretary)**WCDC Details**

| 1 | 2 | 3 |
|------|-----------------------------------|--|
| S.No | Particulars | Details of WCDC |
| 1. | PM ,WCDC | Sh. Ashok Sexana |
| 2. | Address with contact no., website | Executive Engineer. (L.R.), ZP BIKANER |
| 3. | Telephone | 0151-2200695 |
| 4. | Fax | 0151-2200695 |
| 5. | E-mail | pmwcdcbikaner@yahoo.in |

PIA particulars

| 1 | 2 | 3 |
|------|-----------------------------------|--|
| S.No | Particulars | Details of PIA |
| 1. | Name of PIA | Sh. Shivilal Verma |
| 2. | Designation | Assistant Engineer |
| 3. | Address with contact no., website | Panchayat Samiti Lunkaransar |
| 4. | Telephone | 01528-271037 |
| 5. | Fax | 01528-271037 |
| 6. | E-mail | aeplsks@gmail.com |

WDT Particulars:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------|--------------------|------|-----|---------------|------------------------------|--------------------------------------|----------------|
| S. No | Name of WDT member | M/ F | Age | Qualification | Experience in watershed(Yrs) | Description of professional training | Role/ Function |
| 1 | Mr. Mamraj | M | 28 | Dip.LSA | 5 Month | - | Veterinary |
| 2 | Mrs. Durga vyas | F | 26 | M.A.(Soc.) | 5 Month | - | Social Science |
| 3. | Naval Kishor | M | 24 | B.Tech. | - | - | Engg. |
| 4. | Meghraj | M | 26 | B.Sc. Ag. | - | - | Agriculture |

Details of Watershed Committees (WC)

| S.N. | Name of WCs | Date of Gram Sabha for WC | Designation | Name | M/F | SC/ST/OBC/General | Landless/MF/SF/ BF | Name of UG/SHG | Educational qualification |
|------|------------------|---------------------------|-------------|----------------|------------|-------------------|--------------------|------------------|---------------------------|
| 1. | Sadolai, Gorisar | 15-02-12 | President | Makbul Khan | M | OBC | BF | Pasture Develop. | Educate |
| | | | Secretary | Iswarram Saran | M | OBC | BF | Production | 12 th pass |
| | | | Member | Ratan Singh | M | Gen | MF | Live Stock | Educate |
| | | | | Mahaveer Singh | M | Gen | MF | Brahamani SHG | Educate |
| | | | | Mohamad Khan | M | OBC | MF | Ganga SHG | Educate |
| | | | | Shabu Khan | M | OBC | SF | Pasture Develop. | Uneducated |
| | | | | Bhanwari Devi | F | SC | LL | Production | Literate |
| | | | | Meera Devi | F | ST | SF | Disha SHG | Uneducated |
| | | | | Jethu Singh | M | Gen | MF | Vasundra SHG | Uneducated |
| | | | | Panney Singh | M | Gen | SF | Agri Farming | Uneducated |
| | | | | Sawant Singh | M | Gen | SF | Agri Farming | Uneducated |
| | | | | Sarswati Devi | F | Gen | SF | Live Stock | Uneducated |
| | | | | Heer Singh | M | Gen | SF | Deepak SHG | Uneducated |
| | | | | Jafar Khan | M | OBC | SF | Production | Educate |
| | | | | Indra | F | OBC | SF | Agri Farming | Uneducated |
| | | | | Mehru Khan | M | OBC | SF | Pasture Develop. | Uneducated |
| | Niyami | F | OBC | SF | Live Stock | Uneducated | | | |

Problems and scope of improvement in the project area

The socio economic conditions of the area can be improved through increased production which can be achieved through expansion in cultivated area and productivity enhancement. 10.93 ha land is arable wasteland and 1511 ha is fallow can be brought under cultivation.

There is no irrigated area in the watershed and with efforts this can be increased to 5%. The productivity gap of major crops in the area as compared with district and with areas in the same agro climatic zones indicate potential to increase the productivity. The demonstration of improved package of practices, improved varieties, increased irrigation facilities and soil conservation measures under the project can bridge this gap. Due to desert area focus of the project would be to collect the rainwater and diversification in agriculture (horticulture, vegetables, green houses and Agro forestry and fodder crops) and diversification in Livelihoods (Agriculture, Animal husbandry, self employment).

898 Quintal fodder scarcity can be met out through Pasture development. Improved animal Husbandry practices can increase the productivity of livestock. 5-10% no of persons migrate due to drought and scarcity of fodder. This migration can be checked through creation of employment opportunities and pasture development in the project area through increase in production and diversification in agriculture and Livelihoods as mentioned above.

- There is heavy erosion due to wind and sand dunes are shifted from one place to another.
- There is small rainfall in the area therefore no excess water for drinking and irrigation.
- There is low fertility of the land due to sandy soil and low water holding capacity.
- There is no sufficient fodder for animals as compare to animal population.

Base Line Survey Format for IWMP MIS website

Project Name

Total Geographical Area of Project (Lakh Hectares)

Treatable Area

| | | | |
|---|-----------|---|-----------|
| Wasteland (Lakh Hectares) | 0.0001093 | Rainfed Agricultural Land (Lakh Hectares) | 0.0644587 |
| Total Cropped Area (Lakh Hectares) | 0.0493461 | Net Sown Area (Lakh Hactares) | 0.0622378 |
| Total no. of Water Storage Structure | 6 | Total no. of Water Extracting Units | Nil |
| Total storage capacity of water storage structures (cubic meters) | 1000 | 6x1000 | 6000 |

No. of Household

| | | | |
|--|------|-------------------------------------|-----|
| SC | 39 | ST | 3 |
| Others | 431 | - | - |
| Total Population of the project Area | 2365 | No. of Household of Landless people | 188 |
| Total no. of BPL Household | 69 | | |
| No. of person-days of Seasonal Migration | 40 | No. of Marginal Farmer's Household | 46 |

Depth of Ground Water (meters) below Ground level

| | | | |
|--|-------|--------------|-----|
| Pre- monsoon | 114 | Post-monsoon | 113 |
| No. of person-days of Seasonal Migration | 28800 | - | - |

