

GOVERNMENT OF RAJASTHAN
Department of Agriculture

Rajasthan Agriculture Competitiveness Project

Social Assessment and Management Framework

(Draft Final Report)

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Shri B.S. Detha, Project Director, RACP

Department of Agriculture

Government of Rajasthan

Abbreviations

ABPF	Agri-Business Promotion Facility
AEZ	Agro-Ecological Zone
AFPRO	Action for Food Production
AKRSP	Aga Khan Rural Support Programme
AP	Andhra Pradesh
APEDA	Agricultural and Processed Food Products Export Development Authority
APRN	Asia Pacific Research Network
ARAVALI	Association for Rural Advancement through Voluntary Action and Local Involvement
AVC	Agriculture Value Chain
BARC	Budget Analysis Resource Centre
BMI	Body Mass Index
BPL	Below Poverty Line
CACP	Cluster Agriculture Competitiveness Plan
CAZRI	Central Arid Zone Research Institute
CBO	Community Based Organisation
CIG	Common Interest Group
CIVICUS	World Alliance for Citizen Participation
CM	Community Mobiliser
CPR	Common Property Resources
CRP	Community Resource Person
CS	Chief Secretary
CSO	Civil Society Organisation
DLIC	District Level Implementation Committee
DOA	Department of Agriculture
DPMU	District Project Management Unit
DPR	Detailed Project Report
DRDA	District Rural Development Agency
DSDC	District Social Development Coordinator (in FNGO)
EA	Environmental Assessment
EAG	Empowered Action Group
ECOSOC	Economic and Social Council (of the UN)
ESMF	Environment and Social Management Framework
FAO	Food and Agriculture Organisation
FCRA	Foreign Currency Regulation Authority
FES	Foundation for Ecological Security
F-NGO	Field Level Non-Government Organization
FPO	Farmer Producer Organisation
FRA	Forest Rights Act, 2006
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GDSP	Gross Domestic State Product
GNP	Gross National Product
GoI	Government of India
GoR	Government of Rajasthan
GP	Gram Panchayat
GPLGWC	Gram Panchayat Level Ground Water Committee
GRC	Grievance Redressal Cell
GRM	Grievance Redress Mechanism
GVNML	Gram Vikas Navyuvak Mandal, Laporiya
GVT	Gramin Vikas Trust

GWD	Ground Water Department
HDI	Human Development Index
HDR	Human Development Report
HIV/AIDS	Human Immuno-deficiency Virus/ Acquired Immuno-deficiency Syndrome
IAASTD	International Assessment of Agricultural Knowledge, Science and Technology for Development
ICDS	Integrated Child Development Scheme
ICR	Implementation completion and results review
IDS	Institute for Development Studies
IEC	Information, Education and Communication
IESA	Integrated Environmental and Social Assessment
IGRM	Integrated Grievance Redressal Mechanism
IMR	Infant Mortality Rate
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
ITDP	Integrated Tribal Development Project
KVK	Krishi Vigyan Kendra
LAD	Local Area Development
M&E	Monitoring and Evaluation
MACP	Maharashtra Agriculture Competitiveness Project
MADA	Modified Area Development Approach
MIS	Management Information System
MKSP	Mahila Kisan Sashaktikaran Pariyojna
MLA	Member of Legislative Assembly
MMR	Maternal Mortality Rate
MNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MoU	Memorandum of Understanding
MP	Member of Parliament
MPUAT	Maharana Pratap University of Agriculture and Technology
MSP	Minimum Support Price
MTR	Mid-Term Review
NABARD	National Bank for Agriculture and Rural Development
NAIP	National Agriculture Innovation Project
NFHS	National Family Health Survey
NFSM	National Food Security Mission
NGO	Non-Government Organisation
NRLM	National Rural Livelihoods Mission
NRM	Natural Resource Management
NSS	National Sample Survey
NTFP	Non-Timber Forest Product
OBC	Other Backward Class
OP	Operational Policy (of the World Bank)
PAP	Project Affected Persons
PCU	Project Coordination Unit
PD	Project Director
PDO	Project Development Objective
PESA	Panchayat Extension over Scheduled Areas Act
PIA	Project Implementing Agency
PIM	Participatory Irrigation Management
PIU	Project Implementation Unit
PMIS	Project Management Information System
PMU	Project Management Unit
PRI	Panchayati Raj Institution
PS	Panchayat Samiti
PS	Principal Secretary
PTG	Particularly Vulnerable Tribal Group (formerly Primitive Tribal Group)
PUCL	People's Union for Civil Liberties

RACP	Rajasthan Agriculture Competitiveness Project
RAP	Resettlement Action Plan
RDA	Recommended Dietary Allowance
RFPMIS	Rajasthan Farmers Participation in Management of Irrigation Systems
RKVY	Rashtriya Krishi Vikas Yojna
RPF	Resettlement Policy Framework
RRLP	Rajasthan Rural Livelihood Project
RT	Rural Technology
RTC	Regional Training Centre
RWSRP	Rajasthan Water Sector Restructuring Project
SA	Social Assessment
SAMF	Social Assessment and Management Framework
SAP	Social Action Plan
SC	Scheduled Caste
SCA	Special Central Assistance
SDS	Social Development Specialist
SF	Social Framework
SHG	Self Help Group
SMF	Social Management Framework
SMP	Social Management Plan
SP	Service Provider
SP1	Service Provider 1
SPV	Special Purpose Vehicle
ST	Scheduled Tribe
TAD	Tribal Area Development
TDF	Tribal Development Framework
TDP	Tribal Development Framework
ToT	Training of Trainers
TSP	Tribal Sub-Plan
UMM	Urea Molasses Mineral
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNWFP	United Nations World Food Program
UT	Union Territory
VO	Voluntary Organisation
WC	Watershed Committee
WDF	Watershed Development Fund
WDT	Watershed Development Team
WIDF	World International Democratic Forum
WPR	Work Participation Rate
WUA	Water Users' Association
WUO	Water User Organisation
ZP	Zilla Parishad

Executive Summary

Project Objectives. The Rajasthan Agriculture Competitiveness Project (RACP) aims to demonstrate an enhancement in agricultural productivity and farmer incomes through an integrated approach that includes technology, organization, institutions and market innovations, in representative locations distributed across the ten agro-climatic zones in the state, covering three different water regimes – ground water, canal command, and rain-fed. The guiding principles under the project are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state’s water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state’s agro-processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services.

Project Components. The Project is organized into 4 components.

Component 1: Climate Resilient Agriculture. This component will support climate-resilient approaches that allows for the sustainable use of the natural resource base through agricultural and livestock production systems aiming to increase long term productivity and farm incomes in an environment marked by increased climate and, in particular, rainfall variability. More specifically, this component will support measures that improve: (a) harvest, capture, collection, delivery and distribution of water for agriculture and livestock purposes in surface water irrigated canal command areas, ground water sources and rainfed areas; (b) on-farm water use efficiency; (c) soil moisture and fertility improvements; (d) sustainable intensification and diversification of farm production; and (e) integrated crop and livestock farming systems.

Component 2: Markets and Value Chains. The objective of this component is to enable farmers to engage in profitable market oriented production, that is sustainable and to promote partnerships and market linkages with other value chain participants and agribusinesses. The component will help producer groups, agro enterprises, and commodity associations, to actively engage in the development of commodity value chains by partially financing demand-driven investment proposals to producer organization through a matching grant. Project will support (a) develop value chains aiming to establish longer term partnerships and market linkages between farmer groups and agribusiness enterprises, facilitated through an Agri-Business Promotion Facility (ABPF); and (b) develop alternate market channels.

Component 3: Farmers Organizations and Capacity Building. This component will support (a) mobilization and establishing of farmer groups and capacity building for participatory planning and plan implementation; (b) strengthening of institutions and human resources associated with the project implementation (i.e. participating line department and other relevant agencies). The community based organizations (CBO) proposed will be organized around the three themes of the RACP- water resource management, agriculture, and value chain development.

Component 4: Project Management and M&E. This component will undertake project management, provide for robust monitoring and evaluation (M&E) systems with a view of potentially scaling up approaches deemed successful under this operation across the state; as well as aim to build synergies and convergence with ongoing schemes from the Government of Rajasthan (GoR) and the Government of India (GoI) such as Rashtriya Krishi Vikas Yojana (RKVY), the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), etc. Development and pilot testing of production risk management tools in crop

and livestock sectors will be supported under this component, in partnership with insurance companies and banks.

Project Stakeholders and Benefits. RACP aims to sustainably increase the productivity of natural resources and farmer income through efficient management of agriculture. RACP clusters will cover 200,000 ha and will directly benefit 155,000 farmers. The economic and financial analysis of RACP also estimates that the more competitive agriculture will generate incremental wage income for about 29,500 agriculture labour HHs in the project area of which 40% are landless and 55% are from SC and ST category. These will predominantly be smallholder farmers with an actual or potential commercial outlook, brought together through collective action towards achieving economies of scale, e.g.: water user groups, ground water management communities, watershed groups as well as farmer producer organizations. In addition, secondary beneficiaries will comprise other farmers obtaining better access to water through improved groundwater recharge or better water distribution at the tail-end of command areas, as well as agricultural labourers through increases wages. Other stakeholders consist of private sector partners (i.e. agro processors and agro industries, wholesalers, traders participating through value chains); public institutions (i.e. the seven GoR line departments); and (c) service providers (including three universities and a range of NGOs).

The overall outcome of project interventions is likely to be an increase in the farm production, productivity and income as a result of improved seed management and cultivation practices. With establishment of strong village level institutions will also emerge stronger collective community decision-making forums that could potentially play a significant role in improved governance at the Panchayat level. Market-led advisory services and establishment of producer companies will result in higher incomes, and greater access of farmers to markets and financial institutions. As a result of improvement in water use efficiency, it is expected that the gross area under cultivation will increase, resulting in higher crop production, enhanced farm incomes, and availability of on-farm wage labour opportunities to women and men. With availability of water for irrigation for the Rabi (winter) cropping season, it is expected that there will be a decline in seasonal and daily migration rates in project areas.

Social Assessment. The Department of Agriculture (DOA), Government of Rajasthan (GOR) have undertaken an environment and social assessment study to assess and address the key environment and social issues, impacts and risks related with RACP, including applicability of World Bank's social safeguard policies on involuntary resettlement and indigenous peoples. The social assessment (SA) was done with the help of individual consultants and involved desk review; field Visits to representative RACP clusters, water regimes (watershed, groundwater, canal water), NGO implementation areas and sites of innovation and stakeholder Consultations.

Stakeholder Consultations. The SA process involved focused stakeholder consultations, village meetings, focused group discussions with intended project beneficiaries in RACP geographic clusters, and documentation and assessment of stakeholder profiles, expectations, influence, concerns, and potential roles and responsibilities in planning, designing, implementing and monitoring RACP. Field visits, focus group discussions and multi-stakeholder consultations with men and women farmers, tribal groups, panchayat representatives, local NGOs, government officials, agrimarket traders and farmers' producer companies were held in Jaipur (Boraj, Mokhampura, Jhotwara, Latoria, Bagru), Udaipur (Mahuli, Jhadol), and Banswara (Arthunia, Masotia) during November 22-28, 2011. Feedback and suggestions were sought on key environmental and social issues and strategies through these consultations during its preparation. The consultants disseminated basic information on the proposed RACP (using local language) during these consultations. Exclusive and informed consultations were also held with tribal groups in the project area, and an assessment of broad community support for RACP among the tribal people was done. Project preparation has also benefitted from consultations and learning from preparing and

implementing the World Bank-supported Rajasthan Rural Livelihood Project, Rajasthan Water Sector Restructuring Projects, and National Rural Livelihood Project. A disclosure workshop was held on 19 January 2012 to disclose the social assessment report and get stakeholder feedback. A cross-section of the public and officials from several state government departments, NGOs, private companies and research/academic agencies attended the workshop.

Overall, the response to the project components and activities has been positive and was welcomed by the primary stakeholders. The Consultations have highlighted the challenges of farmer mobilisation around irrigation water/commons in large, dispersed and socioeconomically diverse villages with largely unregulated ground water extraction and use of commons. There is a need for adapting the project interventions and strategies for the benefit and inclusion of small and marginal farmers, mainstreaming women's participation and community based approaches, and adopting socially inclusive beneficiary selection (private goods), benefit sharing (for community assets) and farmer contribution strategies.

The social assessment exercise has highlighted the following key social safeguard and social development issues.

- Ensuring Targeting, Inclusion, Participation and Access of small and marginal farmers, tribal farmers, SC and women farmers to agricultural inputs (seeds, fertilisers, credit, training, information, etc.), extension services and markets; need for the project to reach out to and involve these groups at all stages;
- Ensuring representation, inclusion and participation of small and marginal farmers, women farmers, tribal farmers and scheduled caste farmers in CACP preparation, farmer mobilization, and farmers' organisations; CACP planning to be based on strong participatory processes involving all primary stakeholders of RACP
- Ensuring equitable access of these socio-economic groups to project resources and benefits
- Dealing with traditional bias towards medium and large farmers with resources to influence project processes, farmers institutions and benefit sharing norms; the need for customisation of project interventions to suit the requirements of small and marginal farmers and women
- Promotion and strengthening of community based approaches and capacity building for farmer mobilisation and resource use;
- Inclusion and participation of Tribals and other vulnerable groups
- Inclusion and participation of women farmers in project institutions, interventions and benefits. Project interventions could increase gender imbalances and/or enhance the drudgery of women; these should be accompanied by other interventions that offset the imbalance by reducing drudgery, or re-distribute work responsibilities between women and men; Ensuring that women are not further disempowered because of, nor do they get excluded from, promotion of market-oriented agriculture;
- Addressing any potential adverse impacts from utilisation of common and Panchayat lands Land.
- Avoiding social conflict over water, natural resources and common lands. Addressing issues of inequitable sharing and unregulated use of water resources, both surface and ground water, and conceptualising water as a common resource, while it continues to be used as a private good
- Safeguarding against elite capture. Given the widely varied social and economic stratification, the near absence of social solidarity that comes with traditional community institutions and the vast geographical spread observed in the villages of Rajasthan, the risks of project investments and benefits being cornered by the powerful few in the village run very high.
- A case in point is the widespread encroachment and occupation of common lands (grazing lands), usually by the large farmers, for purposes of cultivation and grazing

their cattle, with the goat-rearing families being forced to dispose off or cut down the size of their herds.

Tribals (Indigenous People) . RACP triggers World Bank’s operational policy (OP) on Indigenous (Tribal) Peoples, as tribal people have significant presence Banswara, Udaipur, Dungarpur, Chittorgarh districts etc. Some of these districts and other areas with tribal presence would be covered under RACP clusters. Consistent with requirements of the OP, a Tribal Development Framework (TDF) is prepared to ensure informed consultations and targeted outreach among tribals, promote their inclusion and participation in project interventions, institutions and benefit sharing; and enable the project to adopt socially and culturally compatible ways of working among tribal beneficiaries. The TDF includes screening for presence of tribal groups, a tribal situation assessment, and preparation of tribal development plans (TDPs) and capacity building for working with tribal communities.

Land and Involuntary Resettlement. RACP does not envisage any acquisition of private lands or physical displacement. However, physical infrastructure (water conservation structures, godowns, rural markets, livestock centres etc) or interventions on village commons (fodder/pasture development, community ponds etc) could result in small scale loss of structures, livelihoods and/or access to land and natural resources for some people. The social management framework includes resettlement policy framework (RPF) that sets out screening of such social impacts and provides for provision of rehabilitation assistance measures for mitigating any potential adverse impacts on beneficiaries, especially vulnerable households. Mitigation plans would be prepared wherever required.

Social Management Framework. Based on the findings of the social assessment exercise, the field visits and stakeholder consultations, a comprehensive social management framework (SMF) is proposed to promote participation, inclusion and empowerment of the smallholder farmers, including women farmers, tribal people, scheduled caste, minority and other vulnerable social and economic groups. The SMF includes a Tribal Development Framework to ensure inclusion and participation of the tribal people in project processes, institutions, benefits in a socially and culturally sensitive way etc. The SMF also includes a resettlement policy framework (RPF) to avoid, minimise or mitigate any adverse social and livelihoods impacts emanating from various sub-projects supported by the project. The RPF will be used for developing appropriate social mitigation strategies, and mechanisms for minimizing the risks and expected adverse impacts. In addition, the SMF also includes strategies for consultation and participation, social mobilisation and inclusion, gender and women’s empowerment and social risk management.

The framework approach has been adopted because the exact nature and scale of all interventions is not known at this stage. The SMF therefore provides guidelines to assess the social impacts of all the sub-projects and design cluster-specific plans, including the tribal development plan and the resettlement/ rehabilitation assistance plans. Overall, the SMF aims to avoid/minimize risks, avoid exacerbation of social and economic disparities between and among social groups, ensure equitable spread of project investments and benefits, and contribute to long-term social and institutional sustainability of RACP. The SMF consists of the following strategies:

- Consultation and Participation Strategy
- Social Inclusion Strategy
- Tribal Development Framework
- Resettlement Policy Framework
- Gender and Women Empowerments Strategy

These strategies are explained further in Chapter 11.

Implementation Arrangements. The SMF includes institutional and staffing arrangements, training and capacity building plan, monitoring mechanisms, thematic studies and budget to enable effective implementation of the safeguard measures. The Social Development Specialist in the SPMU will have the overall responsibility for incorporating the SMF strategies in CACPs and preparing, implementing and supervising the social management, tribal and resettlement plans through field NGOs and service providers. Social development Specialists will also be engaged by service providers (SP1) for preparing the CACPs, and implementing them (by field NGOs). Tribal community mobilisers will be engaged in tribal clusters. In addition to internal process monitoring, social impact assessment studies will be undertaken to assess the implementation and impact of the SMF, including RPF and tribal strategies. The key implementation mechanisms for the SMF are

- Social Development Specialist in PMU at the state level , supported by Field NGO Social Development Specialists in each Cluster
- SP1 will be responsible for undertaking social impact assessment; preparation of Social Management Plan and Tribal Development Plan
- SP1 will flag all those sub-projects that require preparation of a Social Action Plan (SAP) in accordance with the provisions of the RPF
- SP1 team will include a Social Development Coordinator in each cluster, and a Tribal Development Coordinator in Clusters with high proportion of tribal population
- FNGO will be responsible for farmer mobilisation and execution of strategies and frameworks for consultation and participation, social inclusion, gender and women empowerment, rehabilitation assistance, and tribal development framework
- After specific sites are identified for RACP sub-projects with RPF implications, F-NGO will prepare a Social Action Plan for mitigation of adverse social and livelihood impacts if any
- Community Mobilisers (male and female) and community resource persons will be engaged at the village/GP level, and imparted the necessary training for effective discharge of their responsibilities
- Monitoring and reporting on key social indicators and processes will be an integral part of the project MIS and M&E systems.
- Training and capacity building of project implementers and stakeholders on social assessment, and implementation of the social management framework.

Grievance Redressal. To address the grievances, RACP will Community Mobiliser at the village level who will be the first level contact for the aggrieved person. The project sites will disseminate information on (i) name of the F-NGO; (ii) name of the Community Mobiliser; F-NGO Social Development Specialist, DPMU Focal Person for social aspects and PMU Social Development Specialist with their contact phone numbers. A Integrated Grievance Redress Mechanism (IGRM) will also be established at the state level. RACP will have a communication strategy focusing on effective and efficient usage of print and electronic media, bill boards, posters, wall writing, and adoption of any other relevant method suiting local context, logistics, human and financial resources.

Training and Capacity building. RACP will include development and delivery of the following training modules for RACP staff, service providers and implementation partners. The training modules aim to promote awareness and operational capability on the social management framework of RACP. The key topics of the training would be:

- participatory assessments and planning
- consultation and participation
- Farmer mobilisation strategy
- social outreach and rapport building
- mainstreaming social inclusion (planning, institutions, investments, benefits)
- gender issues and strategies

- tribal inclusion and other vulnerable groups
- Social impact assessment and mitigation, etc.

Training Workshops will be organized at state level and the other Training Programs will be organized in the district/ clusters of villages proposed for farmer organisations and water management committees to facilitate the inclusion of these categories in village level groups and further in Producers' Associations formed under the project.

Monitoring, Evaluation and Reporting. Regular monitoring of the strategies and practices proposed in the SMF would be required for assessing the effectiveness and extent of implementation of the SMF. The District FNGO- SDS would be reporting on the key social processes of RACP. RACP social staff will conduct special internal monitoring/ review of implementation of the SMF, along with participation of farmers organizations, with a specific focus on the indicators listed above. RACP would also undertake thematic reviews of SMF implementation through external agencies. These would be done before project midterm and end term. The external monitoring shall assess performance of the RACP with respect to compliance with SMF. Once the community institutions are strengthened they would be involved in monitoring and giving feedback to FNGO on the interventions in which they are involved.

Reporting. The Social Development Specialist (FNGO) will prepare and submit to the DPMU quarterly reports on the implementation of the CACP and SMF, with specific focus on participation and inclusion of the smallholder farmers, SC, ST, women farmers in CACP preparation, CACP implementation, farmers mobilisation, institutional processes, training and capacity building interventions, detailed implementation planning, access to private goods, access to common assets and infrastructure. Progress reports would also report on social indicators and other socially inclusive processes and outcomes.

Thematic studies. RACP will undertake thematic studies on social issues that are most relevant for RACP interventions and would add value to implementation of social strategies. These studies would focus on smallholder farmers, women farmers, SC farmers, tribal groups, farmer mobilisation, promoting social inclusion in institutions, training and capacity building interventions, promoting social inclusion in village commons, etc. Other themes could be on food security, leadership and empowerment of women, debt and credit counseling, mobility and market access for women, drudgery reduction for women, etc. RACP would plan and allocate specific budget for such studies annually.

Chapter 1: Project Description

1.1 Background

Increasing population, growing urbanization, and rapid industrialization combined with the need for raising agriculture productivity generates competing claims for water in India. With increasing constraints on water availability for irrigation, improving productivity in irrigated agriculture (both surface and groundwater) and achieving productivity gains in rain-fed agriculture are some of the great untapped opportunities of the agriculture sector in India. A more water-efficient agriculture holds the promise of smallholder farmers profitably shifting from low value, water-guzzling crops to high value farming aiming for returns on unit of water used, and driven by market demand. In few other states of India is this challenge as starkly posed as in Rajasthan.

Rajasthan, located in western India, is the largest state in the country (about 350,000 km²) and considered to be one of the lagging states within the Union. The population of Rajasthan is over 56 million and the state is overwhelmingly rural, with more than three quarters of the population living in rural areas. It has one of the highest proportions of Scheduled Caste (17 percent) and Scheduled Tribe (13 percent) population among Indian states. Rajasthan's climate is marked by frequent droughts, a short monsoon season (July to September) resulting in annual rainfall ranging from 150 to 900 mm in different part of the state (average annual mean: 576 mm), and temperatures ranging from 5C to 45C and more. The Aravalli range runs from the south-west of Rajasthan to the north-east. To its west lies the Thar Desert which covers over 60 percent of the state's land area and leaves Rajasthan acutely deficient in water supply¹. Agriculture continues to be largely dependent on rainfall, leaving the state highly vulnerable to drought-induced volatility. Rajasthan's development strategy needs to take into account wide variations in geographical terrain and climatic conditions as well as in social structures within the state.

Rajasthan's economy has undergone considerable transformation in the recent past in terms of growing manufacturing and service sectors, with agriculture (including livestock) today providing for around 25 percent of the state's GDP. However, the state's economic transformation notwithstanding, some 5.4 million households continue to be engaged in farming (of which roughly half are small or marginal farmers) and over 60 percent of the state's population depend on (often, low productivity) agriculture for their livelihood. Increasing agricultural productivity (water, land, labour) is critical for the future of the sector in Rajasthan. Given the size of the agriculture sector, improved agriculture productivity is also one key element for a further structural transformation of the overall economy of the state.

Rajasthan is India's largest producer of mustard (oilseed crop), pearl millet (known as *bajra*), and three spices: coriander, cumin, and fenugreek; cluster beans, isabgol and it is the second largest producer of maize. Rajasthan has the second largest herd of livestock amongst Indian states, contributing about 10 percent of the country's milk and 30 percent of mutton production. The state also produces wheat and coarse cereals, rapeseed, gram, and

¹ With 10 percent of India's land area, it has only 1 percent of the country's water resources.

soybean. Agriculture and livestock production take place across a large variety of some ten distinct agro-ecological zones, and often in extreme agro-climatic conditions. In much of the state only one rain-fed crop can be grown during the kharif (or monsoon) season which, too, is associated with high risk. In future, farmers will need to adapt further and make agriculture practices still more resilient in the light of ever harsher and changing agro-ecological conditions.

In addition to harsh agro-climatic conditions, agriculture production is compounded by farmers having limited access to inputs (land, irrigation water, seeds and fertilizers), technology, farm credit and markets. This has resulted in a predominance of low productivity, risk-minimizing and subsistence-oriented farming systems (often integrating crop and livestock production) capable of resilience (within limits) against droughts as well as able to produce a marketable surplus in years of good monsoon rainfalls. Much of agriculture production takes place on some 17.4 million ha of near-subsistence level production with farms amounting to around 4.0 ha on average. In areas where irrigation can be secured (either from surface water delivered by channels or from groundwater provided by wells or tube-wells) on about only one fifth of the cropped area or some 3.5 million hectares, agriculture productivity and surplus production is significantly higher and production risk considerably reduced. Allocating around 80 percent of the state's water to low value, highly water-demanding crops such as rice and wheat, however, has resulted in a resource use that is economically inefficient and environmentally unsustainable.

While challenges in making the (semi-arid) desert bloom are many, there are also significant opportunities associated with agriculture in Rajasthan. These include: (1) diversification into higher value, less water consuming horticulture, floriculture, spice and medicinal plant production across a variety of agro-ecological zones; (2) livestock development focusing on improved animal health, nutrition, and access to markets; (3) roll-out of a range of tested on-farm water management technologies and agronomic practices; (4) a policy framework that, while not necessarily perfect, is increasingly conducive towards private sector-led, sustainable agriculture (including: state agriculture policy, water policy, livestock policy, and agribusiness policy); (5) a range of public investment programs funded by the Government of India, the Government of Rajasthan (GoR), as well as donors and NGOs, respectively, that, if coordinated, have the potential of jointly supporting a holistic approach towards agriculture development in the state; and (6) an experience in establishing and managing public private sector partnerships in agriculture (e.g. in the seed sector) that can be expanded towards a broader application.

1.2 Objectives

The proposed Project Development Objective (PDO) of RACP is to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan – each marked by different agro-ecological, climatic, water resource and social conditions – capable of significantly increasing agricultural productivity and farmer incomes.

The **guiding principles** under the project are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state's water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state's agro-processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services.

The Primary beneficiaries of RACP are smallholder farmers with an actual or potential commercial outlook, brought together through collective action towards achieving economies of scale, e.g.: water user groups, ground water management communities, watershed groups as well as farmer producer organizations. In addition, secondary beneficiaries will comprise other farmers obtaining better access to water through improved groundwater recharge or better water distribution at the tail-end of command areas, as well as agricultural labourers through increases wages. Other stakeholders consist of private sector partners (i.e. agro processors and agro industries, wholesalers, traders participating through value chains); public institutions (i.e. the six GoR line departments); and (c) service providers (including several universities and a range of NGOs).

1.3 Project Components

The project components will address capacity, access and participation-related issues by (i) incentivizing group formation among smallholder farmers (e.g. water user groups, ground water management communities, watershed groups) through specialized service providers; (ii) promoting farmer access to farm inputs, advisory services, product markets as well as agriculture insurances; and (iii) promoting gender-equitable practices in the sector.

The RACP has four components: Component 1: Climate Resilient Agriculture; Component 2: Markets and Value Chains; Component 3: Farmer Organization and Capacity Building; and Component 4: Project Management, Monitoring and Learning. These project components will address capacity, access and participation-related issues by (i) incentivizing group formation among smallholder farmers (e.g. water user groups, ground water management communities, watershed groups) through specialized service providers; (ii) promoting farmer access to farm inputs, advisory services, product markets as well as agriculture insurances; and (iii) promoting gender-equitable practices in the sector. Implementation of the four components will take place over six years and across selected clusters in the state. The project will be taken up in about twenty clusters representing ten agro-ecological zones (AEZ) of the state and implement a location-specific menu of approaches and interventions. Each cluster will have a defined theme and demonstration objective. Project components are summarized below.

Component 1: Climate Resilient Agriculture (tentative cost: us\$87.7 million): this component will support climate-resilient approaches that allows for the sustainable use of the natural resource base through agricultural and livestock production systems aiming to increase long term productivity and farm incomes in an environment marked by increased climate and, in particular, rainfall variability. More specifically, this component will support measures that improve: (a) harvest, capture, collection, delivery and distribution of water

for agriculture and livestock purposes in surface water irrigated canal command areas, ground water sources and rain-fed areas; (b) on-farm water use efficiency; (c) soil moisture and fertility improvements; (d) sustainable intensification and diversification of farm production; and (e) integrated crop and livestock farming systems.

Sub-component 1A: Improvement of water use efficiency: This will be taken up under three different water scenarios, i.e. (i) irrigated command areas under surface (canal) irrigation, (ii) areas under groundwater irrigation and (iii) rain-fed area. Across all three water resource scenarios the project will support improvement in soil and moisture conservation (through contour bunding, contour vegetative barriers, etc.) and complimentary agriculture support services. Matching grant financing will be provided for development plans proposed, developed and implemented by the respective farmer groups which in turn will be responsible for mobilizing their contribution either in cash or in-kind or both.

Sub-component 1B: Technology transfer and market led advisory services: The focus of this sub-component will be on improving on-farm water use efficiency in the clusters representing three water scenarios by promoting the demonstration and adoption of land and water management and crop husbandry practices which improve agricultural productivity, profitability and sustainability while reducing water footprint of agriculture. The project will finance (a) the demonstration and adaptation of location-specific soil and water conservation practices, including soil carbon sequestration practices with a view of possibly mobilizing carbon payments; and (b) the demonstration and use of improved crop varieties, integrated pest and nutrition management, as well as appropriate agronomic practices. Public-private partnership in agricultural service delivery will be encouraged.

Sub-component 1C: Livestock strengthening and management: Livestock provides a potentially significant source of diversified income to smallholder farmers operating in difficult climatic conditions. The project will support small ruminant livestock development (sheep and goats) through (a) establishing silvi-pasture plantations on private and common land as well as fodder processing and storage facilities, so that nutrition is made available for livestock round the year; and promoting green fodder cultivation as a crop diversification strategy; (b) developing organized livestock markets and livestock group marketing approaches; and (c) strengthening the Animal Husbandry Department's capacity to locally deliver cost-effective livestock support services such as animal health and nutrition, and to provide market linked advisory services.

Component 2: Markets and Value Chains (tentative cost: US\$33.8 million): The objective of this component is to enable farmers to engage in profitable market oriented production, that is sustainable and to promote partnerships and market linkages with other value chain participants and agribusinesses. The component will help producer groups, agro enterprises, and commodity associations, to actively engage in the development of commodity value chains by partially financing demand-driven investment proposals to producer organization through a matching grant. This will be done by organize members of water user groups into higher level institutions and develop their capacity and skills for marketing. It is expected that aggregation will bring economies of scale in procurement of inputs and marketing of agricultural produce, thus enabling access to wider markets. These producer organizations

will be an important vehicle for promoting market-oriented production in their geographical jurisdiction and can act as centres for technology dissemination and input / output marketing. Project will support (a) develop value chains aiming to establish longer term partnerships and market linkages between farmer groups and agribusiness enterprises, facilitated through an Agri-Business Promotion Facility (ABPF); (b) develop alternate market channels.

Sub Component 2A: Agri-Business Promotion Facility (ABPF): The competitiveness of small-holder farmers and agribusinesses will be promoted by facilitating the development and establishment of demand-driven value chains through a participatory approach. An Agri-Business Promotion Facility (ABPF), established under the project, will facilitate the roll out of these participative value chains identification and stakeholder consultation. ABPF will also facilitate the implementation of Rajasthan's new Agribusiness Policy, mobilizing national and state grants and supporting the implementation of the improved access for agribusinesses to rural based grants.

Sub Component 2B: Market Infrastructure and Agribusiness Support. This sub component will finance demand-based sub-projects proposed by farmer groups, and producer organizations to build strategic linkages amongst the value chain participants with a view to increase competitiveness, productivity, quality and market access. Market Infrastructure support will be provided to support *farmer groups* with matching grant investments in rural market infrastructure and for productive infrastructure such as storage facilities, grading and sorting equipment, collection centers etc. Agribusiness support will provide *producer organizations* with matching grant directed towards agribusiness support and will co-finance investment proposals from producer organizations and producer groups established under the project and that are actively seeking to expand their operations. Proposals that qualify for matching grants will have one or more of the following general characteristics: (i) provide clear linkage through formal contracts between farmer groups/ producer organizations and agribusiness/ value chain participants; and (ii) have some public good character that benefits many participants in a value chain.

Component 3: Farmers Organizations and Capacity Building (tentative cost: US\$25.5 million): This component will support (a) mobilization and establishing of farmer groups and capacity building for participatory planning and plan implementation; (b) strengthening of institutions and human resources associated with the project implementation (i.e. participating line department and other relevant agencies). The community based organizations (CBO) proposed will be organized around the three themes of the RACP- water resource management, agriculture, and value chain development.

Component 4: Project Management and M&E (tentative cost: US\$19.5 million): This component will undertake project management, provide for robust monitoring and evaluation (M&E) systems with a view of potentially scaling up approaches deemed successful under this operation across the state; as well as aim to build synergies and convergence with ongoing schemes from the Government of Rajasthan (GoR) and the Government of India (GoI) such as Rashtriya Krishi Vikas Yojna (RKVY), the Mahatma Gandhi

National Rural Employment Guarantee Scheme (MNREGS), etc. Development and pilot testing of production risk management tools in crop and livestock sectors will be supported under this component, in partnership with insurance companies and banks.

1.4 Sector wise interventions

1. Climate Resilient Agriculture

Improvement of water-use efficiency

Well Irrigated Agriculture: Ground Water Department

- Rain Water Harvesting through
- Percolation tank
- Inverted Well (Well Recharge)
- Dug well Recharge
- Rehabilitation/Deepening of existing farm ponds
- Anicut with shaft
- Installation of Peizometers
- Installation of Rain gauge

Watershed

- Water harvesting structures – Farm pond/Anicuts/Nala plugging
- Summer deep ploughing
- Strip and Mixed cropping
- Raised bed plantation
- Alternate ridge and furrow sowing
- Individual farm bunding
- Percolation tanks
- Dug out ponds
- Gabion structures

Canal Command (Surface Water)

- Rehabilitation of canal network
- Construction of Diggies along with micro irrigation
- Crop diversification – Low water requiring crops

2. Technology transfer and market led advisory services

Agriculture

- Crop demonstrations
 - High yielding varieties
 - Improved cultural practices
 - Nutrient application based on soil test
 - Distribution of soil health card
 - Seed production on Seed Village Scheme
 - Use of organic matter
 - Improved composting – Vermi Compost/Super Compost
 - Use of bio control agents for insects & pest Management
 - Demonstrations to promote IPM/INM
 - Use of Gypsum in alkali soils

- Post-Harvest Management
 - For drying – Solar Tunnel dryer individual/community
 - Drying Tarpaulin
 - Threshing floors
 - Training of farmers
 - Exposure visits
 - Exhibition, content development,
 - Rural Technology cum Animal Health Centre

Horticulture

- Establishment of orchards – Pomegranate, Citrus, Guava. Papaya
Arid Fruits
- Promoting Drip Irrigation
- Protected Cultivation - Walking tunnel, Low cost poly houses,
Shade net
- Drip Irrigation
- Raised Bed Planting
- Nursery Development
- Use of organic matter – Vermi Compost/Super Compost
- Use of bio control agents for insects & pest Management
- Demonstration for Pomegranate and citrus
- Demonstration of vegetables on drip
- Boundary plantation
 - Introduction of vegetable demonstration
 - Fruit crop saplings and demonstration on Drip wherever farm ponds
constructed

Livestock Strengthening and Management

- Formation of activity/user's groups
- Awareness and motivation camps
- Training and exposure
- Distribution of units of 3 sirohi goats/malpura sheep free to
widows and handicapped and disadvantaged groups
- Organization of exhibitions (Pamphlets, poster, leaflets, films
etc.)
- Mineral mixture supplementation
- Free fodder development kits (demonstration/mini-kits
distribution)
- Mobile fodder block making machine (UMM and molasses
supplemented blocks)
- Establishment of Rural Haat (alternative regulatory animal
market)
- Capacity building/leadership training of chosen few progressive
Breeders
- Establishment of RT cum Animal Health centre
- Animal health services, vaccination camp, de-worming etc.
- Indigenous
- Distribution of bucks/Rams

- Culling of low productive animals
- Castration
- Silvi Pasture Development
- Cultivation of green fodder in assured irrigated areas
- Purchase of dry fodder/creation of fodder bank
- Organization of Medicines and vaccination camps
- Milk purchase and processing
- Insurance
- Construction Mangers
- Strengthening of field analysis facilities
- Development of rural markets

1.5 Implementation areas/Clusters

The RACP will be implemented in selected locations in each of the ten agro-ecological zones (AEZ) in Rajasthan. Each AEZ in the state typically includes three or four districts. For each AEZ one or several commodities will be supported in a value chain approach. The same commodity can be supported across two and up to three AEZs. Commodities can include traditional crops (annual, perennial) cultivated in Rajasthan and for which an AEZ is believed to have a comparative advantage; or new crops for which a clear rationale and analysis exists that a comparative advantage can indeed be established over time. Small ruminant (goat meat) development will be taken forward as a value chain in two or more AEZ.

Within an AEZ one District will be identified across which (for reasons of ease of implementation), two Clusters will be developed with a primary focus on improving water management across the three water sources, i.e. either canal water or ground water or harvested rainwater (watersheds.) There would be up to 20 Clusters supported under the RACP. The principles for Cluster selection include: (1) Each Cluster provides for a demonstration or pilot on how to effectively support sustainable and profitable agriculture with a view towards potentially scaling up this model (if successful) in the future (outside of the RACP). For a Cluster to be “testable” it requires a defined theme, demonstration objective and research/development hypothesis that needs to be made explicit at the on-set and supported through the definition of a results framework (key indicators, baseline and monitoring arrangements). (2) If multiple Clusters are identified within one District (based on selected lead commodity), these Clusters will be implemented within the same District to facilitate implementation. (3) For each Cluster the relevant hydrological catchment area will be identified which provides for the basis of water resource management activities. (4) Each Cluster will comprise at least 10,000 ha of cultivation for the lead commodity under the Value Chain approach (which together with secondary crops may result in Clusters areas up to 20,000 or covering between 70 to 150 villages).

RACP activities in a Cluster will be implemented on the basis of a *Cluster Agricultural Competitiveness Plan (CACP)*. The CACP is the outcome of a planning process that aims to (a) identify opportunities as well as constraints towards developing one or two value chains in which the community deem themselves to have a potential competitive advantage and to (b) select from a List of Eligible project investments and within the funding constraints those public investments that will be enable the community to address constraints and enhance opportunities towards establishing identified value chains. The value chain proposed would envisage addressing broad sub-sectoral issues

as well as help establish specific partnership arrangements between farmer groups or producer organizations with agribusiness companies.

1.6 Implementation arrangements

1.6.1 State Level

RACP Steering Committee: CS (Chair), Private Sector Representatives, Farmer Representatives, Academia, CSO, PS Agriculture (and other concerned departments), and PD with the purpose of providing policy guidance towards RACP implementation.

RACP Executive Committee, led by PS Agriculture (Chair), and PS from other concerned Departments (Core and Line), and PD to ensure efficient execution of activities.

PCU / SPV to coordinate day-to-day implementation of RACP, including responsibility for overall financial management, central-level procurement, safeguards, M&E, housing of ABPF, supervision of CACP backstopping arrangements. Requires high level of delegated authority (above INR 5 crores). Project Director (PD): independent charge, (not: in-charge assignment) at Secretary Level to ensure convening power across departments. PCU/SPV will include technical representatives from each Line Department on deputation

Departmental PIU (one for each concerned Line Department) to anchor program with the District Level as well as with the PCU/SPV. Some 5-7 D-PIUs envisaged, led by departmental nodal officer.

1.6.2 District Level

District-Level Implementation Committees (DLIC), led by District Director of Agriculture (or senior most officer from other concerned Lined Department) to (a) ensure coordination of RACP activities, (b) support convergence with other Government schemes (RKVY, etc.), (c) review CACP prepared by SP#1, (d) undertake (some) procurement. Some ten DLIC are envisaged to be established, including strengthening of procurement, FM and monitoring capacity. DLIC will also maintain link to PRI at district, block and GP level. See AP Community Tanks for example of DLIC arrangement.

1.6.3 Cluster Level

Preparation of CACP supported through SP#1, one (possibly more) NGO or consulting firms with broad competence in social mobilization, agriculture and livestock development, farmer producer organization and agriculture marketing & value chains. Hydrological competence is desirable (which could also be provided by Water Resource Department). Significant competence on value chain development will also need to be acquired to prepared quality and relevant CACPs. RACP PCU/SPV will need to recruit SP#1, possibly allowing for subcontracting arrangements to ensure coverage across the range of required services.

Implementation of CACP supported by Field-Level NGO (SP#2) capable of supporting the cluster on community mobilization, agriculture development, on-field water management, and formation of FPO. Each Cluster will be supported by one F-NGO (hence, some 20 F-NGOs are envisaged to be hired). Note implementation cycle of CACP likely require some 24 to 30

months 2 and comprise several phases (to be designed during preparation phase). Different water resources have varying demand on skills of F-NGO, i.e. rain-fed / rainwater harvesting ('watershed light') is demanding; groundwater, very demanding; and surface water, relatively easy as WUA likely to have already been established).

Technical Backstopping to CACP preparation and implementation. Appointed implementation agencies (in the public sector, recovery of incremental costs, no competitive procurement process: Agriculture Universities, Agriculture Research Institutes (such as CAZRI), or ARAVALI (Association for Rural Advancement through Voluntary Action and Local Involvement) to provide technical backstopping and advise. Field level implementation will not be done by these agencies.

Specialized NGOs (**SP#3**), competitively recruited by RACP PCU/SPV, to provide technical support on establishment of Farmer Producer Organizations; value chain development (i.e. creation of market linkages); or common property resources. Backstopping organizations will develop and provide training modules to SP#2 thereby ensure standardization / consistency in implementation approach across clusters)

² Estimated duration of CACP development cycle is still under discussion and will need to be finalized by PPT. The duration indicated vary in this aide-memoire and are currently considered illustrative.

Chapter 2: Stakeholder analysis and consultations

2.1 Objectives of IESA

The Department of Agriculture (DOA) of the Government of Rajasthan (GOR) is preparing the Rajasthan Agricultural Competitiveness Project (RACP) with proposed financing by the World Bank. The development objective of RACP is: to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan – each marked by different agro-ecological, climatic, water resource and social conditions – capable of significantly increasing agricultural productivity and farmer incomes. The guiding principles of RACP are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state’s water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state’s agro processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services.

The GOR recognizes the need to enhance and multiply the positive impacts and social and environmental benefits of RACP, as well as anticipate, avoid, minimize and/or mitigate the potential adverse impacts. As part of project preparation, the GOR has undertaken an integrated environment and social assessment (IESA) of the proposed RACP with the help of individual consultants. The IESA has been undertaken with the objective of identifying, assessing and mainstreaming the environmental and social dimensions of RACP in project planning, detailed design and implementation. The IESA would act as a decision-making tool to ensure that the project design and implementation are socially responsive and inclusive, and environmentally sound. The specific objectives of the IESA are to:

- Identify and consult primary stakeholders, including tribal and vulnerable groups, conduct relevant social and institutional analysis, and recommend criteria, mechanisms and procedures for selection and inclusion of targeted beneficiaries in project planning, implementation, and equitable benefit distribution while minimizing or mitigating risk and adverse impacts.
- Identify and assess the potential environmental and social impacts and risks of the interventions proposed under the RACP, and recommend mitigation measures;
- Identify opportunities for enhancing environment and social benefits, including proactive pesticide management measures for ensuring environmental sustainability of agricultural practices;
- Assess the applicability of i) World Bank’s Operational Policies (OPs) on Environmental Assessment (OP 4.10), Pest Management (OP 4.09), Forests (OP 4.36), Natural Habitat (OP 4.04), Involuntary Resettlement (OP 4.12), Indigenous People (OP4.10); and ii) Government of India (GOI) and GOR legislations and policies on environment and social issues which would apply to RACP; and
- Develop a simple and practical environment and social management framework (ESMF) that would be used by the RACP to screen and mitigate potentially adverse environmental and social impacts;

- Prepare guidance for preparing Environmental and Social Management Plans (ESMPs) for the Cluster Agriculture Competitiveness Plans (CACPs) being prepared during project preparation.