CHAPTER – II Socio economic Features, Problems and Scope

Table 2.1 Population & Household Details:

| Total Population | | | | |
|------------------|--------|-------|-----|----|
| Male | Female | Total | SC | ST |
| 1243 | 1122 | 2365 | 249 | 19 |

| Household Details | | | | | | | |
|-------------------|-----------|-----------------|--------------|-----------|-----------------|--------------|--------------|
| BPL household | Land Less | Marginal Farmer | Small Farmer | M. Farmer | Total household | SC household | ST household |
| 69 | 188 | 46 | 60 | 62 | 473 | 39 | 3 |

Table 2.2 Development indicators

| S. No. | Development Indicators | State | Project Area |
|--------|--------------------------|--------|--------------|
| 1 | Per capita income (Rs.) | 16260 | 15800 |
| 2 | Poverty ratio | 0.22 | 0.26 |
| 3 | Literacy (%) | 60-64% | 45% |
| 4 | Sex Ratio | 921 | 926 |
| 5 | infant mortality rate | 4 | 4-5 |
| 6 | Maternal mortality ratio | 2 | 2 |

The above table indicates (**poor, average, good**) socio economic conditions.

Table 2.3 (a) Land Use

| Land Use | Total area in Ha. | | | | |
|------------------------------|-------------------|---------------|----------------|-----------|----------------|
| | Private | Panchayat | Government | Community | Total |
| Agriculture Land | 3047.86 | - | 3398.01 | - | 6445.87 |
| Temporary fallow | 231.56 | - | 1057.61 | - | 1289.17 |
| Permanent Fallow | 45.80 | - | 176.34 | - | 222.14 |
| Cultivated Rainfed | 2770.55 | - | 2164.06 | - | 4934.61 |
| Cultivated irrigated | - | - | - | - | - |
| Net Sown Area | 2770.55 | - | 2164.06 | - | 4934.61 |
| Net Area sown more than once | - | - | - | - | - |
| Forest Land | - | - | - | - | - |
| Waste Land | - | - | 10.93 | - | 10.93 |
| Pastures | - | 447.89 | - | - | 447.89 |
| Others | - | - | 54.27 | - | 54.27 |
| Total | 3047.86 | 447.89 | 3430.25 | - | 6926.00 |

The project area has 10.93 ha of cultivable wasteland. 1511.31 ha of fallow land (total 1522.24 ha) can be brought under cultivation if some irrigation source can be provided through Construction of WHS like Khadin, Tanka, Farm ponds etc. and also through demonstration of rain fed varieties of crops. Construction of WHS can also increase in area under irrigation which is only 0.0% 10.92 ha. (21.81 of the project) area is under wastelands and can be brought under vegetative cover, with reasonable effort. Activities like WHS (Johad) Afforestation and stabilization of sand dunes of wastelands and Pasture development will be taken up on these lands.

Pasture development- The land use table shows that there is 447.89 hectare pasture land (6.46%). This emphasizes the need for taking up pastureland development works through sowing of promising species of grasses and plantation.

Table 2.3 (b)

| Cropping Status | | | | | | | | | | | | |
|-----------------|--------------|-----------|-----------|----------------|------------------|----------------------|-----------|-----------|------------------|----------------------|----------------|------------------|
| S.No | Season | Crop sown | Rain fed | | | | Irrigated | | | | Total | |
| | | | Varieties | Area (ha) | Production (Ton) | Productivity (kg/ha) | Varieties | Area (ha) | Production (Ton) | Productivity (kg/ha) | Area (ha) | Production (Ton) |
| 1. | Kharif | Gaur | Local | 3849.38 | 846.86 | 220 | - | - | - | - | 3849.38 | 846.86 |
| | | Bajra | Local | 379.83 | 75.96 | 200 | - | - | - | - | 379.83 | 75.96 |
| | | Moth | Sathi | 705.4 | 155.18 | 220 | - | - | - | - | 705.4 | 155.18 |
| 2. | Rabi | - | - | - | - | - | - | - | - | - | - | - |
| | | - | - | - | - | - | - | - | - | - | - | - |
| | | - | - | - | - | - | - | - | - | - | - | - |
| 3. | Zaid | - | - | - | - | - | - | - | - | - | - | - |
| | | - | - | - | - | - | - | - | - | - | - | - |
| | Total | | | 4934.61 | 1078 | | - | - | - | - | 4934.61 | 1078 |

Table 2.4 .a Agriculture and Horticulture status and fuel availability.

| Table 2.4.b Abstract of cropped Area(ha) | |
|---|---------|
| Area under Single crop | 4934.61 |
| Area under Double crop | Nil |
| Area under Multiple crop | Nil |

****Write for each crop:** The farmers are using Local varieties of Bajra, whereas varieties like HHB-67 can increase the production.

Crop Rotation** will vary from project to project

| | | |
|------------|---|--------|
| Guar | - | Fallow |
| Bajra | - | Fallow |
| Moong | - | Fallow |
| Til | - | Fallow |
| Moth | - | Fallow |
| Watermelon | - | Fallow |

The table 2.4 shows that only 0.0 ha is (0.0%) is double cropped area. Also the crop rotation shows that fallow lands are there. This indicates that there is scope for change in crop rotation in fields where there are fallow lands through Soil and Water conservation measures, crop demonstration and diversification in agriculture.

Soil and Water conservation measures besides putting fallow lands under cultivation can change the area under single cropping to double and multiple cropping.

Table 2.4.c Productivity Gap Analysis (The table can also be given in bar chart form)

| Name of the crop | Productivity kg/ha | | | | |
|------------------|--------------------|------------------------------|---------------------------------------|----------|--------------|
| | India | Highest Average in Rajasthan | Highest Average of Agro climatic zone | District | Project Area |
| Gaur | 300-350 | 230 | 250 | 240 | 220 |
| Moth | 270-300 | 225 | 350 | 230 | 220 |
| BAJRA | 450-510 | 450 | 300 | 240 | 200 |

Analysis of the above table indicate that besides national gap there is wide gap in productivity within state and even within same agro climatic zones.

The reasons for this variation are

- The farmers are using Local varieties of Bajra whereas the recommended varieties like HHB-67 provide 480 kg/ha yield.
- The farmers are using Local varieties of Moth whereas the recommended varieties like RMO-40 provide 450 kg/ha yield.
- The farmers are using Local varieties of Gaur whereas the recommended varieties like RGC-936 provide 460 kg/ha yield.
- Lack of Availability of good quality seeds of desired crop and variety in adequate quantities and time to the farmers.
- Availability of water for cultivation (0.0% is irrigated table 2.3(b)).

The productivity gap and reasons of it indicate potential to increase the productivity through crop demonstration. Crop demonstrations would be carried out on improved crops/ varieties, improved agronomic practices. INM, IPM, Mixed cropping, distribution of fodder seed mini kit. Demonstration of improved methods and economics of fodder crops cultivation and also distribution foundation seeds of Forage Crops for further multiplication, introduction of fodder crops in the existing crop rotations.

Table 2.5 Existing area under horticulture/Vegetables/Floriculture (ha)

| Activity | Area | Species | Varieties | Recommended varieties | Production |
|------------------|------|-----------|-----------|-----------------------|-----------------|
| Horticulture | 0.5 | Ber | Desi | Gola Ber | 80-100 kg/plant |
| | | Anowla | Desi | Banarsi | 50-100 kg/plant |
| | | Lamon | Desi | Kagji | 40-50 kg/plant |
| Vegetables | Nil | Tometo | Desi | Pusa Gorav | 200-500 Qt/ha |
| | | Brinjal | Desi | Pusa round | 200-400 Qt/ha |
| Floriculture | Nil | | | | |
| Medicinal Plants | Nil | Sonamukhi | Desi | - | 8-10 Qt/ha |

Table 2.6 Land holding Pattern in project area

| Type of Farmer | Total House holds | Land holding (ha) irrigation source wise | | | Land holding (ha) Social group wise | | | |
|---------------------------|-------------------|--|----------------|----------------|-------------------------------------|----------|----------|----------|
| | | Irrigated (source) | Rainfed | Total | General | SC | ST | OBC |
| (i) Large farmer | 117 | - | 2685.46 | 2685.46 | 1299.32 | 225.79 | - | 1160.35 |
| (ii) Middle farmer | 62 | - | 217.20 | 217.20 | 90.30 | 30.20 | - | 96.70 |
| (ii) Small farmer | 60 | - | 108.40 | 108.40 | 32.40 | 20.50 | 5.35 | 50.15 |
| (iii) Marginal farmer | 46 | - | 36.80 | 36.80 | 16.70 | 8.50 | - | 11.70 |
| (iv) Landless person | 188 | - | - | - | - | - | - | - |
| (V) No. of BPL households | 69 | - | 172.50 | 172.50 | 76.20 | 29 | 5.35 | 61.95 |
| Total | 473 | - | 3047.86 | 3047.86 | - | - | - | - |

4.76% land holdings belong to small and marginal farmers. Horticulture/vegetables could be more economical to Small and Marginal farmers with irrigation source. For Large farmers with no irrigation facility Horticulture/vegetables will be promoted in a part of land with farm pond/Tanka construction.

The following activities will be more beneficial for small land holdings and for diversification and income for large farmers.

Horticulture plantation, Medicinal and Aromatic Crops, floriculture: As discussed earlier. Horticulture/vegetables could be more economical to Small and marginal farmers with irrigation source. Also the project area has good potential for medicinal & aromatic crops like Sonamukhi, Isabgol, Ashwagandha, Mehandi, Gaurpata, Anwla etc.

Agro forestry plantation: To increase the income of farmers and also for shelter belt plantation as wind velocity is high in the project area.

Setting of Vermi Compost Units - Keeping in view the side effect of residues of chemicals and fertilizers on human health the emphasis would be on cultivation of organic produce through motivating farmers and providing assistance for production of organic input, vermi compost.

Production and distribution of quality seed – There is need to ensure that good quality seed is available for cultivators for which adequate seed production would be initiated in watershed areas with the assistance of private sector and agriculture department technologies

Sprinklers and pipelines- For efficient water management practices emphasis on demonstration of sprinklers with adequate financial support and convergence/private partnership.

Establishment of Green House - For growing off season vegetables seedlings and other horticultural crops under controlled atmospheric conditions of green house.

Establishment of nurseries: Most of the planting material is procured from other parts of the State/ country. The procurement of planting material from distant places causes damage to the planting material and often results in untimely supply. Hence nursery development activity can be promoted in the area.

Innovative hi-tech/ export oriented activities: innovative hi-tech/ export oriented projects like mushroom cultivation, floriculture, etc which are in negligible existence at present, can be implemented by individual farmers / private companies.

Drip irrigation- Drip irrigation will be promoted in all horticulture plantations, vegetables, green houses and in nurseries for rational use of irrigation higher yields and quality produce.

Table 2.7 Livestock Status - animals/milk production / average yield.

| S. No. | Description of animals | Population in No. | Yield(milk/mutton/Wool) | | | Equ. cow units | Dry matter requirement per year (7Kg per animal.) | Total requirement in M.T. |
|--------|------------------------|-------------------|-------------------------|--------------|---------------|----------------|---|---------------------------|
| | | | Milk (Ltr) | Mutton (kg) | Wool (kg) | | | |
| 1 | Cows | | | | | | | |
| | Indigenous | 518 | 466200 | - | - | 518 | 1323490 | 1323.49 |
| | Crossbreed | - | - | - | - | - | - | - |
| 2 | Buffaloes | 8 | 10400 | - | - | 12 | 30660 | 30.66 |
| 3 | Goat | 700 | - | 3500 | | population /2 | 894250 | 894.25 |
| 4 | Sheep | 1357 | - | 7900 | 1086.9 | population /2 | 173229 | 173.229 |
| 5 | Camel | 22 | - | - | - | 11 | 28105 | 28.105 |
| 6 | Poultry | - | - | - | - | NA | - | - |
| 7 | Piggery | - | - | - | - | NA | - | - |
| | Total | 2605 | 476600 | 11400 | 1086.9 | 1569 | 4008694 | 4008.69 |

In spite of the large number of livestock, production is less hence increase in productivity across all species, is a major challenge. To enhance production of unproductive cattle and improve the productivity following activities will be taken up:-

Demonstration of improved methods of conservation and utilization of Forage crops are proposed.