2.2 Methodology

The methodology for the IESA included:

- **Literature review:** Review of documents and operational experience from relevant Bank supported projects specially NAIP, RRLP, RWSRP, MACP etc. (project reports, MTR reports, ICR reports); Secondary data including government documents and data reports; Reports from other similar projects conducted by NGOs, Governments and donor agencies; Secondary research focussing on environmental assessment (EA) and social assessment (SA) of relevant Bank supported as well as other government and non-government projects in Rajasthan, and research studies.
- **Field Visits** to representative RACP clusters, water regimes (watershed, groundwater, canal water), NGO implementation areas and sites of innovation. Field visits in and interactions with farmers groups, self-help groups, livelihood groups, federations and producer companies;

Stakeholder Consultations: RACP stakeholders include small holder and marginal farmers, potentially project affected persons, water and natural resource user groups, farmers groups and federations, other livelihood groups, NGOs, Gram Panchayats, Krishi Vigyan Kendras (KVKs), government departments of agriculture, animal husbandry, irrigation, soil and water conservation, forests, rural development, tribal development etc. The consultation process included stakeholder consultations, village meetings, focussed group discussions with intended project beneficiaries and potentially affected social groups in sample RACP clusters, documentation and assessment of stakeholder profiles, expectations, influence, concerns, and potential roles and responsibilities in the planning, design, implementation and monitoring of RACP. During these consultations, information about the proposed RACP was shared with participants in the local language. In particular, free, prior and informed consultations with tribal groups in the project area, and assessment of broad community support ascertained for RACP³. . A state level workshop was organized before finalization of the IESA Report, including ESMF. All consultations were adequately documented, including through video and photography. Comments and feedback received from the participants are incorporated in this document.

- RACP conducted field work and held stakeholder consultation with men and women farmers, tribal groups, Panchayat representatives, local NGOs, government officials, agriculture commodity traders and farmers' producer companies in the Jaipur, Udaipur, and Banswara districts from November 23-30, 2011. Overall, the response to the project components and activities has been positive and was welcomed by the primary stakeholders.

³ in line with World Bank's operational policy on indigenous people (OP 4.10)

2.3 Outputs

The key outputs of the IESA are draft environment and social assessment reports and environment and social management frameworks. Based on the SA, the GOR has prepared a draft social management framework (SMF) which includes strategies for i) targeting and inclusion of small and marginal and tribal farmers; ii) Consultation and Participation in preparation and implementation of the CACPs; iii) mainstreaming gender issues and women's empowerment; iv) targeting, participation and inclusion of tribal people; v) dealing with risks related to food security, water/common resource-related conflict, and elite capture vi) participatory planning and decision-making on village infrastructure/commons. The GOR will continue to refine the IESA report and provide a robust and user friendly environment and social management framework to address the key environment and social issues. The SMF will be disclosed on Bank's info shop and locally before appraisal.

2.4 Stakeholder Analysis

The primary project stakeholders are farmers (women and men), agriculture labourers, livestock rearers, and associations of water resource users, wherever they exist (viz., water users association in canal command areas, watershed development committees in rain-fed and treated areas, and ground water management committees in ground water irrigated areas). A list of all the key stakeholders in project implementation is provided in Table 2.3 below.

Table 2.3: Stakeholder matrix

Stakeholder	Stakeholder characteristics and implications for RACP
Farmer – male - small and marginal (irrigated & rain-fed)	<ul style="list-style-type: none"> • Key stakeholders identified by the project, and constitute the majority of the rural community • Owners of land and decision-makers regarding the use and management of land as well as water resources • Also work as Agriculture labourers to supplement household income • Knowledge of local crops and market
Farmer – female (small and marginal lands)	<ul style="list-style-type: none"> • Key RACP stakeholders • Providers of major part of the labour in cultivation of crops, their harvest and post-harvest management • Little or no role in decision-making regarding crop choice, seed source, or cultural practices, even though they are the main category to be impacted by the project • Social and economic status linked with the land-holding
Farmer – medium/ large (irrigated/ rain-fed)	<ul style="list-style-type: none"> • Owners of land and decision-makers • Usually, holders of important leadership positions in the village/ Gram Panchayat, and amongst the first to receive knowledge and benefits from government extension services, schemes and programmes • Key players in decision-making regarding water use and management; could play a significant role in demonstration of key RACP-promoted techniques and new technology adoption • Knowledge of local crops and markets
Farmer – female (medium/ large land holdings)	<ul style="list-style-type: none"> • Social and economic status linked with the land-holding • Provide labour inputs in cultivation of crops, their harvest and post-harvest management
Sharecroppers	<ul style="list-style-type: none"> • Agriculture is their main source of livelihood • May also earn some income from agriculture labour at times
Landless labourer –	<ul style="list-style-type: none"> • Providers of labour for agriculture production

Stakeholder	Stakeholder characteristics and implications for RACP
agriculture labourer (male and female)	<ul style="list-style-type: none"> Any change of technology, crops and agriculture techniques could have an impact on their livelihoods Knowledge of local crops and traditional techniques Most often, agriculture labour is the mainstay for female labourers More female labourers belong to the marginalised SC and Adivasi communities than any other
Labourer – migrant worker/s	<ul style="list-style-type: none"> Agriculture is not the mainstay of their livelihoods, though they may benefit from agriculture and watershed interventions in the village
Labourer - child	<ul style="list-style-type: none"> In many districts of the state, child labour is a serious issue and needs to be addressed Child labour should not get an impetus on account of the project
Grazier – local (sheep/ goat rearer)	<ul style="list-style-type: none"> Depend on agriculture lands and common lands to graze/ stall their herds Manure of small ruminants, particularly sheep, is valued as fertilizer
Grazier – migrant shepherd	<ul style="list-style-type: none"> Depending on the area, they have a symbiotic/synergistic (where sheep manure is valued as fertilizer) or conflicting (where cropping intensity is high) relationship with the farmers
Dairying households/ cattle farmers	<ul style="list-style-type: none"> Affected only to the extent that a change in cropping patterns and crops may affect fodder availability and quality Could benefit from potential collective marketing of agriculture produce, and silvi-pastoral development on common lands
Agriculture input suppliers	<ul style="list-style-type: none"> In the absence of appropriate extension services, they are the key providers of information on inputs and technology
Agriculture produce traders/ local collection agents	<ul style="list-style-type: none"> Knowledge of markets Moneylenders and buyers of produce at the village level; small and marginal farmers most often owe them debts Play a major role in current marketing practices and could be a potential collaborator or competitor
SHG groups/ local cooperatives	<ul style="list-style-type: none"> Potential role in the marketing and post-harvest production management Agencies/vehicles for furthering project objectives and interventions
Water Users' Association/ Watershed Development Committee/ Groundwater Management Committee	<ul style="list-style-type: none"> Role in planning and management of water impounding micro-projects and water conservation measures Key role in collective decision-making regarding the use and management of water as a common resource Responsible for ensuring equity in water-sharing arrangements
Gram Panchayat	<ul style="list-style-type: none"> Constitutionally mandated and locally elected local governance institution responsible for agriculture as well as water resource management within its jurisdiction Custodian of common lands, including pasture lands in the Panchayat area Providers of land for establishment of common facilities proposed by the project, viz., RTC, warehouse, etc.

2.5 Objectives of the Field Assessment

The objectives of field visit were:

- i. Validate findings from the desk review;
- ii. Understand social and environment impacts of current agriculture development disaggregated by gender and marginalized groups;
- iii. Explore social and environmental impacts of interventions--water, agriculture and value chain-- proposed in RACP by gender and marginalized groups; and,
- iv. Explore social and institutional gaps for implementing the proposed interventions.

The following framework was developed to understand issues emerging from the field.

S.No.	Aspect of RACP	Water sector	Agriculture	Markets/ value
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		interventions	interventions	chain intervention
1	Perceived benefits			
2	Adverse impacts and concerns (identify groups likely to be affected); associated solutions			
3	Associated Risks: specifically exclusion, elite capture, displacement, loss of access etc.; Associated risk aversion measures			
4	Other issues and constraints with respect to identification, mobilisation, participation, inclusion, around water saving; associated approach for addressing the issues			
5	Innovation, best practices etc			
6	Feedback and overall suggestions			
	Suggestion on CACP formulation, implementation arrangements (general and specific)			

2.5 Field Consultations

The field consultations comprised: roundtable meeting at cluster level to understand relevant issues in key intervention areas; focus group meetings with various groups in the select villages/ panchayats; and, village transect and visits to farmers' lands. The table below shows details of field consultations held during November 22-28, 2011.

Field visit during 22/11/2011 to 28/11/2011

Date	District	Place	Village	Team
22/11/2011	Multi-stakeholder meeting	Office of the Jhotwara Panchayat Samiti, District Jaipur		Team-I and Team-II
23/11/2011	Jaipur	Boraj	Dhindha Hirnoda Bobas Bassi Jhajhed	Team-I Team-II
24/11/2011	Jaipur	Mokhampura	Akhepura Manpura Ganga ti Kalan Ganga ti Khurd	Team-I Team-II
25-11-2011	Udaipur	Palana Khurd	Jharna Palana Khurd	Team-I + Team-II
26/11/2011	Banswara	Bagora	Bhagora Tank	Team-I + Team-II

		Arthuniya	Lokiya	Team-I + Team-II
27/11/2011	Banswara	Patalia Rohida Sagvadi	Tribals meeting - Patalia Mal Dholpura Sodalia BhudanPura Sagvadi	Team -I Team -II
28/11/2011	Multi-stakeholder meeting	KVK, Banswara		Team-I and Team-II

Team-I: Awasthi, Alka; Rajshekhar; Sharma, Ladulal; and Singh, Dalbir

Team-II: Chopde, Shashikant; Mehta, Varsha; and Singh, N.P.

2.6 Issues arising from stakeholder consultations

Major issues that emerged from the field consultations are summarised below:

Agriculture

- Almost all the households in Bobas village of Boraj cluster are in the trap of indebtedness because of the substantial amount of loan ranging from ₹ 20,000 to ₹ 100,000 for the purchase of agriculture inputs and meeting the household needs. Widespread indebtedness of farmers also reported from other villages visited due to costs incurred on agricultural inputs including water resources
- Risks associated with high value high cost agriculture in an area with uncertain irrigation
- Fertilizer use had increased when access to irrigation improved.
- Problem of access to credit by small and marginal farmers
- Lack of timely supply of agriculture inputs including seed and fertilizers. Seeds bought from market and societies have failed to germinate in many cases but the suppliers are unwilling to compensate for losses
- MGNREGS has resulted in scarcity of labour in agricultural operations. But the trend of equal wages for men and women has started after introduction of MNREGS
- Mechanism of crop insurance is not desirable. Because the failure of crops is declared on the basis of tehsil level metrological data many farmers are unable to claim compensation if crop loss is less than 50% at tehsil level.
- Some of the farmers in Boraj cluster have already shifted from pea cultivation to cultivation of gram and mustard after ground water was exhausted
- Farmers feel that RACP will provide employment to agricultural labour and this will decrease migration from project villages
- Marginalization of small and marginal farmers in technologies and investments, training and capacity building
- Adaptation of project interventions, investments and POPs and training for uptake by small and marginal farmers
- Introduced crop varieties should be tested in the project areas and their performance should be compared with local varieties before introduction on farmer's fields

Livestock & pasturelands

- Lack of community management systems
- Encroachment by powerful farmers & private use. Pastures are overgrown with Prosopis and because of this people do not take small ruminants in these pastures for grazing. Even collection of fuel-wood is impossible in such pastures
- Change of land use for raising plantations and hence restricted access
- Sub-optimal productivity of pasturelands
- Herders of Gujjar families also do not have access to community pasturelands that are heavily encroached. They have to migrate in search of pastures
- Women from landless families mentioned that they kept goats for livelihood, but apart from the rainy season they faced acute shortage of fodder and had to buy it from other more well off families that kept milch animals and can afford to allocate land for fodder production
- Lack of breed improvement and livestock health care services
- Goat purchasers do not use weighing scales for ascertaining weight of goats
- Ownership and preference of livestock (small & large) is caste based
- Common resources including pasturelands and forests are critical for agriculture based livelihoods and consequently for raising agricultural incomes, therefore, management of commons should be addressed as overall strategy for agricultural competitiveness

Water

- Groundwater level falling by 10 ft. per year in Boraj. Farmers have 2 to 5 tube-wells each, many of the tube-wells have gone dry, and the tube-wells in operation produce water for a few hours per day. Farmers mention that ground water recharge does not happen even in good rainfall years. Some farmers are already practising rain-fed agriculture in this region after drying up of the tube-wells.
- With availability of tube-wells as wells and sprinklers farmers have been able to cultivate all their land i.e., area under cultivation has increased considerably after introduction of tube-wells since last 15 years.
- In NAIP areas visited water use by farmers has increased, and water reliability in open wells is decreasing
- In command areas farmers are not getting water for required number of irrigations. There is conflict among water users, some take more than their share and deprive users at the tail end
- There is no community based organization for management of water by users of command system of Bagoda. The canal system has significant leakages and is in need of repair. About 40% of the area has become saline.
- Even in the command area there are farmers who have no access to either canal water or groundwater; they are practising rain-fed agriculture.
- In Mokhampura cluster small farmers do not have access to water from village ponds because they have no money to rent pumps and pipes. The village pond filled this year after a gap of 15 years.

Institutions

- Farmers are not aware of the ATMA program going on in Bobas Panchayat of Boraj cluster
- Outreach of extension services very low in villages
- Existing people's organizations (livestock management groups, pastureland management groups, forest protection committees, women's groups) should be integrated into the organizations that will be facilitated in the RACP. This will also help in coordinating management of different ecosystems in the village/Panchayat
- Participation of women should be ensured in all people's organizations
- Special grant assistance to most vulnerable/landless etc. so that they are able to benefit from project interventions

Markets

- Keeping in mind the increase in output proposed, storage capacity is inadequate in Boraj mandi
- In rain-fed regions farmers experienced good crop in two out of ten years in the last decade. Considering the low agricultural output in most years they stated that constructing storage structures will not be useful. Also farmers cannot retain their produce as they have to sell their it immediately to pay back their loans
- Farmers are unable to get Minimum Support Price (MSP) because of monopolistic behaviour of the informal buyers/ traders who purchase the agriculture production at the lower as compare to prevailing market price.
- Limited access to the regulated markets especially in case of marginal and small farmers as they have the limited quantum of marketable surplus.
- If farmers are not satisfied by the auction price offered, they cannot afford to take back the produce and have to sell at lower than MSP price
- Small farmers lack information about market prices
- In rain-fed areas product quality is frequently sub-optimal because of which farmers get lower price
- Standardization required for estimating quality of agricultural product
- Mandis lack instruments for quality assessment; only visual estimation is done to decide the price
- Even in the case of agricultural produce which is purchased in the villages such as peas, the traders keep the prices low by mutual agreement
- Strong interest observed in villages visited in collective action for marketing

Existing value chains visited

- Package of practice (PoP) promoted by MPUAT relies on intensive use of chemical pesticides and fungicides and would have implications for environment
- Failure of saplings in nursery not compensated by production company (refer to meeting no. 26 with agriculture producer company in Jambu khand)
- About 300 demonstrations set up by Access Development Services for ginger production, 50 suffered total failure and 50-60 faced significant economic damage. Although in NAIP area of Udaipur the project claimed 100% success of

demonstrations, failure of demos can be expected rain-fed areas. Project should consider a suitable mechanism to minimize economic losses for small farmers

Gender

- Women mentioned that though they do most of the work in agriculture except for ploughing and selling, they have no role in decision making regarding purchase of inputs or selling of produce.
- Women expressed their interest that if they were given training on improved techniques, and market information relating to prevailing market prices, then they can understand the processes and participate in decision making.
- Very low coverage of women in extension programs (to training, decision making, exposure visits, markets & enterprises)
- Women are not recognized as farmers in their own right
- Disproportionate distribution of labour between men & women- and likely to be further skewed
- Women's workload will increase with introduction of high yielding crops and horticulture, but their drudgery can be reduced by introduction of labour saving devices
- Women's access to market interventions in the project can be enhanced by inclusion of existing women's groups in the institutions developed

Tribals

- Some of the farmers who do not have irrigation source meet their water requirement through water markets in which they are charged heavily for pump sets and pipes
- Resource poor farmers are unable to invest in pipes and are unable to access village ponds and other irrigation sources. Some farmers practice rain-fed agriculture even in command areas.
- Grazing lands available only in some villages and those are heavily encroached. Grazing in forest areas is also not permitted.
- Benefits of TAD schemes are routed through different departments and camps are organized for distribution of seeds etc. but many people are not able to avail the services due to lack of information or because the camps are held for a single day during which all beneficiaries may not be able to avail the service. Agricultural inputs such as seeds and fertilizers are distributed by concerned department but people have no proper knowledge of use of the inputs.
- In tribal areas women are able to attend mixed group meetings along with men, but are not able to interact freely. Adoption of practices by women will be better if some of the trainings are conducted with women only
- Major problems of agriculture include timely availability of seed and credit
- The farmers stated that the greatest bottleneck in raising agricultural incomes is the fact that they have to sell produce to the same moneylender from whom they meet their requirement of loans for agricultural inputs and therefore they are unable to get a good price agricultural produce

Experience from NAIP areas

- IPM and INM are not being implemented in toto
- No arrangements made for supply or local production of environmentally friendly bio-pesticides or bio-control agents
- Overall, NAIP demonstrates many technologies that have been transferred from lab to land, but emphasis is on demonstration of techniques and skills, but not on transferring knowledge to the communities
- Overall, while the Mahuli NAIP area shows impressive results in the short term, its impact on soil, water and environment is not being mitigated by suitable measures
- Similarly, on the social front, it has no significant community mobilization and organization efforts. Only small villages were selected in this project. RACP will have to look at different communication and community mobilization strategies considering the widely scattered habitations and large size of villages in proposed project area.

Chapter 3: Socio-economic baseline

3.1 Location

The State of Rajasthan is the largest state in India. Located in the North-West part of India, Rajasthan has a geographical area of 342,239 km². The state can be divided into four major physiographical regions namely the Western Desert, the Aravalli hills running south west to north east, Eastern Plains and South Eastern Plateau.

The state is overwhelmingly rural with more than three-quarters of the population living in rural areas. Two-third of the total geographical area is under Desert. The vastly varied geographical, ecological and social dimensions of the state make it difficult to deliver basic services of health, education and water to people.

3.2 Climate

The climate of the state varies from semi-arid to arid and can be broadly classified into four distinct seasons. Pre-monsoon, also the hottest season extends from March to June. In summer the average temperature ranges from 25° to 46° C. The monsoon occurs in the month of June in the eastern region and mid-July in the western arid regions. Rainfall distribution is highly variable, both in time and space. Annual rainfall across the state varies from more than 900 mm in the South-Eastern part to less than 100 mm in the west. The Post-monsoon season commences from mid-September to December. Winter season extends from December to February, January being the coldest month of the year. Minimum temperature in winter ranges from 2° to 10° C.

3.3 Water resources

Water demand in Rajasthan is met mainly from ground water resources. Ground water exploitation has caused depletion in water level. According to the Report "Ground Water Behaviour in the State" (December 2005), prepared by GWD, during the period 1995 to 2005, average ground water table in 28 districts has shown a decline.

Rainfall in large parts of Rajasthan is not only inadequate but also varies sharply from year to year. Consequently, droughts are now perceived as a normal and cyclical occurrence. Barely three to four years of the state's 52 years of existence have been totally drought free. Even in normal rainfall years the extraction of ground water exceeds recharge and in drought years the situation is worse (Report of the Expert Committee on Integrated Development of Water Resources, June 2005).

Rajasthan has only 1% of the country's total surface water resources. The average Rainfall is 58 cm. The period of monsoon is shortest, ranging around 2 to 2.5 months. Its onset is late and withdrawal early as compared to other States and one or two dry spells is a common phenomenon. Ninety percent of the total rainfall is received during monsoon season (July-Sept.). In addition to spatial variation in rainfall, there is great variation from year to year.

The surface water resource is scarce and confined to south and south eastern part of the state. Chambal and Mahi are the two perennial rivers of the state; other rivers are rain-fed and seasonal. The state is divided into 14 river basins.

3.4 Agronomy

The State's economy is predominantly agricultural and rural in nature, with wide fluctuations in the growth rate due to uncertainties in agricultural production. There has been a drastic decline in the share of the primary sector from 48 % in 1980-81 to 30% in 2000-2001. The decadal rates of growth for GDP in agriculture and allied activities in the state were (-) 0.53% and 2.72% for 1980/81-1990/91 and 1990/91-2000/01.

Agriculture in Rajasthan is primarily rain-fed. The crops grown are cereals (maize and wheat), millets, pulses, oil seeds and other cash crops. Frequent drought due to irregular rainfall exposes households with a fragile livelihood base to various uncertainties, risks and stress that have a direct impact on people's access to essential commodities and resources.

The diversity of crops grown in the state is shown in the map below (Figure 3.1).

Figure 3.1: Crop distribution pattern in Rajasthan



3.5 Demography

According to the Census of India 2011, the population of Rajasthan is 68,621,012 persons with a population density of 165 persons per sq. km. The population comprises 51.91% males and 48.09 % females with a sex ratio of 926 females per 1000 males. The percentage decadal growth rate in the period 2001-11 in the state has been high at 21.44%, being higher than the national growth rate of 17.64% for the same period. With 6% of the country's population, Rajasthan ranks 8th among all the states and UTs according to its population.

Rajasthan has the fifth highest percentage of children in the age-group 0-6 years among all states and Union Territories. Analysis of gender composition shows that the decline in females is much more than in males.

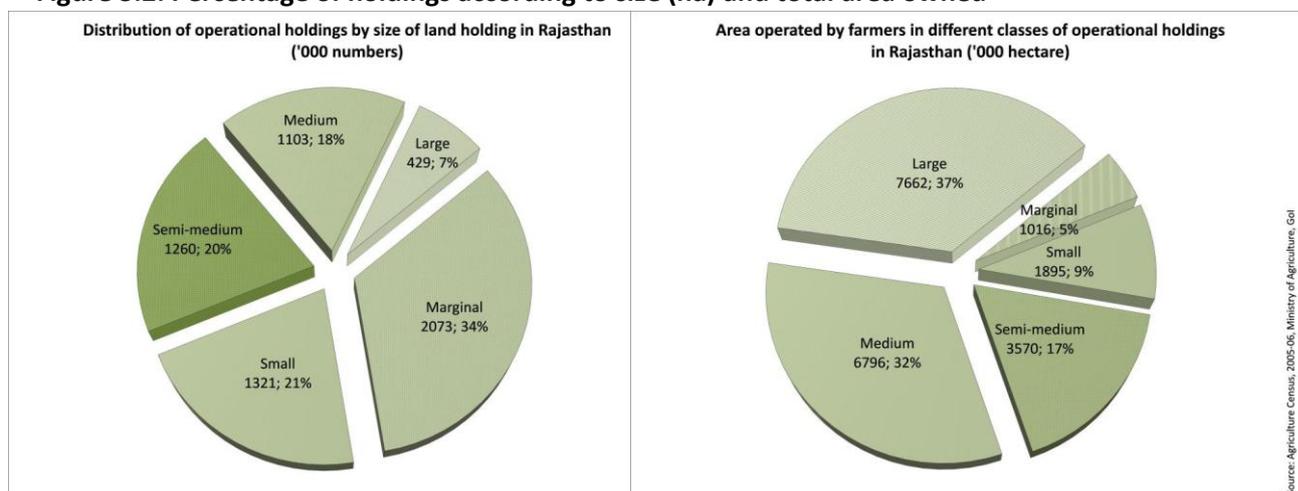
Sex ratio, a measure of gender equity, has been declining across the country, and stood at 940 in 2011. The situation is worse in Rajasthan, although there has been a slightly positive growth in the sex-ratio from 921 in 2001 to 926 in 2011. However, these figures are deceptive as sex-ratio in 1-6 years age group is declining alarmingly, decreasing from 909 in 2001 to 883 in 2011.

3.6 Socio-economic indicators

Rajasthan shows the highest growth in real GDSP among the large Indian states during 1980-97. The long term trend rate of growth during 1980-2006 is estimated at little below six percent, putting Rajasthan among the best performing states of India. The growth has however, slowed down in the new millennium primarily due to slowing down in the primary sector, mainly agriculture – the largest employment sector, since 1997-98.

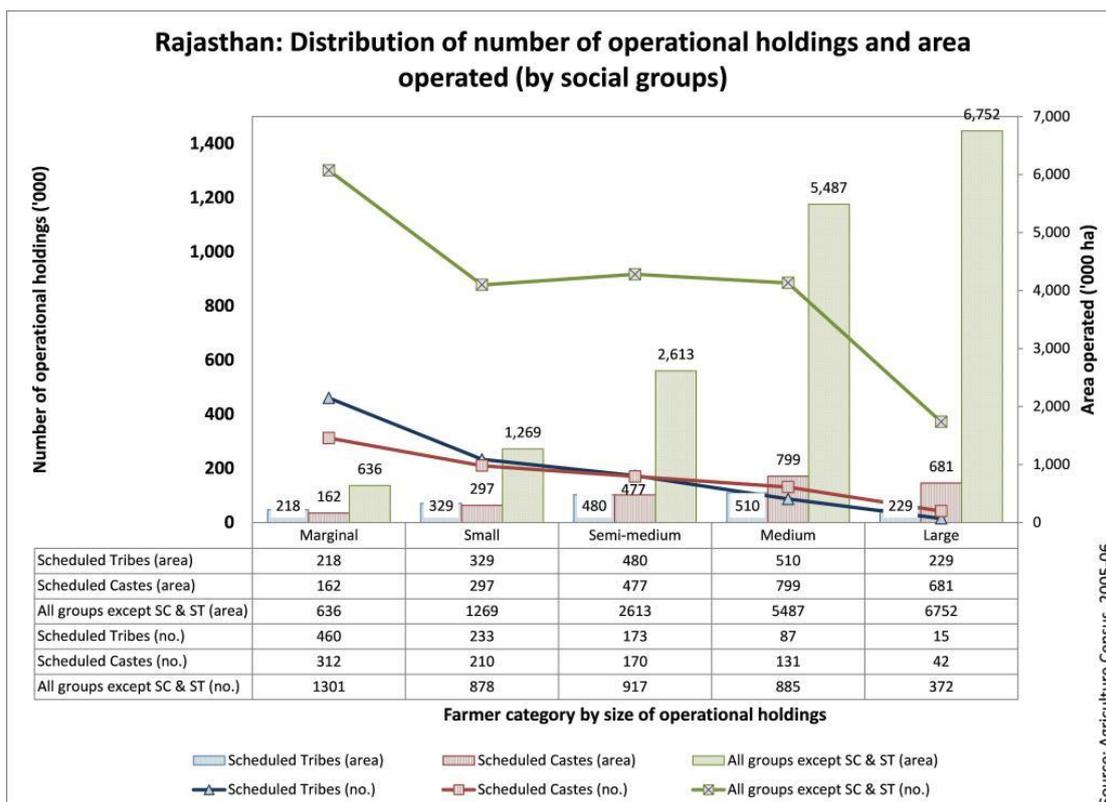
Census data for 1991 and 2001 on the distribution of workers suggest that majority of the workers are still engaged in agriculture for their livelihood. However, for male workers added to the workforce during 1991-2001, the pattern of sectoral absorption has been different. There has been a reduction of male workers in agriculture, and from among the incremental workers, only women have joined this sector. This implies greater opportunities for the male workers on the one hand but also feminization and aging of the (male) work force in agriculture.

Figure 3.2: Percentage of holdings according to size (ha) and total area owned



About 63% of the total cultivation is under Kharif season and is mostly dependent (91%) on rainfall, which is uneven, aberrant and uncertain. About 64% of the irrigated area (68.09 lac ha.) is under wells and tube-wells. The underground water is unsecured as the water table is falling down at the rate of one to three meter per year. Approximately 35% of the irrigated area is under canal irrigation where water delivery (canal opening) is not coinciding with critical crop growth stages. Mono-cropping system is predominant in almost all the 10 Agro Climatic Zones.

Fig. 3.3 Social group-wise distribution of operational holdings



Of the total area approximately 342 lakh ha. is under cultivation with an average cropping intensity of 124.35 percent during 1999-2000. According to Land Use classifications, 45.35% is culturable land, 14.5% of land is culturable waste, 15% fallow land, 7.5% under forest, 5% under pastures and grazing land and 12.6% is put to non-agricultural uses or is not available for cultivation. Due to three consecutive drought years, net sown area has reduced by 4.5% which has resulted in consequent increase in fallow land from 10.5% in 1997-98 to 15% in 1999-2000. Irrigation covers approximately 68.09 lakh ha. i.e. about 31% of the Gross Cropped Area. Cropping Intensity and Irrigation Intensity in the State is 124.15 % and 123.56 % respectively (1999-2000).

Besides agriculture, livestock is the main rural activity in the vast areas of Western Rajasthan. Rajasthan has livestock population of 54.35 million, which comprises 12.16 million cattle, 9.76 million buffaloes, 14.31 million sheep, 16.94 million goats and 0.67 million camels & 0.51 million others. In Western Rajasthan nearly two-third of the

population is engaged in Animal Husbandry and allied activities. The livestock in Rajasthan contribute to 11% of the national milk production, 40% meat and 42% of the country's wool. Agriculture and allied sector contributes to nearly 34% to State's Net Domestic Income out of which the contribution of Animal Husbandry is 19%. (Source: RajasthanKrishi.gov.in)

The livestock sector has been the major driver of agricultural growth, accounting for about 33% of the total value of agricultural output in the state in the triennium ending 2001-02. Animal husbandry is important not only as a source of livelihood, especially in the arid and semi-arid areas, but also as a means of insurance against frequently occurring scarcity conditions. Income from livestock accounts on average for 30% to 50% of household incomes. Livestock management is also very intensive, with a high concentration of women contributing to it.

The livestock sector is more labour intensive than crop cultivation and accounts for a major share in rural employment with 4.5 percent annual growth as compared to 1.75 percent of all sectors and 1.1 percent for agriculture.

In the western regions of the State the economy is livestock based, which include the districts of Ganganagar, Hanumangarh, Bikaner, Jaisalmer, Churu, Jodhpur and Barmer (where the average annual rainfall ranges between 20 to 35 cm.) as well as Jhunjhunu, Sikar, Nagaur, Pali and Jalore (where the rainfall ranges between 35 to 50 cm.).

Goats and sheep are important in the livelihood strategies of small and marginal landowners as well as of the landless. Goat rearing is widespread across Western Rajasthan, particularly the desert areas. The fodder deficit in the Western Rajasthan accounts for 30-50% of the requirements in normal rainfall years but in the drought years the deficits could be very high. It was observed that drought of 1999 forced nearly 78% of the livestock to migrate from the Barmer district followed by 70% from the Jaisalmer and 20% from the Jodhpur districts.

According to a study conducted by Basix (Shepherd Community – Status and Options) in western Rajasthan, sheep and goat rearing does not provide full time employment to the Shepherds and, as such, they are grossly under- employed. Based on the sample studied in Barmer district, authors conclude that sheep and goat rearing yields only 48 per cent of total household income and shepherd households are forced to go for some other (supplementary) sources like custom labour, dairying and driving of camel carts for transportation. It was also observed that quite a few Shepherds had more than 100 sheep and goats and their dependence on supplementary sources of income was obviously low. Thus, agriculture and custom labour are not very important sources of income for the households who had large flock size of sheep and goats. Farm land constitutes 54 per cent of the total value, but as stated earlier, the contribution of crop farming to total household income has been insignificant, perhaps due to extremely low productivity of crops. Total share of assets in terms of cows, camels and sheep/goats has been 31 per cent of the total value.

National Sample Survey (NSS) region level data suggests that the rural part of Southern Rajasthan has the highest poverty rate in Rajasthan, at over 35%. District-level measures of aggregate human development for Rajasthan's 32 districts show that the Northern districts of Ganganagar and Hanumangarh are ranked highest in human development, while the Southern districts of Dungarpur, and Banswara lag the most. Western districts of Barmer, Jaisalmer, Jalore and Nagour were found to be the lowest in female literacy. The composite Human Development Index (HDI) measures put Rajasthan at 9th rank among India's 15 major states for 2001. The rural poor account for 84 % of poverty in Rajasthan, and over three quarters of them are dependent on agriculture.

3.7 Rajasthan - Human Development Indicators

Rajasthan has traditionally been classified as a state ranking low on human development. According to the Human Development Report Rajasthan (2008) the state exhibited slow progress on almost all economic and social and health indicators up till the 1980s. In the 1980s, like most other southern and north-western states Rajasthan too began to display improvement in its economic and social performance. Economic growth rates rose, poverty proportions noticeably reduced, literacy rates visibly improved, and there was an all-round improvement in the infrastructure. But sharp differences in social attainment exist between the far western districts (e.g. low literacy rates and extremely adverse sex ratios in Jaisalmer, Barmer) and some eastern ones (e.g. low female literacy and high infant mortality in Bharatpur, Dholpur) on the one hand, and the rest of the districts, on the other.

The literacy rate among males in Rajasthan in 2001 was 75.70% and among females 43.85%, up from 54.99% and 20.84% respectively, in 1991. These numbers make Rajasthan among the best performers on this count during the decade. Consequently, the gap between literacy rates in the state compared to the national aggregate has reduced from being 15% points in 1991 to a mere three percent points in 2001. In the incremental populations, SC/ST groups—despite the age-old discrimination (against SCs) and isolation (among STs)—have experienced a virtual equality in literacy: the incremental literate to incremental total population ratio among SC/STs, and the same ratio among total incremental population in this period, has been almost unity.

Over the 1990s and early 2000s, enrolment rates at the primary level were rising and gender gap converging, though female enrolment rate is still to catch up with that of male. According to NSS sources, the net enrolment ratio for SC/ST girls during 1986–87 to 1995–96 increased from 14% to 41% in rural Rajasthan, in contrast to that of all girls' enrolment increasing from 25% to 42%. A serious problem, though, is the high drop-out rate; only about 60% children who enroll in class 1 reach class 8. In none of the districts do all who enroll in class 1, reach class 8. The problem of school dropouts is worst in the districts of Baran, Banswara, Dungarpur, Jaisalmer, Nagaur, Rajsamand and Sirohi— each lying either in a geographically difficult region (the desert) or ST habited region (the south), other than Nagaur. Girls' toilets are available in less than 50 per cent of the primary schools in any of the districts. Districts having the least of number of schools with girls' toilets are Baran, Barmer, Dungarpur, Jalore, Jodhpur, Karouli and Udaipur, most of which show poor performance enrolment or retention.

Health status is assessed on the basis of health outcomes of a population, reflected in such indicators as life expectancy at birth, mortality rates – infant, child and maternal mortality rates, as well as incidence of morbidity and malnutrition. Human Development Report, 2002 brought out the dismal picture the health status of the state in spite of progress made with respect to control of communicable diseases such as small pox, leprosy, guinea worm and pulse polio.

Rural Population in Rajasthan is estimated to consume highest calories, amongst major Indian states. Per capita consumption of vitamins and micro-nutrients is also significantly greater than Recommended Dietary Allowance (RDA). Yet, when it comes to the health outcomes, the state reflects rather poorly. Recent estimates on the health of women and children clearly bring out this point. One third of the women in 2005-06 are estimated to have lower than the normal Body Mass Index (BMI). More than half of the ever married women between 15 and 49 years are estimated to be anaemic while 80 percent of the children between 6 and 35 months are anaemic. Forty-four percent of children under three years of age are found to be under weight. This number has not changed during 1992 to 2005.

Maternal Mortality Ratio (MMR) at 445 in Rajasthan is lower only to Assam (490) and Uttar Pradesh (517) during 2001-03 in the EAG states. All other EAG states perform better than Rajasthan in lowering maternal mortality rate.

Infant mortality rate (IMR) in the state has maintained near stagnancy for most of the nineties. Besides, decline in IMR, as estimated for decennial census data, is highly uneven across districts.. In Alwar, Ajmer, Tonk and Sirohi, IMR declined by over 24 per 1,000 live births, while in Jhunjhunu, Sawaimadhopur, Dungarpur, Dausa and Banswara IMR increased between 12 and 17 per 1,000 live births. What is unique to the spatial distribution of decline in IMR is that low population density, central and western districts of the state, witnessed sharper decline in IMR while the densely populated areas of the North- east and tribal districts of south witnessed an increase in IMR.

Life expectancy improved marginally from 59.1 years during 1991-95 to 60.8 during 1997-2001. Broadly, the northern and eastern districts of the state show little improvement in IMR and/or life expectancy at birth. Decline in the IMR is sharper during the new millennium. The aggregate IMR declined from 85 in 1995 to 80 in 2001 and further to 67 in 2004. (SRS Bulletin, April 2006). The rural IMR has declined from 90 in 1995 to 74 in 2004 while urban IMR observed a sharper decline from 62 in 1995 to 42 in 2004.

The incidence of child malnutrition in Rajasthan, as per the National Family Health Survey, was higher at 51.2 per cent in 1998–99 than the all-India average of 47.8.

3.8 Food insecurity in the state

The Food Insecurity Atlas (2010) has analyzed data from government sources to identify the most food insecure districts of the state. These areas show low harvest, low female literacy and below-average health indicators.

The most food insecure districts in Rajasthan are located in the sub-humid southern plains and western arid plain. The areas requiring priority attention are:

- whole southern region, including Banswara, Dungarpur, Rajsamand and Udaipur
- 8 out of 11 districts in the western arid region, including Barmer, Jaisalmer, Pali, Sirohi, Bikaner, Jalore, Nagaur and Jodhpur
- 6 districts namely Ajmer, Bhilwara, Karouli, Sawai Madhopur, Tonk and Dholpur, out of the total 12 districts in the north-eastern region; and
- 4 of the 5 districts of south-eastern region, including Baran, Chittaurgarh, Jhalawar and Bundi.

Many of these districts are inhabited by a high proportion of Scheduled Tribe (ST) population while in some of these districts, there is also a high proportion of Scheduled Castes (SC). These areas also have a high proportion of agricultural labourers and low wage rates. Women's literacy rate is dismal in these districts, which is taken as a proxy for women's status. Rural connectivity too is poor in most of these food insecure districts.

The irrigated north-western districts, parts of the humid south-eastern plain and certain districts in the inland drainage region and the semi-arid eastern plain are relatively secure regions.

Caste and tribe are important determinants of vulnerability. In general, both ST and SC have been traditionally excluded from many of the resources and service. This situation persists in Rajasthan, as was evident from a survey undertaken (UNWFP, 2001), although clearly some aspects have improved. The following household types were found to be vulnerable in the studied areas:

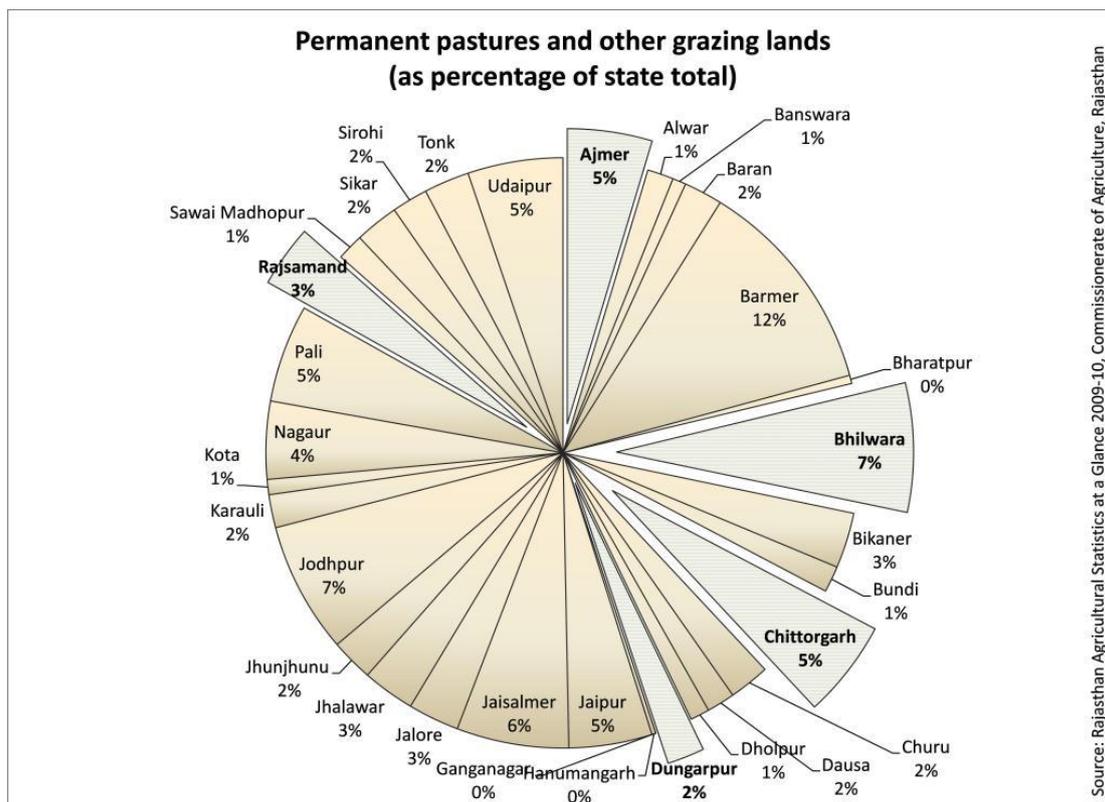
- Remotely located households
- Landless households and those with marginal land holdings and few assets
- Scheduled Caste (SC)
- Scheduled Tribe (ST)
- Disadvantaged head of household
- Women and children

3.9 Common Lands in Rajasthan

Permanent pastures and other grazing lands in the state of Rajasthan, measuring 1.7million hectares, constitute 5% of the total geographical area of the state, with wide variations between districts (ranging from 0.01% in Ganganagar to 12.7% in Rajsamand, as percent of total geographical area of the district). Higher proportion of pastures and grazing lands are available in the Bhilwara region (comprising Bhilwara, Chittorgarh, Pratapgarh and Rajsamand districts), and lowest in the Ganganagar region (comprising Bikaner, Churu, Ganganagar and Hanumangarh districts).

As a percentage of the state total, the highest contributors are Barmer, Bhilwara, Jaisalmer and Jodhpur. The district-wise share of permanent pastures and other grazing lands in the

state is as shown in figure3.3 below. **Figure3.3: Permanent pastures and other grazing lands in Rajasthan**



The area under “culturable wastelands” in the state is reported as 4.57 million hectares, or 13.3% of the state’s geographical area, and “fallows other than current fallows” constitute 2.16 million hectares (6.3%). Permanent pastures and other grazing lands, culturable wastelands, and fallows other than current fallows together constitute approximately 25% of the state’s geographical area.