Table 2.8 Existing area under fodder (ha)

| S.No | Item | Unit | Area/Quantity |
|------|---------------------------------------|-------------|---------------|
| 1 | Existing Cultivable area under Fodder | Ha | Nil |
| 2 | Production of Green fodder | Tonns/year | Nil |
| 3 | Production of Dry fodder | Tonns/ Year | 2451.14 |
| 4 | Area under Pastures | Ha | 447.84 |
| 5 | Production of fodder | Tonns/year | 164.37 |
| 6 | Existing area under Fuel wood | Ha | 239 |
| 7 | Supplementary feed | Kgs/ day | 292 |
| 8 | Silage Pits | No | Nil |
| 9 | Availability of fodder | Tonns | 2615.51 |
| 10 | Deficiency/excess of fodder | Tonns | 1393.38 |

The table above shows there is fodder deficiency (Requirement is 4008.89 and availability 2615.51)

To minimize the large and expanding gap between feed and fodder resource availability and demand there is need for

- Increase in area under fodder crops
- Increase in productivity of fodder crops
- Development of pastures
- And reduction in large number of livestock production through replacement by few but productive animals

Table 2.9 Agriculture implements

| S. No | Implements | Nos. |
|-------|------------------------------------|-------|
| 1 | Tractor | 33 |
| 2 | Sprayers-manual/ power | 20/00 |
| 3 | Cultivators/Harrows | 9/33 |
| 4 | Seed drill | 7 |
| 5 | Any Other(tankar/troly/camel cart) | 29 |

Farm mechanization and seed banks: As discussed earlier 145.20 ha land holdings belong to small and marginal farmers who own only 4.77% of total cultivated area so owning of big farm implements by individual farmers is not economical so SHG would be promoted to buy farm implements and rent to farmer

Table 2.10 NREGA Status - No. of Card Holder, activities taken so far, employment status.

| Sr. no. | Name of village | Total No .of job cards | Employment Status | Activity taken up so far |
|---------|-----------------|------------------------|-------------------|--------------------------|
| 1 | GORISAR | 115 | 84 | MNREGA Employment |
| 2 | SADOLAI | 358 | 318 | MNREGA Employment |
| | TOTAL | 473 | 402 | |

Table 2.11 Migration Details

| Name of village | No. of persons migrating | No. of days per year of migration | Major reason(s) for migrating | Distance of destination of migration from the village (km) | Occupation during migration | Income from such occupation (Rs. in lakh) |
|-----------------|--------------------------|-----------------------------------|-------------------------------|--|-----------------------------|---|
| SADOLAI | 25 | 150 | Unemployment & animal grazing | 75 | Labour & animal grazing | 11.25 |
| GORISAR | 15 | 150 | Unemployment & animal grazing | 65 | Labour & animal grazing | 6.75 |

The migration can be check by creation of employment opportunities, enhancing farm level economy, increases the income of the people engaged in animal husbandry by dairy, poultry and marketing and value addition. (As discussed earlier) and diversification in livelihoods.

The existing livelihoods activities are given below

| Table 2.12 (a)Major activities (On Farm) | | |
|---|-------------------|------------------------------|
| Name of activity | No of House holds | Average annual income (Lakh) |
| Cultivators | 302 | 181.20 |
| Dairying | 170 | 102.00 |
| Poultry | 25 | 1.50 |
| Piggery | Nil | Nil |
| Goatry | 28 | 12.00 |
| Landless Agri. Labourers | 13 | 11.70 |
| Others | 122 | 73.20 |

| Name of activity | Households/individuals | Average annual income (Lakh) |
|---|------------------------|------------------------------|
| Artisans | Nil | Nil |
| Carpenter | 4 | 2.1 |
| Blacksmith | 8 | 4.2 |
| Leather Craft | 12 | 8.4 |
| Porter | 4 | 1.44 |
| Mason | 7 | 10.08 |
| Others specify (Cycle Repair, STD, Craft etc) | Nil | Nil |
| Others | Nil | Nil |

The efforts for increase in income through off farm activities will be made under livelihood component through assistance to SHG or individuals

Table 2.13(a) Status of Existing SHG

| S.No | Name of SHG | Members | Activity involved | Monthly income | Fund available | Assistance available | Source of assistance | Training received |
|------|---------------|---------|-------------------|----------------|----------------|----------------------|----------------------|-------------------|
| 1. | Sona SHG | 10 | Saving | 1000 | 10000 | Yes | PS LKS | Nil |
| 2. | Jamalshah SHG | 10 | Saving | 1000 | 10000 | Yes | PS LKS | Nil |
| 3. | Lugharh SHGI | 14 | Saving | 700 | 13300 | Yes | PS LKS | Nil |
| 4. | Karnimata SHG | 10 | Saving | 1000 | 10000 | Yes | PS LKS | Nil |
| 5. | Pooja SHG | 12 | Saving | 1200 | 16800 | Yes | PS LKS | Nil |
| 6. | Ramdev SHG | 11 | Saving | 550 | 8800 | Yes | PS LKS | Nil |

The table indicates existence of number of groups in the area also these need to be strengthened through trainings and financial assistance

II. Technical Features

Table 2.14 Ground Water

| S.No | Source | No. | Functional depth | Dry | Area irrigated | Water availability (days) |
|------|-----------------------|----------|------------------|----------|----------------|---------------------------|
| i) | Dug wells | Nil | - | - | - | - |
| ii) | Shallow tube wells | Nil | - | - | - | - |
| iii) | Pumping sets at diggy | 2 | 2.5 | - | - | 365 |
| iv) | Deep Tube Wells | Nil | - | - | - | - |
| | Total | 2 | 2 | - | - | 365 |

Table 2.15 Availability of drinking water

| S.No | Name of the village | Drinking water requirement Ltrs/day | Present availability of drinking water Ltrs/day | No. of drinking water sources available | No. functional | No. requires repairs | No. defunct |
|------|---------------------|-------------------------------------|---|---|----------------|----------------------|-------------|
| 1. | SADOLAI | 357775 | 190238 | 1 | 1 | Nil | Nil |
| 2. | GORISAR | 21475 | 190238 | 1 | 1 | Nil | Nil |
| | Total | | 20879 | 2 | 2 | | |

Table 2.16 Water Use efficiency

| Name of major crop | Area (Hectare) | | | |
|--------------------|---|---|-------------------------|-------|
| | through water saving devices(Drip/Sprinklers) | through water conserving agronomic practices [#] | Any other (pl. specify) | Total |
| Nil | Nil | Nil | Nil | Nil |

- The tables above indicate need for judicious use of available Water.
- Encouraging optimum use of water through installation of sprinklers on every operational wells

Table 2.17 Slope details.

| Slope of Watershed | | |
|--------------------|------------------|------------------|
| S.No. | Slope percentage | Area in hectares |
| 1 | 0 to 3% | 6600 |
| 2 | 3 to 8% | Na |
| 3 | 8 to 25% | Na |
| 4 | > 25% | Na |

Table 2.18 Soil details

| Soil Profile | | |
|--------------|--------------------|------------------|
| S.No. | Major Soil Classes | Area in hectares |
| 1 | Sandy | 6600 |
| 2 | | |
| Soil Depth : | | |
| B | Depth (Cms.) | Area in hectares |
| 1 | 0.00 to 7.50 | - |
| 2 | 7.50 to 45.00 | - |
| 3 | > 45.00 | 6600 |

| C | Soil fertility Status | Kg/ha | Recommended |
|---|-----------------------|---------|-------------|
| | N (Low) | 17-18 | 25-30 |
| | P (Medium) | 25.4 | 35-40 |
| | K (Sufficient) | 170-180 | 150-200 |
| | Micronutrients | PPM | - |
| | Zn | 30 | 50 ppm |
| | Fe | 28 | 50 ppm |
| | Mn | 56 | 50 ppm |
| | Cu | 14 | 50 ppm |

The analysis of table shows need to improve and maintain soil fertility. Soil health card to every farmer every crop season will be provided, which will include the recommendation for Application micro nutrient and fertilizers

Table 2.19 Erosion details

| Erosion status in project Area | | | | | | |
|-----------------------------------|---|-----------------|--------------------|-------------------|--------------------------------------|---|
| Cause | | Type of erosion | Area affected (ha) | Run off(mm/ year) | Average soil loss (Tonnes/ ha/ year) | |
| Water erosion | | | | | | |
| | a | Sheet | - | - | - | - |
| | b | Rill | - | - | - | - |
| | c | Gully | - | - | - | - |
| Sub-Total | | | Nil | | | |
| Wind erosion Siltation/suspension | | | 6600 | - | 150-180 | |
| Total for project | | | 6600 | | | |

The need is:

- To check land degradation
- To reduce excessive biotic pressure by containing the number and increase of livestock
- To check cultivation on sloping lands without adequate precautions of soil and water conservation measures
- To discourage cultivation along susceptible nallah beds
- To check Faulty agriculture techniques
- To check Uncontrolled grazing and developed cattle tracks
- To check Deforestation of steep slopes
- **(For delineated watershed projects)** To check erosive velocity of runoff, store Runoff, to arrest silt carried by runoff and to recharge Ground Water structures life Earthen check dams, gully plugs, Bank Stabilisation, Loose stone check Dams, Gabions, Earthen embankment (Nadi) and Anicuts would be taken up.
- **For Flat lands & cluster projects appropriate intervention shall be mentioned.**

CHAPTER - III Proposed Development Plan

The Activities are indicative addition /deletion in activities will be as per local conditions

A) Preparatory phase activities Capacity Building Trainings and EPA

The IEC activities like Kalajathas, Group meetings, door to door campaign, slogans and wall writings etc. were carried out in all the habitations of Makdasar, Binghrwali, Muslki Micro Watershed. A series of meetings were conducted with GP members, community and discussed about the implementation of IWMP programme. User groups were also formed.

Grama Sabhas were conducted for approval of EPA (Village), for selecting the watershed committee and approval of DPR.

| S.no | Name of the Gram Panchayat | Date on which Grama Sabha approved EPA |
|------|----------------------------|--|
| 1 | MAHADEVWALI | 24-04-2012 |

| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------|------------------|--------------------------|--------------------------------|----------------|----------------------|---------|----------------------------|----------------------------|
| S. No. | Names of village | Amount earmarked for EPA | Entry Point Activities planned | Estimated cost | Expenditure incurred | Balance | Expected outcome | Actual outcome |
| 1 | SADOLAI | 24.00 | 6 | 24.00 | 21.00 | 3.00 | Facility of drinking water | Facility of drinking water |
| 2 | GORISAR | 15.60 | 5 | 15.60 | 14.00 | 1.60 | | |

The PRA exercise was carried out in all the villages on the dates shown below:

| S.no | Name of the village/Habitation | Date on which PRA conducted |
|------|--------------------------------|-----------------------------|
| 1 | SADOLAI | 08-01-2013 to 18-01-2013 |
| 2 | GORISAR | 19-01-2013 to 27.01.2013 |

Transact walk were carried out involving the community for Social mapping, Resource mapping. Detailed discussions and deliberations with all the primary stakeholders were carried out.

Socio-economic survey was carried out during 26-12-2012 to 14-02-2013 (dates) period covering all the households and primary data on demography, Land holdings, Employment status, Community activities etc. was collected as mentioned in chapter 2.

CAPACITY BUILDING

Table- List of approved Training Institutes[@] for Capacity Building in the project area