3.10 Zone -wise socio-economic and development indicators

There are 10 agro-ecological zones in Rajasthan. The boundaries of agro-ecological zones do not coincide with administrative boundaries, but census data is available for districts. Therefore, for the purpose of this study, the districts are group into agro-ecological zones as mentioned below:

Table 3.1 Main features of Agro-ecological zones

Zone	Rainfall	Max. temp	Min. temp	Kharif major crops	Rabi major crops	Soils	Districts
IA-Arid Western	200-370	40	8	Pearl millet, Moth bean, Sesamum	Wheat Mustard, Cumin	Desert Soils and sand dunes aeolian soil, coarse sand texture some places calcareous	Jodhpur, Barmer
1B-Irrigated North Western Plain	100-350	42.0	4.7	Cotton, Cluster bean	Wheat, Mustard, Gram	Alluvial deposits calcareous, high soluble salts & exchangeable sodium	Sriganganagar Hanumangarh
1C-Hyper Arid Partial Irrigated Zone	100-350	48.0	3.0	Pearl Millet Moth bean, cluster bean	Wheat, Mustard, Gram	Desert Soils and sand dunes aeolian soil loamy coarse in texture & calcareous	Bikaner, Jaisalmer, Churu
IIA-Internal Drainage dry zone	300-500	39.7	5.3	Pearl millet, Cluster bean, sorghum	Mustard , gram	Sandy loam, shallow depth red soils in depressions	Nagaur, Sikar, Jhunjhunu, part of Churu
IIB-Transitional Plain of Luni Basin	300-500	38	4.9	Pearl millet, Cluster bean, Sesamum	Wheat Mustard,	Red desert soils in Jodhpur, Jalore &Pali sierozems in Pali & Sirohi	Jodhpur, Jalore, Pali, part of Sirohi
IIIA-Semi-Arid Eastern Plain	500-700	40.6	8.3	Pearl millet, Cluster bean, sorghum	Wheat Mustard, Gram	Sierozem, eastern part alluvial, west north west lithosols, foot hills, brown soils	Ajmer, Dausa, Jaipur, Tonk
IIIB-Flood Prone Eastern Plain	500-700	40	8.2	Pearl millet, Cluster bean, Groundnut	Wheat, Barley, Mustard, Gram	Alluvial prone to water logging, nature of recently alluvial calcareous has been observed	Alwar, Dholpur, Bharatpur, S. Madhopur, Karouli
IVA-Sub humid Southern Plain	500-900	38.6	8.1	Maize, Pulses, sorghum	Wheat, Gram	Soils are lithostat in foot hills & alluvials in plains	Bhilwara, Chittorgarh, Rajsamand
IVB-Humid southern	500-1100	39.0	7.2	Maize, Paddy, Sorghum, Black gram	Wheat, Gram	Predominantly reddish medium texture, well drained calcareous, shallow on hills, deep soil in valleys	Dungarpur, Udaipur, Banswara, Pratapgarh
V-Humid Southern Eastern Plain	650-1000	42.6	10.6	Sorghum, Soybean	Wheat Mustard,	Black of alluvial origin, clay loam, ground water salinity	Kota, Jhalawar, Bundi, Baran

Regional variation in the level and growth of income is manifested in differences in resource endowments across regions/districts on the one hand, and diversification of economic activity including urbanization, on the other.

3.10.1 Zone IA Arid Western Region

This zone includes the districts of Jodhpur and Barmer. Soil types in this zone are desert Soils and sand dunes aeolian soil, coarse sand texture and in some places calcareous. Sources of irrigation are wells and tube wells. Major kharif crops are pearl millet, moth bean, sesamum and rabi crops are wheat, mustard, and cumin.

In this zone 59 to 78 % of the population is reported to be in the primary sector. The average land holding varies from 8.08 ha in Barmer to 10.95 ha in Jodhpur district. Irrigated area ranges between 10 and 19%. Per capita income at current prices (2004-2005 data) is Rs.16791 in Jodhpur and Rs. 1195 in Barmer district.

Regarding the Human Development Index, the two districts in this zone show wide variance. Jodhpur district ranks 9th on the HDI in Rajasthan, but Barmer district holds the 21st rank having low coverage of toilet facilities (11.72% 2001 data) and high IMR of 82.30.

3.10.2 Zone 1B Irrigated North Western Plain

The zone includes the districts of Sriganganagar and Hanumangarh. Annual rainfall ranges from 100 to 350 mm. In Sriganganagar district about 77% of the sown area is irrigated, in Hanumangarh district this amounts of 45% of the area. Soil types include alluvial deposits calcareous high in soluble salts and exchangeable sodium. Major Kharif crops are cotton and cluster bean and rabi crops are wheat, mustard and gram. Due to abundance of canal water irrigation this region has become the granary of Rajasthan.

In this zone 61 to 76% of the population is engaged in the primary sector. The proportion of scheduled caste population is high (between 26 to 34% in 2001 census) as compared to other districts. Both the districts rank high on the human development index in Rajasthan, Hanumangarh district having the first rank, and Sriganganagar district having the fifth rank. Both districts have more than 80% coverage of toilets at household level and about 75% coverage of safe drinking water. The per capita income ranges from Rs. 18940 to Rs. 20322 (2004-05). But juvenile sex-ratio is low ranging from 872 to 850. Total fertility rate is low being 2.1 to 2.2.

3.10.3 Zone 1C-Hyper Arid partial Irrigated Zone

Bikaner, Churu and Jaisalmer districts fall under this agro-climatic zone. Soil types are desert soils and sand dunes aeolian soil which is loamy coarse in texture and is calcareous in nature. Irrigated area is 19-22%, but extremely low i.e., less than 6% in Churu District. Average land holdings range from 8.02 to 10.16 ha but cropping intensity is low being 110.6 to 121.8 (2005-06). Worker participation in the primary sector ranges from 52.5% in Jaisalmer district to 76.9% in Churu district. Major kharif crops are Pearl Millet, Moth bean, cluster bean and rabi crops are Wheat, Mustard, and Gram.

Female literacy is low about 28% in rural areas but it is comparatively higher in Churu District (51%). Compared to other zones, the total fertility rate in this zone is high being 3.2 to 4.2.

Decadal growth was high ranging from 34 to 47.5 in both the arid zones (1A and 1c) during 1991 to 2001, except in Churu district where it was about 25%. Bikaner district shows low IMR (55.06), highest life expectancy in Rajasthan (75.39%), and good coverage of health services as shown by population served per bed which is 726.

3.10.4 Zone IIA-Internal Drainage Dry Zone

This zone comprises Nagaur, Sikar, Jhunjhunu districts and some tehsils of Churu district. The area is covered in sand dunes and inter-dunal sandy plains. Climatically, this zone is slightly wetter as compared to the western arid zone. Major kharif crops are Pearl millet, Cluster bean, sorghum and major rabi crops are mustard and gram.

Proportion of SC and ST in rural population varies between 18 and 21.4% in the districts of this zone. The proportion of agricultural labour in the population is very low ranging from 5 to 8 %, except for Nagaur district where the percentage is 11.5%. This is because of the constraints in the agricultural sector in this region to absorb labour.

Literacy ranges from 57 to 73%; highest rate of rural female literacy is recorded in Jhunjhunu district (59.2%). According to 2001 census data only 47.62% of the households in Nagaur district have access to safe drinking water, on the other hand in Jhunjhunu district more than 71% of the households have access to safe drinking water.

3.10.5 Zone IIB-Transitional Plain of Luni Basin

This area lies between the Aravalli ranges and the western arid region. The region encompasses districts of Jalore, Pali and some tehsils of Sirohi and Jodhpur districts. The region is drained by the river Luni which flows only during the rainy season. Major soil types in this zone are Red desert soils in Jodhpur, Jalore & Pali, and sierozems in Pali & Sirohi. Major sources of irrigation are wells, tube wells and tanks. Average land holdings range from 2.84 to 5.56 ha. Major kharif crops are Pearl millet, Cluster bean, Sesamum and major rabi crops are Wheat Mustard, Gram.

The proportion of SC in the population ranges from 17 to 19%, ST from about 6 to 9 % except Sirohi district where ST form about one-fourth of the population and SC & ST together form 44% of the population. Female literacy in rural population ranges from 26 to 31%. Gender ratio in rural population of Pali district is 1000 (2001 census). Female participation in the workforce is 46% in Jalore district. Access to sanitation facilities is low ranging from 12 % in Jalore district to about 21% in other districts. Less than 39% of villages in Jalore district have access to electricity. Jalore and Pali districts rank 29th and 28th respectively on the HDI among districts of Rajasthan.

3.10.6 Zone IIIA Semi-Arid Eastern Plain

This region comprises of four districts Ajmer, Dausa, Jaipur and Tonk, which form a rich fertile plain. Ajmer and Jaipur districts have 47.8 and 41% of the population in the primary sector. The HDI is highest in Jaipur District holding fourth rank in the State, in other districts it ranges from 0.571 to 0.677. Per capita income varies from Rs. 16043 in Tonk District to Rs. 21937 in Jaipur District.

The soil types in the zone are sierozem, alluvial, lithosols, and brown soils. In this zone major sources of irrigation are tube-wells and wells but in Tonk District canals form a major source of irrigation. Average land holding is low compared to the western arid zone; it ranges from 2.14 to 3.06 ha. Gross irrigated area is low in Ajmer District being 15.31% but higher in remaining districts ranging from about 39 to 51%. Major kharif crops are Pearl millet, Cluster bean, sorghum and major rabi crops are wheat, mustard and gram.

The literacy rate ranges between 54 to 75.3%. IMR is lowest in Jaipur district (71.7) and highest in Tonk District (96). Access to toilet facilities is low in Tonk and Dausa District (about 15 to 17 % households), comparatively higher in Ajmer District (37.7%) and highest in Jaipur District (49.44%). Sex-ratio in the 0 to 6 years age group is low ranging from 899 (Jaipur District) to 927 in Tonk District.

3.10.7 Zone IIIB Flood Prone Eastern Plain

This region comprises the districts of Alwar, Karouli, Bharatpur and Dholpur. The region has rich alluvial soils, the fertility of which is replenished each year by flood water of the rivers. Soil type is alluvial prone to water logging. Major kharif crops are pearl millet, cluster bean and groundnut, major rabi crops are wheat, barley, mustard and gram. Average land holdings range from 1.4 to 1.7 ha, with the exception of Sawai Madhopur where it is 2.12 ha. About 71 to 74% of workers are reported to be in the primary sector except for Dholpur with 56% of the population in the primary sector. The HDI ranks vary from 19th to 30th except for Alwar which ranks 6th in Rajasthan.

3.10.8 Zone IVA Sub-humid Southern Plain

The region covers Bhilwara, Chittorgarh and Rajsamand districts. The soil types in this region are lithostat in foot hills and alluvial soils in the plains. Major kharif crops are maize, pulses, sorghum and rabi crops are wheat and gram.

The participation of workforce in the primary sector ranges from 54.6 to 77.2%. The zone fares worst in the case of the human development index as compared to the other zones, the ranging from 0.558 to 0.633, with the HDI ranks of the districts ranging from 15 to 27 in the state. However the per capita income ranges from Rs. 16861 in Chittorgarh district to Rs. 24110 in Bhilwara District. Average land holding size is small ranging from 1.62 to 2.11 ha with gross irrigated area ranging from 24.45% to 38.43%. The literacy rates range from 53.80 to 59.50% which are comparable to the highest rates in the state. The zone has the highest infant mortality rates (96.30 to 100.7) among the zones, but the best figures for sex-ratio i.e., from 929 to 949.

3.10.9 Zone IV B Humid Southern Plains

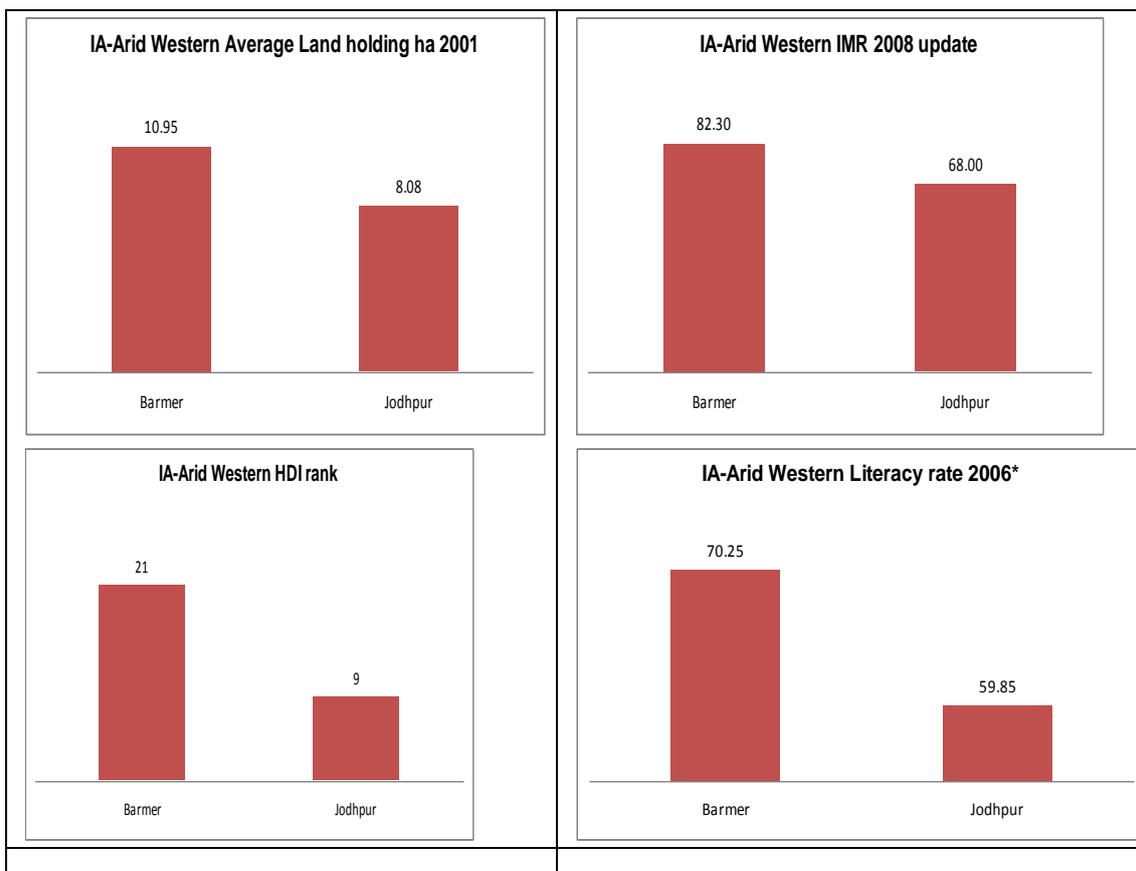
The Districts of Dungarpur, Banswara, parts of Udaipur and Pratapgarh are included in this region. The area comprises of low Aravalli hills. The climate is humid with average rainfall of more than 700 mm per year. There are a number of surface water streams. Soil types are predominantly reddish medium texture, well drained calcareous, shallow on hills, deep soil in valleys. Major kharif crops are Maize, Paddy, Sorghum, Black gram and major rabi crops are wheat and gram.

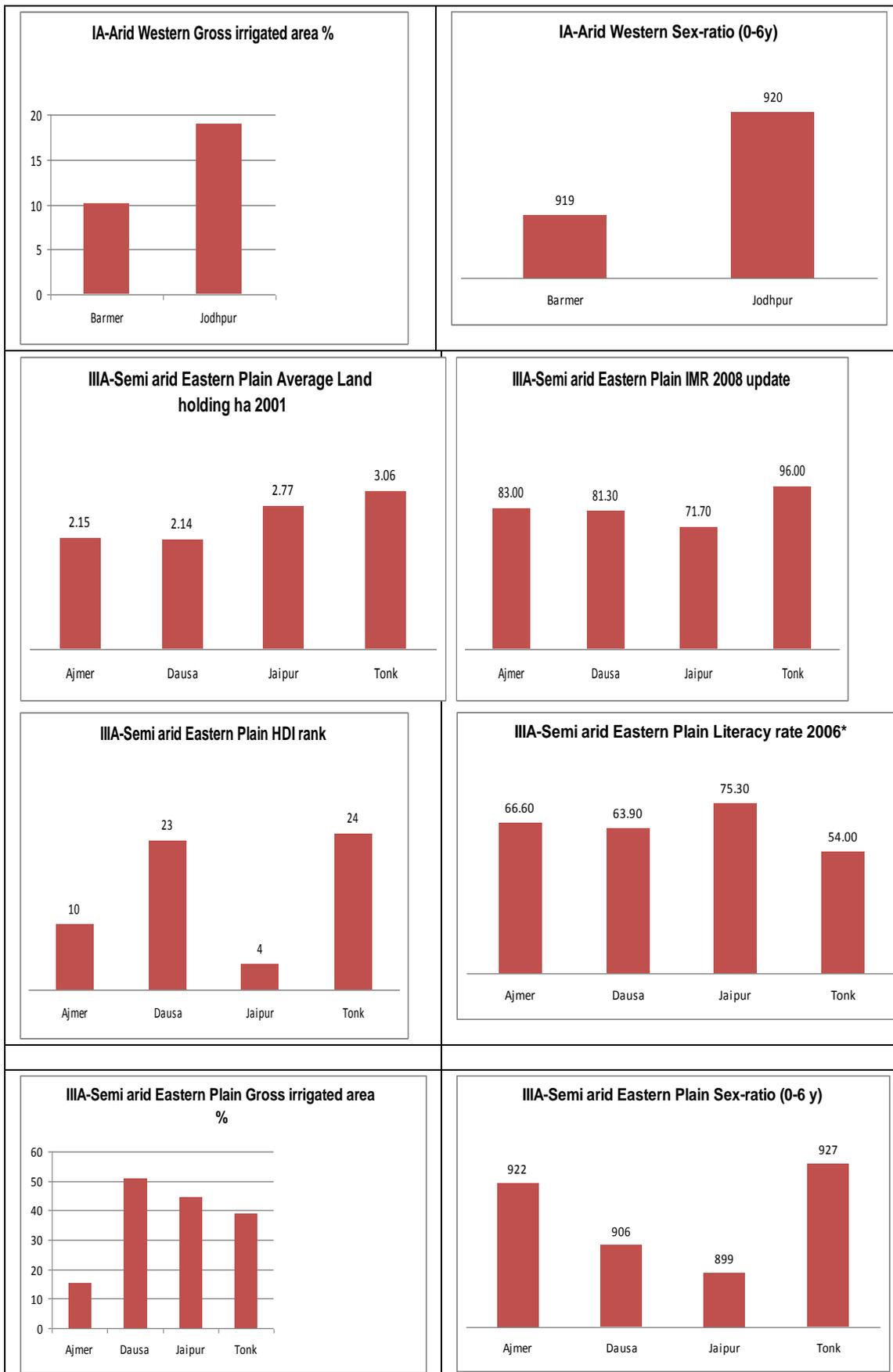
In Banswara 85%% of the workers are engaged in the primary sector. Average land holdings range from 1.3 to 1.57 ha. Per capita income in Udaipur is Rs. 17925 but low in other districts i.e., Rs. 11825 in Banswara District and Rs.12474 in Dungarpur District. Access to household toilet facilities is 11.38 % in Dungarpur District and 12.59% in Banswara District. IMR is low in Banswara and Dungarpur District being 53.43% and 49.91% respectively. Gender ratio is 1028 among ST population in Dungarpur District. Banswara District shows low literacy rate which is 57.7% among males and 24.43% among females. Percentage of ST in the population ranges from 47 to 72%. Banswara and Dungarpur districts rank lowest (31st and 32nd respectively) on the HDI in Rajasthan.

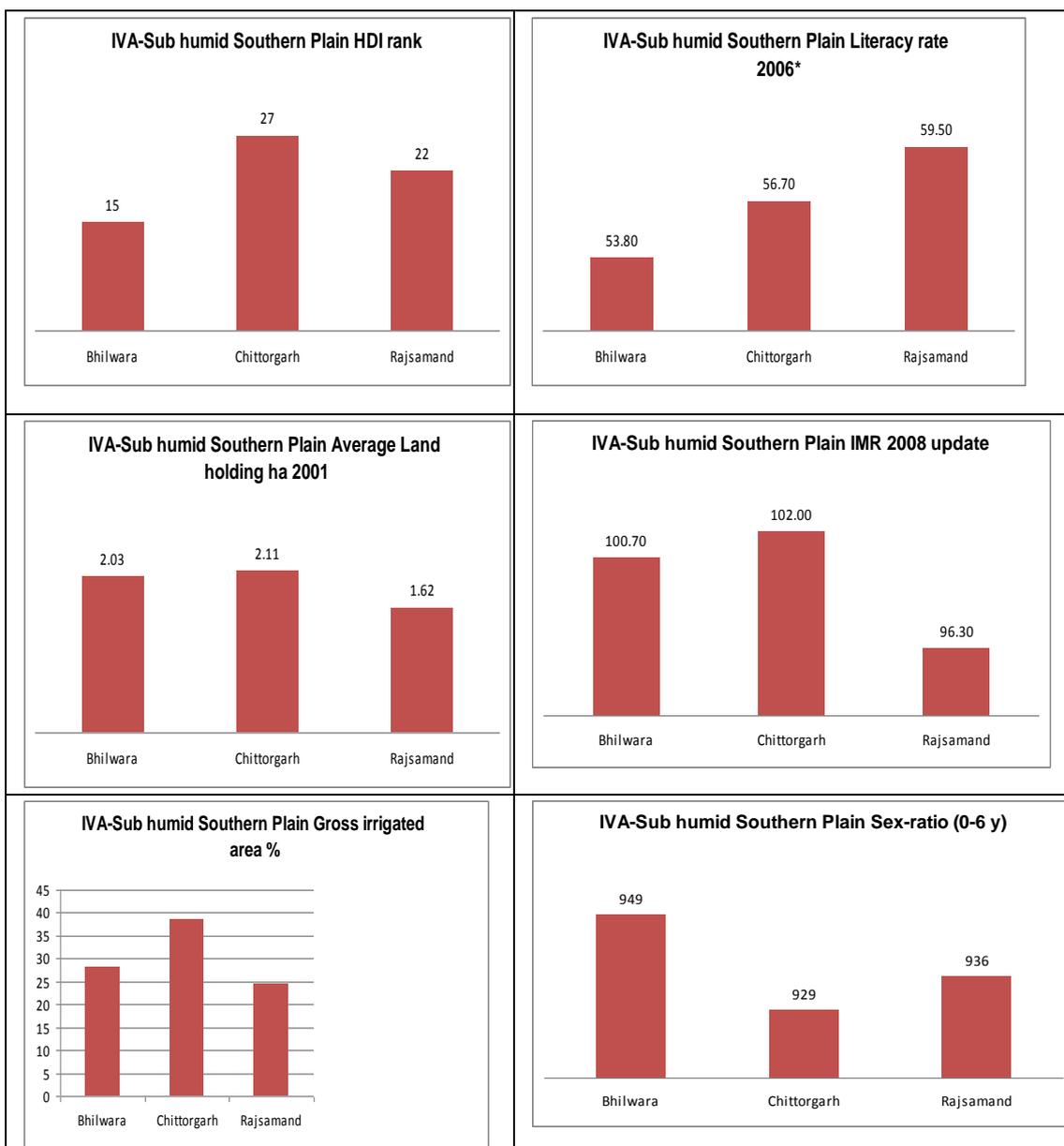
3.10.10 Zone V – Humid South Eastern Plain

This region includes the districts of Kota, Bundi, Baran and Jhalawar. Average annual rainfall ranges from 650 to 1000mm. Soil types are Black of alluvial origin, clay loam. Average land holdings are 2.2 to 2.6 ha. Major kharif crops are sorghum and soya bean and major rabi crops are wheat and mustard.

Access to toilets is about 15% in this region, but it is 44% in Kota District. IMR ranges from 55 to 75%. Male literacy ranges from 58 to 81% and female from about 32.5 to 50%. Scheduled castes form 15 to 19% of the population. In this zone 77 to 80% of the population is engaged in the primary sector but in Kota District only 40.6% of the population is engaged in primary sector.







3.11 Cultural practices of relevance

Rajasthan has a rich culture with a mosaic of castes, having distinct identities but deep interdependence and complementarity. Even in this era of modernization and weakening of social structures, culture is still an integral part of the society and can be used as a tool for social change. Development workers can make use of this knowledge to look for opportunities and spaces for intervention.

3.11.1 Caste and occupations

A distinctive feature of culture in Rajasthan is the continuation of occupation- based castes. These castes provide essential services to the rural community and have strong inter-linkages with other castes in the society. Some examples include the following: Chipas are communities that are engaged in dyeing of cloth. Since different communities identify with

and wear clothes of particular colours and prints, the dyers have a regular market in their communities. They also make dyes out of locally available raw material such as mineral, lime, bark, flowers etc. Kumhars have provided the important service of producing earthen pots and storage vessels since time immemorial. Gadia lohars produce agricultural implements. Maniharis produce lac bangles. Malis are adept at vegetable cultivation. Balais, Raigads and Meghwals specialize in leather work. Khatiks (Hindu) and Kasais (Muslim) are responsible for animal trade and slaughter.

3.11.2 Livestock

Livestock rearing in Rajasthan is practiced as an integral part of the farming system where livestock live on farm based resources and in turn produce outputs such as labour and manure that in turn are utilized in the cropping system. The state is home to a large share of India's recognized livestock breeds including cattle (Tharparkar, Kankrej, Nagauri, Gir, Rathi, Malvi and Haryana), sheep (Marwari, Jaiselmeri, Nali, Magra, Pugal, Chokla, Malpuri and Sonadi), goat (Marwari, Sirohi and Jakhrana), camel (Bikaneri, Jaiselmeri, Mewari, Marwari) and horse (Marwari). Traditionally livestock rearing has been practiced as a low input and low risk enterprise.

In the last few decades the state has promoted crossbreeding of livestock in order to improve productivity of livestock. This has led to extinction of the unique climatically suited breeds such as Rathi which is now not available in its native area of Bikaner. Rajasthan's pastoral communities have extensive empirical knowledge about animal breeding and have developed a plethora of genetic manipulation systems. The most prolific breeders are the Raika who are credited with development of practically all sheep and camel breeds, Sirohi goat breed, and Gir and Kankrej cattle breeds (Kohler-Rollefson & Rathore, 2003). In Rajasthan male animals are regarded as community resource and are selected and maintained by the community as a whole. Although goats are bought and sold within the village, other livestock are sold in fairs that are cultural events now having tourist potential. Around 150 cattle fairs are organized in Rajasthan, some of the largest and well known being the Pushkar Fair that is organized during kartik (October-November) for selling cattle including camels. The Nagaur Cattle Fair is organized during the Hindu month of Magh (January-February). A large number of animals sold in these fairs are exported to the neighbouring states of MP, UP, Gujarat, Maharashtra and Haryana. Cattle fairs are events where all castes come together to trade and celebrate and are therefore important venues that can be utilized for information dissemination.

3.11.3 Collective work

Western Rajasthan had a tradition of collective work called lah for farms and lav for livestock work. People used to work on each other's farms at the time of ploughing, sowing, weeding, harvesting etc. The person on whose farm the work was done provided three meals a day to all those involved in lah (Joshi, 2007). Because of mechanization, this system has disappeared over much of Rajasthan but is still seen in some tribal castes such as the Shahariya of South Rajasthan. In western Rajasthan the tradition of collective work for management of common water bodies and pasturelands continues. Once a month on new-moon-day (called amaavas) all people take a holiday from their work, and together they undertake de-silting of wells and village ponds, clearing of bushes in catchment areas of

ponds, as well as plantation on gochars (pasturelands). Such systems are important for maintaining availability of water and fodder.

3.11.4 Sanctified ecosystems

It is estimated that about 25,000 sacred groves and other sanctified ecosystems are in existence in Rajasthan varying in size between 0.1 and 500 ha (Pandey, n.d.) Sacred groves are known under various names in Rajasthan as sacred groves (deora, malvan, deorai, rakhatbani, oran, etc.), sacred corridors (deoghats), temple forests (mandir van) and sacred gardens (baugh). Forests in hills reduce the runoff and help in ground water recharge. The water thus becomes available in the Bawdi (step-well) or pool located within the sacred grove during the lean months. Water also brings minerals in rich quantities. It is then logical that such resources are protected and conserved by the people. People might have institutionalized these arrangements during the course of time by attaching sacred value to it, to make collective management easy and long-lasting. Sacred groves are the result of a complex ethno-scientific thinking of the local communities (Pandey, 1996). Usually, only fallen and ripe fruits are collected from the grove. Wood from mature trees is used to repair religious places. Dead and fallen wood is also used for religious functions such as Annakut i.e. a religious community feast. Wood is also used for funerals. Trees are not cut or removed for other uses. However, forest products including wood are harvested from temple forests dedicated to Lord Shrinathji in Ghasiar. It is possible that during severe drought some species may be lopped for fodder. Water from Johads or bawdis in sacred groves is used for limited irrigation and for drinking purposes for livestock. Sacred groves also provide meeting places for the community to discuss socio-religious and economic issues and to resolve their personal grievances.

Pandey (n.d.) has classified the sacred areas in to sacred groves, sacred corridors, temple forests, sacred gardens and inhabited groves. Sacred groves located near water source and a deity is worshipped. In Sacred corridors- entire watersheds are protected. In some places a single tree of *Ficus benghalensis* looking like a grove is worshipped and protected. The Baug is an ethno-silvi-horticultural garden planted near settlements for fruit, fodder, fuel-wood, medicine, NTFPs and shade. They are the backbone of indigenous methods of drought prevention, acquisition of entitlements and food security. Probably no other landscape is as productive and valuable as the Baug. The Gujjar people of Rajasthan have a unique practice of neem (*Azadirachta indica*) planting and worshipping as neem narayan or neem-god. A Gujjar settlement normally starts near a water source, stream or river. Initially few huts are constructed, and neem saplings, brought either from other settlements or from the wild, are planted in the enclosure around the hut. Gujjars worship Neem as the abode of God Deonarayan. In a few years these trees start producing viable seeds that germinate naturally amidst home-enclosures. Some of these seedlings attain tree form as Gujjars take every care to nurse the wild seedlings. This pattern is replicated around all huts in the settlement simultaneously. Thus, a Gujjar settlement appears like a human-inhabited sacred grove.

These sanctified ecosystems are threatened because of increasing pressure from population and livestock. Several encroachments have taken place, and worse, they have been regularized by the Governments. Area and legal status of several Orans has not been clearly defined. Unfortunately, these lands have not even been declared as forest lands, hence

effective legislation is not applied in the case of offenders. Eroding community values have made the matter worse. Lack of faith in the younger generation is a problem. These sacred groves together with their water bodies are today important as refugia of biodiversity as they have many species of religious and medicinal properties. Some NGOs have built on this tradition to develop biodiversity rich areas.

3.11.5 Traditional weather forecasting systems

Living in a highly variable and hostile environment the people have keenly observed nature and learned to locate sources of water, to predict weather conditions and to ascertain sowing time for crops. Local proverbs throw light on the social systems, caste relationships, political conditions, agrarian system etc. There are proverbs indicating the proper time of sowing of crops e.g., *Kartik thehra, teen Ashad* means that in the month of *kartik* (November) sowing should be done on the 13th day of the lunar calendar, and in *Ashad* (June/July) it should be done on *teej* or third day (Joshi, 1979). There is a wealth of knowledge in these proverbs about weather early warnings that forecast famine and good rainfall months in advance e.g., farmers observe where the *titehri* (a ground nesting bird) is making its nest; if the nest is on the ground in a water body, there will be a drought, if the nest is made on a higher ground then there will be good rains (Cecoedecon, 2010)

3.11.6 Water management

Traditional systems of water management in Rajasthan are well known and documented. The region has large scale traditional water storage and distribution systems in urban areas and near forts. Smaller decentralized water resources are seen in the form of *talabs* and *nadis* (ponds), or *tankas* (underground tanks with catchment) wells at village or household level. *Tankas* linked to rooftop water collection systems are seen in saline ground water belt of Shekhawati region. Even water from dried out ponds is harvested through *beris* (unlined shallow wells in or near water bodies). *Kuis* provide access to sweet water stored in the subsoil. *Khadin* is a system to increase the soil moisture level on agricultural land. Traditional systems of drawing water from wells through *chadas* and *rahat* (Persian wheel) are still used to water farmlands. These traditional systems have been revived and mainstreamed in government schemes in both rural and urban areas. Traditional water management system called *anga* uses ingenious systems of calculation of human and animal water consumption per family and raises resources accordingly to pay for upkeep of the water resource. Management systems based on the *anga* principle are still used in management of village ponds in the Marwar region, in management of wells in the Shekhawati region. The system has also been internalized in rural drinking water supply schemes that provide single water meter to an entire village.

Other areas in which traditional knowledge still exists and can be built on include livestock health care and breed improvement, wild foods, seed saving and storage, and systems of pest management.

3.11.7 Seed management

Seed saving at farmer's level though on the decline is still practiced by small farmers, particularly in tribal regions. Farmers make huge storage structures out of clay and dry crop stems and use horse dung as pesticide. In Baran district different tribes make different kinds

of seed storage structures called pohris or kothis that are made by from a variety of materials such as mud, pliable twigs of plant species with insecticidal properties, etc. The paddy seeds are winnowed and mixed with ash and neem leaves for storage. For maize and pearl millet - entire cobs are mixed with ash and neem leaves. Pulses including urad, arhar and mung are mixed with powdered bricks for storage. Some fruits of cucurbits and ochra are left on the plants to dry. Seeds of til, sarson and taramira are stored without any preservative. Seed saving and distribution at community level provides a measure of self-reliance and risk reduction particularly in remote villages as timely availability of good quality seeds is ensured for the marginalized communities (Cecoedecon, 2007). Some NGOs have organized SHGs into seed saving groups leading to improved food security of tribals.

3.11.8 Lesser known and famine foods

The entire desert area of Rajasthan falls within the belt of constant droughts or frequent famines because of which famine is called the grand natural disease of Rajasthan. It is natural that faced with such frequent periods of scarcity the people had a wealth of knowledge on wild foods and plants that can be a source of food and fodder during famines. *Cenchrus biflorus* is a grass that grows well even during droughts when no other plants species survive. The tiny seeds of this grass are ground into flour and made into *rotis*. It is considered to the most nutritious of famine foods. Bark of *babool* is also ground and made into *rotis*. During droughts livestock are said to survive on *kuche*, *desiakda*, *jwasa*, *mothia* etc. On the other had lesser known food crops such as ragi that are used by tribals and considered to be poor people's food grain are now recognized for their nutritive value and slow energy releasing qualities are now being promoted as health foods. Although such wild food plants are still available, people are losing this knowledge.

3.11.9 Traditional management of farm pests and enemies

Guarding the field during various stages of a crop is an indispensable aspect of agriculture. Various studies have been undertaken on farm pest management by Bhil, Garasia, Kathodia, Shahriya, and Damor of south-east Rajasthan. While sleeping on *machans*, use of scarecrows, and use of *neem*, *akda* and tobacco leaves, and cow urine as insecticides is known among farmers from various parts of Rajasthan, tribals have unique systems of management of pests and farm enemies. (Joshi, 1995) has documented that Porcupines are smoked out from their burrows and killed. Jerbills and rats are also forced to come out of burrows by flooding their burrows, and then they are killed. Crows are killed by leaving a poisonous gruel of maize mixed with crushed roots of *vajkand* (*Dioscorea* sp.) for them to feed on. Vegetable crops such as cucurbits are especially vulnerable to attack by various insects. Smoke created by burning semi-dry wood and *neem* leaves is used to drive away insects in the field. For larger insects such as moths and fruit flies *guggal* gum and cow dung cakes are burnt.

Chapter 4: Small and Marginal Farmers

4.1 Smallholders - the neglected majority

The term 'small farmers' generally denotes farmers with small landholdings (size of land denoted as 'small' differs in different countries), or family farms that depend only on family labour for agricultural work. The distinguishing features of this category is ownership of small parcels of land, low access to productive resources, usually marginal land is farmed, socially marginalized, needing external help to face environmental and market induced shocks, and practicing a range of low input diversified agriculture systems. In India farmers owning 1 to 2 ha of land are categorized as small, and those who own less than a hectare of land are categorized as marginal farmers.

66% of global agriculture happens on small holder managed farms. Out of 525 million farms worldwide, about 90% are smallholder farms (IAASTD, 2008). Small holders produce 80% of the developing world's food consumption. Together with families of landless agricultural workers, smallholder farmers constitute the bulk of the world's hungry and poor. About 1 billion people living on less than US\$1.25 a day are concentrated in rural areas and 80 per cent of these depend, to varying extents, on agricultural activities for their livelihoods.

About 82% of farmers in the country are small and marginal farmers and more than 90% of them depend on rains for their crops. In Rajasthan about 55% of the farmers are categorized as having less than 2 ha of land, although considering the fact that many farming families do not update land fragmentation records in joint families, the actual number of small and marginal farmers must surely be higher. Moreover, due to the lower productivity of natural resources in arid areas, many authors have opined that the category of small famers should in fact include farmers having even 4 to 5 ha of land in arid regions of western Rajasthan.

Rajasthan has a skewed land ownership pattern where 43% of the area is accounted by 9% of holdings (large farmers) while 11% of the area is accounted by 50% of the holdings (small & marginal farmers). This skewed pattern is further qualified by the fragmentation of holdings whereby small and marginal farmers have over two parcels of land with the attendant consequences.

4.2 Barriers in technology adoption

Despite the increasing efforts made and the growing policy interest, spontaneous and widespread adoption and adaptation of technologies and innovations for sustainable management of land and water resources by smallholder farmers outside of intensively supported project locations has generally been limited. Smallholder farmers and resource users continue to face difficulties in adoption and adaptation of soil and water conservation technologies. The diagnosis of these changes and lessons from different examples shows that several factors have indeed contributed to the continuing challenges facing smallholder farmers in adoption and adaptation of sustainable land and water management

interventions—ranging from the poor performance of the technologies themselves to policy and institutional deficiencies at different levels.

4.3 Access to extension services

Despite the variety of agricultural extension approaches that operate in parallel and sometimes duplicate one another, the majority of farmers in India do not have access to any source of information. Although farmers require information for the whole food and agriculture value chain, the public extension system largely concentrates on on-farm activities. If extension is to remain relevant in India, particularly for marginal and smallholder farmers in rain-fed regions, it needs to evolve to provide a diverse set of services that support agricultural livelihoods, offering relevant technologies that are integrated with appropriate services. Agricultural extension should also support and address relevant areas beyond the farm, such as storage, processing, market access and trade, agribusiness management and entrepreneurship, natural resource management, and issues related to women (Glendenning et al 2010).

In Rajasthan one Assistant Agricultural Officer (AAO) covers a whole block. The AAOs are supported by Agricultural Supervisors or Agricultural Extension Workers (AEWs) at village level. Each Agricultural Supervisor covers some 200 to 300 farmers who are scattered over 5 to 6 villages falling in one or two gram panchayat. Due to staff shortages, AEWs do not cover all villages and so is the case with the livestock extension workers. Farmers feel that AEWs lack expertise and are no better than gram sewaks in terms of agricultural knowledge.

A new concept of Kisan Seva Kendra (KSK) was introduced in Rajasthan in the year 1998, with the objectives of improving the socio-economic status of farmers by providing new technology, information, inputs at subsidized rates, and conduct different trainings and demonstrations for farmers. KSK are located at gram panchayat level. KSKs are headed by Agriculture Supervisor, one KSK covers 8 km area and each KSK is divided into 8 parts, which is called as a Kisan Mandal. In each Kisan Mandal 20 farmers are selected for duration of three years based on their willingness to adopt new technology and have their own land with irrigation facility and good communication skills.

Apart from this seasonal Krishi Adan Shivirs are organized at Panahayat level in which subsidized inputs and PoPs are disseminated. In spite of this the outreach of the extension system is far from desirable. In any village only few progressive farmers are aware of the extension system.

4.4 Access to irrigation

Reviewing water markets in semi-arid conditions of Rajasthan, Singh (2007) has stated that the marginal and small farmers participate considerably in water markets, because they have limited size of land holdings if they have the surplus water for sale that meets the irrigation requirement of other resource poor farmers. Water markets provide access to water for small and marginal farmers without irrigation sources. In the short term the small farmers gain from the water markets but in the long term as groundwater table falls, the small farmers are the ultimate losers as they are unable to keep up with the competitive well

deepening resulting in heavy indebtedness. This fact is also borne out by the stakeholders

Box 4.1 Equity in Ground Water Management

The fundamental issue in dry land farming is to secure equal and efficient use of a scarce resource for the benefit of all farmers. APDAI (Andhra Pradesh Drought Adaptation Initiative) has addressed the problem of groundwater management from a different perspective. Instead of regulating consumption among those already having access to groundwater, the approach has focused on re-instating groundwater as a common property thereby rendering this resource available to all under agreed-access rules. This was achieved by connecting all boreholes through a common pipeline to which sprinklers were then connected. Convincing evidence was required to prove to bore-well owners that there were advantages to sharing “their” water with non-bore-well farmers. Two factors at the core of the approach were crucial in this discussion. Non-bore-well farmers had to commit to not open up any new wells for at least a 10-year period. They also had to make it possible, through the installation of pipelines and sprinklers, for bore-well owning farmers to irrigate a larger share of their farmland, as farmers’ fields are rarely contiguous but spread over a number of different locations. This approach allowed a number of non-contiguous fields to be irrigated.

This socio-technical solution was combined with a shift from dry *rabi* season full irrigation to complementary irrigation during the rainy *kharif* season. This move helped to compensate for delayed rains or lack of rain during critical crop stages. This whole approach was designed to counteract climate change and variability as observed in the dry lands in Andhra Pradesh, i.e. an unreliable monsoon.

Source: India: Andhra Pradesh Drought Adaptation Initiative- Lessons from Community-based Adaptation Approaches to Strengthen Climate Resilience, The World Bank, Final Report, April, 2011

4.5 Access to credit

The credit delivery to the agriculture sector continues to be inadequate. It appears that the banking system is still hesitant on various grounds to purvey credit to small and marginal farmers in the country (Goliat, 2007). The large proportion of population in the lower strata, which is having major share in the land holdings, receives much less credit than its requirements. The growing disparities among marginal, small and large farmers continue to be a cause for concern. This observed phenomenon may be attributed, inter alia, to the “risk aversion” tendency of the bankers towards small and marginal farmers as against the large farmers, who are better placed in offering collaterals. The share of marginal and small farmers in the total credit (both disbursed and outstanding) has been shrinking.

Even though schemes for loaning to small farmers exist, farmers with low levels of literacy find it difficult to access credit facilities because of the technical nature of applications, lengthy cumbersome bank procedures and the attitude of bank staff towards poorer farmers. Therefore, in spite of the ‘size neutrality’ of agricultural technologies, small farmers are unable to muster enough resources for investments in fertilizers, insecticides, tube wells, pumping sets etc.

4.6 Inputs

Studies in Rajasthan indicate that the use of family labour input is in favour of small farms, but inputs like seed, fertilizer and machine labour which require credit or cash are better used by large farms. When the emphasis is on development of inputs such as seed and

fertilizer, it will be unfavourable to small farms unless their access to these inputs is improved (Rathore, 1984). Supply of capital is important, along with training in farm planning to improve farm incomes (Verma & Agarwal, 1984).

In the arid zone intensive cultivation practices are directly linked with the availability of irrigation. Since lower size class farmers have little access to irrigation they are not in a position to grow input intensive high value crops. Only farm yard manure without any chemical fertilizer is used on un-irrigated crops which lower size class farmers mostly grow. Moreover, small and marginal farmers tend to grow less economical but more sustainable pulse crops during kharif when compared with large farmers. In a given crop small farmers seem to be using more of organic manure compared to large farmers. This indicates that the small farmers do not have higher discount rates for future. This may not be due to their concern for sustainability but due to lack of access to resources like water and other institutional mechanisms such as credit (Ratna Reddy, 1996).

4.7 Participation in agro-industries

Evaluating the contribution of agro-industry in India to rural and small farmer development Gandhi et al (2001) have pointed out that there are concerns about whether multinational firms contracting small farmers will help or hurt small farmers and local small agro-industrial firms. If the development objectives of agro-industrial growth are to be served, small farmers must benefit from this growth, and the landless should at least benefit indirectly. However, this depends substantially on the nature of the organization and the commitment of the agro-industry to their involvement as partners. It also depends on the bargaining power of the small farmers within the models and structures that are created. The cooperatives have often done better in bringing benefits to the rural poor, sometimes with the assistance of NGOs as intermediaries. Supply contracts with small farmers are rarely enforceable in India, as elsewhere in developing countries, and remain moral in nature. Therefore, to make contract farming successful, much depends on the development of longer term relationships between agro-industry and farmers through transparent contract terms, fair pricing, effective extension, and good marketing.

4.8 Barriers for participation of SMF in agricultural value chains

Production

- SMF have small marketable surplus.
- For farmers of rain-fed areas access to irrigation is the most crucial factor as erratic rainfall affects the quality of produce.
- Extension services are inadequate and farmers use sub-optimal farming practices
- Lack of access to finance prevents SMF from investing in high input requiring crops, and in establishing agri-business.
- Lack of reasonably priced and efficient risk management instruments deter SMF from investing in new technologies. Natural calamities like drought, flood which are frequent and recurrent occurrences and pest infestation are serious and crippling risks. Re-scheduling, restructuring of their loans are not enough.

Value Chain

- Lack of Knowledge: The small farmers should be enlightened as to what Supply chain system is, how it can benefit them and whom to approach. Sufficient capacity should be built for the farmers.
- Unless they aggregate into producer groups the transaction cost for each farmer is too high for it to be profitable from her/him to participate in the value chain.

Markets

- Improper or insufficient postharvest handling: by small farmers is a major barrier to entering the marketplace. The marketplace demands continually upgraded quality, appearance, shelf life, and safety of food products. Effective postharvest handling operations, such as cleaning, sorting, processing, grading, packaging, and refrigeration make the agricultural product saleable.
- Few Points of Collection: The point of collections should be scaled up at least as the milk collection centres do and the collection could be daily.
- Poor marketing and Distress sales: Distress sales by small/ marginal farmers to square off their debts or for immediate consumption purposes soon after harvest are quite common. It is normal for a farmer to get 10-15 percent discounted price for spot payment for his produce. According to reliable resources, about 50 percent of the marketable surplus of small/marginal farmers is disposed of in this manner.
- Instant /frequent Settlement of Procurement Price: If the payment comes after a delay, the farmer will not survive so the procurement payments should be regular and frequent.
- Access to markets and distribution of risks and gains along different steps of livestock value chains varies also according to the gender of producers (e.g. rights to income generated from livestock); processors (access to processing technologies and information); market agents (access to transportation, safe market spaces and overnight accommodation, risk of sexual harassment and abuse); and according to the economies of scale (bringing women together to improve their market position).
- Macro-economic factors: Further challenges to small farmers include changes in trade regimes leading to domestic markets for key crops being flooded by cheap imports. Although free market economy would predict that farmers can shift to more profitable groups, but there is lack of alternative, drought tolerant and economically viable crops

Box 4.2 Collective Marketing for empowering small farmers

The Collective Marketing Model was developed under the aegis of the Western Orissa Rural Livelihoods Promotion Project (WORLP). It has been replicated across 400 villages across 6 districts under IFAD-funded Orissa Tribal Empowerment and Livelihoods Program (OTELP). Collective Marketing has armed Community Based Organizations primarily SHGs and CIGs, with the knowledge, confidence and processes to operate a non-exploitative channel for the marketing of products. These CBOs conduct a range of local level activities including drying, sorting, grading, weighing and packaging, for which a range of marketing infrastructure have been created in villages. The key outcomes are:

Involvement of the poor in value chain development: Participation of the marginalized in the marketing effort like aggregate to achieve scale, participate in value addition and engage with markets as an equal participant.

Marketing Efficiency – Collective Marketing has created community driven solutions for a wide range of products.

Better utilization of institutional support to the poor – In the communities where it has been implemented, Collective Marketing has also acted as a cause towards which development resources such as the revolving fund can be directed. Thus, in addition to developmental outcomes of its own, Collective Marketing also allow other developmental inputs to maximize their impact upon the community.

*Source: Individual Gains from Collective Action, Sanjay Gupta, MART in **Innovative Approaches in Creating Livelihoods**. Rajasthan Mission on Skills and Livelihoods*

4.8 Key Issues for small and marginal farmers

- Low access to information, technology and capacity building
- Low access to credit, seeds, fertilizers, irrigation; indebtedness
- Lack of market information, low marketable surplus, poor negotiating power

4.9 Implications for RACP

- Identification of small and marginal farmers in baseline and dis-aggregated data collection
- Consultations with smallholders and identification of key priorities
- Farmer organization, aggregation, capacity building, value chains development
- Prioritization in beneficiary selection for private goods and trainings, and flexibility in cost sharing norms for private goods
- Participation and inclusion of SMF in project supported institutions and in CACP planning, implementation & monitoring

Chapter 5: Scheduled Tribes

5.1 Demographic profile

There are over 500 tribes in the country, notified under article 342 of the Constitution of India. The category classified as “Scheduled Tribes” constitutes 8.2% of the total population of the country, and 12.6% of the total population of Rajasthan. As of 2001, there were 7.1 million STs in the state, of which 3.4 million were women (48%) (Census of India, 2001).

In Rajasthan, the tribal population is concentrated in the southern districts of Banswara (72.3%), Dungarpur (65.1%), Udaipur (47.9%) and Pratapgarh (created from Chittaurgarh district which had a ST population of 21.5%). Other districts with relatively higher tribal populations include Dausa (26.8%), Sirohi (24.8%), Karouli (22.4%), Sawai Madhopur (21.6%), Baran (21.2%) and Bundi (20.2%). The STs are overwhelmingly rural, as 94.6 per cent of them inhabit rural areas, compared with the state average of 76.6 per cent.

Out of the twelve tribes scheduled for the State, Meena⁴ is the most populous tribe, having a population of 3,799,971 constituting 53.5 % of the total ST population followed by Bhil⁵ (2,805,948). Meena and Bhil together constitute 93% of the total STs in the state, whereas the Garasia, Damor, Dhanka and Saharia combine to form 6.6 % of the total ST population. Six tribes, Bhil Meena, Naikda, Kathodi, Patelia, Kokna and Koli Dhor along with the generic tribes constitute the residual 0.3 % of the total tribal population. The concentration of these tribes in the districts is as shown in table 5.1 below.

Table 5.1: Tribal group-wise distribution of STs in Rajasthan

Tribe	Area/s where found
Bhil	Udaipur, Dungarpur, Banswara and Chittorgarh
Meena	Jaipur, Sawai Madhopur, Alwar, Chittorgarh and Udaipur
Damor	In the 10-12 Panchayats of Damriya region of Simalwara Panchayat (Dungarpur)
Khatodi	In Pindwara (Sirohi District) Jhadol (Udaipur District) in Desiya, Ambasa (Panawa) regions
Garasiya	In Sirohi District, in and around Abu Road area in 24 villages comprising the “Bhakkar Patta”
Sahariya	In the Hadothi region, Shahbad and Kishanganj villages and the jungles of Baran
Patelia	Dungarpur and Banswara

Source: http://www.rvkv.org/vanvasi_anchal.htm (accessed December 30, 2011)

⁴The Meenas were originally a ruling caste of Rajasthan, later declared as a “criminal tribe” by the British government. According to Mann, the Meenas are considered a Kshatriya caste at par with the Rajputs. During the war with Rajputs and Mughals, the Meena community was divided into three basic sects - the Zamindar Meenas, the 'Chockidars' Meenas, and the Bhil (Tribal) Meenas. The Zamindar Meenas were traditionally associated with farming, and most of them are economically well-off. The 'Chockidars' Meenas, who, during the middle ages adopted fighting in the armies as their main job, were later forced by the British to regularly report to the 'chaukis' to ensure that they did not indulge in any criminal activities. Some historians say that the Bhil (Tribal) Meenas were compelled to quit their native places and seek refuge in the vastness of the Rajputana during the wars between their own groups or with the Muslims. Here, they formed alliances with the aboriginal families and established tribes.

⁵The history and ethno-history of the Bhil goes back to the sixth century AD. The Bhil are considered the indigenous inhabitants of the Aravalli mountainous range, and also the rulers in certain parts of Rajasthan, before the arrival of the Rajputs, which resulted in conflicts and some compromises.

There is also one PTG (Particularly Vulnerable Tribal Group, formerly known as Primitive Tribal Group) in Rajasthan – the Saharia tribe, concentrated in the Kishaganj and Shahbad blocks of Baran district in the south eastern region adjoining Madhya Pradesh. In these two blocks, the Saharias comprise 34.28% of the population.

Despite the falling sex ratio in the state, the figures for the tribal-dominated districts are significantly better. The population, population density and sex ratio in the four tribal-dominated districts of the state is given in Table 5.2.

Table 5.2: Population and Sex ratio in districts with high tribal percentages

District	Population in 2011			Decadal Growth Rate of Population (%) 2001 to 2011	Sex Ratio (Females per 1000 Males) 2011	Population density per Sq. Km 2011
	Persons	Males	Females			
Rajasthan	68,621,012	35,620,086	33,000,926	21.44	926	201
Banswara	1,798,194	908,755	889,439	26.58	979	399
Dungarpur	1,388,906	698,069	690,837	25.39	990	368
Pratapgarh	868,231	437,950	430,281	22.84	982	211
Udaipur	3,067,549	1,566,781	1,500,768	23.63	958	242

Literacy rates among the STs have historically been far below the state average, and lower still among women from the ST communities. As of 2001⁶, literacy rate among STs in Rajasthan was 44.7%, far below the state average of 60.41%. The literacy rates by different tribal groups and for women are shown in table 5.3 below.

Table 5.3: Literacy rates among ST communities and ST females in Rajasthan

Category	All STs (India)	All STs (Rajasthan)	Dhanka	Meena	Damor	Bhil	Saharia	Garasia (excluding Rajput Garasia)
Persons	47.1	44.7	61.8	52.2	41.2	35.2	34.2	30.7
Females	34.8	26.2	45.9	31.8	23.2	19.1	18.7	15.4

Source: Census, 2001

A comparative picture of the literacy levels in the districts with higher tribal populations is shown in figure 5.1 below.

⁶ Although the Census 2001 has been completed, only the aggregate population and demographic characteristics have been released so far; social-group wise disaggregated data for STs or any other community is not available.

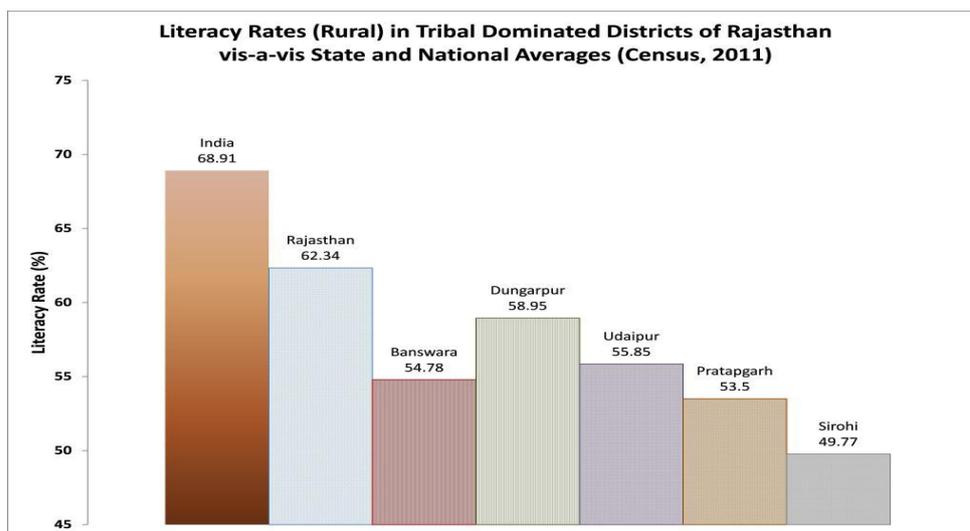


Figure 5.1

5.2 Scheduled areas and development of Tribals in Rajasthan

Article 46 of the Constitution of India has entrusted the State with the responsibility of promoting the economic and educational interests of the Scheduled Castes and Scheduled Tribes.

A twin pronged approach has been adopted for the development of tribes in the country, including area-based activities through the Tribal Sub-Plan and regulatory provisions to protect their interests. The Constitution of India makes special provisions in the form of the “Fifth Schedule” and the “Sixth Schedule” with regard to land alienation and other social factors. The Fifth Schedule under Article 244(1) of Constitution defines “Scheduled Areas” as such areas as the President may by Order declare to be scheduled areas after consultation with the Governor of that State. The criteria for declaring any area as a “Scheduled Area” under the Fifth Schedule are:

- i. Preponderance of tribal population
- ii. Compactness and reasonable size of the area
- iii. A viable administrative entity such as a district, block or taluk; and
- iv. Economic backwardness of the area as compared to neighbouring areas.

The specification of “Scheduled Areas” in relation to a State is by a notified Order of the President, after consultation with State Government concerned. The same applies for altering, increasing, decreasing, incorporating new areas, or rescinding any Orders relating to “Scheduled Areas”. In Rajasthan, Schedule V areas have been declared as per the The Scheduled Areas (State of Rajasthan) Order, 1981 (C.O.114), notification dated 12.2.1981. The list of scheduled areas, also known as the Tribal Sub-Plan Area, in Rajasthan is as shown in Box 5.1 below.

The strategy of Tribal Sub-Plan was introduced in the Fifth Five Year Plan for all round development of tribal areas. The essential features of TSP are:

- i. Recognise that there is no uniform solution to the variety of problems facing tribal regions and tribal communities; therefore, accept the uniqueness and formulate policies, programmes and schemes to suit each individual situation and especially for

- vulnerable sections like Primitive Tribal Groups (PTGs), bonded labourers, shifting cultivators, forest villagers, displaced persons, etc.
- ii. Evolve appropriate frame for development with emphasis on tribal people at the national and State level through Sub-Plan exercise, ensuring adequate quantification from State and Central Plan funds, with budgetary mechanisms (Separate Demand / Major Budget Heads etc.) to ensure accountability, non-divertability and full utilisation.
 - iii. Accord highest priority to protective measures for elimination of exploitation of tribal people.
 - iv. Restructure the administrative and institutional set up to suit the local needs and aspirations.
 - v. Supplement State efforts substantially by the Union Government through Special Central Assistance (SCA)

The Tribal Sub-Plan area consists of the entire districts of Banswara, Dungarpur, Pratapgarh and specified Tehsils of Udaipur and Sirohi districts. Of the total ST population of Rajasthan, 45% reside in the TSP areas, consisting of five Integrated Tribal Development Projects⁷. Outside the tribal sub-plan area, there are 44 pockets of MADA areas⁸ spread

Box 5.1
Schedule V Areas in Rajasthan

1. **Banswara** district
2. **Dungarpur** district
3. The following in **Udaipur** district:
 - A. Tehsils of Phalsia, Kherwara, Kotra, Sarada, Salumbar and Lasadia
 - B. The eighty one villages of Girwa tehsil as mentioned below:
 - i. Sisarma Devali, Baleecha, Sethji Ki Kundal, Rayta, Kodyat and Peepliya villages of Sisarma Panchayat
 - ii. Bujra, Naya Gurha, Popalti and NayaKhera villages of Bujra Panchayat,
 - iii. Nai village of Nai Panchayat, DodawaliKaliwas, Kar Nali Surna, BorawaraKaKhera, Madri, Bachhar and Keli villages of Dodawali Panchayat
 - iv. Bari Undri, Chhoti Undri, Peepalwas and Kumariya Kherwa villages of Bari Undri Panchayat
 - v. Alsigarh, Pai and Aar Villages of Alsigarh Panchayat
 - vi. Padoona Amarpura and Jawala villages of Padoona Panchayat
 - vii. Chanawada village of Chanawada Panchayat
 - viii. Saroo and Baran villages of Saroo Panchayat
 - ix. Teeri, Borikuwa and Gojiya villages of Terri Panchayat
 - x. Jawar, Rawan, Dhawari Talai, Nayakhera, Kanpur and Udaiya Khera villages of Jawar Panchayat
 - xi. Barapal, Torana Talab and Kadiya Khet villages of Barapal Panchayat
 - xii. Kaya and Chandani Villages of Kaya Panchayat
 - xiii. Teetardi, Phanda, Biliya, Dakankotra, Dholiya Ki Pati and Saweena Khera villages of Teetardi Panchayat
 - xiv. Kanpur village of Kanpur Panchayat
 - xv. Wali, Bodel, Lalpura, Parawal, Kheri and Jaspur villages of Wali Panchayat
 - xvi. Chansada, Dameron Ka Guda, Mamadeo, Jhamar Kotra, Sathpura Gujran, Sathpura Meenan, JaliKa Gurha, Kharwa, Manpura and Jodhipuriya villages of Chansada Panchayat
 - xvii. Jagat village of Jagat Panchayat
 - xviii. Dateesar, Runeeja, Basu and Rodda villages of Dateesar Panchayat
 - xix. Lokarwas and Parola villages of Lokarwas Panchayat
 - xx. Bhala Ka gurha, Karget, Bhesadha and Bichhri villages of Bhala Ka Gurha Panchayat.
4. Pratapgarh tehsil of Pratapgarh district (new district, formerly a Block of Chittorgarh district)
5. Abu Road Block of Abu Road tehsil in **Sirohi** district.

over 16 districts, and 11 MADA clusters⁹ spread over 9 districts.

5.3 Socio-economic profile

The main sources of livelihoods for tribal families in Rajasthan are agriculture, animal husbandry and wage labour. Although forests used to be traditionally central to their household economy, the diversion, degradation and destruction of forests has taken its toll, making the tribals more dependent on casual labour as a source of income. As casual wage labourers, many of these workers have learnt trades relating to construction activity on the job (e.g. carpentry, shuttering, wall plastering, masonry, house painting), and also work in restaurants (including cooking).

5.3.1 Classification of ST workers

Sixty-nine percent of total workers within STs are classified as 'Cultivators', which is significantly higher than the national average of 44.7 %; 'agricultural labourers' constitute 14 %, which is less than half of that recorded of total STs at the national level (36.9 %). The majority of the workers in the 'Cultivators' category are from among the Meena, Damor, Bhil and Garasia tribes; Saharias have the maximum proportion of 'agricultural labourers', and Dhanka have the highest proportion of 'other workers'.

Table 5.4: Percentage Distribution of Workers in four Economic Categories

Economic Category	All Scheduled Tribes	Meena	Damor	Bhil	Garasia	Saharia	Dhanka
Cultivators	69.0	47.8	73.1	64.3	60.3	24.0	15.1
Agricultural labourers	14.1	9.8	14.8	17.7	18.4	66.4	15.1
Household industry workers	0.7	0.7	0.9	0.7	0.5	0.5	2.3
Other workers	16.3	14.7	11.2	17.2	20.8	9.1	67.5

Source: Rajasthan Data Highlights: Census of India 2001

5.3.2 Land ownership among STs

At the state level, the average size of land holdings shows great variation across social groups, with STs having the smallest average as indicated in the figure 5.2 below.

However, in districts with high population of tribals, an analysis of average land holdings shows that the differences in average size of land holding are not very significant in Banswara, Dungarpur and Udaipur (see table 6.3), with STs having slightly above-average size of holdings. However, the variations are more prominent in districts such as Chittorgarh and Sirohi (MADA areas).

⁹These are identified pockets of tribal concentration containing 50% or more ST population with a total population of about 5,000 or more. As in the case of MADA pockets, there are no separate administrative structures for Clusters.

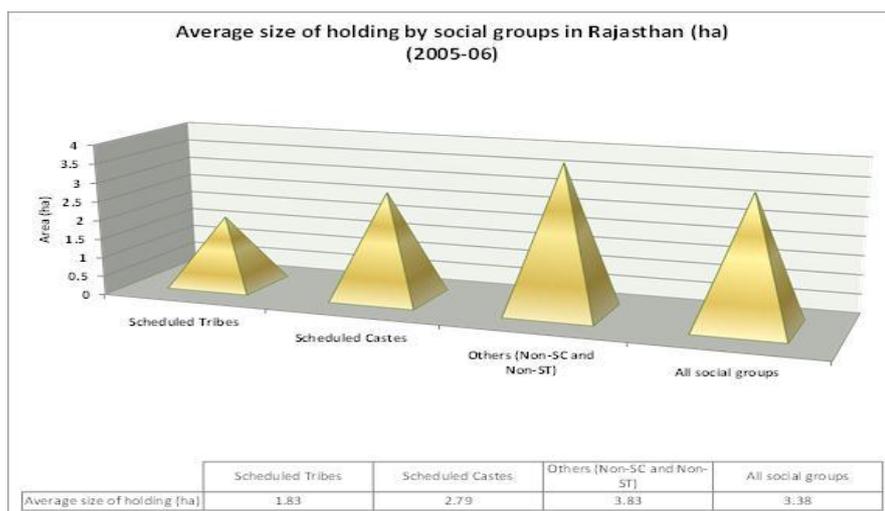


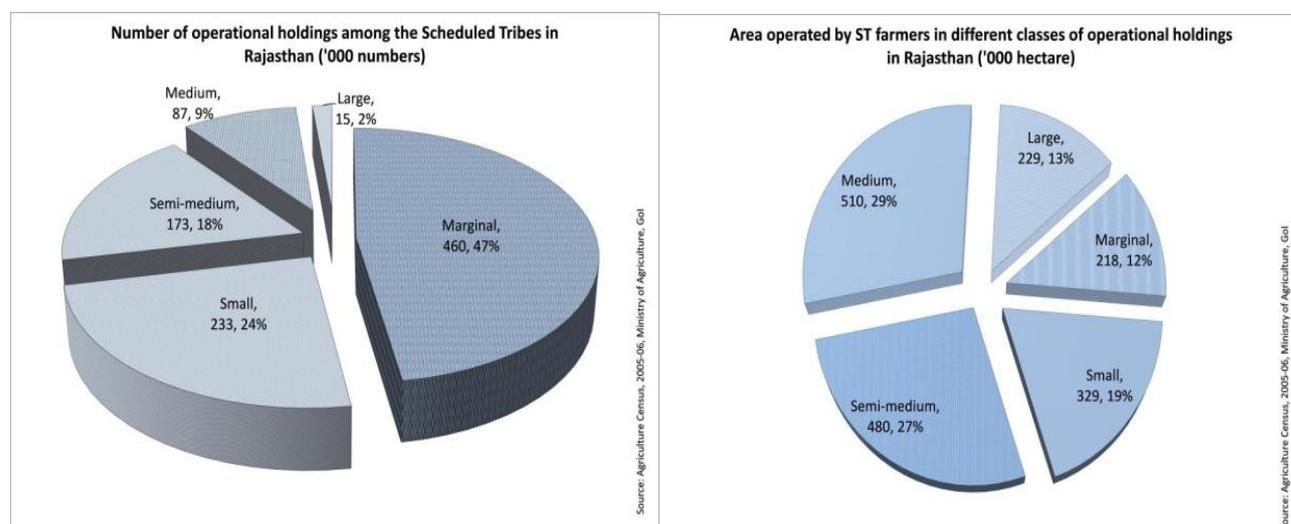
Fig. 5.2 Size holding by social groups

Table 5.5: Average size of holdings (individual and joint), by social groups, in districts with high tribal population (ha)

District	All Rajasthan	Banswara	Dungarpur	Udaipur	Chittorgarh	Sirohi
Scheduled Tribes	1.83	1.27	1.26	1.81	1.66	1.71
All social groups	3.37	1.21	1.21	1.45	1.99	2.56
Others (non-SC and non-ST)	3.83	1.09	1.17	1.62	2.23	3.13

Source: <http://agcensus.dacnet.nic.in/> (Agricultural Census, 2005-06)

Although agriculture is supposed to be the main economic activity of the tribes of Rajasthan, because of agriculture being primarily rain-fed and the small size of operational holdings, average agricultural production meets the consumption needs for no more than three months in a year for the majority of these families. Over 70% of the tribal operational holdings fall in the marginal and small categories (< 2 ha), with a total ownership of 547,000 ha. Of the total area owned by all the social groups in Rajasthan, 8.4% is owned by the STs. The distribution of farmers by size of operational holdings and area operated is shown in figure 5.3 below.



5.3.3 Entitlements under the Forest Rights Act

As of April 2011, a total of 30,158 individual titles measuring 44,730 acres (17,892 ha) were distributed in the state under the Forest Rights Act, 2006. The number of claims rejected (30,270) were approximately equal to the number of claims approved for title by the District-Level Committee constituted under the Act (Ministry of Tribal Affairs, GoI, 2011).

5.3.4 Land alienation

Despite the regulatory provisions and legal safeguards, land alienation among tribals is not uncommon. According to the Annual Report 2007-08 of the Ministry of Rural Development, Government of India, a total of 2,084 cases of land alienation involving 6,615 acres of land had been filed in the court in Rajasthan, of which only 187 cases (involving 587 acres of land) were disposed of in favour of tribals.

5.4 Human Development Profile

5.4.1 Food and nutritional security

The ST populations also figure comparatively lower than the other population on health indicators because of a combination of various factors, including lack of access to health services, geographic remoteness, lack of awareness and communication, socio-cultural and traditional health practices, and so on.

Malnutrition is marked among all tribal groups and even hunger deaths have occurred in Shahariya communities. The deficiency of essential nutrients in the diet is marked among all the groups. This major nutritional problem is due to inadequate intake of green leafy vegetables, fruits and milk. The intake of legumes and pulses that is a rich source of energy and proteins are found below Recommended Dietary Intakes per cu/day. A large majority of children suffer from under nutrition and specific syndromes as intake of essential constituents of food –proteins, fats, carbohydrates, iron and vitamins are inadequate and far below the Recommended Dietary Allowance. Low family income, lack of nutritional education, and prevailing dietary habits are factors responsible for prevalent malnutrition (Bhasin, 2007).

Social practice of *Nata* and *Jhagda* which has now become a means of exploitation of women is practiced among the Scheduled Tribes. Alcohol consumption is high among tribals and use of gutka is high particularly among children.

5.4.2 Human Development Index

The overall Human Development Index is low in the districts with high tribal populations. Values for the former are shown in the following table (HDR an update, 2008).

Table 5.6 Human Development Index 2007 in districts of Rajasthan

Agro-climatic Zones	District	Education Index [ner+Lit (+15)]	Health Index	Income Index	HDI	Rank in Rajasthan: HDI 2007
IIB	Sirohi	0.725	0.484	0.474	0.561	14
IVA	Rajsamand	0.692	0.356	0.593	0.547	22
IVB	Banswara	0.763	0.571	0.624	0.653	31
IVB	Dungarpur	0.64	0.282	0.304	0.409	32
IVB	Udaipur	0.761	0.413	0.611	0.595	20
V	Baran	0.63	0.309	0.335	0.425	12
	Rajasthan	0.755	0.735	0.64	0.71	

5.5 Key Issues

- Lack of timely availability of seed and credit, dependence on moneylenders & indebtedness
- Under TAD schemes agriculture inputs distributed without information about their usage
- Low outreach of extension services and capacity building
- Small holdings, subsistence agriculture, low farm mechanization; higher livestock density – in tribal districts
- Lack of participation and involvement in decision making
- Need to ensure that tribal groups are fully engaged in RACP processes, interventions and benefits

5.6 Implications for RACP

- Identification of tribals in baseline and dis-aggregated data collection
- Consultation, participation
- Customization of IEC
- Additional resource persons in SP1, SP2
- Application of Tribal Development Framework

Chapter 6: Women and Gender Issues

6.1 Demographic profile

The Census of India 2011 recorded the overall sex ratio in Rajasthan as 926 as compared to 922 in 2001, and 910 in 1991. However, the overall increase in sex ratio conceals a very high decline in sex-ratio in the age group zero to six years, which is declining alarmingly, having decreased from 909 in 2001 to 883 in 2011. The practice of female foeticide and infanticide and strong son preference in most communities are factors contributing to this imbalance. Modern technologies like sonography and amniocentesis are used for selective sex abortions and have exacerbated the discrimination against the girl child.

This scenario is indicative of the low value and discrimination accorded to females in a state where patriarchal norms and practices continue to operate.

6.2 Socio-economic profile

Women constitute more than 50% of the world's population; own 1% of the world's wealth and 550 million women live below poverty line as reported by the World Food Program. Two-thirds of illiterates in the world are women, and women own only 1/1000 of the world's property. According to the Census of India 2001 there is a gap of 21.6% in literacy rate between men and women. India has made considerable progress in social and economic development in recent decades, which is clearly visible from its improved social indicators of life expectancy, infant mortality and literacy rate. However, improvement in women's status is still lagging far behind.

In Rajasthan the status of women is even more critical because of numerous socially sanctioned discriminatory practices. According to the Draft National Policy for Women in Agriculture (2008), women comprise 40% of the agricultural workforce, and 85% of all rural female workers are in agriculture. Delivering on gender justice within agriculture development is, therefore, crucial for both women's empowerment and agriculture development.

6.3 Invisibility of women

Agriculture in India accounts for 37% of India's GNP and according to the NSSO data, employs 70% of the working population and about 84% of all economically active women (NSS, GoI, 1991). However, some argue that 84% is an underestimate. In reality there are few women in rural areas who are not 'farmers' in some way, be it working on the family farm, working as wage labour, or working as share croppers.

Despite recent efforts to increase the visibility of women's productive work in census data, it is widely accepted that it remains grossly under-reported. In general women are involved in activities that are less remunerative or escape enumeration because it is unpaid work within the household economy or for subsistence. Women are often paid lower wages than men, for equal hours and intensity of labour inputs because it is perceived that they cannot do the same hard work as men.

Table 6.1: Work Participation Rates by Years (Census 1991 and 2001)

	Year	Main Workers		Main + Subsidiary workers	
		Male	Female	Male	Female
Rural	1991	48.91	15.59	49.88	32.77
	2001	43.70	19.99	50.82	30.71
Urban	1991	46.11	5.57	46.38	7.13
	2001	44.15	6.22	47.64	9.24

Two points emerge from this data - one, proportions engaged as subsidiary workers, particularly among women is large to the extent of 27-30% in both rural and urban areas, though this proportion has been reducing over time. It is widely believed that subsidiary work results from seasonality in work – subsistence agriculture and management of ‘double burden’. When subsistence agriculture begins to lose its centrality, the extent of subsidiary work tends to somewhat fall. Alternatively, feminization of agriculture may explain decline in female subsidiary workers. As men increasingly go out of agriculture, women get more opportunity to work regularly, thereby substituting their subsidiary worker status with the main worker status (Acharya and Sagar, 2007).

During 1991-2001 there has been a reduction in male workers in agriculture, and from among the incremental workers, only women have joined this sector. There is thus feminization and ageing of workforce in agriculture. It is not that feminization of agriculture per se is undesirable, in the context of Rajasthan women workers in agriculture are disempowered and low skilled. They do not own the land, and in many cases they represent the residual labour force. They have fewer occupational choices owing to lower mobility and lower education status. At the national level, Hirway and Roy (1999) have noted that “rural women workers are the least diversified component of the labour force in the country”. This is corroborated by primary studies as well that show that men have withdrawn from agricultural activities leaving women to take up the slack. Varghese et al (1999) have reported from Rajasthan that due to low female literacy and reasons of status, non-farm employment opportunities are not readily available to women in Rajasthan. Studies from various states of India show that rural female workers are experiencing negative occupational diversification.

Women find **marginal and casual employment** mostly in agriculture and informal sector, which accounts for almost 90% of the total marginal workers. The feminization of the workforce and that of the rural areas has resulted in larger number of women taking on entire responsibility for farming operations. The effective reach of the skeletal state extension system among the women farmers is negligible.

Women headed households are especially disadvantaged as they lack access to productive resources –land ownership is not in their name, because of which they cannot provide collateral for obtaining loans for agricultural improvement interventions including water resource development, land development and purchase of machinery or other agricultural inputs. Certain tasks such as contacting people for leasing farm machinery and contacting purchasers or going to mandis for selling produce are not socially acceptable for women. As

a result, women headed households are unable to make arrangements for mechanized harvesting and marketing support.

Migration a traditional livelihood diversification strategy, is now on the increase because of degradation of natural resource base, decreasing returns from agriculture, and climate change induced rainfall variability resulting in repeated harvest failures. In tribal dominated regions factors other than natural causes are also important such as land alienation. A large number of families in tribal-dominated South Rajasthan have to cope with long term and frequent absence of adult male members. This often leads to a significant re-organization of their lives, especially for the women left behind. Prolonged absence of men puts unique and increased demands on women, compelling them to engage more actively with the public domain (Aajeevika Bureau, 2006). While women face increased incidence of violence, children's education, and health of remaining family members also suffer.

6.4 Human Development Profile

Most important indicators of status of women are sex ratio, literacy, MMR, and land ownership by women. Though Rajasthan has made considerable progress in **female literacy** in the last two decades, literacy rate rising from 20.44% in 1991 to 43.9% in 2001, and female literacy lags behind male literacy by about 22 percentage points. Over the 1990s and early 2000s, female enrolment rates at the primary level were rising and gender gap converging, though female enrolment rate is still to catch up with male enrolment rate. A serious problem though is the **school drop-out rate** being worst in the districts of Baran, Banswara, Dungarpur, Jaisalmer, Rajsamand, Sirohi and Nagaur, all of which (excepting the last) lie in geographically difficult region or in tribal inhabited districts. The Human Development Report Rajasthan 2008 makes an observation that school retention rates in Rajasthan are not high enough for achieving social and economic development targets.

Child marriages are still prevalent in Rajasthan. A survey of more than 5,000 women conducted by the national government in 1993 showed that 56 % girls had married before they were 15. Of those, 3% married before they were 5 and 14% before they were 10. Large families and poor health of children and mothers is the result. Child marriage, along with little or no education, economic dependence, denial of decision making power, and inequality within the home affect maternal health seriously. Apart from serious health consequences, child marriage also takes away the educational opportunities, which affects employment and income generation, thus 'sowing the seeds of lifetime dependency' and lack of confidence.

It is accepted that women eat last in the family. Within the family the most nutritious food goes to the men and boys. As a result females exhibit high incidence of **anemia** and low **BMI**. One third of women in 2005-6 are estimated to have lower than normal Body Mass Index. More than half of the ever married girls between 15 and 49 years are estimated to be anaemic. The health status displays that Maternal Mortality Rate (**MMR**) for the state continues to be amongst the highest in the country. It was 56.1 in Rajasthan according to the NFHS-3. The incidence of malnutrition is also high despite great improvements in food production and distribution.

6.5 Access to services

Women's **access to healthcare** continues to be a big challenge in the state particularly in the remote rural areas (K. Mathur, n.d.). The western region displays a shortage of health centres, lack of female doctors and para-medical staff, lack of privacy, distance of facility coupled with the lack of transport and economic resources to go to health centres are major hurdles. Varma (2004) points out that in Jaiselmer, the nearest health centre is at an average distance of 35 km from a village. Jaiselmer and Barmer are the bottom performers as far as achievement in institutional deliveries is concerned (GoR, 2007). Further there is very little awareness regarding family planning in the region and even less willingness among women to talk of such issues with their husbands (Gravis 2005). These issues are common to the whole of Rajasthan and vary only in degree.

To get a bucket of **drinking water** is a struggle for most women in the country. The virtually dry and dead water resources have led to acute water scarcity, affecting the socioeconomic condition of the society. The drought conditions have pushed villagers to move to cities in search of jobs, whereas women and girls are trudging still further. This time lost in fetching water can very well translate into financial gains, leading to a better life for the family. If opportunity costs were taken into account, it would be clear that in most rural areas, households are paying far more for water supply than the often-normal rates charged in urban areas. Also if this cost of fetching water which is almost equivalent to 150 million women day each year, is covered into a loss for the national exchequer it translates into a whopping 10 billion rupees per year (Srivastava, 2003). And with increasing water scarcity and water pollution, water related diseases increase women as care givers also carry a disproportionate the burden of water borne diseases. In times of scarcity, women would have to walk four to five kilometers for water. They also procure fodder and fuel wood, both of which are scarce in times of drought. The average time by women on these activities was 18 hours a day (Kishore 2004).

The rural household typically is conceptualized in **extension programs** and agricultural policies as a unit made up of individuals working in similar ways to meet common goals under the direction of a male head. In reality, the household is a more complex and dynamic social entity which may change its composition and goals over time as family members and dependents of varying age groups and sexes engage in various activities to meet the specific responsibilities assigned to each. It is thus misleading to make assumptions about the particular patterns in gender relationships to be found in any one household on the basis of data from elsewhere. Investigations conducted in selected states in India show that more than 60 per cent of agricultural operations are performed by women farmers, yet the fact that "most farmers in India are women" is simply not reflected in extension provision or training (Janice et al, Improving women's access to extension services, Reference Manual, FAO Corporate Document Repository). Women are more involved in seed management, livestock management, horticulture, yet extension programs focus on men only. Trainings for women are conducted on home science or home economics, while trainings on improving production from cash crops, accessing information and inputs are predominantly focused on men. Ignoring the domestic responsibilities of women, training centres are seen

to be lacking provisions for different sleeping quarters, crèches for women and their infants. There is lack of sensitivity in timing the trainings according to free time available for women.

Gender Responsive Budgeting in the Department of Agriculture serves to assess how effectively the services of the Government are meeting the needs of women and girls, in relation to the men; how much the policies are focused towards women; and how much of the expenditure of the State in the Department is reaching the women. From 1991 to 2001, there is an increase of 22% in the share of women in work participation; work participation among men in the same period has gone up by only 1.4%. Gender differentials in work participation are reflected in the fact that women comprise less than half of the main workers; among the marginal workers, majority are women. Further, for both the categories, daily wages earned are lower for women.

Table 6.2 Snapshot of Gender Responsive Budgeting for the Department of Agriculture

Scheme	Description	% female beneficiaries (2004-6)
Amulya Neer Scheme	Under this scheme, subsidies are provided to farmers for purchase of Sprinklers Irrigation System, Irrigation Pipelines, Sprinkler Reservoirs and Drip Irrigation; in most of these schemes, greater subsidies are provided to women farmers.	12
Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM)	Under the scheme, subsidy is provided to the farmers for organizing demonstrations for oilseeds, pulses and maize.	5
Mini Kits	Mini kit demonstrations are organized for different varieties of oilseeds, pulses and maize.	7.28
Training for women on various aspects of agriculture	From 1999 to 2006, there has been a decrease in the number of women undergoing this training.	6180 women trained

Source: Snapshot Gender Responsive Budgeting, Dept. of Planning, GoR, 2006

6.6 Women's participation in development programs

Women's participation in watershed management has been analyzed by Sreedevi et al 2007. An important concern in watershed development is the sharing of costs of land and water resources development, equitable distribution of the benefits consequent to enhanced crop production. The focus on land development often gives projects a male orientation. Even though government guidelines encouraged greater participation of women in watershed groups, women are often not recognized as members of the watershed committees in their own right; they are viewed as being there to fill the quota required under the guidelines (Seelay et al. 2000). At present in some parts of India social customs do not allow active participation and involvement of women in functioning of committees and village organizations. Women are generally losers in watershed development as they lose the access to common lands for grazing of animals and fuel collection (Meinzen-Dick, 2004).

Box 6.1. A woman's perspective on watershed planning

A woman member of the watershed committee in the tribal district of Surguja in eastern Madhya Pradesh was asked how women's priorities had been incorporated into the watershed plan. She said that she knew nothing about the plan or its contents. She complained bitterly about all the women in the village being debarred from wage employment on the watershed works. The agricultural officer present, the person responsible for the watershed project, explained to the visitors that women did not qualify for membership of land based 'user groups' because only men owned land. Hence, only male landowners had been considered eligible for wage work for land development. He went on to explain that two 'self-help groups' of women had been formed: one for weaving mats from palm leaves, and the other for making brooms. Each group had been given a returnable revolving fund of Rs 500010 to get on with regular savings and producing their respective products for earning income. The woman committee member fumed at the very mention of mat weaving. She told the visitors that it took 8 to 10 days to weave a single mat that could be sold for barely Rs 35 to 40. In contrast, the minimum daily wage for unskilled work was Rs 48.50. She went on to say that within her tribal community, the tradition was that both women and men controlled their respective incomes, thereby enabling married women to enjoy a relatively more equal status with their men and also ensuring greater household food security through their independent earnings.

Source: Seeley et al, 2000. Women's Participation in Watershed Development in India. Gatekeeper Series, No 92. IIED Publ.

The watershed programme has altered access to **Common Pool Resources (CPRs)** such as village common lands, forests and water resources through the creation of, for example, tree plantations in these areas. The closure of common lands for tree plantations leads to the loss of access to grazing areas. This particularly affects the landless and poor, single women eking out a living by raising a few goats, forcing such villagers to sell small livestock or change to a stall-fed system, which usually increases the workloads of women and children. This problem is particularly acute where there are limited areas of CPRs and where the community is highly stratified. Without planning processes giving focused attention to the resource use patterns of the poor and women, such CPR development often curtails, rather than increases their resource access.

Gudha Gokulpura is a small village in Hindoli Block of Bundi district. It has 6 hamlets. The major source of livelihood is livestock production. Total population of the village is 1450 (about 276 households). 246 households are small & marginal farmers, 3 are landless. Villagers from Gudha Gokulpura and neighbouring villages sent their livestock for free grazing and all cultivable wastelands and common lands were degraded. Community leaders supported by BAIF staff were able to get 45 ha out of 70 ha of Gram Panchayat/ village grazing land available for silvi-pasture development. People from other villages as well those of Gokulpura opposed the idea of pasture development as they had doubts about its purpose.

But landless women requested BAIF to start the work. The organization trained the women on silvi-pasture development after which they worked hard on the common lands even in summer. Norms for pasture development were decided in the village meeting with the involvement of panchayat members. A pastureland committee was selected with representation from all hamlets, five men and two women were selected and one panchayat member was selected as President of the Pastureland Committee. In this way the pasture development was able to involve the vulnerable landless women from the beginning of the project, and the community also gained the support of the Panchayat for long term sustainability of pastureland management.

Source: Silviculture development and management case studies by BAIF Development Research Foundation. BAIF/ NRI Goat Research Project No. 8. NRI Report No. 2684. 2002.

Studying the gender impact of irrigation programs in Rajasthan Dalbir Singh (2003) has stated that though irrigation projects have increased family incomes, education levels, household sanitation, and reduced chances of sexual harassment during water collection, increase in income has also led to increase in alcohol consumption leading to wife battering. Regarding women's participation in committees Singh has found that participation of females is minimum in caste based organizations. Participation in village assemblies is extremely low. Only educated female members and Anganwadi workers participate in meetings.

Box 6.3 Women's inclusion in water management organizations

The Rajasthan Water Sector Restructuring Project included 3 pilots on ground water management in Sikar, Jodhpur and Rajsamand districts. The pilots in Sikar (Piprali block) and Jodhpur (Mandore Osian) were implemented by CECOEDCON (Centre for Community Economics and Development Consultants Society) based in Jaipur.

In these projects community based organizations were promoted at two levels, viz., Gram Panchayat Level Committees (GPLCs) at Gram Panchayat level, and Ground Water Management Associations at block level. According to the project guidelines the composition of the GPLCs should be: 1 marginal farmer, 1 small farmer, 1 semi-medium farmer, 1 medium farmer, 1 large farmer, 1 SC, 1 ST, 1 OBC, 1 woman, 1 artisan, 1 other.

All members should be water users in the area; only the farmer categories should be land owners in the project area. The facilitating organizations followed two principles during mobilization stage, first that membership would be open to any member of the family. Secondly, the organization follows the principle of 50% representation of women in all community based organizations promoted; in this project too, the organization tried to achieve equal participation of women in decision making bodies although the project guidelines did not mandate this. The organization also had a female gender specialist on each project pilot to strengthen women's participation in the project.

As a result high representation of women was achieved in GPLCs. In the Sikar project out of 32 GPLCs promoted, 15 committees had women as office holders, and women were elected as presidents in GPs of Palsana, Ranolia, and Gongala Panchayats. The block level GWMA had a female of 16 out of 32 members.