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------|----------------------|--------------------------------|---|---|------------------------------------|---|-------------------------------|
| S. No. | Name of Stakeholders | Name of the Training Institute | Full Address with contact no., website & e-mail | Name & Designation of the Head of Institute | Type of Institute [#] | Area(s) of specialization ^{\$} | Accredita-tion details |
| 1 | PIAs | 1. IGPRS | Jaipur | Coordinator | Rural Development | Rural Development | DPR Preparation |
| | | 2. CTAE | Udaipur | Dean | Engg. | Engg. | Protocol |
| 2 | WDTs | 1. IGPRS | Jaipur | Coordinator | Rural Development | Rural Development | DPR Preparation |
| | | 2. CTAE | Udaipur | Dean | Engg. | Engg. | Protocol |
| | | 3. KVK & RAU/ATC | Bikaner/Lunkaransar | senior sci./Dean/major sci. | Agri. Soil and water conservation | Agri. Soil and water conservation | Agri. activity |
| 3 | UGs | 1. KVK & RAU/ATC | Bikaner/Lunkaransar | senior sci./Dean/major sci. | Agri. Soil and water conservation | Agri. Soil and water conservation | Agri./livelihood activity |
| | | 2. NABRAD | Jodhpur | Manager of bank | SHG Development | SHG Development | Life improvement & livelihood |
| 4 | SHGs | 1. KVK & RAU/ATC | Bikaner/Lunkaransar | senior sci./Dean/major sci. | Agri. Soil and water conservation | Agri. Soil and water conservation | Agri./livelihood activity |
| | | 2. NABRAD | Jodhpur | Manager of bank | SHG Development | SHG Development | Life improvement & livelihood |
| 5 | WCs | 1. PIA | Lunkaransar | AEn. | Record Keeping & register maintain | Record Keeping & Register maintain | Watershed activity |
| 6 | GPs | 1. PIA | Lunkaransar | AEn. | Supervision & maintain | Supervision & maintain | Watershed activity |
| 7 | Community | 1. PIA/NGO | Lunkaransar | AEn./ NGO Trainers | W/S related activity | W/S related activity | Life improvement & livelihood |
| 8 | PM/SLNA | 1. DWU | Bikaner | XLR (XEn.) | Supervision & Evolution | Supervision & Evolution | Watershed activity |
| | | 2. SRAC | Jodhpur | Coordinator | Thematic map formation | Thematic map formation | Watershed activity |

Table- Capacity Building activities in the project (PHYSICAL & FINANCIAL) *4% OF TOTAL PROJECT COST.

| 1 | 2 | 3 | 5 | | | | | | 6 | | | | | | 7 | | | | | |
|--------|-----------------------------|----------------------|--|---------|----------|---------|--------|-------|---|---------|----------|---------|--------|-------|--|---------|----------|---------|--------|-------|
| S. No. | Project Stakeholders | Total no. of persons | No. of persons to be trained during project period | | | | | | No. of Training to be organized during project period | | | | | | No. of person days to be trained during project period | | | | | |
| | | | I year | II year | III year | IV year | V year | Total | I year | II year | III year | IV year | V year | Total | I year | II year | III year | IV year | V year | Total |
| 1 | PIAs | 97 | 24 | 22 | 21 | 16 | 14 | 97 | 8 | 8 | 7 | 7 | 6 | 36 | 28 | 28 | 26 | 24 | 24 | 130 |
| 2 | WDTs | 146 | 35 | 34 | 30 | 25 | 22 | 146 | 9 | 9 | 9 | 9 | 9 | 45 | 94 | 94 | 94 | 94 | 94 | 470 |
| 3 | UGs | 73 | 18 | 18 | 14 | 12 | 12 | 73 | 4 | 4 | 3 | 3 | 2 | 16 | 594 | 594 | 592 | 590 | 586 | 2956 |
| 4 | SHGs | 82 | 24 | 24 | 12 | 12 | 10 | 82 | 10 | 10 | 9 | 9 | 8 | 46 | 552 | 552 | 551 | 551 | 550 | 2756 |
| 5 | WCs | 59 | 15 | 12 | 12 | 10 | 10 | 59 | 4 | 4 | 4 | 4 | 4 | 20 | 435 | 435 | 435 | 435 | 435 | 2175 |
| 6 | GPs | 24 | 6 | 5 | 5 | 4 | 4 | 24 | 1 | 1 | 1 | 1 | 1 | 5 | 16 | 16 | 16 | 16 | 16 | 80 |
| 7 | Community | 75 | 19 | 18 | 13 | 13 | 12 | 75 | 8 | 8 | 8 | 8 | 8 | 40 | 385 | 385 | 385 | 385 | 385 | 1925 |
| 8 | EXPOSURE TOUR (INTER STATE) | 200 | 100 | 100 | - | - | - | 200 | 1 | 1 | - | - | - | 2 | 600 | 600 | - | - | - | 1200 |
| 9 | EXPOSURE TOUR (INTRA STATE) | 50 | - | 50 | - | - | - | 50 | - | 1 | - | - | - | 1 | - | 750 | - | - | - | 750 |
| 10 | PM/SLNA | 56 | 21 | 20 | 15 | - | - | 56 | 7 | 7 | 6 | - | - | 20 | 31 | 31 | 30 | - | - | 92 |

Table-, Education & Communication (IEC) activities in the project area (1% of total Project cost.)

| 1 | 2 | 3 | 4 | 5 | | | | | | 6 |
|--------|--|------------------|--|--------------------|---------|----------|---------|--------|-------|---|
| S. No. | Activity | Executing agency | Allocation out of 1% of total Project cost | Allocation in lacs | | | | | | Expected Outcome (may quantify wherever possible) |
| | | | | I year | II year | III year | IV year | V year | Total | |
| 1 | मॉडल रुफटॉप वाटर हार्वेस्टिंग स्ट्रक्चर्स (पंचायत समितिए राजीव गाँधी सेवा केन्द्र या अन्य पंचायत समिति स्तरीय नजदीकी सरकारी भवन)। | PIA | 0.20 | 0.07 | 0.07 | 0.06 | | | 0.20 | |
| 2 | जलग्रहण क्षेत्र गतिविधियों को दर्शाता हुआ POP / CLAY / WOOD / PLASTIC से बना हुआ मॉडल। | PIA | 0.10 | 0.04 | 0.03 | 0.03 | | | 0.10 | |
| 3 | डीस्पले बोर्ड / प्लेगक्सी बोर्ड / | | | | | | | | | |
| 4 | वॉल पेन्टिंग—जलग्रहण गतिविधियों, लक्ष्यो व प्राप्ति आदि को दर्शाती हुई । | PIA | 0.25 | 0.09 | 0.08 | 0.08 | | | 0.25 | |
| 5 | जलग्रहण विकास संबंधी मुद्रित पम्पलेटस / लिफ लेटस / चार्ट / पोस्टर / आदि। | PIA | | | | | | | | |
| 6 | नारा लेखन | PIA | | | | | | | | |
| 7 | सफलता की कहानीयों की वीडियोग्राफी / फोटोग्राफी / लघुफिल्म | PIA | 0.15 | 0.05 | 0.05 | 0.05 | | | 0.15 | |