Women's participation in drinking water and sanitation program has been analyzed by Awasthi (2010). The paper describes how when they are first approached women refuse to talk to NGO staff saying that what is there for women to decide in a water supply project, it is men's work and they alone should be consulted. Starting from this difficult position the paper goes on to describe strategies that were used to enhance women's participation such as, constituting a team of female staff to initiate women's participation in the project, making it mandatory for women to decide the location of public stand posts and household toilets (thus legitimizing women's role), construction of toilets in the name of active female member of household, engaging women through issues of child care and their own reproductive health to enhance their interest in project activities, leadership training for women, introducing revolving fund for micro-enterprises to sustain the involvement of

women after water supply was commissioned, gender sensitization of community leaders to facilitate participation of women in village committees etc.

Chayal et al (2010) have analyzed the **role of women in agriculture**. The authors have stated that though women do 70% of the farm work, they remain invisible workers, women workers are typically and wrongly characterized as economically inactive and playing a supportive role as farmers' wives. Referring to a study of Bundi district the authors have concluded that women's participation is maximum in cutting, picking, cleaning of grains, drying, storage, processing operations and cleaning of fields, raising nursery for seedling, weeding, shifting produce to threshing floor, winnowing and grading operations. There is no participation of women in ploughing of fields, plant protection measures and marketing of produce. Many studies have recorded crop specificity of labour contribution by women. In Punjab Sain and Aggarwal (1999) that women contribute only 13% to total labour use in wheat production, but 38% in potato production and 60% in vegetable cultivation.

In Rajasthan women are unable to contact persons who lend machines, and women also do not normally participate in selling of agricultural produce. Women headed households therefore, need special support for such essential activities.

Gender dis-aggregated workload in agriculture: In the Indian Himalayas a pair of bullocks works 1064 hours, a man 1212 hours and a woman 3485 hours in a year on a one hectare farm, a figure that illustrates women's significant contribution to agricultural production (Shiva FAO, 1991). There is need for further research on time utilization of women, and on the ways in which their invisible but productive activities can be equally valued. Women's contribution to agriculture is often under-valued, both by society and by the government. Programs to involve women have to take into consideration the major constraints face by women in participating in programs and benefitting from the interventions, mainly on account of non-comprehension of market situations consequent to low literacy and awareness, lack of economic independence and low involvement in household level decision making.

Box 6.4 Implements promoted by GVT for reducing drudgery of women in agriculture

Name of Activity	Benefit for User
Improved Sickle	<ul style="list-style-type: none"> • Easily used for harvest the crops, less bending required • Increased fodder availability as longer stalks are obtained • Maintenance expenditure very low as compare with traditional sickles • Less possibility of cutting hands
Hand held Maize Sheller	<ul style="list-style-type: none"> • Use for threshing the maize which for seed purpose under composite maize • Faster removal of seeds • Quality of threshing is very good
Pulley on Wells	<ul style="list-style-type: none"> • Ease of drawing water from wells
Hand Cart	<ul style="list-style-type: none"> • Easy transportation of crop from field to home

6.7 Key Issues:

- Women not recognized as farmers in their own right
- Unequal access to & ownership of resources; no role in decision making, finances, marketing of produce
- Low access to info, technologies, capacity building
- Low mobility, health status, and literacy levels of women
- Risk of increasing women's workload & drudgery
- Existing policies & guidelines make no attempt at mainstreaming role of women in water management

6.8 Implications for RACP:

- RACP explicitly recognizes women as farmers
- Gender dis-aggregated baseline data collection
- Consultation, participation, inclusion of women in planning, implementation & monitoring, in institutions, and training
- Gender sensitive & gender positive customization of IEC, training modules, project interventions
- Promotion of drudgery saving devices in agriculture
- Application of Gender Strategy

Chapter 7: Scheduled Castes

7.1 Introduction

Caste is an unfortunate social reality in India. It promotes the process of marginalisation, stigmatization and alienation of deprived sections including SCs. Exclusion and discrimination adversely affects economic growth due to less than optimum use of labour and other resources.

Correcting exclusion/discrimination therefore is an issue of both equity (and poverty reduction) and economic growth.

7.2 Status at national level

Socio-economic sketch of Schedule castes (SC) show the adverse consequence of past and present economic exclusion on the SC. This is reflected in high degree of inequality between them and other sections with respect to ownership of capital assets, employment, and wage earning education and health situation and others indicators of human development. Inadequate access to fixed capital assets, lead to exceptionally high dependence of the SC household on manual wage labour. In the year 2000 about two-third of SC rural households were landless and near landless, compared to one-third among others. Less than one-third of households have acquired access to capital assets, compared to 60% among others. About 60% of SC households have to depend on wage labour, much higher than the one-fourth for others. Employment rate and wage earnings also tend to be low.

Information on the ownership of agricultural land by the SC in rural area provides some insights for low proportion of self-employed cultivators among the SC household in rural area. In 1991 about 13% of SC households were landless and 87% own some land. Among the latter (that is land owning household), about 56% owned less than one acre (of which 47.50% own less than half acre). Thus the landless and near landless (that is those owning less than one acre) account nearly 70% of the total SC household in 1991. Evidence for more recent year, 1999-2000 from alternative source namely NSS Employment survey put the figures of landless and near landless-ness among the SC in vicinity of 75 percent. High incidence of poverty among those SC households engaged in self-employment in agriculture and in non-agriculture indicates that they are normally concentrated in small farm and low income petty businesses.

Cumulative impact of these disparities is reflected in high levels of poverty - about 36% among SCs as compared to only 21% among others. Poverty is particularly high among the SC wage labour households in rural (60%) and urban area (70 %).

7.3 Status of Scheduled Castes in Rajasthan

7.3.1 Demographic profile:

Rajasthan, the largest State in terms of area, has the Scheduled Caste (SC) population of 9,694,462 as per 2001 census constituting 17.2 per cent of the total population (56,507,188) of the State. The SC make up 17% of the population according to the 2011 census. The state holds 7th rank in SC population and 10th rank in terms of proportion of SC population to

total population among all States and UTs. Fifty nine (59) castes have been scheduled in respect of Rajasthan. The SC population has registered a growth rate of 27.4 per cent during 1991-2001, which is lower by one per cent than the growth of the total population.

Scheduled Castes are predominantly rural as 79.8 per cent of them live in the villages.

District wise distribution of SC population shows that they have the highest concentration in Ganganagar with a share of 33.7 per cent to the total population, followed by 26.1 per cent and 23.2 per cent in Hanumangarh and Karouli districts respectively. Both Dungarpur and Banswara districts (4 per cent each) have the lowest share of SC population to total population of districts preceded by Udaipur (6 per cent).

Chamar constitute highest proportion (76.7 %) of the total SC population in Bharatpur district, followed by Dhaulpur (68.2 %), Jhunjhunun (59.7 %) etc. The other larger SCs, Megh, Bairwa, Thori, Balai have registered maximum proportion in the districts of Jaisalmer (83.7 per cent), Dausa (56.6 per cent), Ganganagar (41.5 %) and Sikar (61 %) respectively.

The over-all sex ratio of the Scheduled Caste population in Rajasthan is 913 females per 1000 males which is lower than the national average of 936 in respect of all SC population. The sex ratio among the SC children in the age group 0-6 yrs. is 919 which is lower than that of national level (939). Among the larger group, Bhangi have the highest (946) and Khatik have the lowest (885) child sex ratio. Except Bhangi, the other seven SCs have the sex ratio above 900 but below the national average.

7.3.2 Socio-economic profile

The work participation rate (WPR) of the SC population in the state is 41% which is slightly higher than that of all SCs at the national level (40.4 per cent). Male work participation rate (48.5 %) has not registered any increase whereas female WPR (34.1 %) has shown an accretion of 5.2 % during 1991-2001. Among all workers, 70.3 % workers are main workers the proportion being lower than that recorded for all SCs at the national level (73 %).

At the individual level, the numerically larger group, Megh, Baori, Bairwa, Thori, and Chamar Balai have registered higher WPR whereas Koli, Khatik & Bhangi have shown lower WPR than that of all SCs at national level. Similar trend has been shown by these major castes in respect of female WPR also. Majority of the SCs workers are engaged in agriculture. As many as 44 % of the workers are 'Cultivators' which is more than double of the national average of 20 % in respect of all SCs in this category. 'Other Workers' also have a significant share of 32 % showing higher proportion than that of all SCs at country level (30.5 %). Persons working as 'Agricultural Labourers' constitute only 20 % which is significantly lower if compared with that of the country (45.6 %). Workers in 'Household Industry' account for 3.4 % which is very close to that of the total SCs at the national level (3.9 %).

At the individual caste level, Megh, Bairwa, Balai, Thori, Baori and Chamar have the highest proportion of 'Cultivators' whereas Bhangi, Khatik and Koli have the highest percentage of 'Other Workers' in their total working population.

7.3.4 Human Development profile

The Scheduled Castes of the state have a **literacy** rate of 52.2 per cent which is slightly lower than the national average (54.7 %) in respect of all SCs. There has been a significant improvement in the rate of literacy during the decade 1991-2001. The over-all literacy rate, which was merely 26.3 % at 1991 census has increased to 52.2 % at 2001 census, higher by 25.9 %. Male literacy has increased from 42.4 % to 69 % while female literacy has increased four times i.e. from 8.3 % to 33.8 % during 1991-2001.

Among the major SCs, Khatik have registered the highest literacy rate (64.4 %), followed by Chamar, Balai, and Koli etc. Megh has a considerably lower literacy rate. Khatik also have female literacy (45.6 %) higher than that of the national average (41.9 per %). Other major SCs namely Chamar, Balai, Koli have revealed female literacy higher than the state average but lower than the national average. Baori have shown the lowest over all as well as female literacy.

The **IMR** in general is very high in India. According to the NFHS-1, the IMR for India as a whole was 86 per thousand (this refers to the ten-year period prior to the survey; since the survey was conducted during 1992-1993, this would imply 1982-1983). The level was much higher for the SCs (107), but close to the national average for the STs. For the non SC/STs, the rate was slightly lower, 82. The all India estimates from the NFHS-2 (corresponding to the period 1988-1999) were lower at 73; recent estimates by the SRS show that in 2001, the IMR was 66 for India (India Registrar General, 2003). The SCs (83) and the STs (84) experienced higher than average mortality rates in NFHS-2 too.

It is a well known fact that the children from the scheduled populations face higher risks of mortality compared to the Non SC/STs. The examination of the NFHS data indicates that this is the case for most of the states.

A rough estimate indicates that above 80 per cent of the SC are land-less or have very little land holding. Most of them are daily wage earners in construction and in agriculture sectors. With increasing mechanisation such employment opportunities are also becoming fewer putting pressure on the poor SC families to seek alternate livelihood opportunities.

Despite not many SC owning land, agriculture still is a primary livelihood source for SCs, coupled with wage labour in agriculture, mining and construction sectors and animal husbandry. In western Rajasthan people keep livestock comprising of small animals like sheep and goats mainly. The small ruminants are crucial for the livelihood security of the landless families.

In recent years, there has been increasing trend of the SCs migration to neighbouring states like Gujarat, Madhya Pradesh, Haryana and Punjab in search of livelihoods. Most of them are involved in occupations like agriculture labour, factory workers and construction work. At destination place there are issues of child labour, economic exploitation, harassment and inadequate support mechanisms.

The situation of SC women is characterised by multiple marginality. Their situation is marked by an oppression as a result of being women in a patriarchal order, and then because they

are SC. Dalit women's oppression is manifest in the social, cultural, political, economic, and religious arena. The women of SC communities are virtually absent from decision-making positions in the society as well as in the political, administrative and academic sphere. This is due to many factors like almost zero access to education, lack of experience in public affairs, inadequate support, social marginalization and hegemony, and domestic as well as other responsibilities. Opposite to this situation, the participation of SC women in wage labour works outside home is higher than that of women from other castes. This makes them susceptible to various forms of exploitation. Also, they face discrimination within the community as there is an attempt amongst SCs to follow the patriarchal behaviour of non SC communities. Following behavioural patterns of upper castes the SC men demand similar behaviour pattern from the women as that of the upper castes, wherein women are mostly governed by social exclusion through *parda* and non-participation in the public sphere, taking away from the women the little opportunity they had to move out of the house.

7.4 Key Issues: Issues of SC in agriculture are as same as those of smallholder farmers

- Low access to information, technologies, capacity building
- Low access to credit, seeds, fertilizers, irrigation; indebtedness
- Lack of market information; low marketable surplus, poor negotiating power

7.5 implications for RACP

- Identification of SC in baseline and dis-aggregated data collection
- Consultations with SC and identification of key priorities
- Prioritization in beneficiary selection for private goods and trainings, and flexibility in cost sharing norms for private goods
- Participation and inclusion of SC in project supported institutions and in CACP planning, implementation & monitoring

Chapter 8: Policy, Legal and Regulatory Framework

8.1 Introduction

This section examines applicable social acts and policies in India. Agricultural and related project activities may lead to many social impacts e.g., excessive use of irrigation without proper drainage may lead to salinization of land and loss of livelihood, excessive and improper use of pesticides may lead to adverse impacts on health of persons handling pesticides as well as consumers, disposal of wastes from agro-processing may lead to degradation of productive land, dependence on high value crops may lead to exclusion of subsistence food crops, use of high yielding varieties may lead to increased dependence on external resources.

It is thus relevant to examine the relevant environmental and social legislation that has been put in place to prevent or minimize adverse impacts. There are various policies and Acts of the Central Government (GoI) as well as Government of Rajasthan (GoR) dealing with the management of agriculture as well addressing environmental and social concerns. The present chapter gives an overview of the policy framework at the national and state levels specific to the agriculture sector relevant for this project and the management of social and environmental issues. In addition, the World Bank safeguards policies are discussed, in order to assess the adequacy of the existing (GoI and GoR) policy regulations. Based on the gaps so identified, suggestions have been made in the existing policies/regulations to comply or to be in conformity with the Bank's requirement on addressing the environmental and social issues of the activities under the proposed project.

8.2 Safeguard Policies of the World Bank

Safeguard and operational policies of the World Bank *applicable to RACP* are the following:

OP 4.10: Indigenous Peoples

While Indigenous people (tribal communities in the Indian context) will not get adversely affected by project interventions, often they get left out of the development process. This essentially requires a strategy on inclusion of tribal communities in project activities and helping them access project benefits.

The project area covers districts inhabited by tribals and needs to ensure free, prior and informed consultation, and inclusion of tribals in participation, decision making and benefit sharing.

OP 4.12: Involuntary Resettlement

Though presently no land acquisition or physical displacement are likely to result from any specific sub-project areas proposed under the project, however, some people may lose use rights to common property resources if interventions are undertaken on commons.

8.3 National and state social policies

Various policies of both the central government as well as the Government of Rajasthan will come into play during the implementation of the project. The following Table summarizes the relevance of these on the project.

The above analysis shows that there is a bundle of safeguard policies framed by the World Bank that is crucial for the implementation of development initiative in any developing regions. In the light of Safeguard policies of the World Bank, an attempt has been made to analyze the policies, acts framed by the Centre and State governments, which has relevance for the implementation of RACP in the State of Rajasthan. These policies/acts, which have both environmental and social implications on the implementation of RACP have been analyzed separately as follows.

Table 8.2 Social policies relevant to the project

Act/Rule/Policy	Brief introduction of the Policy	Relevance to the Project
LAND		
National Policy on Resettlement and Rehabilitation (NPRR) of Project Affected Families–2007	<ul style="list-style-type: none"> This broad guideline to provide executive instructions and is applicable to projects displacing 500 families or more enmasse in plain areas and 250 families enmasse in hilly areas, Desert Development Program (DDP) blocks, areas mentioned in Schedule V and Schedule VI of the Constitution. This policy ensures that the benefits reach the Project Affected Families, especially resource poor sections including SCs/STs and those below poverty level. 	<ul style="list-style-type: none"> Generally this policy is not applicable since the project is not going to displace any person. If common lands are developed and even temporarily closed for use, poor landless people may lose access to the resources on CPRs. As per the Bank’s requirement, even if a single person is displaced or adversely affected (irrespective of the ownership of land lost) support should be extended to restore the loss of livelihood.
Rajasthan Common Land Policy, 2010 (draft)	<ul style="list-style-type: none"> To promote community institutions at hamlets/villages and Gram Panchayat level to strengthen decentralized governance of natural resources. To protect and conserve commons lands, which are essential for the livelihood support, economic growth and for the overall well-being of humankind. To ensure equitable access for all sections of society and the poor in particular, to the environmental services provided by these common lands 	<ul style="list-style-type: none"> The Policy supports revamping of the existing institutions and working with plurality of institutions at the local level to strengthen decentralized governance of natural resources. The management of common lands shall be devolved to the village/ habitation level where the primary users of, and dependents on, common lands are located.
WATER		

State Water Policy	<ul style="list-style-type: none"> The State Water Policy lays down the vision for utilizing all available water resources in a judicious and equitable manner, as well as sound economic manner for improving the quality of life and employment. 	<p>Policy objectives relevant to the project include:</p> <ul style="list-style-type: none"> Sound allocation of water to all sectors, specifically with the objective to reducing water consumption in agriculture in RACP. Optimization of water resources exploitation and improving reliability of drinking water supplies and assuring minimal supply during drought period. Minimizing adverse impacts of water resource development on environment and affected population. Promoting beneficiaries participation in planning and management.
Act/ Rule/ Policy	Brief introduction of the Policy	Relevance to the Project
FARMERS		
National Policy for Farmers, 2007	<ul style="list-style-type: none"> The Policy focuses on the wellbeing of farmers rather than just on production. Aim is to stimulate attitudes and actions which should result in assessing progress in terms of improvement in incomes of families. 	<ul style="list-style-type: none"> The project focuses on income returns from agriculture and therefore, and follows the spirit of this policy. Small farmers needs for capacity building, access to credit, risk reduction schemes and access to markets have to be ensured. Women need special attention in credit access because of their lack of land title/collateral. Kisan credit cards would be issued to women speedily with joint pattas for homestead/agricultural land. Indemnity bonds/guarantees from husband and relatives would be considered by banks to extend credit. Tribals are the most disadvantaged category of farmers. For uplifting their economic status, updation of land records should be done in areas inhabited by tribals. Institutional structures should be strengthened to enable more participatory process in decision making. Documentation of traditional knowledge and crops should be undertaken for creating their stake in conservation and

		protecting their IPRs.
WOMEN		
Gender Policy – National commission of women (1990) and National policy for the Empowerment of Women (2001)	<ul style="list-style-type: none"> • These are intended to create a positive environment for the overall development of women and safeguard the rights and legal entitlements of women 	<ul style="list-style-type: none"> • Applicable as women constitute an important project beneficiary group and the project needs to ensure participation of women and strengthen their role in decision making, in institutions, access to trainings, in reduction of drudgery, and ensuring their right to equal remuneration.
State Policy for Women 1996	<ul style="list-style-type: none"> • To bring improvement in the status and position of women to make the process, modalities and systems dynamic in order to eliminate exploitation and exploitative practices and to create a supportive environment for the over-all development of girls and women. 	<ul style="list-style-type: none"> • The project needs to: Strive towards ensuring equal access to and control over resources and benefits of interventions for women; • Create a conducive environment and appropriate mechanisms for gender sensitization of Government functionaries at all levels and in all departments; • Promote and support effective participation of women in decision-making institutions.
Mahila Kissan Sashaktikaran Pariyojna, 2011	<ul style="list-style-type: none"> • To empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. 	<ul style="list-style-type: none"> • Potential for dovetailing special initiatives for farmer women with MKSP. The MKSP invites project proposing complete package of 'end-to-end' services through linking up women farmers with the community based organizations providing access to a complete package of options from credit, insurance and inputs, to procurement, value addition and marketing of produce
SCHEDULED TRIBES		
National Policy on Tribal Development – 1999	<ul style="list-style-type: none"> • The policy seeks to bring scheduled tribes into the mainstream of society through a multi-pronged approach for their all-round development without disturbing their distinct culture. • Development 	<ul style="list-style-type: none"> • This policy will be applicable to project activities in tribal dominated districts. The need is to ensure that tribal communities participate in the project activities and there are no adverse impacts on local tribal groups.

Tribal development sub plan	<ul style="list-style-type: none"> • Development and empowerment of STs is enshrined in the Constitution and the tribal sub-plans included covered under the Five Year Plans. 	<ul style="list-style-type: none"> • The policy is applicable in the tribal districts. The project interventions should be dovetailed with the Tribal Development Sub Plan in order to facilitate the achievement of its objectives of the sub plan.
AGRICULTURE		
State Agriculture Policy, Draft	<ul style="list-style-type: none"> • Doubling the agriculture growth rate from 2 to 4 percent during next decade through agriculture diversification and expansion of infrastructure, input and marketing facilities, increase the farm income by minimizing cost of cultivation and improving resource use efficiency • maintain ecological balance by appropriate land and water management practice. 	<ul style="list-style-type: none"> • The project aims to increase income from agriculture by strengthening value chains (especially in cash and high value crops) in an environmentally sustainable manner.
LIVESTOCK		
State Livestock Development Policy 2010	<ul style="list-style-type: none"> • Strengthen the livestock sector through improving animal productivity, enhancing production of animal-products and making marginalized sections of the society self-reliant. 	<ul style="list-style-type: none"> • For improving animal productivity and production of animal products depend on the farm economy that is the major source of fodder and concentrate supply. Similarly, grazing lands will be developed for sustaining fodder supply. • The policy also focuses of the upliftment of the Economically and Socially Weaker Sections (ESWS) of the society.

The Rajasthan Animal Disease Act, 1959	<ul style="list-style-type: none"> The Act provides for the prevention and control of disease affecting animal. 	<ul style="list-style-type: none"> Applicable when the movement of any animals or the carcasses then or of any part of animals or carcasses thereof or any fodder or other thing used in connection with such animals which may, in the opinion of the state Government , carry infection the bringing from any neighbouring State or specified place or places therein into the State of Rajasthan or into any specified place thereof of any animal alive or dead or of any part of such animal or of any other thing which may in the opinion of the State Government carry infection. The State Government may, by like notification, specify the season or seasons during which and the route or routes by which any animals may be brought into the State and no person shall bring such animals into the State otherwise than during the season and by the route so specified. For the purpose of preventing the outbreak or spread of any scheduled disease the State Government may, by notification in the Official Gazette, prohibit or regulate in such manner and to such extent as it thinks fit the holding of animal markets, animal fairs, animal exhibitions or other concentrations of animals in any area specified in such notification.
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Table 8.3 National and State Acts

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
LAND					
The Rajasthan Land Revenue Act, 1956	Restriction on conversion of land used publically to other usage	Rajasthan Land Revenue Rules, 2007 and Conversion of Agricultural Land for Non-Agricultural Purposes in Rural Areas Rules, 1992	Allotment of 'wastelands' for bio-fuel plantation and bio-fuel based industrial and processing units No land will be permitted for conversion falling in the catchment areas of a tank or village pond or land used as pathway to any cremation or burial ground or village pond, even if not so recorded in the village revenue map or revenue record.	Department of Revenue, Government of Rajasthan	Relevant to RACP Whereas the Act and 1992 Rules will be helpful in restricting the conversion of common land into other usage, the 2007 Rules are contrary to the principles and spirit of the Act.
RURAL LIVELIHOODS					
The Mahatma Gandhi National Rural Employment Guarantee Act, 2005	The Act aims at enhancing the livelihood security of people in rural areas by guaranteeing 100 days of wage employment in a financial year to a rural household whose adult members are willing to do unskilled manual work.		Provides a legal guarantee for 100 days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage of Rs.100 per day.	Department of Rural Development, GoR	Specific schemes have been undertaken under this Act – convergence of such schemes (under this Act) with the proposed RACP activities may be considered.
RIGHT TO INFORMATION					
Right to Information Act, 2005	To provide right to information for citizens to	Rajasthan Right to Information Rules 2005	Right to information and obligations of public	State Information	It is related to all those organizations and

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
	secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority.		Constitution of the Central Information Commission and the State Information Commission Powers and functions	Commission	individuals who would like to secure information on the activities and schemes under the proposed RACP project. It is relevant to maintaining transparency of project activities.
PANCHAYATI RAJ					
Panchayati Raj Act 1953, 73 rd Amendment 1994	The act leads towards village governance and establish the bottom up approach. The Panchayati Raj Institutions considered as self Government for rural areas whether at the level of a village or a block or a district.		Preparation of plans for the development programs include drinking water, minor irrigation, rural sanitation, natural resources management and other socio-economic and so on, mobilization of resources for relief during natural calamities, removal of encroachments on public properties, organizing voluntary u and contribution for community works and maintenance of essential statistics of villages	Departments of Panchyati Raj and Rural Development, Centre and State governments.	Applicable for RACP, during the implementation of the project activities require institutional support at different levels. This act will support for the active participation of the village communities and other democratic institutions that may yield the effective outcomes of interventions.
TRIBALS					
Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest	The Act recognizes the rights of forest-dwelling Scheduled Tribes and other traditional forest dwellers	Traditional Forest Dwellers. (Recognition of Forest Rights) Rules. 2007	The Act provides three kinds of rights to Scheduled Tribes and Other Traditional Forest Dwellers:	Department of Forest, Government of Rajasthan	This Act is particularly relevant, and will be applicable to the districts

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
Rights) Act, 2006	over the forest areas inhabited by them, provides a framework for recording the same.		Land Rights: Right to continue cultivating land (less than or equal to four hectares) where they have been cultivating prior to 13 December 2005 Use Rights: Provides for rights to use and/or collect a) minor forest produce (<i>tendu patta</i> , herbs, medicinal plants) that has been traditionally collected, b) Grazing grounds and water bodies, c) Traditional areas of use by nomadic or pastoralist communities Right to protect and conserve: Gives the community the right to protect and manage the forest.		with large proportion of tribal population. Where agricultural improvement investments are made on lands inhabited by tribals the project will not question the ownership of their lands.
Extension of Panchayati Raj to Scheduled Areas (PESA) 1996	The Act provides for extension of the provisions of part IX of the Constitution relating to the Panchayats to Scheduled Areas. The Act allows greater recognition to tribal economic and socio-cultural systems, autonomy for local governance and control over natural resources in scheduled areas of the		Every Gram Sabha shall: i). approve of the plans, programs and projects for social and economic development before such plans, programs and projects are taken up for implementation by the Panchayat at the village level; ii). be responsible for the identification or selection of persons as beneficiaries under	Forest Department, GoR Tribal Commissioner GoR	Any project intervention should honour and maintain the autonomy of the tribals. Applicable as project needs to take prior informed consent for project interventions, to ensure that livelihood enhancement interventions are socially acceptable. Introduction of new crops/ technologies should

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
	country.		the poverty alleviation and other programs		including food crops should take into consideration their cultural preferences.
AGRICULTURE					
The Seeds Act 1966,	The Seeds Act regulates the quality of certain seeds for sale.	The Seeds Rules 1968	Regulation of sale of seeds of notified kinds or varieties Certification agency and grant/voke of certificate Penalty	Department of Agriculture, GoR	The project will undertake promotion of improved varieties therefore, to safeguard rights of farmers it is important to generate awareness among farmers about regulations regarding minimum germination percentage of seeds, purity of seeds and redressal and compensation mechanisms available under the Act.
The Insecticides Act. 1968 <i>Amendment:</i> Insecticides (Amendment) Act, 1977 (24 of 1977)	To regulate the import, manufacture, sale, transport, distribution and use of insecticides with a view to prevent risk to human beings or animals, and for matters connected therewith.	GSR 1650, DT. 9-10-1971, Insecticides Rules. 1971	To deal with distribution of insecticides to district agricultural officers Registration, license and other rules & safeguards for handling insecticides by users	Department of Agriculture, Government of Rajasthan	The project needs to ensure the capacity building of farmers for proper use of insecticides, and access to essential equipments and safety measures for insecticide use.
The Rajasthan Farmers' Participation in Management of Irrigation System Act	To promote and secure distribution of water among its users, adequate maintenance of irrigation		Preparation and implementation of operational plan for irrigation application, maintenance of the project.	Water Resource Department, (GoR)	The project needs to enhance the capacity of farmers' organizations to ensure equitable and

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
No. 21, 2000	system, efficient and economical utilization of water to optimize agricultural production, to protect environment and ensure ecological balance by involving the farmers.		Monitoring of water flow and maintaining the record. Resolution of water disputes. Removal of encroachment on the property attached to the irrigation system.		timely distribution of water according to agreed norms, and capacity for conflict resolution
DISASTER MANAGEMENT					
The Disaster Management Act, 2005	An Act to provide for the effective management of disasters.	Various rules	Powers and functions of National and State Disaster Management Authorities Measures by the government and local authority for disaster management National Institute of Disaster Management	National Disaster Management Authority (NDMA) and Disaster Management and Relief Department, GoR	Rajasthan has faced various kinds of weather related disasters including drought, flood, frost, and cyclone. The project has to ensure access to weather forecasts, access to insurance and compensation, and access to seed stocks through seed banks and other measures.
LABOUR AND WAGES					

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
Minimum Wages Act, 1948	In unorganized sector, where labour is vulnerable to exploitation, due to illiteracy and having no effective bargaining power, minimum rates of wages are fixed/ revised both by Central and State Governments in the scheduled employments falling under their respective jurisdictions under the provisions of the Minimum Wages Act, 1948.	Minimum Wages (Central) Rules, 1950	Under the Act both State and Central Government are "Appropriate Governments" for fixation/revision of minimum rates of wages for employments covered by the Schedule to the Act. The rates of wages once fixed are revised at an interval not exceeding of five years.	Ministries of Labour of both Centre and State Governments	The project will involve wage work on the farm (sowing, weeding, cultural operations, harvesting), construction work on rainwater harvesting structures, and wage work throughout the value chain. The project should make efforts to ensure latest minimum wage rates to the workers.
Equal Remuneration Act 1976	Provides for the payment of equal remuneration to men and women workers and for the prevention of discrimination, on the ground of sex, against women in the matter of employment		No discrimination can be made in recruiting men and women, or in their wages for same work.	Ministry of Labour	Women are likely to be involved in wage work in farm activities and value chain. The project needs to ensure equal remuneration and work opportunity to women.

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
Child Labour (Prohibition & Regulation) Act, 1986	This Act prohibits the Employment of children below the age of 14 in factories, mines and in other forms of hazardous Employment including construction, and regulates the working conditions of children in other employment.		Identification and regular monitoring of work place where the employment of child labour suspected. Identification of health hazard work places. Release of employed child labour if employed. Imposing penalties on employers.	Department of Labour and ICDS, Government of Rajasthan	As the project is likely to involve children in goat rearing and short duration activities such as picking of peas, morally we would not encourage child labour.
Rajasthan Contract Labour (Regulation and Abolition) Act, 1970	The Act regulates registration, licensing of contractors and working conditions for wage workers	Rajasthan Contract Labour (Regulation and Abolition) Rules, 1971	Registration of Labour Contractors, Maintain the interest of labourers in general and women particularly. Provision of wage equity.	Department of Labour, GoR	The project is likely to involve labour in intensification of crops, grading, processing etc. The projects needs to ensure the working conditions including working hours, provision of basic facilities for drinking water, sanitation, crèche for children of working women etc. according to the Act.
MINORITIES					

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
The Rajasthan State Commission for Minorities Act, 2001	The Commission is responsible for evaluation of development of minorities, monitor the working of safeguards provided for minorities in the Constitution and in laws enacted by Parliament and State Legislature.				<p>There are many service providing communities in the project area such as Bagadia, Sansi and others. It is important to protect their interests and livelihoods when introducing new services in the project area.</p> <p>The project interventions should also ensure that the minorities have equitable benefit sharing from the interventions.</p>
AGRICULTURAL MARKETING					
Milk and Milk Product Order 1992, and various amendments	Provides for regulating the production, supply and distribution of milk and milk product for maintaining and increasing the supply of liquid milk of the desired quality in interest of the general public		The Act regulates quality of all milk products, their sanitary requirements, certification, packing, marketing and labelling requirements.	Ministry of Consumer's Affairs	Applicable in the case of supply and distribution of milk in the goat rearing clusters.

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
The Food Safety and Standards Act, 2006	Consolidates the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption.	The Food Safety and Standards Rules, 2011	- endeavour to achieve an appropriate level of protection of human life and health and the protection of consumers' interests, including fair practices in all kinds of food trade with reference to food safety standards and practices - in cases where there are reasonable grounds to suspect that a food may present a risk for human health, then, depending on the nature, seriousness and extent of that risk, the Food Authority and the Commissioner of Food Safety shall take appropriate steps to inform the general public of the nature of the risk to health, identifying to the fullest extent possible the food or type of food, the risk that it may present, and the measures which are taken or about to be taken to prevent, reduce or eliminate that risk;	Food Safety and Standards Authority of India	The project focuses on value addition of food crops. In order to safeguard the rights of consumers and livelihoods of producers, it is important that the value chain processes are in line with the standards specified in the Act. The Act regulates levels of additives, residues and contaminants/adulterants in food articles, labelling and advertising of food products, sanitary standards for food outlets, and specifies acceptable composition for certain age groups such as infants. Important for value addition of food crops.

Law / Regulation	Aim	Rules	Provisions	Enforcing authority	Relevance to RACP
Rajasthan Agricultural Produce Marketing (Regulation) (Amendment) Act 2007	Based on the model APMC Act, Rajasthan Govt. made amendments to the existing APMC Act titled Rajasthan Agricultural Produce Marketing (Amendment) Act 2007.		Granting licenses for direct marketing or establishing private markets for: a) processing of agricultural produce; b) trade for specific produce; c) export of the produce; and d) grading, packing and transactions in any other way for value addition of the produce.	Rajasthan State Agricultural marketing Board (Government of Rajasthan)	Project will promote Farmers' Cooperative based agriculture produce marketing, projects need to ensure compliance with provisions of this Act

8.4 Gaps in policy and legal framework

The analyses of various policies framed by the governments both centre and state relating to socio-economic conditions reveals that there are certain policies that work on both social and environment fronts. For example, such policies include forest related provisions, national policy for farmers and livestock policy. These instruments can facilitate the implementation of the project activities sustainably. Certainly, the existing policy framework may be effective, but there exist gaps that need due attention. These gaps are as follows:

- Lack of coordination among the policies and their enforcing authorities that create vacuum for implementation of the project.
- Lack of mechanism for ensuring the participation of different stakeholders in water policy.
- Lack of effective legislation for regulating groundwater over-exploitation. The groundwater regulating bill is still pending.
- Increasing incidences of encroachments on common lands while there are provisions of vacating it from the individuals.
- Lack of clear guidelines on inclusion of women, tribal communities and other marginalized groups in the decision making process in agriculture market committees.
- There is a need for training on social and environmental issues for market committees, traders and functionaries of various line departments

The identified gaps in the policy/ legal framework will be addressed under RACP by opting various strategies and action plans that will be developed as part of the Social Management Framework and Social Action Plan (SMF/SAP).

Chapter 9: Institutional and Governance Context

9.1 Panchayati Raj Institutions and Decentralized Governance

Panchayats in one form or another have been an integral part of rural socio-political life in Rajasthan. Between 1939 and 1948, seven princely states of Rajasthan passed resolutions according statutory recognition to the Panchayats. Later the Rajasthan State Legislative Assembly enacted the Rajasthan Panchayat Act, 1953. A tehsil Panchayat at the intermediate level and districts boards at the district level were constituted through this enactment. Later the Balwant Rai Committee recommended a three-tier Panchayati Raj system at village, block and district levels across the country and the term 'Panchayati Raj' came into use as a process of governance. Mathew, 2000 described it as a system organically linking people from the Gram Sabha to the Lok Sabha.

Rajasthan was the first state to inaugurate the Panchayati Raj on October 2, 1959. Extension officers from departments of agriculture, animal husbandry, industries, education, social welfare etc. were placed under the Panchayat Samiti that was like a mini-government at the block level. Gradually however, various development agencies came into being such as Small Farmer Development Agencies, and District Rural Development Agencies for initiating rural development programs. Funds also started flowing directly to these programs by-passing the PRIs. Further, irregularity in elections of PRIs meant that the overall administration passed into the hands of Block Development Officers at the Block level and Collectors at the District level. This bureaucratic system continued till 1995 when the 73rd constitutional amendment made it compulsory to hold elections. It mandated that the states will constitute Panchayats as institutions of self-government not only for villages, but also at intermediate and district levels, and henceforth there would be three strata of government: the Union, the States and the Panchayats.

In consonance with the constitutional status provided to the Gram Sabha, the PR 1994 Act of Rajasthan delineates the powers and functions of Gram Sabha. Prescribing a quorum of one tenth of all adult members for meeting it has been laid down that Sarpanch (Chairperson) or Up-sarpanch (Dy. Chairperson) should convene a meeting of the GS at least twice a year, failing which (on the report of Panchayat Samiti) the state government can suspend or remove the Sarpanch/Up-sarpanch. This institution of grass root democracy has thus been strengthened. But the GS has not been empowered to approve or reject activities & programmes of Panchayats.

The Act also provides for reservation of seats for weaker sections of society, undoubtedly this is a big step ahead from the provisions of the earlier Act which provided for co-option of members of such sections. The huge number of PRI representatives, especially women and those belonging to SCs/STs and OBCs, are first timers therefore the need for training and proper orientation need not be over emphasized. The government of Rajasthan has been sponsoring a large number of comprehensive training programs.

With reference to staffing of the newly set up PS and ZP's, there is not much variance from the previous system despite the recommendation of the State Finance Commission that any function transferred to PRIs by the government should be accompanied by transfer of budget and staff, but no department has done so. However, formal links have been established between District Rural

Development Authority (DRDAs) and ZPs. The Zila Pramukh has been made Chairman of the DRDA, though financial powers remain with the erstwhile Chairman, that is the Collector who continues to have a role in supervision and implementation of DRDA schemes. Section 89 of the 1994 Act has provided for the constitution of a Rajasthan PS and ZP service consisting of Village Level Workers, Gram Sewaks, primary school teachers and clerical staff. While recruitment is to be made by PRIs based on recommendations of the District Establishment Committees, the state government retains the right of transfer as well as assigning duties and functions and prescribing service rules.

9.1.1 Financial Decentralization

In accordance with the constitutional provision, the government of Rajasthan set up the First State Finance Commission in April 1994 and accepted in general the recommendations submitted by it. The 1994 Act has provided powers for imposing taxes to the three levels of RPIs. However it is to be noted that either due to proximity to the voters or due to general resistance to taxation most of the PRIs have very limited income of their own. The statements of own income for 1977 – 98 for Rajasthan show that it was only Rs. 1.46 Crores for 237 Panchayat Samitis and Rs. 3.02 Crores for all the 9,185 Gram Panchayats - which was extremely limited. The own income forms a very small fraction of the total Panchayati Raj budget of the state of Rs. 112.55 Crores. Thus it is amply clear that these institutions of self-government cannot undertake significant activity without massive financial support through grants and other sources (Rai, unpublished). The SFCs generally recommend increase in the share of grants from the state to the PRIs but the question arises that when the state itself is short of funds then what is it that it can further devolve to the PRIs?

9.1.2 Governmental Control over PRIs

The state government has the power to dissolve PR bodies, cancel or suspend their resolutions; it also has the powers of revision, and review of decisions or orders of any PRI, and to appoint officers, etc. in PRIs. The State Government can also carry out inspections of PRIs and their records and institute inquiries against members or chairperson of PRIs, and even suspend or remove them. It has the power to resolve disputes between the PRIs or between a PRI and any local authority. The state government has powers to assign as well as modify functions to GP, PS and ZP. The powers of Panchayats of taxation and of investing surplus funds are also subject to rules and orders of the state government.

Positive Action Taken: Status of Decentralization Processes in Rajasthan

(Source: Presentation: Dr. Anita IGPRS, Jaipur, 2009)

- Three-Tier PRI – Set up in place: Electoral Devolution has happened!
- Time bound 5 yearly elections held
- Political Reservations for SC, ST, OBC in proportion to population and 1/3rd Reservation for Women, introduced since 1995- making the excluded- a majority voice! Now amended Act enables 50% Reservation for women with effect from 2010
- State Election & Finance Commissions set up in tandem with the electoral cycle of PRIs
- Rajasthan Panchayati Raj Act, 1994 and Rules, 1996 in force with Schedule- I, II & III respectively- laying down powers & functions of Gram Panchayats, Panchayat Samitis and Zila Parishads- subject to conditions, specified by the State Govt. from time to time
- Panchayat Extension over Scheduled Areas Act (PESA) enforced in Rajasthan with effect from June, 1999 but framing of Rules still pending – hence a paper law

- Gram Sabhas being held since 1995 initially on biannual basis with effect from 2001 onwards on quarterly basis
- Ward Sabhas being held since 2000, Chaired by Ward Panch– after the 2000 Amendment of Rajasthan’s Panchayati Raj Act; making Ward (average population size-300-500) as the pivot for development planning & review
- Right to Information and Social Audit – special integral features of Rajasthan Panchayati Raj Act & Rules
- District Planning Committees formed– as per 74th Constitutional. Amendment, under the Chairpersonship of Zila Pramukh, to facilitate the process of Decentralized Planning, leading to District Plans, feeding into State Plan (Started from 11th Plan onwards)
- Six Standing Committees at all levels of PRIs are elected since 2000, for facilitating inclusive governance- participatory monitoring and supervision of devolved subjects
- Special Mission and Task Force on Panchayati Raj set up by Govt. of Rajasthan headed by the Chief Minister & Chief Secretary, respectively

The deepening of the decentralization process through the Panchayati Raj structure has thrown up new challenges of capacities at the district, block and gram panchayat levels in the State. The planning function of the PRI set-up across sectors requires capacities to develop sectoral plans taking into account the local district needs. However, apart from developing physical infrastructure, the departments find it challenging to visualize and plan other development interventions for better servicing and addressing livelihood challenges of communities (Dept. of Planning, GoR, 2011).

The Department of Agriculture has been transferred to the Panchayati Raj in March 2011 and accordingly a committee has been formed to execute work related to agriculture. Agricultural Supervisors have been attached to the PRIs and the capacity enhancement of the PRI members on planning and execution of agricultural programs is under progress. Under the watershed programs and MNREGA too, technical support has been provided to the Panchayats. According to the water policy, PRIs have a role in water budgeting and water auditing. Since this work requires interdisciplinary technical capacity, the state government has created a Water Resource Centre at the block level having staff experienced in hydrogeology, watershed management, soil conservation etc. These resource centres are expected to facilitate the group planning at village level. The MNREGA provides opportunity for developing essential infrastructure at the village level such as marketing storehouse, collection centre etc.

9.2 Civil Society Organizations

9.2.1 Policy environment

In its broadest sense civil society refers to all citizens; generally this term is applied to NGOs, charitable institutions, and other non-profit institutions, informal groups and their networks. However, social change is not the exclusive domain of ‘organizations’; citizens and even persons from government departments have come together to raise their voice on issues of common interest, witness the recent broad-based anti-corruption movement in the country. Journalists, intelligentsia, judiciary, religious institutions are all known to act in tandem on social issues.

The National Voluntary Sector Policy 2010 is recognition of the role of the voluntary sector in the country. This Policy is a commitment to encourage, enable and empower an independent, creative and effective voluntary sector, with diversity in form and function, so that it can contribute to the

social, cultural and economic advancement of the people of India. The Annual Plan 2011-2012 of the Planning Department, Government of Rajasthan, states that the voluntary sector can play an important role in the development process, particularly through community participation. VOs can offer alternative perspectives; committed expertise; an understanding of the local opportunities and constraints; and perhaps most importantly, the capacity to conduct a meaningful dialogue with communities, particularly those that are disadvantaged.

9.2.2 Types of NGOs

As a result of this positive policy environment, Rajasthan has seen a proliferation of voluntary organizations especially from the nineties. According to the ARAVALI Perspective Plan 2005-10, the NGO sector is a pool of alternative development thought, culture and practice in the state. NGOs of the state are extremely heterogeneous and hence do not lend easily to generalizations on trends and gaps. In terms of capacity, the larger, older organizations have been able to steadily access funds and trained personnel. The larger organizations continue to be multi-sectoral rather than specialized and funded by multiple-donors. There is a cadre of medium sized NGOs across the state which have reached a stage of organizational maturity and stability. Then there is a constant flurry of new organizations being formed everywhere. Majority of these remain on paper and go into oblivion after a short period of struggle and search for funds of any nature and source. Some survive mostly on small grants and schemes or through fellowship supports from larger organizations.

While size and scale is one useful distinction to be made among NGOs, the difference in their orientation and the nature of their work defines more clear categories. Thus in Rajasthan there is a large cadre of welfare and charity oriented organizations among NGOs. These agencies respond to humanitarian challenges and needs through public welfare activities. Many of these are community specific in their origins and often raise public donations and charities. The second category of NGOs in the state is the development service providers that have longer term sectoral programs and projects. Within this category there is a large array of agencies – some are specialist organizations while others are multi-sectoral. The intermediary, support organization forms a third important category in the NGO canvas of Rajasthan. These organizations provide services and inputs to other agencies. The inputs can range from technical (AFPRO) to institutional (ARAVALI / Unnati), to those related to specific subject matters (Digantar / Bodh in the field of education). The BARC (Budget Analysis Rajasthan Centre) analyses the state budgets. The activist and advocacy groups are another type of non-governmental social change action groups even though such groups do not self – identify with other mainstream NGOs of the state. These groups have a strong ideological grounding and are likely to be more in confrontation with the government than others based on their demands for policy reforms, better governance and social justice.

9.2.3 Issues addressed

Voluntary organizations address a plethora of issues. Urban area based NGOs are seen to address issues of access of basic rights (education, health, sanitation, waste management, primary health care services, housing, access to livelihood opportunities and social security for unorganized sector) for slum dwellers, minority communities, and other marginalized groups such as orphans, destitute, differently-abled persons and old age people. About half of the NGOs focus on rural development covering child rights, right to education, right to life, tribal, women, migrants, dalit and farmers' rights, rights of mine workers, micro-finance, livelihoods, population stabilization, access to health

services, awareness on reproductive health and HIV/AIDS. Arid and rain fed agriculture and allied sectors like extension, research or technology development have few takers among NGOs.

9.2.4 Partnerships

NGOs have had an important role in government supported interventions on health, education, poverty alleviation and watershed development in the state. Linkages with government agencies are particularly strong at the block level as staff from animal husbandry, health, and agriculture departments continually support capacity building efforts of NGOs in the field. Since many NGOs now work with the rights based approach, they maintain a delicate balance between advocacy and implementation of state supported initiatives. Some NGOs have a cautious relationship with the corporate sector; they try to utilize the opportunity of funds and professional management of corporates while steering clear of institutions that they perceive to have a bad record of human rights. In Rajasthan the NGO sector has played a crucial role in capacity building of PRIs, particularly EWRs (Elected Women's Representatives) and has thus made a significant contribution to the decentralization process in the state. On the other hand there is a degree of unease in this relationship because of the role of NGOs in social audit and extensive use of the Right to Information demanding transparency in the functioning of Panchayats. Individual NGOs have forged working relationships with various research agencies.

Rajasthan has witnessed many social movements for land rights, right to food, dalit rights, tribal rights and movement for water conservation (Jal Bhagirathi movement). A number of NGOs such as Pratham, CECODECON, and IDS are also involved in bringing out status reports on the development sector including the state of education and progress on MDGs (Millennium Development Goals).

9.2.5 Civil society building

Some NGOs proactively seek and nurture their relationship with other civil society actors. Organizations involved in advocacy focus on sensitization of media on several issues such as disaster management, genetically modified foods, consumer rights, climate change, mainstreaming of smallholder farmers' issues in policies. Social watch of government schemes such as PDS, Mid-Day Meal scheme, MNREGA, access to drinking water, etc. have received ample support from the local and state level dailies. Effective alliances have been formed with the judiciary e.g., the Rajasthan Chapter of Retired Supreme Court and High Court Judges of India have recently played a path-breaking role in providing legal support to movements on food safety, seed bill, and finding legal spaces for international accountability in climate change. NGOs continuously lobby with elected representatives for the most pressing issues of the community such as farmer's right to seeds and safeguarding livelihood of livestock owners and small farmers in the context of multilateral trade agreements. In the last elections NGOs got together for voters education and helped the people to force political parties to commit to a People's Manifesto.

Some of the larger NGOs are engaged in capacity building of smaller organizations on common issues and they provide a platform for voluntary sector to voice their concerns e.g., Sanjha Manch facilitated by CECODECON. The voluntary sector also receives research support from the Institute of Development Studies and capacity building support from ARAVALI, innovation support from the Rajasthan Mission on Skills and Livelihoods, and other agencies, and several research agencies such as the Central Sheep and Wool Research Institute, Malpura, State Institute for Agricultural Management, NIAM etc. Some NGOs also partner in multi-country research studies and are active

members of regional research networks such as the APRN (Asia Pacific Research Network), thus contributing to regional issues of development.

9.2.6 Multilevel Action

NGOs also have strong alliances at regional and international levels for effective micro-macro linkages in policy making. Organizations having a grassroots presence are also able to voice the issues of the marginalized communities of Rajasthan at global forums such as the CIVICUS, ECOSOC, UNCTAD, UNCCD, UNFCCC, World Social Forum, WIDF (World International Democratic Forum), etc. Multi-sectoral NGOs working at multiple levels are able to make an effective impact on the human rights situation as they engage with actors having diverse skills and lobby with policy makers at national and international levels.

9.2.7 Constraints

Given the fact that voluntary organizations work for the rights of the marginalized, they are often pitted against the State e.g., social audit of MNREGA has soured relationship with local governments, and RTI activists are facing threat to their lives. International aid agencies have facilitated the move to rights based approach to development but beyond project activities they give insignificant support to the advocating NGOs and people's organizations.

Though national and state policy documents recognize the role and special strengths of voluntary organizations, in practice the VOs are treated as contractors (not partners in development) and are expected to carry out minutely detailed tasks, with little acceptance of the VO's own expertise, and leaving no room for flexibility (and therefore, no room to respond to changing needs of target groups).

Donors frequently change their priorities, thematic areas and work areas, forcing NGOs to change their focus instead of steadily building on their expertise and progressively realizing the human rights. Many international donors now work only through the government, forcing NGOs to compete through bids in government projects.. Most donors have well-defined objectives and strategies, and NGOs that do not subscribe to their thinking in toto lose out on development aid. Because of very rigid and highly technical reporting formats, smaller NGOs are being marginalized and are becoming more dependent for their existence on government projects.

A major constraint is the stricter regulatory environment in which the voluntary sector has to operate now. Although this affects organizations of all sizes, the serious blow is to the very existence of the smaller fraternity. There are instances wherein in almost every month they are being inspected by various law enforcement agencies. When the officials from Intelligence Bureau visit them to verify mandatory FCRA requirements, the villagers tend to develop a feeling that something is amiss with the organization. This is even true of those VOs operating in so-called disturbed areas. On many occasions, they are required to report their activities on a daily basis. Not only is the staff harassed, but even heads of the organizations are asked to give written undertaking that they would not work in a rights based approach (Harsh Jaitli, CEO VANI, in newsletter e-VANI, May-Jun 2011).

9.2.8 Weaknesses

Because the nature and quality of individual NGOs vary greatly, it is extremely difficult to make generalizations about the sector as a whole. Despite this diversity, the most commonly identified weaknesses of the sector include:

- limited financial and management expertise
- limited institutional capacity
- low technical capacity
- low levels of self-sustainability
- small scale interventions
- lack of understanding of the broader social or economic context
- need to increase transparency and accountability at own level

The Voluntary sector is an important pillar of democracy and needs to be protected and nurtured. There is value degradation everywhere; it is not limited to the political class only. This is also applicable to the voluntary sector. The voluntary sector is very crucial in maintaining a balance and to keep a check on the state and the market that they deliver within the set parameters and fulfil their promises. (Binu Sebastian in an interview in VANI newsletter e-VANI, May-Jun 2011).

9.3 Community Based Organizations

9.3.1 Jati Panchayats

The jati or caste panchayat is one of the four kinds of traditional Panchayats which continue to exist despite the introduction of modern Panchayat institutions functioning on the principle of inclusion and universal adult franchise. The jati panchayat consisting of caste elders performs judicial functions, settles cases of violations of caste norms and rules, dispenses punishment, and has the power to excommunicate.

In Rajasthan, the caste Panchayats are not only common among the Gujjars or Jats, two well-known examples, but are prevalent even in other castes such as the Rajputs, Jains and Brahmins. The caste

Across 16 villages of Aahor block of Jalore, a "Mumkin Hai Committee" has been formed under a local NGO, VIKALP. This has brought together local women, school teachers, Anganwadi workers, ASHA workers and youth of these villages on a common platform with the core objective of making the district "free from domestic violence and girl foeticide".

In Rajasthan, the going for such a platform is bound to be difficult. In many of the rural areas, there is an entrenched mind-set and worse a heinous practice of female foeticide. Child marriage is rampant and girl children are the ones that traditionally denied schooling and kept tied to domesticity. Amidst this, rather to challenge this, over a period of 16 days, this motley group took out a "Padyatra" across several villages like Kotda, Jethpura, Nosra and Gudarma to raise the issues of child marriage and girl foeticide.

After what was an expectedly prolonged reflection and debate in the community, all members came to a common understanding and under the leadership of Ukaram Ji they took the step to pass a resolution, which stated, "no parent would encourage child marriage in his own family". "If any family allows the girl's marriage before 18 years of age and boy's marriage before 21 years of age, the Dewasi community would impose a fine worth Rs 50,000 on the concerned family". In what is clearly of importance in the region, the resolution goes on to add "The guilty family will also have to make available at least two jute bags of wheat for pigeons food".

In the case of Jalore district, it is one man who could see light, who transformed himself to open the way to a larger social transformation. The efforts of Vikalp in the region, the local forum 'MumkinHai' which came together to first visualize and then take action towards a better deal for its girl children came to a fruition with this one man.

If this can be done in one region, changing the perceptions of one person, surely the light can spread, according to the Charkha Development Communication Network. It is perhaps this transformation, which is more enduring than any top-down programmes, which seek to impose rather than co-opt the local people in social change.

Source: Usha Chowdhary, AndhraNews.net Dec 27, 2011.

panchayats are male-dominated, adhering to and perpetrating patriarchal values; they have been known to deliver barbaric judgments, with those at the receiving end often being women. It is the failure of the government which has neither been able to control discrimination nor ensure the rule of law. The Caste Panchayats are vibrant tools that are used for converting social capital into political capital. Some NGOs are however, working with jati Panchayats for putting an end to social evils as shown in the following box 9.1.

9.4 Watershed Committees

9.4.1 Provisions for inclusion of marginalized groups

The Integrated Watershed Management Program (IWMP) follows the Common Guidelines 2008. The Common Guidelines state that Project Implementing Agencies must facilitate the equity processes such as: a) enhanced livelihood opportunities for the poor through investment in their assets and improvements in productivity and income, b) improving access of the poor, especially women to the benefits, c) enhancing the role of women in decision-making processes, and their representation in the institutional arrangements, and d) ensuring access to usufruct rights from the common property resources for the resource poor.

The provisions for inclusion of vulnerable groups in participation and benefit sharing under these guidelines are as under:

Watershed Committees: According to the Guidelines the Watershed Committee (WC) will comprise of at least 10 members, half of the members shall be representatives of SHGs and User Groups, SC/ST community, women and landless persons in the village. The exact numbers from each are, however, not specified.

User Groups: The Watershed Committee (WC) shall also constitute User Groups in the watershed area with the help of WDT. These shall be homogenous groups of persons most affected by each work/ activity and *shall include those having land holdings within the watershed areas*. Each User Group shall consist of those who are likely to derive direct benefits from a particular watershed work or activity. The landless, share croppers and agriculture labourers are therefore automatically excluded. Women, because of the lack of land ownership in their names, also remain outside of the purview of these “user groups”.

Self Help Groups: The Watershed Committee shall constitute SHGs in the watershed area with the help of WDT from amongst poor, small and marginal farmer households, landless/asset less poor agricultural labourers, women, shepherds and SC/ST persons.

Preparing DPR: while conducting baseline surveys every effort must be made to collect gender-disaggregated data to adequately reflect the situation and priorities of women. In preparation of the DPR, including activities to be carried out, selection of beneficiaries and work-sites and design and costing of all works, it must be ensured that the interests, perceptions and priorities of women, dalits, adivasis and the landless are adequately reflected in the DPR.

Under Expected Outcomes and Benefits, especially with respect to livelihoods for different segments, benefits to women, and increase in income of farmers/ landless labourers are to be stated.

Watershed Development Fund: One of the mandatory conditions for selection of villages for watershed projects is people’s contribution towards the Watershed Development Fund (WDF). The contributions to WDF shall be a minimum 10% of the cost of NRM works executed on private lands only. However, in case of SC/ST, small and marginal farmers, the minimum contribution shall be 5% of the cost of NRM works executed on their lands. However, for other cost intensive farming system activities such as Aquaculture, Horticulture, Agro-forestry, Animal Husbandry etc. on private land directly benefiting the individual farmers, the contribution of farmers will be 40% for General category and 20% for SC & ST beneficiaries and the remaining cost of the activities i.e. 60% for the General and 80% for SC/ST category will come from the project funds subject to a maximum limit of an amount equal to double of the standard unit cost norm for Watershed Development Project.

User Charges: The Gram Sabha through the Watershed Committee (WC) shall put in place a mechanism for collecting user charges. No charge will be taken from landless, destitute or disabled / widow headed households for work done on private or public land. The user charges collected shall be credited to the WDF for maintenance of assets created during the project.

9.4.2 Equity Issues

Guidelines 2002 and 2005 mentioned the need for developing fallow and waste lands in ridge areas, lands belonging to small and marginal farmers, CPRs and livestock related interventions.

Guidelines 1994 proposed institutions of direct users (user groups) and indirect users (SHGs). The members in these institutions need not be “owners” of natural resources such as land. But Guidelines 2001 converted the user groups into groups of land owners/land holders. Hariyali Guidelines 2003 followed the same pattern. This articulation **snatches the institutional space of asset (land) less** members. Hariyali Guidelines 2003 emphasized the need for targeting SMF and SC/ST farmers in the context of plantations and employment generation. Apart from this, there is no special mention about the activities that benefit resource poor families.

Paradoxically, **while women are the primary workers in dry land agriculture, they are almost excluded from the core of the program implementation.** While the SHGs of women are involved in savings and credit, the actual program related process of planning and implementing is exclusively located in the men dominated UGs and watershed committees. They are also excluded from the technical capacity building interventions supported under the project. Women are often not recognized as members of the watershed committees in their own right; they are viewed as being there to fill the quota required under the guidelines. There is hardly any representation of women in the project facilitation and administrative structures at PIA or district or state levels.

9.5 Water User Associations

PIM is a prime requirement in the World Bank aided Project namely Rajasthan Water Sector Restructuring Project (RWSRP). Accordingly, formation of WUAs and distributor committees has been completed in the Irrigation Schemes under the Project following the procedure laid in the Rajasthan Farmers Participation in Management of Irrigation Systems (RFPMIS) Act 2000 & RFPMIS Rules, 2002. Schemes not included in RWSRP are being identified where PIM can be implemented with minimal of canal rehabilitation works.

9.5.1 Provisions for Social Inclusion

The concept of involvement of farmers in management of the irrigation system has been accepted as a policy of the Government of India and has been included in the National Water Policy adopted in 1987. Provisions made in the National Water Policy of 1987 were as under:

“Efforts should be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates. Assistance of voluntary agencies should be enlisted in educating the farmers in efficient water-use and water management.”

In pursuance to the provisions in National Water Policy 1987 (and also 2002), efforts have been made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates.

Recognizing the need for a sound legal framework for PIM in the country, the Ministry brought out and circulated in 1998 a model act to be adopted by the State Legislatures for enacting new irrigation acts/amending the existing irrigation acts for facilitating PIM. In accordance with the model act eight State Governments, namely, Andhra Pradesh, Goa, Madhya Pradesh, Karnataka,

Orissa, Rajasthan, Tamil Nadu and Kerala have enacted new acts. The legal framework provides for creation of farmers' organizations at different levels of irrigation system.

Rajasthan passed the "Rajasthan *Sinchai Pranali Ke Prabandh Me Krishkon Ki Sahabagita Adhiniyam, 2000*" also called RFPMIS (Rajasthan Farmers Participation in Management of Irrigation Systems) Act, 2000.

Water User Area: The Project Authority may, by notification delineate every command area under each of the irrigation systems on a hydraulic basis which may be administratively viable; and declare it to be a water users' area for the purpose of this Act. Provided that in respect of the command area under the minor and lift irrigation systems, the entire command area may, as far as possible, form a single water users' area.

Constitution of Water Users' Association – According to the RFPMIS there shall be a Water Users' Association called by its local distinct name for every water users' area delineated under sub-section (1) of section 3. Every Water Users' Association *shall consist of all the water users who are land owners* in such water users' area as members. All members specified in clause (2) shall constitute the General body of the Water Users' Association and shall have the right to vote.

A person shall become disqualified to continue as Member of Water Users' Association or hold the office of Chairperson or President or Member of a Managing Committee of a Farmers' Organization, if he ceases to be a land owner in the area of operation of concerned Farmers' Organization.

Box 9.2 Tribals in PIM

4 irrigation societies studied in South Gujarat were registered as co-operatives under the Co-operatives Act of India. All farmers who own land within the canal command area are eligible to be members of the co-operative society. The study lists several factors for tribals benefiting from PIM.

1. Villages in command areas are 100% tribal or have very small non-tribal population.
2. Tribals in this region are third to fourth generation farmers. And therefore they faced no cognitive barriers in adopting irrigated agriculture.
3. Few tribals own wells and bore-wells than non-tribals, but the Patels from Saurashtra have acted as "demonstration effect" and many tribal farmers who could afford private sources of irrigation have done so. Therefore, unlike the other tribal regions, demand creation for irrigated agriculture did not seem a major issue in the systems.
4. Tribals are poorer than the non-tribals. On an average, a tribal farmer never owns more than 5 acres of land, while a non-tribal one invariably owns more than 10 acres, if not more. But after canal irrigation, yields of all crops have gone up and tribals have benefited almost as much as that of non-tribals in terms of yield gains.
5. Out migration by farmers has reduced by 70-90%
6. When asked about benefits of irrigated farming: Firstly, they can grow a summer crop, secondly, this summer crop gives them ready cash to grow kharif crop, for which earlier they had to borrow money from money lenders. Thirdly, more green fodder is available for livestock due to more crop output.
7. Cost of irrigation varies from between 5 to 15% of the total returns from irrigated farming.
8. Patronage centrality: majority of the farmers who practice irrigated agriculture take water from the co-operative, very few depend on other sources of irrigation such as wells and bore wells for growing irrigated crops.
9. High domain centrality: Agriculture is the main occupation of majority of the people and it has become more central to their livelihoods after PIM. Outmigration reduced.

Source: Aditi Mukherji, Shilp Verma, Prabhat Rath. *Participatory Irrigation Management in AKRSP (I) supported Canal Irrigation Systems in South Gujarat – Impact on Tribals. Central India Initiative.*

Participation of Tribals in WUAs: The Tribal Development Plan under the RWSRP has specified that in schemes where tribals do not get proportional representation, members from this community would be co-opted in WUAs, either through existing tribal organizations or groups formed by participants themselves (and this representation will form part of the By-laws of such WUAs) to ensure that they are fully involved in the decision making process. NGOs undertaking IEC campaigns will explain the need for active tribal involvement in the formation of WUAs and facilitate their participation in the process of social assessment and planning.

9.5.2 Issues

Women's role in PIM: Since the Act specifies that only land owners can be members of the WUA, women are to a large extent automatically excluded from the decision making body as very few women have land titles. This provision also excludes landless (who are water users) from participating in the demand management of the water resource. Ministry of Water Resources, while issuing guidelines in April, 1987, specifically emphasized the States to consider representation of women in the WUAs at all levels. Some of the State Governments have taken some initiative including Madhya Pradesh and Gujarat.

“Madhya Pradesh *Sinchai Prabandhan Me Krishkon Ki Bhagidari Adhinyam*, 1999” enacted in September, 1999 ensures all farmers owners, be it men or women to be a rightful member of the outlet committee.

In 1995, the Gujarat government declared a policy on Participatory Irrigation Management, calling for the participation of farmers in the planning, implementation and management of medium and minor irrigation projects. The government also sought the cooperation of NGOs as catalysts for implementation of the policy. A legal framework for involving NGOs and farmers was established

Box 9.3 AKRSP's experience on mainstreaming gender in irrigation management

Insights on gender differences were drawn from participatory exercises with a range of canal irrigation societies in AKRSP's programmes dominated by *adivasi* (indigenous people in the area of South Gujarat). Women are involved in a number of irrigation activities, such as canal maintenance, field bunding, watering and/or supervising during the day and at night and conflict management on fields and along canals. Yet despite these roles, women often have little say in decision-making as they are only nominal members of the canal societies. Canal water has multiple uses for women, such as bathing and washing clothes and utensils, as well as for livestock. It is increasingly being recognized that these gendered needs ought to be addressed in the design of irrigation systems and the adoption of rules governing access to water by PIM societies. However, such efforts will not be sustainable unless gender concerns in PIM are placed in the larger context of equity where water needs of the landless and other stakeholders also need to be addressed.

AKRSP's strategy:

- As an important starting point, AKRSP has been systematically undertaking gender sensitization training of its staff at all levels to challenge perceptions and attitudes on women's roles and capabilities in natural resource management.
- Building on the success of similar endeavours is essential – for example, women in other project villages had been managing group-well irrigation schemes successfully before AKRSP thought of involving women in PIM.
- Capacity building is important. This includes exposure to other development organizations where women are managing irrigation interventions effectively.
- Women need to be involved from the beginning so that they can also be exposed to the negotiation process with the irrigation bureaucracy, rather than waiting for irrigation societies to start functioning efficiently before addressing equity.
- To facilitate and encourage women's participation in PIM, it is necessary not only to convince women, but also to involve them in other development interventions which address their practical gender needs, such as savings and credit groups. Strong group formation, both mixed and women only, are integral to AKRSP's success in its efforts to involve women in PIM.

(Source: Abstracted from: Vasavada, Shilpa, 2005. “Mainstreaming gender concerns in participatory irrigation management: The role of AKRSP(I) in South Gujarat,” in Sara Ahmed (ed.) *Flowing Upstream: Empowering Women through Water Management Initiatives in India*, Ahmedabad: Centre for Environment Education and New Delhi: Foundation Books).

and ambitious targets for bringing in 50 per cent of the total irrigable command area under PIM by the year 2003 were defined. AKRSP was one of the NGOs involved in this endeavour.

AKRSP's success shows that NGOs can and should demonstrate models that challenge legal criteria for membership which link water rights to land ownership. Such models must illustrate that involving women is not only a question of empowering them, but also of managing community irrigation more efficiently, effectively and equitably, in order to have a strong role in influencing policy and legislation.

Inter-regime equity: In command areas farmers also access groundwater through wells. In addition there are small farmers who have neither access to canal water (because of various reasons) nor do they have the resources to draw ground water – they essentially practise rain-fed agriculture. There is need to consider the inter-regime equity among such sections of farmers within a command area.

Formal rights: Upadhyay (2007) has pointed out that from an essentially legal standpoint two points from the legislative history of Participatory Irrigation Management in India stand out. One, the legal and management regimes for farmers were never owned by them. The laws were made for them, not by or even through them and this despite the fact that they are at the centre of giving it operative effect. Secondly, the legislations did not establish clear water rights.

Constraints in the implementation of PIM:

a) System deficiency: In older projects, there are many problems like deterioration of old control and measuring structures, leakages and seepage at various places, erosion of banks and beds, siltation and weed infestation. These are serious problems, hindering farmers to take over the system management on technical and financial considerations.

b) Uncertainty of water availability: This is another important aspect, as farmers will understandably be reluctant to take on the responsibility for managing the system unless deliveries of water are made reliable, flexible, practical, transparent and responsive to need. The engineers on their part may not be confident about ensuring supply of the requisite quantity of water to the WUAs, as would be obligatory in terms of the MOU signed between Irrigation Agency and WUA. Further, the farmers who have their holdings at the head of the canal tend to appropriate more water than required, whereas the farmers at the tail end often fail to get their apportioned share of water. Head-enders, therefore, have vested interest in continuing the existing arrangements. The tail-enders may not be keen to form WUAs as water supply in such areas remains inadequate and erratic and they remain apprehensive that the situation will not be materially altered if an association is formed. These differences in perceptions and conflicts of interests inhibit the coming together of head end and tail end farmers.

c) Fear of financial viability: Maintenance and operation of the system demands huge finances. Farmers have got the apprehension that in absence of surety of finance, it would be difficult for them to fulfil the requirement of funds for operation and maintenance. They feel that when Government is not able to handle the system with huge money available with them, how farmers would be able to do justice?

d) Lack of technical knowledge: Apart from the financial uncertainty, lack of technical input is one of the inhibiting factors to take over the system. When Government, having such qualified and senior

Engineers, finds it difficult to manage the system, how untrained and uneducated farmers would be able to take up such a highly technical operation and maintenance work of big irrigation systems.

e) Lack of leadership: On account of limited exposure of the farmers to the rest of the world and PIM in particular, potent leadership is lacking, rather on account of limiting knowledge. At times so called local leaders give the negative or unclear version before other farmers which further create misunderstanding among the farmers bringing them sometimes into a fix.

f) Lack of publicity and training: Seeing is believing; and knowledge brings confidence in people. This aspect is lacking and there is a constraint to adoption of PIM.

g) Demographic diversity: Due to variation in economic, ethnic, education levels etc. diversity of farmers, PIM is taking much time in this country. To handle this aspect deep study, analysis and solution need be found out.

h) WUAs vs. Panchayats: In many of the areas, where WUAs have been formed, there is a clash of interest between Panchayats and WUAs on who is to own the system, particularly when watershed schemes are being handed over to the Panchayats. (Source: Status of Participatory Irrigation management (PIM) in India: Policy initiatives taken and emerging issues)

9.6 Self Help Groups

A self-help group (SHG) is a primary community institution usually composed of 10 - 15 women from similar socio-economic backgrounds, organized as internal group and managed through simple self – imposed norms. SHGs have established themselves as effective & self managed financial intermediary at local level aggregating financial needs of poor in amore bankable proposition.

In Rajasthan the Self Help Movement started more as 'social mobilization' of women for their better place in family and society rather than 'microfinance movement'. However, most development practitioners and policy makers gradually realized that mere women participation is not adequate and some direct action in terms of improving economic status of women is needed. That's how many voluntary organizations and government (together and/or separately) started organizing women in to groups to take up small business (income generation activities) collectively.

Over the years, considerable progress has been made in organizing women into groups. The groups of women have to be promoted since new SHGs do not self-evolve. That's where Self Help Group promoting institution (SHPI) plays a key role. Though the concept of SHGs initiated from voluntary agencies, state government (especially its Department of Women and Child Development) has taken a lead in SHG promotion.

There is no comprehensive database of self-help groups in state. It is very difficult to compile the data on all SHGs in the state because of various reasons like- there is double reporting (more than one agency reporting the same group), the groups that have become defunct are not deleted from the list. There is no uniform reporting/ MIS and many SHPIs are hesitant to share the information on their groups. The only reference point for counting of SHGs is the data on bank accounts of SHGs. As on March 2010, total 2.17 lakh SHGs are reported as having bank account. But there is problem in taking this as reference as well. There are good number of groups that are not having bank accounts.

Table 9.1: Numbers of SHGs promoted by SHPIs as of March 2010

	DWCD	NGOs	Cooperatives	Others	Total
ICDS	196,273	1245			197518
SGSY		35,518		11,839	47357
NABARD-SBLP		11,069			11,069
DPIP		18,000			18,000
Others		11,417	47,638	27,690	86,745
Total	196,273	77,249	47,638	39,529	360,689

Source: JP Singh & P Bharghav, *Rajasthan Micro Finance Report 2010*, Centre for MicroFinance

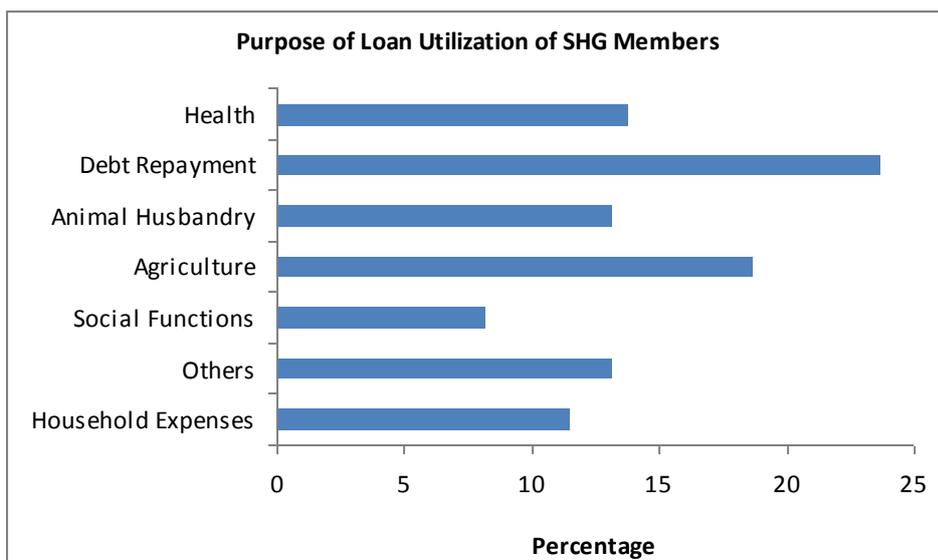
9.6.1 Outreach of Self Help Groups

Taking the actual functioning 2.6 lakh SHGs and the average membership of SHG (12), the total outreach of SHGs in Rajasthan would be near about 31.2 lakh members (while 44 lakhs as per reported figures). Assuming that the members are from different families (though there is more than one member from a family in some groups), SHGs are reaching out to about 32% of rural families. As per the study conducted by CmF (Centre for micro finance), about 40% members in SHGs are from BPL. Assuming this sample statistic as representative of the whole set, about 12.48 lakh rural BPL families can be assumed to be covered through SHGs, which is about 59% of total rural BPL families in the state.

The SHG movement is not uniformly spread out in Rajasthan. The SHG movement has been found to be weak (in terms of HH covered) in districts like Nagaur, Dholpur, Dausa, Karouli, Barmer, Jodhpur, Pali, Jalaur, Alwar and Rajsamand. Further, SHG movement has been found to be strong in districts like Kota, Jhalawar, Dungarpur, Bhilwara, Baran, Bundi, Chittorgarh, Banswara, Bikaner and Sirohi.

SHGs use their savings to advance loan to group members. Though the amount (members' savings in SHG) is usually small and is not sufficient to meet the total credit need of all members, but the practice of using group savings for loans to members is extremely important and useful. It promotes mutual trust and a financial discipline among members. Considering the total credit outstanding as of March, 2009 on one hand and total SHG bank savings as of March, 2009 on other hand, it can be deduced that 40% of the outstanding loan to SHGs actually came from their own deposits in banks.

Figure 9.1: Purpose of loan in SHGs promoted by SSV partners



SSV is Sakh Se Vikas Initiative promoted by Sir Ratan Tata Trust, in 6 districts of Dholpur, Tonk, Ajmer, Alwar, Banswara and Dungarpur

Many studies have shown that money raised from SHGs is used by women to cover the nutritional, health and education needs of their families. The above graph also points out that about 1/4th of the loans raised by SHGs are used in agriculture related activities.

In Rajasthan the Mahila Mandal concept graduated into SHGs because of which one observes the group members laying more emphasis on empowerment and women's issues. But now the emphasis is changing more towards micro-finance with groups being formed solely for the purpose of credit linkage and enterprise development. The focus of NABARD on Financial Inclusion is helping credit and other financial services to reach out to the panchayat and village level through business correspondents and account opening drives, but it remains to be seen what effects the fast track SHG formation is going to have on credit repayment, credit utilization & indebtedness in these groups.

SHGs have been found to have many weaknesses such as:

- Weak record keeping
- Savings mostly lying unused, not used to raise loans
- Duplication of members in different SHGs
- Taking loans for loans and accumulating debts
- Providing loans on very high interest rate, etc.

But many donors, government programs and NGOs have recognized the strengths of the SHGs and have built entire projects on natural resource management, poverty alleviation, food security, water management, and agricultural development around SHGs, e.g., Mahila Kisan Sashaktikaran Pariyojna, Social Mobilization around NRM (supported by UNDP), Rain-fed Area Project (supported by DFID, implemented by Gramin Vikas Trust, and the IFAD supported MPOWER initiative in western Rajasthan.

9.7 Mahila Kisan Sashaktikaran Pariyojna

Rural women form the most productive work force in the economy of majority of the developing nations including India. Agriculture, the single largest production endeavour in India, contributing to 16% of the GDP is increasingly becoming a female activity. Agriculture sector employs 80% of all economically active women; they comprise 33% of the agricultural labour force and 48% of self employed farmers. About 18% of the farm families in India, according to NSSO Reports are reported to be headed by women. Beyond the conventional market – oriented, narrower definition of ‘productive workers’, almost all women in rural India can be considered as ‘farmers’ in some sense, working as agricultural labourers, unpaid workers in the family farm enterprises or combination of the two.

Women in Agriculture are generally not able to access extension services and production assets like seed, water, credit, subsidy etc. As most of them are not recognized as farmers for want of ownership of land, they are not considered as beneficiaries of various government programmes / services. The wage differentials between men and women being adverse to them, the situation is further aggravated. Some of the tasks performed by the women are not valued adequately and considered less important economically.

Further, due to multiple roles that a woman has to perform within the family and the farm, her access to knowledge and information, is constrained and therefore her opportunities get limited. To improve the present status of women in Agriculture, and to enhance the opportunities for her empowerment, Government of India has announced “Mahila Kisan Sashaktikaran Pariyojana” (MKSP), as a sub component of the National Rural Livelihood Mission (NRLM).

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. By establishing efficient local resource based agriculture, wherein women in agriculture gain more control over the production resources and manage the support systems, the project seeks to enable them to gain better access to the inputs and services provided by the government and other agencies.

Strategies

- The MKSP will strategize in a manner to target the Poorest of the Poor and most vulnerable women such as SC/ST, minorities, landless and the Primitive Tribal Groups.
- While identifying the target group, priority will be given to women-headed households (single women), resource poor households, and women groups engaged in Agriculture and allied activities (promotion, production, processing and marketing);
- Coordinated action by communities and community based institutions such as the women self help groups, their federations, NGOs and farmer groups, farm schools, farmer field schools and others;
- Enhance the skill base of the women in Agriculture to enable them to pursue their livelihoods on a sustainable basis. Capacity building of women and skill up-gradation through handholding, formal and vocational courses will be emphasized.

Table 9.2: Matrix of Outcome and Measurement under the MKSP

Outcome	Indicators
Net increase in the income of women in agriculture on sustainable basis	Income, livelihoods diversification (having a multiple livelihood option)
Increase in total cultivated area	Cropping intensity, gross cropped area, reduction in fallow area
Increase in the food production	Total production, productivity, farm related activities (integrated farming systems)
Increase in benefit and reduction in cost	Monetary and non-Monetary indicators
Soil health and Fertility (environment)	Soil organic matter, microbial biomass carbon, Nitrogen mineralization potential
Increased visibility of women in agriculture as an interest group	Who takes decision in the household, membership in group, number of women institutions and enterprises engaged in Agriculture.
Increase in the skill performance levels of women in agriculture	Training, study tour, exposure visits, demonstration, participating in action research, technology they are using, (deskilling)
Drudgery reduction for women in agriculture under the Project area through use of gender friendly tools/technologies	Tools and techniques developed to reduced drudgery
Increased access to input and services	Inputs, markets, credit, information, technology

9.8 Other Provisions for Social Inclusion of Vulnerable Groups

9.8.1 Draft State Agriculture Policy

Gender Mainstreaming: Women empowerment in agriculture will be a major thrust of this policy. Special programs for women empowerment in agriculture sector, especially targeting maternal and child health care, to overcome their drudgery and to provide them proper education/training/skills associated with required incentives will be launched. Appropriate policies will also be put in place to ensure their effective role in decision making.

Women Empowerment: Development and promotion of women friendly drudgery reducing implements, trainings for skill up-gradation, formation of SHGs of women, improved skills, credit linkages and their mobilization for economic empowerment will be targeted. Besides, incentives to women for undertaking education in agriculture discipline will be encouraged and promoted in a time bound manner.

Farm Mechanization: Seed-cum-fertilizer drill, zero till drill, levellers and various farm implements and tools need to be popularized along with bullock drawn implements for small and marginal farmers.

Improving the Livelihoods of Farmers: Crop-livestock integrated farming systems and creating better livelihood options through agro processing and value addition will be promoted. Conversion

of landless labour_and_resource poor farmers into skilled workers through imparting skill oriented training with strong follow-up support will be a key for off farm employment generation.

Credit Support: Special monitoring will be done, concerning the efforts put in by the Banks to extend credit support to small/marginal/ landless farmers.

9.8.2 Policy for Promotion of Agro-Processing and Agri-business, 2010.

Employment based Capital Investment Incentive: Besides the capital investment subsidy admissible under the Rajasthan Investment Promotion Scheme, as amended from time to time, eligible agro-processing and agri-business enterprises will be given an additional direct employment based incentive @Rs.4000 per year of completed service for each newly appointed person. In case of women employees and employees belonging to SC/ST, the incentive would be Rs.6000 per person per year. This incentive will be available for a maximum period of three years from the commencement of commercial production.

9.8.3 State Water Policy

Water Rates: Water rates shall be so decided that it conveys the scarcity value of water to users and foster the motivation for economy in water usage. Rates shall be gradually increased to cover the annual maintenance and operation charges and part of the fixed costs to assure undisturbed and timely supply of irrigation water. Water rates shall be rationalised with due regard to the interests of small and marginal farmers.

9.8.4 State Livestock Development Policy

Vision: The Policy envisages strengthening of the animal husbandry sector in order to enhance production, productivity, livelihood of the poor and self-reliance of underprivileged sections of the rural society through sustainable development of the sector. The vision encompasses:

Empowerment of ESWS families, especially women, by improving their household income through improved animal husbandry.

Guiding principles of the Policy:

Pro-poor, pro-women and pro-youth face: Rajasthan livestock policy has a pro-poor, pro-women and pro-youth focus for attaining enhanced growth to generate more house hold income, increased production and induction of new technologies to meet future demands of livestock products.

New employment opportunities: The policy shall generate new employment opportunities both in public and private sector. There shall be substantial increase in self-employment amongst rural youth by making the sector more remunerative. The policy aims at strengthening of Animal Husbandry related formal, non-formal and vocational education programmes to educate rural youth including women.

9.8.5 National Policy for the Empowerment of Women, 2001

Women and Agriculture: In view of the critical role of women in the agriculture and allied sectors, as producers, concentrated efforts will be made to ensure that benefits of training, extension and various programs will reach them in proportion to their numbers. The programs for training women in soil conservation, social forestry, dairy development and other occupations allied to agriculture

like horticulture, livestock including small animal husbandry, poultry, fisheries etc. will be expanded to benefit women workers in the agriculture sector.

9.8.6 State Policy for Women

Though the Constitution of India guarantees equality of all citizens' before the law still women carry the burden of centuries of subordination thereby making it difficult for them to realize their constitutional rights. Recognizing the real status of women, the Constitution also provides for positive discrimination in favour of women. The Government of Rajasthan reaffirms its commitment to work for the realization of constitutional guarantee of equality, social justice and non-discrimination on the basis of sex, caste, community, language and religion.

PRIORITY AREAS FOR LEGISLATION, PROGRAMME DEVELOPMENT AND ACTION

Ensure access to financial resources: Prescribing the minimum limit of women beneficiaries for financial assistance under the various development programs and bank finance schemes.

Encourage formation of women's groups and co-operatives. Encourage through specific schemes and programs the formation of women self-help groups, women's collectives and co-operatives; provide such groups with continuing education and training and enact appropriate legislation, rules and procedures, so that these groups are recognized by financial institutions for credit facilities, for empowering and mobilizing the collectives, imparting timely training and organizing refresher training and review the activities of these collectives.

Enhance negotiating power of women and build self-confidence. Recognizing that women's collectives and groups have fared poorly in the absence of specific inputs to enhance their self confidence and negotiating power, the Government is committed to creating opportunities for training of women's groups, collectives and co-operatives.

Recognize and promote the contribution of women farmers: contribution in agriculture will be given greater visibility by targeting training, research, subsidies and marketing support to women farmers.

9.8.7 Draft Rajasthan Common Land Policy, 2010

Institutions at the Habitation Level: To strengthen the coordination between the village/ habitation and Gram Panchayat, for the development and governance of grazing lands, the Rajasthan Panchayati Raj Rules, 1996 -Rule No. 170 provides for giving the 'control of Charagah land of each village to a five men committee headed by a Ward Panch of the village concerned and four members to be elected by Gram Sabha.' To enable the participation of women in grazing land development, at least two women representatives shall be included in the Committee. In the event that the Ward Panch does not belong to the habitation, one of the four members of the Grazing Land Development Committee belonging to the Habitation shall Co Chair the Grazing Land Development Committee along with the Ward Panch.

Institutional arrangements for the management of common lands: The Gram Panchayat shall initiate the processes for management of common lands by constituting a Standing Committee for natural resource management and biodiversity management at the Gram Panchayat, Grazing Land Development Committee at village/ habitation level and shall strengthen the Ward Sabha to address the issues of governance of common land. The management of common lands shall be devolved to

the village/ habitation level where the primary users of, and dependents on, common lands are located.

Standing Committee at the Gram Panchayat addressing issues of Natural Resource Management & Biodiversity Management: Ensure that all community rights over common land are registered in the Prohibitory Order Book.

Ward Sabha: as per the Rajasthan Panchayati (Modification of Provisions in Their Application to the Scheduled Areas) Act, 1999, the Gram Sabha at the village level will be responsible for execution of functions as detailed out in the functions of the Ward Sabha for the development of common lands. In addition the Gram Sabha as may be prescribed, in a Scheduled Area, shall have –

- (ii) The ownership of minor forest produce subject to such rules as may be prescribed by the State Government as to control and management of minor forest produce;
- (iii) The power to prevent alienation of land in the Scheduled Areas and to take appropriate action in accordance with laws in force in the State, to restore any unlawfully alienated land of a Scheduled Tribe;
- (vii) The power to control over local plan and resources or such plans including tribal sub-plan to the extent and in the manner to be specified by the State Government from time to time.

9.8.9 Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996

(g) the reservation of seats in the Scheduled Areas at every Panchayat shall be in proportion to the population of the communities in that Panchayat for whom reservation is sought to be given under Part IX of the Constitution;

Provided that the reservation for the Scheduled Tribes shall not be less than one-half of the total number of seats;

Provided further that all seats of Chairpersons of Panchayats at all levels shall be reserved for the Scheduled Tribes;

m) while endowing Panchayats in the Scheduled Areas with such powers and authority as may be necessary to enable them to function as institutions of self-government, a State Legislature shall ensure that the Panchayats at the appropriate level and the Gram Sabha are endowed specifically with-

- (ii) the ownership of minor forest produce;
- (iii) the power to prevent alienation of land in the Scheduled Areas and to take appropriate action to restore any unlawfully alienated land of a Scheduled Tribe;
- (iv) the power to manage village markets by whatever name called;
- (v) the power to exercise control over money lending to the Scheduled Tribes;
- (vi) the power to exercise control over institutions and functionaries in all social sectors;

(vii) the power to control over local plans and resources for such plans including tribal sub-plans;

9.8.10 XI Five Year Plan, GoR

Crop Insurance: State Government is implementing the Crop Insurance under NAIS since Kharif, 2003 in the State. A provision of Rs. 220.00 lac is proposed for the year 2007-08 and Rs.1950.00 lakh for XI plan as payment of bank service charges on deposited premium, premium subsidy for small and marginal farmers.

Differential Subsidy for Establishment of Green House - For growing off season vegetables seedlings and other horticultural crops under controlled atmospheric conditions of green house, 33% subsidy is provided to general farmers and 50% to small/ marginal farmers under National Horticulture Mission.

Human Resource Development: "Need to shift the focus of Extension workers from crop production to Post Harvest Management and Marketing"

Gender Issue: As most of the activities on farm are conducted by farm women, training programs to focus on women training needs.