| | | | | | | | | | |
|----|--|-----|------|------|------|------|--|------|--|
| | एवं कृषको से साक्षरातकार / वार्ता । | | | | | | | | |
| 8 | निबन्ध व वाद-विवाद प्रतियोगिता | PIA | | | | | | | |
| 9 | रेडियों/दूरदर्शन पर वार्ता व विज्ञापन | PIA | | | | | | | |
| 10 | सांस्कृतिक त्यौहार / मेले आदि के अवसर पर प्रदर्शनी | PIA | 0.10 | 0.04 | 0.03 | 0.03 | | 0.10 | |
| 11 | नुक्कड़ नाटक | PIA | | | | | | | |
| 12 | कटपुतली प्रदर्शन | PIA | | | | | | | |
| 13 | रात्रि गोष्ठी | PIA | 0.20 | 0.07 | 0.07 | 0.06 | | 0.20 | |
| 14 | भू संरक्षण सप्ताह | PIA | | | | | | | |
| 15 | चेतना रैली | PIA | | | | | | | |
| 16 | जलग्रहण विकास का संदेश देने वाले सांस्कृतिक कार्यक्रम | PIA | | | | | | | |
| 17 | कृषक दिवस का आयोजन एवं क्षेत्र भ्रमण दिवस का आयोजन इत्यादि | PIA | | | | | | | |
| 18 | कुल | | 1.00 | 0.36 | 0.33 | 0.31 | | 1.00 | |

State Remote Sensing Application Centre was assigned the work of preparing various thematic layers using Cartosat-1 and LISS-3 imageries for Creation, development and management of geo-spatial database depicting present conditions of land (terrain), water and vegetation with respect to watershed under different ownerships at village level

Various thematic layers provided by SRSAC are :

- Digitised Khasara maps of the villages falling in project area.
- Existing water bodies, falling in the project area.
- Base maps (transport network, village/boundaries, and settlements).
- Land Use / Land cover map.

Based on GIS thematic layers, Field visits , PRA and analysis of benchmark data (as discussed in chapter 2) final Treatment plan on revenue map for implementation has been framed. Thus each intervention identified has been marked on revenue map (map enclosed in DPR as annexure-----).The GIS based intervention map, PRA based intervention map are annexed as -----.

B)Livelihood Action Plan (LAP):

An awareness programme has been undertaken at Gram Sabha for communication & sensitization of the target beneficiaries. Livelihood Action Plan is a pre requisite for availing the funds under the livelihood component. LAP has been prepared by the PIA in consultation with WDT, WC & the members of SHG,SC/ST, women, landless/ assetless households. Details of funds available & their utilisation is as under :

(i) Total project cost Rs. 990.00Lacs.

(ii) Funds available under livelihood component is 9% of total project cost= Rs.89.10Lacs.

(a) Seed money for SHGs as revolving fund = Rs. 53.46 Lacs.

(minimum 60% of livelihood component)

No. Of SHG to be formed 214 Nos.

No of persons (members) in SHGs 1284 Nos.

(b) Seed money for enterprising individuals = Rs. 8.91Lacs

(maximum 10% of livelihood component)

No of persons identified as enterprising individuals 36 Nos.

| Proposed Activities (On Farm)* | | |
|---------------------------------------|------------|----------------|
| Name of activity* | No of SHGs | Revolving fund |
| Fisheries | - | - |
| Dairying | 98 | 24.50 |
| Poultry | 37 | 9.25 |
| Piggery | - | - |
| Goatry | 38 | 9.50 |
| Bee keeping | - | - |
| Sericulture | - | - |
| Nursery | - | - |
| Maize dehusker | - | - |
| Dal mill | - | - |
| Oil mill | - | - |
| Others (specify) | - | - |
| Total | 173 | 43.25 |

| Proposed Major activities (Off Farm)** | | |
|---|------------|----------------|
| Name of activity* | No of SHGs | Revolving fund |
| Artisans | - | - |
| Carpenter | 1 | 0.25 |
| Blacksmith | 1 | 0.25 |
| Leather Craft | 2 | 0.50 |
| Porter | 1 | 0.25 |
| Mason | 1 | 0.25 |
| Eco tourism | - | - |
| Agro processing | 5 | 1.21 |
| Blacksmith | - | - |
| Candle making | - | - |

| | | |
|-----------------------|----|-------|
| Dona Pattal | - | - |
| Sewing / Knitting | 22 | 5.50 |
| Tea Stall | 1 | 0.25 |
| General Store | 4 | 1.00 |
| Mobile repair | 1 | 0.25 |
| Mechanic / Misc. shop | 2 | 0.50 |
| Others (specify) | - | - |
| Total | 41 | 10.21 |

List of persons & Proposed Activities. (10% of (9%))

| S. No. | Activity Proposed | Name of Person | Category SC /ST /Others | Project fund Revolving | Contribution |
|--------|----------------------|--------------------------------|----------------------------|---------------------------|--------------|
| 1 | Dairy | Hariram | Other | 0.25 lacs | |
| | | Mohamad khan | Other | 0.25 lacs | |
| | | Jetu singh | Other | 0.25 lacs | |
| | | Surjaram | Other | 0.25 lacs | |
| | | Jafar khan | Other | 0.25 lacs | |
| 2 | Poultry farm | Mehru khan | Other | 0.25 lacs | |
| | | Akabar | Other | 0.25 lacs | |
| | | Kadar khan | Other | 0.25 lacs | |
| | | Salema khan | Other | 0.25 lacs | |
| 3 | Dairy & Poultry farm | 27 Persons to be identified | ALL | 6.66 lacs | |

(c) Funds for Enterprising SHG/Federations of SHG

(Maximum 30 % of livelihood activities)= Rs.26.73Lacs

The funding for major livelihood activities will enable the enterprising SHGs/SHG federation to avail a composite loan for undertaking major livelihood activities or to upscale activities as recommended by the WC & approved by WCDC in consultation with line departments.