Encouraging recruitment of women in agriculture i.e. at Agri. Supervisor and AAO level.

Incentive to Girls in Rajasthan - Literacy among women is only 44.34% and in rural areas it is a dismal 37.74% .Farming is the main source of subsistence in rural areas of the state. Involvement of women in agriculture ranges up to more than 70% in different parts of the Sate. In Rajasthan, more than 70% of the agricultural operations are performed by farm women. Girls would be encouraged by providing incentives to them for taking agriculture subject at Sr. Secondary and College level. A sum of Rs. 600.00 lacs is proposed for the Xlth plan and Rs. 65.00 lac during 2007-08. Incentive to girls taking agriculture subject at Sr. Secondary will be given Rs 3000 and for graduation level Rs 5000.

Women Empowerment - A project on technological empowerment of women in agriculture is proposed to be undertaken as joint programme of State Government and SAUs. Under the project, women farmers will be trained in agriculture technology to become Vikas Vahini for technology dissemination. For this, a sum of Rs. 200.00 lacs is proposed for the Xlth plan and Rs. 32.00 lac during 2007-08.

Drudgery reduction equipments / implements be provided at higher subsidy for women farmers.

Gender budgeting with special reference to Women members of WDTs: One of the members of WDT is a woman. Social Scientist (Woman) included in WDT plays an important role in organizing community, generating awareness and feeling to own the program. Thus, the role of social scientist is self evident. A provision of Rs 7.50 lacs has been proposed for Xlth Plan, out of which Rs. 1.50 lacs for Annual Plan 2007-08 for training of women social scientist.

Chapter 10: Social Impact/ Risk Assessment and Mitigation

10.1 Project components

As described in Chapter 1 of this report, the project has four main components:

Component 1 - Climate resilient agriculture: This component will support measures that improve: (a) harvest, capture, collection, delivery and distribution of water for agriculture and livestock purposes in surface water irrigated canal command areas, ground water sources and rain-fed areas; (b) on-farm water use efficiency; (c) soil moisture and fertility improvements; (d) sustainable intensification and diversification of farm production; and (e) integrated crop and livestock farming systems.

Component 2 - Markets and value chains: The objective of this component is to enable farmers to engage in profitable market oriented production, that is sustainable and to promote partnerships and market linkages with other value chain participants and agribusinesses. The component will help producer groups, agro enterprises, and commodity associations, to actively engage in the development of commodity value chains by partially financing demand-driven investment proposals to producer organization through a matching grant. This will be done by organize members of water user groups into higher level institutions and develop their capacity and skills for marketing.

Component 3 - Farmers' organisations and capacity building: This component will support (a) mobilization and establishing of farmer groups and capacity building for participatory planning and plan implementation; (b) strengthening of institutions and human resources associated with the project implementation (i.e. participating line department and other relevant agencies). The community based organizations (CBO) proposed will be organized around the three themes of the RACP- water resource management, agriculture, and value chain development

Component 4 - Project management, monitoring and learning: This component will undertake project management, provide for robust monitoring and evaluation (M&E) systems with a view of potentially scaling up approaches deemed successful under this operation across the state; as well as aim to build synergies and convergence with ongoing schemes from the Government of Rajasthan (GoR) and the Government of India (GoI) such as Rashtriya Krishi Vikas Yojna (RKVY), the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), etc.

10.2 Impacts and mitigation measures

The impacts and mitigation measures are discussed sub-component wise in the following paragraphs.

10.2.1 Component 1: Climate resilient agriculture

1A Improvement of water use efficiency

Description of activities and interventions

Covering all three water regimes, viz., ground water irrigated areas, rain-fed/ watershed treatment areas, and canal irrigated areas, the main interventions will consist of the following:

- i. Ground water irrigated areas: The aim is to bring about a balance between recharge of aquifer and discharge of water for irrigation. The interventions include rainwater harvesting through percolation tanks, well recharge, rehabilitation/deepening of existing farm ponds, establishment of anicut with shaft, and water table monitoring through use of piezometers, installation of water meters on selected tube-wells, and rain-gauge.
- ii. Watershed treatment (rain fed) areas: In rain-fed areas, the project will carry out watershed treatment works for soil and moisture conservation; the focus will be on developing integrated farming systems with the aim to enable higher returns per unit of water consumed.
- iii. Canal command areas: Only rehabilitated canal distributaries will be included in the project, and the focus will be on improved management of rehabilitated canal networks through WUAs, construction of diggies along with micro-irrigation, and crop diversification for reducing water usage.

Potential benefits

As a result of interventions aimed at improvement in water use efficiency, the following benefits are expected:

- Increase in gross area under cultivation, with resultant rise in crop production and farm incomes
- availability of on-farm wage labour opportunities to women and men
- decline in seasonal and daily migration rates in project areas
- collective consciousness regarding water as a common and finite resource

Potential adverse impacts, risks and mitigation measures

No adverse social impacts are envisaged under this component.

Risks from the proposed interventions are likely to be minimal, as discussed below; suggested mitigation measures are specified below and in the social management framework.

- a need for higher labour inputs, with a disproportionate share of the increase falling on women farmers
 - ✓ RACP will support development and distribution of tools and equipment that reduce women's drudgery and labour requirement
 - ✓ undertake an accurate assessment of the availability of agriculture labour, and its implications on costs and benefits of any proposed shift in cropping and/or cultural practices
 - ✓ Customised training for women in the use of mechanised farm equipment
- inequity in the use and distribution of water (status quo maintained); the risk of conflicts among water users resulting from collective efforts at establishing more efficient water usage norms, which may entail a change in well-entrenched norms and practices
 - ✓ formation and strengthening of farmer organisations for the use and management of water to precede other interventions
 - ✓ orientation and training of farmers for conceptualisation of water as a "common resource", and design of systems for the same
 - ✓ close monitoring of water use and distribution arrangements by CBOs, CRPs and F-NGO
 - ✓ training of CRPs in water resource management and conflict management

- ✓ exposure visits of farmers to water scarce areas which have shown a turn-around from over-exploitation and unregulated use of water to a more managed and equitable resource-sharing arrangement
- ✓ visit and interact with farmers in areas where ground water resources have depleted and the land is lying barren (e.g., in Jaipur district)
- potential risk of food insecurity as a result of shift towards cash crops
 - ✓ food balance studies at the village and cluster levels to inform communities of the pros and cons of undertaking any shift in crops and cropping patterns, including the risks from a complete market orientation of agriculture
- the risk of exclusion of women and marginal/small farmers from project investments and other benefits
 - ✓ identification of women-owner farmers, and their prioritised inclusion in all project benefits (see SMF – gender and women empowerment)
 - ✓ gender-disaggregated monitoring of the spread/ distribution of project investments
 - ✓ %age of small and marginal farmers receiving the project benefits (in terms of numbers and investments) will be – to be monitored through PMIS

1B Technology transfer and market-led advisory services

Description of activities and interventions

The project will finance (a) the demonstration and adaptation of location-specific soil and water conservation practices, including soil carbon sequestration practices with a view of possibly mobilizing carbon payments; and (b) the demonstration and use of improved crop varieties, integrated pest and nutrition management, as well as appropriate agronomic practices.

- i. Agriculture: The project aims at demonstration of alternate crops that are low volume and high value, requiring comparatively less water and inputs. Interventions will include demonstrations of high-yielding and climate stress tolerant varieties; improved cultural practices; distribution of soil health card and nutrient application based on soil test, seed production and use of certified seeds, use of organic matter/ improved composting practices, use of bio-control methods for insects and pest management, use of gypsum in alkali soils, post-harvest management including individual and community owned solar tunnel dryers, threshing floors; training, exposure visits, exhibition and content development.
- ii. Horticulture: The idea is to enhance income and reduce input costs through promotion of horticulture species such as pomegranate and mandarin, poly-house cultivation of vegetables and flowers, use of drip, raised bed cultivation and so on; support for primary and secondary processing and linkage with markets.

Potential benefits

The host of benefits expected from the project are a result of the agriculture interventions that will bolster the supply side of production, and result in an increase in farm income. More specifically, the following outcomes are expected:

- increase in farm production and productivity as a result of improved seed management and cultivation practices, including through INM and IPM

- Emergence of stronger collective community decision-making forums that could play a significant role in improved governance at the Gram Panchayat level
- Market-led advisory services will result in reduced losses, greater access of farmers to markets and financial institutions and higher incomes

Potential adverse impacts, risks and mitigation measures

The project does not envisage acquisition of any private land for purposes of storage, processing or any other activity. There will therefore be no adverse impacts related to land acquisition.

The potential **risks** emanating from the sub-component interventions, and suggested mitigation measures are discussed below.

- Risk of marginal and small farmers' increased food insecurity
 - ✓ Discourage marginal farmers with no other productive assets from switching to non-food crops
 - ✓ Facilitate informed decision-making by farmers by educating them of the pros and cons of switching to market-oriented agriculture comprising high-value and high-risk crops
 - ✓ Promote establishment of grain banks with exclusive membership of marginal and small farmers
 - ✓ Promote nutritional security through a kitchen garden component
- Risk of resource-poor smallholder farmers being further indebted to moneylenders
 - ✓ Support linkage of smallholder farmers with other GoR/Gol schemes/ projects for subsidies to support procurement of capital intensive goods
 - ✓ Relaxation of contribution/ repayment norms in the case of smallholder farmers (to be decided by the village institution on a case-by-case basis)
- Increased perishability, and challenges in marketability of produce (thus risking income)
 - ✓ Establish market linkages before start of production
 - ✓ Strengthen farmers' organisations for taking up collective marketing
 - ✓ Promote local-level semi-processing and value-addition
 - ✓ Capacitate farmers in value-addition techniques
- Risk to livelihood security as a result of over-reliance on agriculture; crop diversification could mean loss of available fodder (in the form of crop residue), which is a valuable by-product and integral component of the local farming system that includes agriculture and animal husbandry.
 - ✓ Undertake interventions that strengthen the critical and synergistic relationship between agriculture and animal husbandry, which is the crux of farmers' livelihood strategy in drought-prone areas of Rajasthan (see Box item below, strategy from draft state agriculture policy, GoR, which emphasizes this strategy)
 - ✓ Implementing agency to proactively enable convergence between the project and other programmes aimed at development of livestock resources and services in the area,
 - ✓ Supplement fodder availability through pastureland development
 - ✓ Establishment of fodder banks and horti-pasture systems on private land holdings may be encouraged

Excerpts from State Agriculture Policy

Strategy: Integrated Farming Systems Approach especially for Dryland Agriculture

Since the vast rain-fed areas in the State encounter droughts and crop failures in most years, integration of crop farming with horticulture, animal husbandry, back-yard poultry, and agro-forestry and pasture development is often necessary for generating farm income and sustaining livelihood of the small and marginal farmers in the State.

Strategy: Fodder production

Diversified livestock production in Rajasthan is an integral part of farming system. There is specific need for the assessment of fodder demand and supply, especially in drought years. Scientific methods of fodder preservation and storage and fodder banks in rural areas will be the right step in this direction.

1C Livestock strengthening and management

Description of activities and interventions

The project will support small ruminant livestock development (sheep and goats) through

- establishing silvi-pasture plantations on private and common land as well as fodder processing and storage facilities, so that nutrition is made available for livestock round the year; and promoting green fodder cultivation as a crop diversification strategy;
- developing organized livestock markets and livestock group marketing approaches; and
- strengthening the Animal Husbandry Department's capacity to locally deliver cost-effective livestock support services such as animal health and nutrition, and to provide market linked advisory services

Potential benefits

All farmers with goats and sheep will stand to benefit from project interventions under the livestock component, by way of improved and easily accessible veterinary care services and improved breeding bucks. The overall impact of these interventions will be a rise in income from goat rearing.

Potential adverse impacts, risks and mitigation measures

- Establishment of markets will require a large area to be demarcated and developed, resulting in closure/ restricted access to the land
 - ✓ Only Panchayat/ common land to be acquired, following principles and procedures specified in the RPF
 - ✓ Diversion of grazing lands for other uses is disallowed
- Pastureland development will impact common land users and, depending on the situation, may cause one of the following (i) displacement – if there are any temporary houses on it; (ii) affect access to the land for grazing/ stalling livestock; (iii) loss of livelihood if area is used for agriculture cultivation
 - ✓ Establish a baseline which identifies all kinds of dependence on the land and profile the user group/s
 - ✓ Development of pasturelands to be preceded by consultations with all resource users

- ✓ Follow the principles and procedures outlined in the RPF in case of impact on house/ livelihood
- ✓ Formation of common land user associations/ resource institutions for development and management of the resource
- ✓ F-NGO will facilitate consensus building for arriving at and implementing equitable use and cost-benefit sharing norms

Risks

- The risk of migrant households, particularly shepherds, getting excluded from receiving the benefits
 - ✓ Planning and scheduling of interventions takes into consideration migrants' needs and concerns
 - ✓ Allow medical supplies (deworming and routine vaccination) for migrant herds to be given in bulk for the duration away from the village
- The risk of women being excluded from training and related activities
 - ✓ Develop a cadre of women CRPs in different thematic areas, including animal husbandry

Component 2: Markets and value chains

2A Agri-Business Promotion Facility

The competitiveness of small-holder farmers and agribusinesses will be promoted by facilitating the development and establishment of demand-driven value chains through a participatory approach. An *Agri-Business Promotion Facility (ABPF)*, established under the project, will facilitate the roll out of these participative value chains identification and stakeholder consultation. The competitiveness of small-holder farmers and agribusinesses will be promoted by facilitating the development and establishment of demand-driven value chains through a participatory approach. An *Agri-Business Promotion Facility (ABPF)*, established under the project, will facilitate the roll out of these participative value chains identification and stakeholder consultation.

No adverse impacts or risks are envisaged under this sub-component.

2B Pre-Investment Advisory Support

The project will provide technical assistance to farmer groups, producer organizations, processors, input suppliers, and other value chain participants to review their commercialization options and prepare viable business plans and investment proposals for funding under the project grant facility for the producer organizations and accessing commercial credit for other value chain participants.

No adverse impacts or risks are envisaged under this sub-component.

2C Information and Market Infrastructure Support

The Project will support *farmer groups* with matching grant investments in rural market infrastructure and for productive infrastructure such as storage facilities, grading and sorting equipment, collection centres, etc.

Potential benefits

- Higher income from market-oriented agriculture and market advisory services is the expected outcome of this component.

- Farmers' knowledge of markets and capacities to negotiate in the market will be enhanced
- Local level grading and processing facilities will provide local level employment to some families engaged in the activities at the processing unit
- Formation of producers' companies will lead to an increase in farmers' bargaining capacity and help in collective procurement of quality agriculture inputs
- Farmers organisations/ producer companies involved in collective marketing will reduce farmer transaction costs in marketing of produce and enhance their bargaining power

Potential adverse impacts, risks and mitigation measures

- **Land will be required for establishment of small facilities**

It is expected that sufficient land would be available with the Gram Panchayat for establishment and/or construction common use facilities proposed under the project, and

- ✓ Land-based interventions would be located only in those areas where such land is readily available and voluntarily offered by the Gram Panchayat.
- ✓ The procedure for obtaining a "no objection certificate" from the Gram Panchayat is specified in the RAP. A screening format for all land-based interventions is also appended.
- ✓ Grazing land or land on which vulnerable households are dependent will not be used for any project-related investment/ support

Risks

- Loss of control of women over farm production with commercialisation and formalisation of markets – further disempowerment of women in the household economy
 - ✓ form and strengthen exclusive women farmers' groups for collective enterprise development
 - ✓ co-opt additional women farmers in producer companies if there are not enough women in the company

2D Agribusiness Support

The Project will provide *producer organizations* with matching grant directed towards agribusiness support and will co-finance investment proposals from producer organizations and producer groups established under the project and that are actively seeking to expand their operations.

No adverse impacts or risks are envisaged under this sub-component.

Component 3: Farmers' organisation and capacity building

This component will support (a) mobilization and establishing of farmer groups and capacity building for participatory planning and plan implementation; (b) strengthening of institutions and human resources associated with the project implementation (i.e. participating line department and other relevant agencies). The community based organizations (CBO) proposed will be organized around the three themes of the RACP- water resource management, agriculture, and value chain development.

Potential benefits

- The formation of effective farmers' collectives around water use and management lies at the core of the success of this project; sustainability of the project rests on improved farmer capacities and knowledge for informed engagement with the markets and better negotiation abilities.
- As far as the issue of equitable water management is concerned, the major challenge is in the conceptualisation and regulation of water as a community resource, whereas it continues to be used as a private good – robust farmer organisations are the starting point for addressing this challenge

Potential adverse impacts, risks and mitigation measures

No adverse impacts are envisaged under this sub-component.

Risks

- Risk of exclusion of women from benefits of and/or training for technological interventions
 - ✓ Develop a cadre of women CRPs; cascade training approach for capacity building of women farmers, to be supported by F-NGO and PIUs
 - ✓ Equal participation of women in RACP processes and institutions, and equitable distribution of project benefits between women and men, as outlined in the gender and women empowerment strategy (refer social management framework)
- Risk of exclusion of smallholder farmers
 - ✓ Equitable participation of smallholder farmers in RACP processes and institutions (refer SMF)
 - ✓ Customisation of project interventions to meet the requirements of smallholders
 - ✓ Relaxation and flexibility in cost-sharing norms and/or repayment terms for small holders, to be decided by the local member institutions

Component 4: Project management, monitoring and learning

This component will undertake project management, provide for robust monitoring and evaluation (M&E) systems with a view of potentially scaling up approaches deemed successful under this operation across the state.

No adverse impacts or risks are envisaged under this sub-component.

Chapter 11: Social Management Framework

11.1 Agriculture Competitiveness Project (RACP)

RACP will demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan – each marked by different agro-ecological, climatic, water resource and social conditions – capable of significantly increasing agricultural productivity and farmer incomes. The guiding principles of RACP are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state’s water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state’s agro-processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services. Key performance indicators will measure (a) Reduction in water used in agriculture; (b) Increase in water use efficiency in agriculture; (c) Increase in productivity; (d) Increase in gross margin from crops and goats; and (e) increase in share of producer price in wholesale price.

11.1.1 Primary Stakeholders and Beneficiaries

RACP aims to sustainably increase the productivity of natural resources and farmer income through efficient management of agriculture. RACP clusters will cover 200,000 ha and will directly benefit 155,000 farmers. These will predominantly be smallholder farmers with an actual or potential commercial outlook, brought together through collective action towards achieving economies of scale, e.g.: water user groups, ground water management communities, watershed groups as well as farmer producer organizations. In addition, secondary beneficiaries will comprise other farmers obtaining better access to water through improved groundwater recharge or better water distribution at the tail-end of command areas, as well as agricultural labourers through increases wages. Other stakeholders consist of private sector partners (i.e. agro processors and agro industries, wholesalers, traders participating through value chains); public institutions (i.e. the seven GoR line departments); and (c) service providers (including three universities and a range of NGOs). The economic and financial analysis of RACP also estimates that the more competitive agriculture will generate incremental wage income for about 29,500 agriculture labour HHs in the project area of which 40% are landless and 55% are from SC and ST category.

11.1.2 Project Components and Specific Interventions

RACP has four components: Component 1: Climate Resilient Agriculture; Component 2: Markets and Value Chains; Component 3: Farmer Organization and Capacity Building; and Component 4: Project Management, Monitoring and Learning. These project components will address capacity, access and participation-related issues by (i) incentivizing group formation among smallholder farmers (e.g. water user groups, ground water management communities, watershed groups) through specialized service providers; (ii) promoting farmer access to farm inputs, advisory services, product markets as well as agriculture insurances; and (iii) promoting gender-equitable practices in the sector. Under these 4 project components, the crosscutting and specific investments and interventions are:

- Baseline Survey, GIS Mapping, Hydrological/Watershed Assessments
- Social Assessment
- Information, Education and Communication (IEC) activities

- Preparation and Finalisation of Cluster Agricultural Competitiveness Plans (CACPs)
- Preparation of Detailed Project Reports/Microplans
- Forming and facilitating farmers organisations: Watershed Committees/associations, Groundwater committees/associations, Water User Groups/Associations, Farmers Producer Groups/Companies (crops, goats etc.);
- Training and Capacity Building of Farmers Organisation; NGO support to WUO's
- Exposure Visits
- Instrumentation and Equipment: Watershed (runoff recorder + sediment sampler + automatic Rain gauge + drop spillway and instruments housing facility); Groundwater (Construction of Piezometers, Installation of Rain gauge stations, Installation of digital water level recorder on piezometers);
- Physical Investments: Water harvesting structures, water recharge structures
 - Watershed: construction of anicuts; On Farm: Construction of vegetative barriers (contour bunding), Farm Ponds, Waste Weirs;
 - Ground Water - Construction of water recharge structure;
 - Canal Water - Irrigation system rehabilitation/modernization: Rehabilitation/modernization of canals; Rehabilitation/modernization of Structures (such as off take structures/gates, siphons, aqua ducts, falls & canal crossing village bridges); Installation/modernization of measuring devices; diggies (water storage devices alongside tertiary irrigation canals);
 - micro-irrigation in canal and groundwater areas;
- Water management: Benchmarking and water auditing, Assets management;
- Training of community (GPLC/GWMA) on data recording and O&M of water meter
- Agriculture/Horticulture: Soil Testing, On-farm Demonstrations; Field Days; Seed Adoption Support; Post-Harvest Management demonstrations; on-farm adaptive trials; Farmer Training: Training of Service Provider Staff;
- Office, Buildings and Equipment;

11.1.3 Project Implementation

Implementation of the four components will take place over six years and across selected clusters in the state. The project will be taken up in about twenty clusters representing ten agro-ecological zones (AEZ) of the state and implement a location-specific menu of approaches and interventions. Each cluster will have a defined theme and demonstration objective. Project components are summarized below. Twenty clusters, distributed across all agro-climatic regions¹⁰ will be covered representing ground water (5), canal water (5), rain-fed watershed (5) and livestock (5) dominated agriculture production environments. Total project area under all clusters is 200,000 ha.

11.2 Social Assessment

As part of project preparation, the GOR has undertaken an integrated environment and social assessment (IESA) of the proposed RACP with the help of individual consultants. The IESA has been undertaken with the objective of identifying and assessing the key environmental and social issues related to RACP interventions, and mainstreaming the social and environmental strategies in project planning, detailed design and implementation. The Social Assessment also assessed the applicability of the World Bank's operational policies (OP) on Indigenous People (OP 4.10) and involuntary resettlement (OP 4.12).

¹⁰ Assumed distribution for the Economic and Financial analysis

11.2.1 Stakeholder Consultations

The key stakeholders of RACP include smallholder and marginal farmers, potentially project affected persons, water and natural resource user groups, farmers groups and federations, other livelihood groups, NGOs, Gram Panchayats, Krishi Vigyan Kendra's (KVKs), government departments of agriculture, animal husbandry, irrigation, soil and water conservation, forests, rural development, tribal development etc.

GOR has conducted many consultations, as part of the project preparation process, and especially as part of the Social Assessment study and field work. Focused discussions and workshops involving government departments of agriculture, animal husbandry, groundwater, soil and water conservation, rural development, tribal development, agricultural markets, concerned government officials at village, block, district and state levels, and NGOs and private sector working on agriculture, agri-processing, water and natural resources, and members of farmer federations and producer companies. Field work and consultations were held with men and women farmers, tribal groups, Panchayat representatives, local NGOs, government officials, agrimarket traders and farmers' producer companies in the Jaipur, Udaipur, and Banswara districts from November 23-30, 2011. The consultation disseminated basic information on the proposed RACP (using local language) during these consultations, especially planned free, prior and informed consultations with tribal groups in the project area, and assessment of broad community support among the tribal people for RACP. A state level workshop was organised on the 19th of January, 2011. All consultations were adequately documented including through video and photos.

Overall, the response to the project components and activities has been positive and was welcomed by the primary stakeholders. The Consultations have highlighted the challenges of farmer mobilisation around irrigation water/commons in large, dispersed and socioeconomically diverse villages with largely unregulated ground water extraction and use of commons. There is a need for adapting the project interventions and strategies for the benefit and inclusion of small and marginal farmers, mainstreaming women's participation and community based approaches, and adopting socially inclusive beneficiary selection (private goods), benefit sharing (for community assets) and farmer contribution strategies.

11.2.2 Summary of Key Social Issues

The social assessment exercise has highlighted the following key social safeguard and social development issues.

- Ensuring Targeting, Inclusion, Participation and Access of small and marginal farmers, tribal farmers, SC and women farmers to agricultural inputs (seeds, fertilisers, credit, training, information, etc.), extension services and markets; need for the project to reach out to and involve these groups at all stages;
- Ensuring representation, inclusion and participation of small and marginal farmers, women farmers, tribal farmers and scheduled caste farmers in CACP preparation, farmer mobilization, and farmers' organisations; CACP planning to be based on strong participatory processes involving all primary stakeholders of RACP
- Ensuring equitable access of these socio-economic groups to project resources and benefits
- Dealing with traditional bias towards medium and large farmers with resources to influence project processes, farmers institutions and benefit sharing norms; the need for

customisation of project interventions to suit the requirements of small and marginal farmers and women

- Promotion and strengthening of community based approaches and capacity building for farmer mobilisation and resource use;
- Inclusion and participation of Tribals and other vulnerable groups
- Inclusion and participation of women farmers in project institutions, interventions and benefits. Project interventions could increase gender imbalances and/or enhance the drudgery of women; these should be accompanied by other interventions that offset the imbalance by reducing drudgery, or re-distribute work responsibilities between women and men; Ensuring that women are not further disempowered because of, nor do they get excluded from, promotion of market-oriented agriculture;
- Addressing potential adverse impacts from utilisation of common and Panchayat lands Land.
- Avoiding social conflict over water, natural resources and common lands. Addressing issues of inequitable sharing and unregulated use of water resources, both surface and ground water, and conceptualising water as a common resource, while it continues to be used as a private good

11.3 Social Management Framework

Based on the findings of the social assessment exercise, the field visits and stakeholder consultations, a comprehensive social management framework (SMF) is proposed to promote participation, inclusion and empowerment of the smallholder farmers, including women farmers, tribal people, scheduled caste, minority and other vulnerable social and economic groups. The SMF includes a Tribal Development Framework to ensure inclusion and participation of the tribal people in project processes, institutions, benefits in a socially and culturally sensitive way etc. The SMF also includes a resettlement policy framework (RPF) to avoid, minimise or mitigate any adverse social and livelihoods impacts emanating from various sub-projects supported by the project. The RPF will be used for developing appropriate social mitigation strategies, and mechanisms for minimizing the risks and expected adverse impacts. In addition, the SMF also includes strategies for consultation and participation, social mobilisation and inclusion, gender and women's empowerment and social risk management.

The framework approach has been adopted because the exact nature and scale of all interventions is not known at this stage. The SMF therefore provides guidelines to assess the social impacts of all the sub-projects and design cluster-specific plans, including the tribal development plan and the resettlement/ rehabilitation assistance plans. Overall, the SMF aims to avoid/minimize risks, avoid exacerbation of social and economic disparities between and among social groups, ensure equitable spread of project investments and benefits, and contribute to long-term social and institutional sustainability of RACP. The SMF consists of the following strategies:

- Consultation and Participation Strategy
- Social Inclusion Strategy
- Tribal Development Framework
- Resettlement Policy Framework
- Gender and Women Empowerments Strategy

11.3.1 Consultation and Participation Strategy

The consultation and participation strategy comprises the following key interventions

- Socioeconomically disaggregated baseline. The baseline assessment envisaged as part of the CACP planning and preparation process would include documentation of baseline socioeconomic, human development and agronomic data/information on small farmers, women, tribal and SC farmers, landless, agriculture labour and migrant labour. The baseline will enumerate all households within the cluster, and analyse the findings by different socio-economic groups, including but not limited to the following: small and marginal farmers, scheduled caste farmers, scheduled tribe farmers, and labourers, Women-headed households; Common land users (by category of use). The Baseline would also document the existing status and estimate the resource dependency of the village common lands. Each CACP will include a summary of socioeconomic baseline, consultations held with various socioeconomic smallholder groups and their key concerns and a social strategy.
- The baseline will record the concerns of each of the above groups vis-à-vis proposed RACP interventions in the cluster/ GP/ village. It will specify the nature and degree of dependence of different groups and households on the common lands, and how this will be affected by the project. Similarly, the livelihood strategies of small and marginal farmers, sharecroppers and agriculture labourers will be studied and analysed for potential social impacts.
- Consultations and Social Assessment during CACP planning and preparation phase. The CACP planning phase will focus on identification and mobilisation of small and marginal farmers, tribal, women, scheduled caste farmers, sharecroppers and agriculture labourers, people depending on common lands for grazing, housing, and other purposes.
- A social assessment will be undertaken at the outset in each cluster to understand the socio-economic situation, identify primary stakeholders and vulnerable groups, and make specific assessments of potential adverse impacts and associated risks. The findings of the SA will inform the targeting process and help design participation strategies in a more contextualized and effective manner, keeping in mind local institutions, issues, constraints and capacities. This will be further sharpened by undertaking needs assessment among the targeted groups to understand their resource use and dependence pattern, livelihood strategies, needs and concerns.
- As part of the farmer mobilisation strategy, separate and multiple meetings at the habitation level will be convened with tribals, women, SC households, sharecroppers and agriculture labourers, and common land users. While sharing the project objectives and information with them, their needs and concerns will also be elicited, and adequately incorporated in the CACP interventions and strategies. Consultations will be held on draft watershed, groundwater, agriculture and value chain plans.
- Preparation of Social Management Plans. Based on the consultations, the CACP will summarise the key constraints, impacts and risks related to proposed CACP interventions. CACP will include information on any potential adverse social impacts arising out of the proposed interventions and identify suitable mitigation measures. Each CACP will include a Social Management Plan (SMP) which will summarise the social baseline information; consultations held; key social issues of relevance for RACP, Consultation and Social Mobilisation strategy; Targeting and Beneficiary Selection Criteria for project goods/services that target individual beneficiaries; Subprojects requiring social impact screening and rehabilitation assistance; Tribal Development Plans; Gender Action Plans etc.
- Information, Education and Communication activities. SP1 responsible for preparing the CACPs would undertake Information, Education, Communication (IEC) interventions would be undertaken to educate and mobilize primary stakeholders on project objectives and interventions. These would be undertaken by the SP1 over the 6 month CACP planning period.
- Periodic Meetings of Farmers Organisations during CACP implementation. CACP implementation and farmer mobilisation process will be based on consultations and focus group discussions with

primary beneficiaries of the CACP, including vulnerable groups such as small and marginal farmers, women farmers, tribal farmers, and local NGOs, PRI representatives, and any other vulnerable groups. Regular consultations with farmers groups during project implementation and Farmers group would be involved in monitoring and record feedback of their interventions with SP 2

11.3.2 Social Inclusion Strategies

RACP will ensure inclusion of the primary stakeholders of RACP, specially small and marginal farmers, women farmers and tribal farmers within the implementation structures, community institutions and interventions proposed under RACP.

- Social Inclusion in Selection of Individual Beneficiaries. RACP is offering a range of assets and resources that target individual beneficiaries on some cost sharing basis. These are: farm ponds; micro irrigation equipment; diggies; improved seeds; On-farm Demonstrations for agriculture and horticulture crops, package of practices, low cost methods; Soil testing services and soil health cards; Improved bucks to farmers, with mineral supplements; Post-Harvest Management infrastructure related to drying, sheets; Fodder tree and fodder seeds; Goats; Each 60 widows will each get 4 pregnant does could be expanded to poor and vulnerable households, single women, women headed etc. Since most of these services/assets will not be on saturation basis, it would be important that clear and equitable mechanism of beneficiary selection is defined and applied. Targeting and Beneficiary Selection criteria for all the categories of private assets will prioritise selection of small and marginal farmers, from scheduled caste, scheduled tribe, women headed and other vulnerable households highlighted in the social assessment of the CACP.
- Pro-poor Cost Sharing Norms. Based on field consultations and norms/standards used in GOI/GOR schemes, RACP will fix cost sharing norms for private goods like farm ponds, seeds, etc. that ensure inclusion of the small and marginal farmers, women farmers, scheduled caste and tribal farmers.
- Social Inclusion in Farmers Organisation. RACP will facilitate formation of a range of farmers CBOs such as watershed development committees, groundwater committees, water users' associations and farmers' business groups. For all such institutions, the project will include inclusive criteria for membership, representation, participation in meetings and institutional planning and decision making processes, membership in executive committees and office bearing positions. The criteria will ensure inclusion of the primary beneficiaries specially small and marginal farmers, women farmers, scheduled tribe, scheduled caste and farmers and other vulnerable groups. This would be in line with the government policies and guidance that are provided in **Annexure 8**.
- Socially inclusive Benefit Sharing for Public Goods. RACP will invest in a range of user-shared or common assets/resources such as water harvesting and recharge structures, silvipasture plots, rural infrastructure and markets, canal rehabilitation etc. The benefit sharing norms/rules for such public goods will ensure inclusion of the primary beneficiaries specially small and marginal farmers, women farmers and tribal farmers in framing, implementation and monitoring of the benefit sharing arrangements. Equitable benefit sharing and following of agreed benefit sharing norms would be highlighted and promoted by the field NGOs, and monitored by the DPMU and the PMU. This would be specially followed in participation marginal and excluded groups in information sharing, training and exposure visits.
- Strong community-based approaches for training and demonstration will be adopted. The nature and scale of the project necessitates adoption of strong community-based approaches

for watershed, groundwater and canal water management. SP2 will improve technical and organisational capacities of the watershed, groundwater and canal water management committees/associations to function equitably and in socially inclusive manner, undertake resource sharing and conservation, monitor environmental dimensions of RACP interventions. RACP will support Farmers' Field Days, Field Schools, training of Community Resource Persons.

11.3.3 Gender and Women's Empowerment Strategy

The key gender issue for RACP is explicit recognition of women as farmers, and mainstreaming gender inclusive approaches across the project structures, institutions and interventions of RACP. Gender issues in agriculture in Rajasthan are similar to those in other parts of the country; however the gender context is more challenging and adverse, given the patriarchal and restrictive socio-cultural environment for women in Rajasthan. The key issues in this regard are: non-recognition of women as farmers and key farm managers; poor nutritional and health status compared to men; low literacy levels; restricted mobility and poor access to knowledge, facilities and markets; disproportionately high workload due to responsibilities to manage homes, families and livestock along with agriculture fields; and lack of access to agriculture implements that improve efficiency and reduce health-impacting drudgery. Proportionately larger number of SC, ST and backward caste women work as farm/wage labour earning less than men. One of the core gender issues in agriculture is women's minimal and unequal access to resources and inputs such as ownership of land, access to capital/credit, and technical and enterprise based training related to agriculture/allied sectors. Traditionally, the agriculture research and extension system have paid inadequate attention to the needs and priorities of women farmers. Gender based violence; female foeticide and infanticide, as well as child marriage are social issues more prevalent and critical in the state than in other parts of the country.

The social assessment study highlights the need for recognising women as farmers, despite their lack of ownership of resources; the need for appropriate strategies and adequate resources for mobilisation and involvement of women in CACP planning, farmer mobilisation, beneficiary selection, scheduling of activities, benefit sharing arrangements, selection/citing of interventions, farmer institutions, training and capacity building, agriculture extension and market based interventions in line with GOR's Agriculture Policy as well as Policy on Women.

Starting with the premise that women farmers are key project stakeholders; risk being excluded, and could be the major recipients of potential adverse impacts of the project; and acknowledging the potential role they could play in collective governance and management of resources, it follows that gender issues and concerns must be mainstreamed at every stage of the project, across all institutional structures and processes, and in every project intervention.

RACP will promote the following strategies for empowerment of women farmers and labourers:

- **Gender disaggregated socioeconomic baseline.** The CACP baseline planning and participatory assessment will include gender disaggregated information on women farmers and labour from smallholders, Tribal households, SC farmers and labourers, women-headed households, and Common land users.
- **Exclusive consultations with women farmers** for planning and preparing CACP. Consultations and Focus Group Discussions will be held with women farmers and existing women's groups in the CACP cluster. Field NGOs will hold exclusive and periodic women's

meetings for information dissemination, feedback and planning of CACP interventions. Activities. SP1 will hold separate women's meetings at key stages in planning and decision-making process;

- **Gender inclusive mobilization.** Farmer mobilisation teams will include women mobilisers. Gender-sensitive farmer mobilization and consultation strategies for inclusion and meaningful participation of women, including the scheduling and venue of meetings as per the convenience of women.
- **Gender-inclusive Farmers Institutions.** RACP will adopt explicit and inclusive criteria for facilitating women's membership, participation and inclusion in the watershed development committees, the groundwater committees, water users' associations and farmers' business groups. Apart from being member of these farmers institutions, women would also be represented in executive committees and office bearing positions. SP2 will promote and support women's participation in meetings and decision making and planning processes. RACP will follow the gender and social inclusion norms from the government policies and programmes on agriculture and water resources which are summarized in Annexure 8.
- **Special Component on Gender and Women's Empowerment.** In selected clusters, RACP will engage one or more specialist resource agencies to design and implement women focused interventions on i) promoting women farmer groups and producer companies and supporting market linkage and enterprise development; and ii) developing a cadre of women community resource persons (CRPs) on the themes of agriculture, horticulture, animal husbandry, value chains, farm mechanization, INM/IPM, drudgery reduction, and other technical and technological issues, including watershed planning and development. Some other themes that could also be considered are: Leadership and Empowerment, promotion of drudgery reducing technologies and methods; financial and market literacy.
- **Targeted promotion of goat rearing, vegetable production among women farmers.** RACP will demonstrate improved goat productivity and incomes from goat meat production among tribals and managed by women and so there is opportunity for the RACP to support livelihoods development of the most vulnerable. Women in particular will benefit as currently they provide the labour for goat production but are often excluded in marketing. Women will be made members of the farmer producer groups to support market access & value addition, access to inputs and services on a gender equitable basis and b) access to market information and establishment of small ruminant haats which will be self-sustained based on commission charged.
- **Training and capacity building.** Women will be given priority in training programmes on vegetable production, agriculture, horticulture and livestock development and value chains. The training programmes/modules will be customized to meet women farmers' expectations and requirements, viz. On-site, village-level demonstration and training within close proximity of habitation. RACP would support a cadre of women resource persons in each cluster, who will be provided support for conducting training with larger groups of women at the village level. The Exposure and learning visits on watershed development, agriculture and horticulture demonstration plots and on-farm trials will specifically include women farmers. Special attention would be paid to promoting goat rearing among tribal women farmers.
- **Convergence with women-centred livelihood and empowerment programmes.** The Social Development Specialist in PMU would spearhead a programme of convergence with other rural livelihood schemes that focus on women's mobilisation and empowerment including the NRLM, RRLP, Mahila Kisan Sashaktikaran Pariyojana, and other on-going projects and programmes, Linkages with SHG federations for revolving fund support to support small and marginal farmers' credit needs

- **Gender-inclusive benefit sharing.** RACP will invest in a range of common assets/resources such as water harvesting and recharge structures, silvipasture plots, community tanks, etc. The benefit sharing norms/rules for such public goods will ensure inclusion of the primary stakeholders, including women farmers in the framing, implementation and monitoring of the benefit sharing arrangements.
- PMU will develop a Gender Sensitisation and Orientation Training Module for RACP staff and partners.
- Special Thematic Study on Studies on the gendered-consequences and distributional impact of the project on women and men;
- Field NGOs will identify, train and engage women community resource persons that would be engaged and trained in every cluster for taking forward the project's agenda of empowerment of women farmers.

11.3.4 Tribal Development Framework (TDF)

RACP triggers World Bank's Operational Policy (OP) 4.10 on Indigenous People as some of the RACP clusters, and targeted beneficiaries, will be in tribal dominated areas of Banswara, Udaipur, Dungarpur, Bhilwara etc. The tribal population will be in minority in other RACP clusters. The Social Assessment and Field Consultations in tribal areas have highlighted the need to ensure inclusion and participation of the tribal people in project processes, institutions, benefits etc. As part of the Social Management Framework, a Tribal Development Framework (TDF) is provided, which aims to effectively promote participation of tribal families and communities in every stage of the project cycle, from planning through implementation and institution-building to monitoring, and impact evaluation. The overall objective of the TDF is to enable and facilitate inclusion of tribal communities in the project in order to achieve the best possible outcomes of the project for the tribals in terms of their organization and empowerment, institutions, capacities, and quality of life.

The specific objectives of the TDF are to ensure that project activities and interventions uphold the social and cultural norms and practices of the tribal communities and that the project engages with the communities in a free, prior and informed consultation through processes that are appropriate to the local institutional context, and that their participation is ensured in the entire process of preparation, implementation and monitoring of the CACP/ sub-project activities; ascertain that the project does not inadvertently lead to or induce disempowerment, or increase disparities between the tribal and other communities; avoid, minimize and/or mitigate any kind of adverse impacts on tribal households; establish appropriate strategies for information sharing, communication, training and decision-making with the different tribal communities in all stages of the project;

Mainstreamed approaches

- Baseline and Tribal Assessment (all cluster with tribal population)
- Free, Prior and Informed Consultations with tribal communities, CBOs, NGOs, tribal department (all cluster with tribal population)
- Engage tribal groups for awareness and outreach
- Short Tribal Development Plans (for non-TSP, non-MADA, non-PTG Areas with scattered tribal populations); entire CACP is tribal plan in tribal dominated areas:
- Capacity Building of PMU, DPMU, SP1, SP2 on social safeguards
- Representation of tribal men and women in farmer organizations and their federations, especially in non-tribal areas
- Prioritisation and selection of Tribal Beneficiaries for individual goods

- Participation of tribal farmers in training and exposure visits
- Focused consultations and with tribal farmers on interventions on common lands, rural infrastructure and markets
- Cost subsidy and tribal inclusion guidelines of GOR/GOI etc.
- Convergence with tribal schemes
- SP2 – training of at least 1 or 2 community mobilisers on tribal issues

Additional resources and activities

- Tribal Coordinator in SP1 (in tribal dominated areas) budget for 3
- Engage local tribal groups for project awareness, outreach and information dissemination (20 clusters) - (10,000/cluster for 20 clusters over 6 months)
- Engagement of local tribal youth women and women as volunteers and animators SP2;
- Engagement, training and mobilisation of tribal community resource persons (male and female) - per training payment, PIU/resource agencies
- Publication and information dissemination on relevant government schemes, programmes and entitlements

The detailed Tribal Development Framework is provided in Annex 6

11.3.5 Resettlement Policy Framework (RPF)

RACP triggers World Bank's Operational Policy on Involuntary Resettlement (IR) as some of the project interventions like silvipasture and fodder plantations, agriproduce and market infrastructure would require common or Panchayat lands. This could result in small scale and localized adverse impacts for some households. To mitigate such potential adverse impacts associated with RACP interventions coming up on common and Panchayat lands, a Resettlement Policy Framework (RPF) is included as part of the overall social management framework. The main objectives of RPF are to avoid or minimize, to the extent possible, the hardships and impoverishment that land acquisition and displacement associated with the implementation of the project would cause, and to mitigate any adverse impacts thereof at the household and community levels. It is determined, however, that these objectives cannot be achieved by using the country's existing legal framework for land acquisition alone. This RPF provides the basis to prepare separate social action plans (SAPs) for site-specific works as sites for RACP sub-projects are decided upon. This site specific social action plan will provide the details of the impacts and impacted persons, budget and the implementation timeframe and will be subjected to Bank review and approval before the civil works packages or sub-projects are accepted for Bank financing. The detailed RPF is provided in [Annex 5](#).

Negative List. The following types of subprojects will not be supported under RACP.

- Subprojects requiring compulsory acquisition of private land by the Government of Rajasthan;
- Subprojects resulting in forcible and/or involuntary physical displacement and relocation of affected people;
- Subprojects likely to result in involuntary loss of shelter/, grazing grounds, access, crops and;
- Subprojects likely to adversely affect the access of the poor to common property resources;
- Subprojects that would adversely impact vulnerable groups such as tribals, landless, marginal farmers, poor/BPL families, farm labour

- Sub projects requiring constructing permanent structures on private land;
- Sub projects that adversely affect religious/cultural sites
- Interventions with the potential to cause social conflict
- Any project that is not consistent with applicable laws and regulations of the state.
- Any project that is not consistent with the project description at time of project negotiations, unless subsequently agreed to with the Bank along with the appropriate level of environmental and social management.