Details of enterprising SHG/federation is given below:

| S.No. | Name of SHG/ SHG federation | Project Name | Project Cost in lacs | Grant in aid 50% of project cost or 2 lacs whichever is less | Bank loan |
|-------|--------------------------------|--------------|----------------------|--|--------------|
| 1 | Sona SHG | Dairy | 5.00 | 2.00 | 3.00 |
| 2 | Jamalshah SHG | Dairy | 5.00 | 2.00 | 3.00 |
| 3 | Lugharh SHGI | Poultry | 5.00 | 2.00 | 3.00 |
| 4 | Karnimata SHG | Poultry | 5.00 | 2.00 | 3.00 |
| 5 | Pooja SHG | Goatry | 5.00 | 2.00 | 3.00 |
| 6 | Ramdev SHG | Goatry | 5.00 | 2.00 | 3.00 |
| 7 | 8 New federations to be formed | | 40.00 | 14.73 | 25.27 |
| | | TOTAL | 70.00 | 26.73 | 43.27 |

* Details of project activities can be prepared in coming years after formation of SHG federation or as the case may be.

B) Production Plan:

An awareness programme has been undertaken at Gram Sabha for communication & sensitization of the target beneficiaries. Production System & micro enterprises Action Plan is pre-requisite for availing the funds under the Production System & micro enterprises component. Production plan has been prepared by the PIA in consultation with WDT, WC & the members of Users Group. Details of funds available & their utilisation is as under :

(iii) Total project cost Rs.990Lacs.

(iv) Funds available under Production System & Micro enterprises component is 10% of total project cost= Rs.99.00 Lacs.

Proposed Activities for production system & Micro enterprises

| | Name of activity* | No. of house holds | Cost of activity (Rs. In Lacs) | WDF |
|----------|---|--------------------|--------------------------------|-----|
| A | Production System | | | |
| 1 | Fisheries | - | - | - |
| 2 | Dairying | - | - | - |
| 3 | Poultry | - | - | - |
| 4 | Piggery | - | - | - |
| 5 | Goatry | - | - | - |
| 6 | Bee keeping | - | - | - |
| 7 | Sericulture | - | - | - |
| 8 | Bio fuel , Medicinal plantation | 50 | 2.50 | - |
| B | Others | | | |
| 1 | Crop Demonstration | - | - | - |
| A | Integrated Nutrient Management | - | - | - |
| B | Integrated PestManagement | - | - | - |
| C | Distribution of seed / Mini kit of HYV | 800 | 16.00 | - |
| 2 | Introduction of Innovative Agril Activities | - | - | - |
| 3 | Distribution of Seed cum ferti. drill | 16 | 9.37 | - |
| 4 | Distribution of other Agricultural & plant protection equipment | 286 | 3.08 | - |
| 5 | Fodder production | 100 | 1.00 | - |
| 6 | Agro forestry | - | - | - |
| 7 | Agro Horticulture | - | - | - |
| 8 | Floriculture | - | - | - |
| 9 | Vegetable cultivation | 1000 | 4.00 | - |
| 10 | Organic farming | 180 | 27.00 | - |

| | | | | |
|----------|---|-----|--------------|---|
| | (Green Manuring, Vermicompost, Nadep Compost) | | | |
| 11 | Green House | - | - | - |
| 12 | Shed net | - | - | - |
| 13 | Nursery | - | - | - |
| | Others (specify) | - | - | - |
| C | Microenterprises | | | |
| 1 | Agro processing | - | - | - |
| 2 | Value Addition | - | - | - |
| 3 | Fruit preservation (Chatni, Achar, Murabba, Jam, Jelly, Etc.) | 65 | 16.25 | - |
| 4 | Flour Mill | - | - | - |
| 5 | Dal mill | - | - | - |
| 6 | Oil mill | - | - | - |
| 7 | Maize dehusker | - | - | - |
| 8 | Para Vetnery services | - | - | - |
| A | Bull distribution | 4 | 2.08 | - |
| B | Castration | - | - | - |
| C | Demo. Urea Molasis | - | - | - |
| 9 | Manger | 200 | 4.00 | - |
| 10 | Animal Shed | 59 | 11.80 | - |
| 11 | Animals health camp | 8 | 1.92 | - |
| | Grant Total | | 99.00 | |

Awareness Programme

-Slogan Wall Painting,

Scientific Animal Husbandry Practices ; Seminars / Debates / Pamphlet distribution/ Stickers/ Chetana Rally

Broadcasting / Telecasting Film Show

Visit- intra/ inter/ out of State/ Abroad

Fortnightly Meetings with Livestock keeper to discuss and decide all breedable females to be covered.

Creation Of Disease Free Zone: Livestock's health coverage

Establishment of Pashudhan Seva Kendra (PSK) (Convergence with peer department)

Deworming to reduce worm load and enhance disease resistance. (Convergence with peer department)

Distribution of mineral mixture. (Convergence with peer department)

Free of Cost Vaccination in IWMP area Livestock for H.S., B.Q., F.M.D., PPR, ETV and Sheep Pox.

Ensure Hygienic measures to check Zoonosis.(DAH/ IWMP)

Construction of Animal Sheds with Manger and Portable Manger With accessories

Provision of Cattle Water Troughs.

Infertility Management: To ensure Livestock's Productivity

Expansion of AI Coverage/ reduction in no.of infertile females.

PCPD+ COMBAT INFERTILITY+ CAMPS INFERTILITY RLDB+ CAMPS INFERTILITY SC COMPONENT

Breed Improvement: To ensure Livestock's Productivity enhancement

A.I. (Convergence with peer department)

Incentive based Mass Castration at Door Step of Scrub Bulls to Check ND Recycling.

Registration of bulls (Convergence with peer department)

Bull / Buck Distribution for NS-Gir, Murrah And Sirohi /Jamunapari Breed Bulls/ Bucks Should Be Distributed For 3yrs 6 (3 In Each Iwmp Area, Where Ever A.I. Facility Is Not Available Round's O Clock. On 100% Subsidized Rate To WC.

Financial Incentive to the Inseminator for Calf Borns.

Convergence with peer Department/DAH/Agriculture/ATMA/ Board/ Trust/ Goseva

An Assistance to control Malnutrition: Protein Supplementation

Feed & fodder production enhancement.

ANNUAL ACTION PLAN : PIA will prepare annual action plan in the month of January indicating outgoing liabilities as well as new projects which they wish to take during next financial years & will submit to PM(WCDC). These plans will be placed for approval at P.S. (Standing Committee of Production and Agriculture) & Z.P. (Standing Committee of Production) level every year. While preparing Annual Action Plan (AAP) if rates of labour or material in DPR increased or decreased changed rates will be applicable for preparing AAP & the effect of same can be met by converging the remaining works with other schemes.