11.4 Other Social Issues and Risks

RACP Issues pertaining to agriculture and markets for agricultural produce

- Managing the challenges in marketability and/or storage of produce of a more perishable nature, viz., vegetables and fruits, and maintaining the profit margins in high-value crops despite increases in volumes of local production.
- The Agriculture Demonstration plots will clarify the provisions for compensating small and marginal farmers for any material losses incurred by them in the eventuality of crop demonstrations being a failure.
- High value, high cost agriculture will also increase farmers' credit requirements for purchase of farm inputs and farm equipment; marginal farmers, and those without access to formal credit (such as the holders of the Kisan Credit Card) could be either excluded or forced to borrow from local moneylenders, exposing them to higher risk and pushing them into a debt trap that precludes farmers from availing the benefits from sale in the open market.
- *Safeguarding against elite capture.* Given the widely varied social and economic stratification, the near absence of social solidarity that comes with traditional community institutions and the vast geographical spread observed in the villages of Rajasthan, the risks of project investments and benefits being cornered by the powerful few in the village run very high.
- A case in point is the widespread encroachment and occupation of common lands (grazing lands), usually by the large farmers, for purposes of cultivation and grazing their cattle, with the goat-rearing families being forced to dispose off or cut down the size of their herds.

11.5 Institutional and Implementation Arrangements for SMF

The RACP will be implemented in selected locations in each of the ten agro-ecological zones (AEZ) in Rajasthan. Within an AEZ one District will be identified across which (for reasons of ease of implementation), two Clusters will be developed with a primary focus on improving water management across the three water sources, i.e. either canal water or ground water or harvested rainwater (watersheds.) There would be up to 20 Clusters supported under the RACP.

RACP activities in a Cluster will be implemented on the basis of a *Cluster Agricultural Competitiveness Plan* (CACP). The CACP is the outcome of a planning process that aims to (a) identify opportunities as well as constraints towards developing one or two value chains in which the community deem themselves to have a potential competitive advantage and to (b) select from a List of Eligible project investments and within the funding constraints those public investments that will enable the community to address constraints and enhance opportunities towards establishing identified value chains.

11.5.1 At State Level

The project will be implemented through a newly registered society being exclusively set up for the RACP. The RACP involves the participation of seven line departments, viz. Agriculture, Horticulture, Animal Husbandry, Agriculture Marketing, Water Resources (Canal), Ground Water, and Watershed department (within Rural Development). To have an effective coordination and to provide a robust governance and coordination mechanism for the project, the Government of Rajasthan has constituted two state level committees viz., RACP Steering Committee (SC) and RACP Executive Committee (EC).

The **Project Management Unit (PMU)**, headed by a Project Director, RACP has been established for the purpose of implementation of the project. The PMU will be housed in the RACP Society and shall be overall responsible for the implementation and day to day co-ordination of RACP, including responsibility for compliance with social safeguards, M & E, supervision of CACPs and other backstopping arrangements. The PMU will have deputed staff from the participating line departments who will be the Coordinators for the components for which their parent line departments are responsible.

The PMU will include a **Social Development Specialist (SDS)**, who will have the overall responsibility for implementation of RACP SMF. The SDS will be competitively recruited from the market, and will be a part of the PMU core staff. The main responsibilities of the SDS are as follows:

- leading the implementation, supervision and monitoring of the social safeguard, social inclusion, consultation and participation, gender, tribal and social development issues and strategies under RACP;
- orient and supervise preparation of manuals for the operationalization of SMF strategies;
- satisfactory adaptation of the SMF strategies and recommendations in CACPs and implementation of the social management plans; assess the quality of SMPs prepared by the service providers (SP1), and provide necessary feedback;
- identifying and responding to the social issues emerging from design and implementation of CACPs and SMF;
- provide guidance to DPMUs and F-NGOs in respect of the strategies in the SMF; provide technical assistance and support to the district social focal person, SP1 and FNGO in preparing SMPs, and SAP/TDP respectively; review and provide recommendations on SAP and TDPs prepared for PMU approval
- review and endorsement of the social management plans;
- identifying external agencies for social impact assistance and mitigation strategies, for activities with high social/resettlement impacts; identify and maintain a database of social resource persons/ consultants/ agencies for providing specialist assistance to RACP, as required;
- coordinate closely with relevant thematic counterparts in the PMU and DLIC teams (agriculture, animal husbandry, capacity building, etc.) for mainstreaming of SMF strategies;
- coordinate with capacity building resource agency (SP3 or partner agency) to ensure timely delivery of quality capacity building services to PCU/DLIC/F-NGO teams in social management; prepare project-wide calendar for training and other capacity building inputs on social aspects to different stakeholders, based on a systematic training needs assessment
- ensure regular district level monitoring of SMF implementation
- undertake monitoring visits to clusters to get feedback and provide support on SMF implementation

- commission and ensure quality outputs from technical support agencies
- dissemination of best practices and cross learning across states
- organize annual, midterm and end term monitoring by external agencies; provide inputs into the preparation of the Project MIS and M&E system to ensure that the social aspects are adequately captured in mainstream monitoring;
- report on social impact aspects of the project, and prepare reports as required.

Detailed terms of reference for the SDS will be drawn up by the PMU at the time of recruitment.

11.5.2 At district level

At the district level, **District Project Management Units (DPMU)** will be set up to handle the operational management of the project's component implementation and responsible for all financial functions at the district level and be the basic accounting unit of the project. The DPMU will have a core team of staff, including a **Social Focal Person (SFP)**, nominated from among the deputed officials from participating line departments of RACP. The SFP will be responsible for implementation, compliance and monitoring of SMF at the district level. S/He will review any SAPs/ TDPs forwarded by the F-NGO, provide critical feedback, and forward the same to the state PMU for necessary approval.

11.5.3 At Cluster level

11.5.3.1 Service Provider 1 (SP1)

Preparation of CACP would be supported through technical agencies hired from the market as consortium, with broad competence in hydrology, production systems, value chain development and community organizations. These technical agencies would be supported by the respective line departments, field level facilitations and monitoring.

SP1 would be responsible for undertaking social impact assessment of the CACP, and preparing a SMP based on the SMF provisions, and integrating it into the CACP. It would have lead and supporting expertise on participatory assessment and planning, social impact assessment, consultations and participation, gender and tribal inclusion issues, in the context of agriculture, watershed, and agri-markets.

Social Development Specialist (SP1). The Social Development Specialist (SP1) will be responsible for: (i) compliance with SMF during CACP planning, including the strategies for consultation and participation, social inclusion and gender empowerment; (ii) preparation of social management plans (SMP) specific to the requirements of the cluster; (iii) preparation of short tribal development plans in areas with scattered tribal populations; (iv) screening land-related RACP sub-projects, adhering to the negative list, and identifying/flagging potential sub-projects which require preparation of SAP. S/he will be the nodal point for ensuring incorporation and implementation of TDF/RPF in the RACP clusters.

Tribal Development Coordinator (SP1). In tribal-dominated areas (Schedule V areas, up to 2 clusters), the SP1 team will have one Tribal Development Coordinator (TDC) in addition to the Social Development Specialist. The TDC will be specifically responsible for roll out of TDF interventions in tribal clusters, i.e., ensuring that the principles and requirements of the TDF are incorporated in the project design and preparation of CACP. Further, the TDC will identify opportunities for collaboration

and convergence with ongoing GoI/GoR projects and schemes for tribal welfare and development, and facilitate institutional linkages for the purpose.

11.5.3.2 Field NGO (F-NGO)

Implementation of CACP would be supported by field level NGO (F-NGO) capable of supporting cluster on community mobilization, agriculture development, on-field water management, and formation of FPO. Each cluster will be supported by one F-NGO (hence, some 20 F-NGOs are envisaged to be hired).

F-NGOs would be responsible for facilitation of farmers' organizations and implementation of CACPs prepared by SP1. F-NGOs would have a gender-balanced social development team of lead expert and team members for implementation of the social management plans prepared by SP1. The team will have expertise on participatory assessment and planning, social impact assessment, consultations and participation, social inclusion, gender and tribal inclusion issues, in the context of agriculture, watershed, and agri-markets. **Social Development Specialist (F-NGO).** Social Development Specialist (F-NGO) will be responsible for implementation of the social management plan and short TDP, as well as preparation and implementation of SAP, where required, based on consultations with PAPs and as specified in the RPF. S/he will be the nodal point for implementation of the TDF and RPF in all the RACP clusters.

The F-NGO Social Development Specialist will have the following responsibilities:

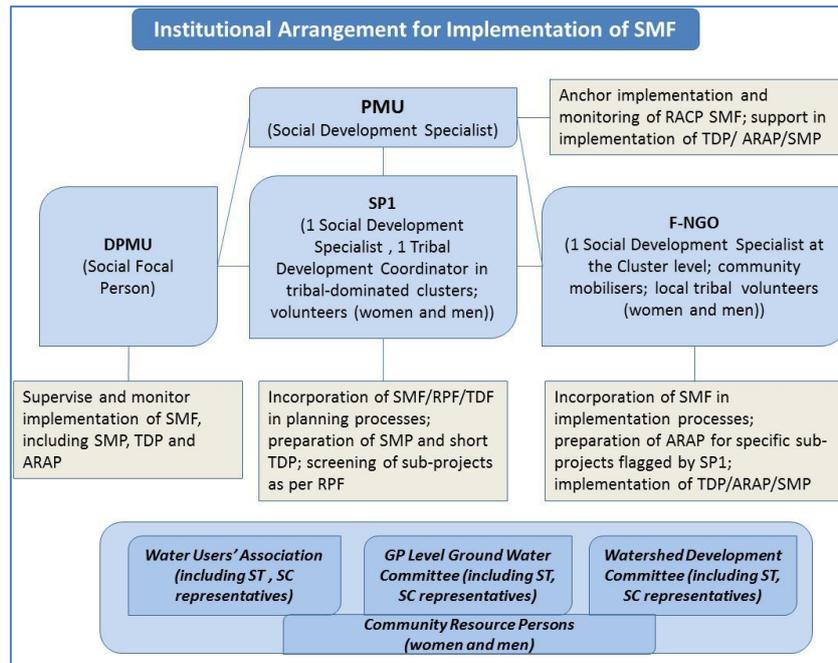
- Ensure satisfactory preparation and implementation of the SMP
- Facilitate social impact assessment of the CACPs, and preparation of SAP, where required (for sub-projects with land-related impacts, flagged by SP1);
- Coordinate with state capacity building resource agencies to ensure timely delivery of quality capacity building services within the Cluster;
- Undertake regular cluster-level monitoring of SMF implementation;
- Review Grievance registers maintained at the village level with Community Mobilisers, take necessary action and prepare monthly reports on action taken;
- Dissemination of best practices and cross learning across the cluster.

For the intensive engagement that will be required with farmers, additional human resource support would be required at the grassroots, to be engaged through the F-NGO, who will identify and train **community mobilisers** and **community resource persons** (men and women) from among the targeted communities:

- for every GP: 2 Community Mobilisers (1 male and 1 female)
- for every village: 1-2 Community Resource Persons

Preference will be given to local youth, women, SCs, and STs; preference to local tribal youth in Schedule V areas. The project would also promote farmers field schools, farmer volunteers and thematic CRPs to promote outreach among smallholders.

The schematic of institutional arrangements for implementation of SMF is provided below.



11.6 Monitoring, Evaluation and Reporting Framework

Regular monitoring of the strategies and practices proposed in the SMF would be required for assessing the effectiveness and extent of implementation of the SMF. The District FNGO- SDS would be reporting on the key social processes of RACP. These key indicators, relating to different strategies and outcomes anticipated from adoption of the social management framework, are categorised under different heads below:

Baseline and Plan preparation

- Percent CACPs with socio-economically disaggregated baselines (data on smallholder, SC, ST, women, and BPL farmers)
- Percent CACPs with social management plans of acceptable standard and quality
- Preparation of TDPs in tribal-dominated areas
- Screening, assessment and mitigation of social impacts from village infrastructure/commons supported under RACP – included in CACP

Mobilisation and inclusion

- Percent farmer organisations with adequate representation (membership) of women, STs, SCs and small-holder farmers
- Percent farmer organisations with representation of women, STs, SCs and small holders in executive committee membership
- Proportion of women, STs, SCs and small-holders in producer companies
- Access of smallholder, SC, ST, women farmers to public investments and benefit-sharing there from
- Percent farmer organisations with reduced and/or flexible cost contribution norms for smallholder, SC, ST, women farmers for private investments
- Participation of smallholder, SC, ST, women farmers in (i) CACP planning; (ii) training and capacity building activities; (iii) demonstration plots and agriculture extension interventions; (iv) institutional meetings; (v) monitoring committees formed under RACP

Targeting

- Percent small and marginal farmers, women farmers, STs and SCs received individual benefits from RACP
- Proportion of project investments in private goods across small & marginal farmers, women farmers, STs and SCs

Other safeguards compliance

- All sub-projects with identified adverse social impacts subjected to detailed assessment and planning by F-NGO, and resettlement/social mitigation plans (SAP) prepared, if required
- Process monitoring to assess the extent of adoption of the Social Guidelines

Outcome monitoring will be undertaken to assess the extent of mitigation achieved by adoption of the SGs.

RACP social staff will conduct special internal monitoring/ review of implementation of the SMF, along with participation of farmers organizations, with a specific focus on the indicators listed above. RACP would also undertake thematic reviews of SMF implementation through external agencies.

These would be done before project midterm and end term. The external monitoring shall assess performance of the RACP with respect to compliance with SMF. Once the community institutions are strengthened they would be involved in monitoring and giving feedback to SP2 on the interventions in which they are involved.

Reporting. The Social Development Specialist (FNGO) will prepare and submit to the DPMU quarterly reports on the implementation of the CACP and SMF, with specific focus on participation and inclusion of the smallholder farmers, SC, ST, women farmers in CACP preparation, CACP implementation, farmers mobilisation, institutional processes, training and capacity building interventions, detailed implementation planning, access to private goods, access to common assets and infrastructure.

In addition, the report would also cover assessment and mitigation of social impacts from village infrastructure/commons supported under RACP, and SAPs prepared, if any. The quarterly report shall present the above mentioned details on a cumulative basis from the start of the project in addition to presenting details for the quarter under reporting. The district Social Focal Person shall review the report, initiate corrective action, if required, and forward the report to the PMU (SDS) with his/her comments, explanations and action taken report. The PMU SDS shall review the reports received from the DPMU and take suitable action, and prepare a consolidated quarterly report for RACP. The RACP Quarterly Report on SMF shall be submitted to the PD not later than 30 days after the quarter under reporting has ended.

The Annual Report for the RACP will include a section on progress vis-à-vis the social indicators mentioned above, as well as a narrative report on achievements of note, summary of good practices and their outcomes.

Special thematic studies. RACP will undertake thematic studies on social issues that are most relevant for RACP interventions and would add value to implementation of social strategies. These studies would focus on smallholder farmers, women farmers, SC farmers, tribal groups, farmer mobilisation, promoting social inclusion in institutions, training and capacity building interventions, promoting social inclusion in village commons, etc. Other themes could be on food security, leadership and empowerment of women, debt and credit counselling, mobility and market access for women, drudgery reduction for women, etc. RACP would plan and allocate specific budget for such studies annually.

11.7 Training and capacity building

RACP will include development and delivery of the following training modules for RACP staff, service providers and implementation partners. The training modules aim to promote awareness and operational capability on the social management framework of RACP. The key topics of the training would be:

- participatory assessments and planning
- consultation and participation
- Farmer mobilisation strategy
- social outreach and rapport building
- mainstreaming social inclusion (planning, institutions, investments, benefits)
- gender issues and strategies

- tribal inclusion and other vulnerable groups
- social impact assessment and mitigation, etc.

The training format would broadly be –

- Orientation Training for PCU, PIU, DLICs, SPs, Implementation partners
- In-depth Training on Social Management Framework for SSDS, DSFP, DPMUs, SP1, F-NGO Community Level Training for farmers organizations, social committee, CRPs, CMs
- Refresher Training
- Follow-up support and hand-holding after classroom/ field training

IESA dissemination workshop and orientation programme. The IESA Workshops will be organized at state level and the other Training Programs will be organized in the district/ clusters of villages proposed for farmer organisations and water management committees to facilitate the inclusion of these categories in village level groups and further in Producers' Associations formed under the project.

The IESA dissemination workshops will be conducted for various stakeholders, representatives of implementing agencies, officers of line departments etc. The content of the workshops will be on IESA findings & recommendations, ESMF for the project, various strategies developed, measures to be taken at various stages of project implementation, institutional arrangement, Monitoring & Evaluation. Details of the training topics for the various stakeholders are provided in Annexure 10.

11.8 Grievance redressal

To address the grievances, RACP will have three-tier grievance redress mechanism (GRM). As the first tier of GRM, the Community Mobiliser at the village level will be the first level contact for the aggrieved person. On a fixed date of every month (communicated to all members and residents of the village), individuals/ community can approach the Community Mobiliser to register their grievance/s in a **Grievance Register** that will be maintained in every village. That apart, the project sites will have information/ notice boards with (i) name of the F-NGO; (ii) name of the Community Mobiliser; F-NGO Social Development Specialist, DPMU Focal Person for social aspects and PMU Social Development Specialist with their contact phone numbers; (iii) RACP Project Director's office telephone number to register grievances.

The Community Mobiliser will prepare a monthly report on these cases, and submit to the DPMU. The DPMU Social Focal Person will review the reports and issue directives/ guidelines to concerned parties for necessary action, seeking an action taken and compliance report within a month of the directive. Matters which cannot be resolved at the DPMU level will be referred upwards to the state PMU by way of monthly reports.

As the second tier of GRM, an Integrated Grievance Redress Mechanism (IGRM) will be established at the state level, which will register user complaints using various mediums (e.g., a dedicated toll free phone line, mobile or web-based complaints, written complaints in feedback register and open public days) and address them in a time-bound system.

RACP will commit itself for proactive disclosure and sharing of information with the key stakeholders, including the beneficiaries/ communities. The project will have a communication strategy focusing on effective and efficient usage of print and electronic media, bill boards, posters,

wall writing, and adoption of any other method suiting local context, logistics, human and financial resources.

As part of IGRM, a Grievance Redress Cell (GRC) will be set up at the district level, comprising the following members:

Chairperson:	Elected member of the Zilla Parishad or his/her appointed representative
Convener:	DPMU Coordinator
Members:	Five elected representatives (<i>Sarpanch</i>) from constituent Gram Panchayats of the Cluster, on a rotational basis, nominated by the ZP CEO
<i>Ex-officio</i> members:	Representative from the F-NGO

The GRC will have its own bye-laws. The functions of the GRC will be to redress grievances of the community in all respects, and it will meet every quarter. The GRC will only deal/ hear the issues related to individual grievances and will give its decision/verdict within 15 days after hearing the aggrieved individuals/ families. The final verdict of the GRC will be given by the Chairperson of GRC in consultation with other members, and will be binding on all. In case a grievance is not addressed at the first two levels, the aggrieved person can approach the Project Director at the state level as the third tier of GRM.

At the third tier, the GRM will have a state GRC headed by the Project Director. The contact person/ coordinator in PMU will be the Social Development Specialist, who will prepare all the background documentation for the PMU to consider the case with all required information; the state GRC will meet at least once every quarter, or as often as required. The coordinator will be responsible to inform the aggrieved person the process of grievance registration, and the date and time of the meeting for his/her issue to be discussed by the state GRC at least 7 days in advance.

11.9 Budget

Particulars	Explanation/ assumptions	Unit	Number	Unit cost	Amount (INR)	Total Cost (INR)
HUMAN RESOURCES						7,980,000
PMU-SDS	Core staff for SMF implementation and monitoring; integrated in HR costs					
Social resource persons and consultants	Support in SMF implementation and review	person months	20	100000	2,000,000	
Tribal Development Coordinator	SP1 - in 2 clusters with tribal populations (Sch. V)	person months	12	40000	480,000	
Women CRPs	F-NGO - in all clusters, 10 per cluster*20 clusters	Honorarium per training day	8000	500	4,000,000	
Tribal CRPs	F-NGO - in tribal clusters (Sch. V and MADA) - 10 per cluster*5 clusters	Honorarium per training day	2000	500	1,000,000	
Local Tribal Groups and folk media	For outreach and information dissemination	Per cluster	20	25000	500,000	
TRAINING AND CAPACITY BUILDING						9,152,500
At state level	(as per Annexure 10)				840,000	
At district level	(as per Annexure 10)				1,412,500	
At Cluster level	(as per Annexure 10)				6,900,000	
STUDIES, PUBLICATIONS AND TRAINING MATERIAL						11,500,000
IEC, development of training material				LS	1,000,000	
Studies on SMF themes, and publication				LS	10,000,000	
Tribal development programmes – publication	Publication and dissemination of information about tribal development schemes; Part of TDF to facilitate convergence with ongoing schemes of GoR/Gol			LS	500,000	
MONITORING AND REVIEW						7,000,000
Social impact assessment	Before MTR and ICR	Per study	2	500000	1,000,000	
Review of SMF implementation	Operational costs only; to be undertaken internally or by consultants (budgeted above)			LS	1,000,000	
Participatory M&E by farmer organisations	Grass root level PME; support for capacity building and development of material			LS	5,000,000	
GENDER AND WOMEN EMPOWERMENT - SPECIAL COMPONENT				LS	5,000,000	10,000,000
ECONOMIC REHABILITATION ASSISTANCE THROUGH SOCIAL ACTION PLANS				LS	5,000,000	5,000,000
					GRAND TOTAL	50,632,500

Annexure 1: Summary of meetings with stakeholders

Multi-stakeholders meeting at the office of Jhotwara Panchayat Samiti, District Jaipur

A brief on the project “Rajasthan Agriculture Competitiveness Project (RACP) was made by the Integrated Environment and Social Assessment Team. During the presentation, the series of issues were raised relating to water, agriculture, markets and capacity building for in-depth discussion among the stakeholders. There was a sound and valuable discussion on the different aspects as agriculture, water, markets. The main points of the discussion are bifurcated into two categories as environment and social.

Major issues that emerged from the consultation are:

1. Environment

Agriculture

- Emergence of commercial cropping pattern in the cluster caused sharp decline in groundwater. It resulted in increase in investment cost in installing or/ and deepening the bore wells. Most of the open wells were reported to be defunct.
- The use of chemical input has increased considerably. While the consumption of manure has been decreased because of the sharp reduction in livestock population.
- Certain pockets of the cluster saline land and due attention is needed to initiate appropriate measures to deal with this challenge.
- Because of the growing use of chemical inputs, the land productivity is affected considerably. To deal with challenge, the crop rotation is followed by the famers.
- Farmers are ignorant about improved technologies and timely capacity building should be undertaken regarding suitable crop is grown keeping in view the soil suitability.
- Growing incidences of encroachments of common lands was noticed as one of the major challenges for environment.
- Some interesting insights were emerged regarding use of chemical fertilizer. In kharif crop, there was limited application of fertilizer and pesticides. In this region the farmers known as *Mali* never use chemical fertilizer.
- Some of the farmers follow the organic farm practices. It is experienced that application of chemicals brings down the crop production in the long run resulting in increase in the production cost and poor quality of the product.
- The presence of blue bulls (nilgais) is the major challenge for the farmers with regards to the protection of the crops. They reported a huge loss to the crops.

Water

- During the in-depth discussion, it emerged that poor quality of groundwater is one of the major problem in the selected cluster namely Boraj. Farmers reported that use of groundwater results in increase in crop productivity considerably during the initial crop seasons. But after two-three years, its decrease sharply due to salinity.

It was realized that there is urgent need to deal with the poor water quality through technological intervention.

Markets

- Installation of food processing units may lead to waste management problem. But, the proposed intervention such as daal mill will not lead to such problems as waste can be converted into animal feed.

2. Social

Institutional building

Participating NGOs felt that capacity building should be undertaken with women's groups or SHGs that already exist in the project villages, and some of the women could further disseminate the information among other women of the village.

- Participation of women should be ensured in all people's organizations.
- There is a provision of training of female farmers regarding the pesticide application at the village level. It needs further intensification of the training program at the village level so that female workers can be benefited from the intervention.

Agriculture

- In many cases land titles are not transferred to sons, therefore, the sons and their families cannot access credit and agricultural schemes as they cannot show ownership of land. Such constraint is major cause of hindrance in improving the agriculture production.
- It emerged that sometimes improved varieties have failed. Therefore, it is necessary to give due attention to the indigenous knowledge of the farming community. Participants felt that before introducing improved varieties on farmers' fields, first they should be demonstrated in the area and their productivity should be compared with local varieties. After confirming the quality of introduced seed, it should be provided at the larger extent so that risk of failure may be avoided. Analysis of performance of new variety to be done by farmers.
- Participants felt that in addition to the crops pea, moong and chickpea the RACP should also give due attention to livestock development especially poultry.
- Encroachment on commons by the influential as well as villagers at large is one of the challenges of exclusion of resources poor households. The participants realized the importance of effective legislative and social instrument for vacating the common from clutches encroachers.
- Failure of crops and inefficient market operations lead to rural indebtedness. To deal with these challenges, there is urgent need to promote crop insurance schemes and make the existing marketing system more efficient.
- MGNREGS has led to growing scarcity of labour in agriculture sector and construction activities. The suggestions emerged that during the crop seasons MGNREGS operation should be suspended so that demand for labour may be met.
- Implementation of RACP will help in minimizing the migration of the households, promotion of opportunities for education attainment, reduction in domestic tension among the resources poor households.
- Participants reported limited access of farmers to the agricultural extension services.

Water

- Presentation of a successful intervention by NGO namely GVNML helped to understand the process of restoration of natural resources base in the rural settings. It was realized that it is essential to link up the intervention with prevailing cultural practices at the grassroots level. This helps in ensuring the participation not only of the community but also of individuals in managing the resources efficiently.
- There is a provision of subsidies for the construction of water harvesting structures such as farm pond. But due to lack of awareness among the farmers in general and marginal and small farmers in particular they are not benefited at the desired level.

- Limited awareness of the farmers regarding the drip irrigation and the complex process of availing the institutional support resulted in reluctance among the farmers. Participants realized the importance of capacity building of the farmers.

Interview with Mr. Laxman Singh, GVNML

- If water is to be treated as a CPR then its use must also benefit all. Working on pastures helps everyone.
- Chauka system is a low cost approach to pasture development and tank based irrigation development
- CBOs formed are Gwala samiti, Charagah samiti which are represented in the Village Development Committee which is supreme for all village level decisions
- Pasture land development has been done keeping in mind water flow paths, pathways used by shepherds. Drinking water points for animals and humans (shepherds) have been provided in the pasture at various places.
- This indicates the close involvement of the people in planning the pasture development
- Pasture land development helps not only those with large ruminants but also sheep and goat rearers
- There is need for learning from Laporiya and Lakshman Singh's expertise to enrich RACP
- For last 25 years GVNML has been organizing a Yatra in about 30-40 villages that happens every year on Dev Uthani Gyaras (11th day after diwali). Entire villages turn up and start walking along the water paths (from ridge to the final tank). All along they discuss how the water is being used, what benefits they are getting from it, how it should be managed better and finally worshipping every nadi/talab.kund, etc. for the prosperity they have brought to the village.
- This is a huge community mobilizing, motivating and educating tool being used by GVNML. This is the forum to emphasize the community ownership and use of water as opposed to the dominant paradigm of water being an individual asset.

Markets

Marketing of agricultural produce was found to be a major problem not only in the selected cluster but also in the throughout the state. Broadly, the problems relating to the markets were identified by the stakeholders as follows:

- There is lack of regulated marketing facilities including infrastructure.
- Dominance of local traders and they monopolize market operations.
- Absence and inadequacy of public market agencies in marketing of agriculture produce that resulted in failure of Minimum Support Price (MSP) mechanism.
- The inputs market was also found inefficient
- Quality of product leads to efficient marketing of agriculture produce.
- Market failures deprive the farmers in gaining the benefits.
- How the agriculture produce can be link to market conditions having wide price fluctuations? The subject needs further thought.
- The project proposes to set up daal mills. The mills can also be used to add further add value to millets and pulses by making badis using local crop varieties.
- SHGs can be included in membership of producer companies. This will help women farmers and producers to have direct access to markets.

Capacity Building

- To ensure the success of the RACP, it was realized that the participation of other departments like State Co-operative department and ICDS will be useful.
- It was found that there exists farmers' organization structure and there is a considerable proportion of female counterparts as well as marginal and small farmers and they play an important role in successful operation of the organization.
- The participation of ICDS will ensure involvement of SHGs which is one of the important institutional arrangements at the village level. Certainly, it will help in improving the participation of deprived sections of the society directly and indirectly.
- There is a need of awareness generation among the women regarding market operation and access.

2.7.2 Multi-stakeholders meeting at the Office of KVK, District Banswara

The meet was attended by 26 participants representing NGOs and KVK and Agriculture department.

Key issues

- In the command area, the tail-end farmers do not receive canal water even in good rainfall conditions. Input consumption is growing at a faster rate.
- Large scale promotion of soya bean is affecting food security as area under maize cultivation decreases. We should take up mixed cropping to balance commercial as well as food crops.
- In case of rabi season crops farmers are coming ahead in following given package and practices that will help in balanced input usage.
- Marketing aspect is very poor. The ultimate cost of the inefficient markets is borne by the resource poor farmers. This inefficiency prevails in boat and poultry marketing.
- Women's participation in trainings is very poor, should consider trainings exclusively for women groups. There should be provision of required training in each and every project activities.
- In order to ensure that project benefits reach the poorest of the community, a mechanism should be evolved for community to reach consensus on providing them benefits without charging contribution, or leveraging common funds.
- Sustainability Fund as envisaged in NAIP Udaipur is very essential so that community can undertake essential activities after project completion. Contributions from interventions on private lands should be used to build up the SF.
- The project should explore differential contribution for farmers having different paying capacity. This will help in reaching out to resource poor households.
- There are different village level institutions having the responsibility of managing different natural resources such as forests, grasslands, water bodies or watersheds. Health of forests is critical to water bodies and even for livestock that depend on pasturelands. Considering the functional linkage among these ecosystems, their management institutions should be integrated into an umbrella people's organization to coordinate the management of interlinked ecosystems.
- These common resources are critical for agriculture based livelihoods and consequently for raising agricultural incomes, therefore, management of commons should be addressed as overall strategy for agricultural competitiveness.
- Stall feeding practices are followed by limited farmers. There is a need to promote the stall-feeding practices rather than grazing. Largely households lack the awareness about the proper use of crop-residue as fodder.
- Farmers use the silt from the water source dam/ talab as manure that improves the land productivity.
- Participants gave examples of successful PIM in Bundi District, and group selling of agricultural produce by farmers in Chhoti Sharvan.

- Participants said that genetically modified seeds should not be promoted in this project.
- Participants felt that existing village level institutions should be absorbed into any new institution being facilitated by this project; however, producer companies being revenue based organizations should not be included.
- The importance of PRIs was realized by the participants in efficient implementation of any development program like RACP at village level. Further it is essential to involve the democratic, community/ caste based institutions at different level keeping in view the nature of intervention.
- Considering the variability in agricultural output and incomes, the project should also focus on rural non-farm livelihoods for extending the benefits to the households those having no land.

2.7.3 Meeting with Tribals, Kushalgarh Block, village Patalia, Banswara District

A consultation with tribals was held at premises of GVT (Gramin Vikas Trust). In the consultation, the participants were from the project area of GVT. There were 80 participants including 57 women and 23 men from 25 villages of 5 Panchayats. Community members stated that in their villages 95 percent population belong to tribal community. Some of the tribes present were Amlia, Vasunia, Badia, Damor, Kharadi, Mahida, Khadia, Gadasia, Katara etc.

The IESA consultants made a presentation on the proposed RACP and its major interventions. Staff of GVT presented an overview of their organizations work in the region. Together the teams facilitated an in-depth discussion on existing community based institutions, constraints faced by the community in accessing government schemes related to agriculture, water and livelihoods, access to agricultural inputs including credit, and major interventions needed for improving the income of farmers in the region. The major issues that emerged from the discussions are:

Existing institutions

Existing community based organizations are Forest Protection Committees, Self Help Groups, Farmer Interest Groups, Pastureland groups. Kisan Clubs are being formed through support of NABARD. Traditional institutions called tadbi are active in resolving social conflicts and arranging marriages. The tadbi do not take direct interest in agricultural activities, but projects should consult with these institutions before implementation otherwise they can obstruct the functioning of the project.

TAD Schemes

Benefits of TAD schemes are routed through different departments and camps are organized for distribution of seeds etc. but many people are not able to avail the services due to lack of information or because the camps are held for a single day during which all beneficiaries may not be able to avail the service. Agricultural inputs such as seeds and fertilizers are distributed by concerned department but people have no proper knowledge of use of the inputs.

Agriculture

- Farmers were in position to get crop production during the recent two crop years. Before this there was good rainfall in the year 2006. Intervening years had very low rainfall and farmers could hardly get one crop.
- During water scarcity the farmers grow low water consuming crop like gram.
- Provision of agricultural implements with latest technology which can be use in small size of holds. It will help in sowing the crop in proper manner and other agriculture operations.

- Forest Protection Committees are functioning well. Farmers depend on forests for major and minor produce. Households earn around one-third of the total household income from forests. Some of the households also benefited from the Jatropha cultivation.
- Problems associated with agriculture: Seeds are either bought from the local markets or kept from home produce. If farmers do not have home produced seeds because they were consumed as food grain, or because seeds had to be planted more than one time due to late arrival of rains. In such case it becomes difficult to obtain seeds on time. Availability of timely credit is important for agricultural activities. Part of the credit need is met by SHGs, but major source is the local moneylender (mahajan). Access to institutional credit is difficult because farmers have small parcels of land or because land title is not transferred in their name (ownership lies with fathers of farmers).
- According to the participants the most important interventions for enhancing income of farmers are support for installing tube wells, farm bunding, breed improvement for goats and access to information relating markets.
- The farmers stated that the greatest bottleneck in raising agricultural incomes is the fact that they have to sell produce to the same moneylender from whom they meet their requirement of loans for agricultural inputs and therefore they are unable to get a good price agricultural produce.

Livestock

Livestock kept by communities include cows, goats and poultry. Cows are kept mainly for manure, and milk production used domestically. Grazing lands are available only in some villages that are encroached largely.

Water

Some of the farmers who do not have irrigation source meet their water requirement through water markets. In water markets there are three stakeholders including a land owner, well owner and water pump owner. Pump owner charges Rs. 70 per hour for the whole set include pump set and pipes. Well owner charges Rs. 100 for the whole extracting period i.e. 3 to 4 hours.

Meetings with stakeholders

November 22, 2011

1. Meeting with traders: Boraj Mandi

Bagru agriculture market is located at a distance about 22km from the main city of Jaipur. Because of its location on the periphery of main city, it has importance in value chain. Groundnut growers from other districts such as Nagaur, Jaisalmer Ajmer and Jaipur and sell their produce in this market. The buyers from other states have registered in this market for purchasing the produce. Major points of discussion were:

- There are 43 market traders including one Agriculture Co-operative.
- Previously the traders had obtained the shops in this market on 99 years lease but now they have bought the shops. Therefore no new trader can participate in this market.
- Different farmers bring 10 to 300 bags of agricultural produce. It is reported by the traders that there is no minimum and maximum limit for quantum of arrivals. Keeping in view future development in crop production, the existing market infrastructure is inadequate.

- There is need of storage/ go-down facilities around the market yard so that the grain is not destroyed by rain.
- The local traders are themselves the buyers of agriculture produce and they monopolize the market structure.
- Access to the agriculture market facilities determined by the inter-personal and social relationship among the buyers and sellers of the produce.
- If the farmers are not willing to sell at the current auction price they have the option of keeping the grain with the trader for a month till they find a better opportunity. In turn farmers are provided up to 70 to 80% of the value of their produce as loan. The cooperative provides loan of up to Rs.50,000 at an interest of 4%.
- Traders use Information technology such as internet and pass on the information to farmers on mobile phones. Both electronic and print media also play an important role marketing of the products.
- There is a lack of the timely and adequate supply of inputs including seed, fertilizer and pesticides as reported by the cooperative.
- The traders are organized into a Vyapar Mandal that acts as a pressure group to undertake advocacy with the government. Recent issues raised by the Mandal include the demand for storage shed.

November 23, 2011

2. Meeting with farmers at Bobas Village, Panchayat: Boraj Cluster

The meeting was held at the panchayat office. In the meeting, about 25 individuals participated actively. Participants included members of PRIs, small and marginal farmers, as wells as medium farmers.

Issues Emerged:

- There is no project on agriculture development undertaken in the area. Absence of awareness of the ATMA program.
- Access to agriculture extension services was limited to certain group of farmers.
- Groundwater level declining 10 feet annually and deteriorating quality.
- Demonstration effects from adjacent area as Chomu which is well known as vegetable production played an important role in agriculture development in Bobas village
- There is threat of shifting from prevailing cropping pattern if the aquifer depletion rate continues
- Formation of farmer's organization known as All India Kisan Sabha is in process. One member from each village samiti will be member of the organization that will be integrated with the Akhil Bhartiya Kisan Union. The groups are of a political nature and will focus on farmers' issues including price of crop produce, diesel, and availability of electricity.
- The farmers are facing a serious problem of wildlife (blue bucks) that damage the crops.
- Farmers are unable to get Minimum Support Price (MSP) because of monopolistic behaviour of the informal buyers/ traders who purchase the agriculture production at the lower as compare to prevailing market price.
- Limited access to the regulated markets especially in case of marginal and small farmers as they have the limited quantum of marketable surplus.
- Farmers do not have information about prevailing market prices. IFFCO had given mobile phones to some farmers to get market information. But this facility is accessible to limited proportion of the farmers.

- The major livelihoods are agriculture and livestock rearing; about 300 to 400 persons go to Jaipur daily in search of wage labour.
- MGNREGS has resulted in labour scarcity in agriculture operation. According to the farmers this is because people have to work less and get high wages in MNREGS
- Mechanism of crop insurance is not desirable. Because the failure of crops is declared on the basis of tehsil level metrological data. While local condition may be responsible for crop failure. This needs policy reform.
- Lack of timely supply of agriculture inputs including seed and chemicals.
- Common lands are encroached by the villagers. No land is available for grazing purpose.

3. Meeting with Women at Anganwadi Centre, Bobas village:

About 30 women participated in the meeting. Most of them were SHG members. The Anganwadi workers had promoted 14 SHGs in the village having a total membership of 150 women. The village has 3 Anganwadi centres having 3 workers at each centre. Some of the women present in the meeting said that they do not participate in agricultural activities as their families were associated with service sector. Some of the participants were landless earning from goat rearing, agricultural labour and MGNREGS.

Issues Emerged

- The women confirmed the facts on ground water scarcity, existence of 2 to 5 wells on each farm, rapid depletion of groundwater, poor ground water recharge even in good rainfall years, the problems associated with the availability of agriculture inputs including seeds and fertilizers, and changes in cropping patterns, and poor quality of groundwater mentioned in previous meeting at panchayat level.
- Almost all the households are in the trap of indebtedness because of the substantial amount of loan ranging from ₹ 20,000 to ₹ 1,00,000 for the purchase of agriculture inputs and meeting the household needs. The women farmers felt that in spite of investing substantially but could not get the desirable benefits due to low reliability i.e. groundwater source i.e. tube-wells. Many of the tube-wells have dried up and the farmers who do not have functioning tube-wells practice rain-fed agriculture and are able to take only a single crop during year. Looking at the depleting ground water the farmers felt that they will shift to barley cultivation instead of wheat.
- Women from landless families mentioned that they kept goats for livelihood, but apart from the rainy season they faced acute shortage of fodder and had to buy it from other more well off families that kept milch animals and can afford to allocate land for fodder production.
- Women also mentioned that though they do most of the work in agriculture except for ploughing and selling, they have no role in decision making regarding purchase of inputs or selling of produce.
- Women expressed their interest that if they were given training on improved techniques, and market information relating to prevailing market prices, then they can understand the processes and begin to participate in decision making.
- Participants from each Anganwadi Centre attend the Gram Sabha and bring up issues regarding agriculture but they feel that the issues raised are not addressed.
- Women associated with non-farm activities hope that their livelihood security will also be addressed in this program.

Meeting with herder: village Bobas

The village has 2 herder families who had settled in the village. The farmer Shri Mangaram belongs to the Gujjar caste. He keeps a herd of 80 sheep and goats. He mentioned that he does not face any problem regarding fodder even though he does not own land. He has a mutually beneficial traditional relationship with the farmers of the village. Farmers ask him to trim the khejri trees on the boundaries of their fields so that their crops get enough sunlight. In turn the herder feeds the cut branches of khejri tree to his livestock. Fodder from one tree is consumed per day. No cash is exchanged in this arrangement. Water troughs for livestock have been constructed by philanthropists in the village therefore, there is enough water for the livestock.

For livestock health care a hospital exists at Panchayat level, but most medicines are not available and they have to go to hospitals at Panch Batti in Jaipur, or in Dudu. There is no arrangement for breed improvement, and the breeds kept by them are non-descript.

4. Meeting with the farmers: village Bassi Jhajra

The hamlet named Ganwalo ki dhani was part of the revenue village known as Bassi Jhajra. This village is scattered in small hamlets having few families. The Panchayat has around 100 hamlets called dhanis having five to six families per dhani. In Ganwalo ki dhani there were 3 families belong to Jat caste.

- The family we met owned 211 bighas of land having 22 tube-wells. Sixty years ago they had only one well that could irrigate only 20 bighas. With water availability through tube-wells (since last 15 years) they can irrigate all their land and were taking three crops on certain pockets, and high value fruit and vegetable production.
- The water table has gone down to 250 feet in the village. The farmers reported the depletion of groundwater at a rate of 15 feet annually. Farmers from this village also confirmed that even in good rainfall years the water levels in their wells does not recharge due to physical condition of the village.
- Shifted from amla fruit crop to other traditional cropping pattern due to absence of linkage between production and markets.
- Demonstration effect was also visible in fruit cultivation as also reported by the farmers.

5. Meeting at Dhinda Panchayat Bhavan, Boraj Cluster

About 30-40 villagers participated in this meeting comprising small and marginal farmers, agriculture labourers, three PRI representatives—Sarpanch, ex-Sarpanch and Ward Panch, Village Development Committee members and Government representatives. Dhinda panchayat has 5 villages Dhinda, Kediya Ki Dhani, Bajpura, Chandsinghpura, and Kerio ki Dhani.

Major issues:

- Severe groundwater degradation, high decline in GW levels; GW quality is saline. Farmers have shifted from irrigated to totally rain-fed agriculture
- Farmers in all the 5 villages have deepened their wells and exploited GW by using higher HP pumps.
- Problem of drinking water
- Delay in wage payments in NREGA
- Agriculture labourers migrate for non-farm work, for example as construction labour

- History of development programs: Farm pond, bunding undertaken; sprinklers and drip irrigation technologies provided but currently not in use due to severe groundwater degradation.
- Fertilizer use had increased when access to irrigation improved. But now the agriculture is totally rain-fed as the GW resource is fully exhausted.

6. Meeting at Hirnoda village, Boraj Cluster

About 20 villagers participated in this meeting comprising small and marginal farmers, agriculture labourers, PRI representatives, Village Development Committee members and Government representatives.

Major issues:

- This was a canal irrigated area. But due to reduced inflows into the dam due to rainwater harvesting activities in its catchment, the canal stopped flowing. Farmers shifted from irrigated to rain-fed agriculture
- Groundwater almost exhausted; GW quality is saline
- Agriculture production and income decrease substantially; agriculture labourers migrate for non-farm activities.
- Green Pea replaced with Gram and mustard, and kharif vegetables replaced with Bajra and Moong.
- Land fertility drastically reduced.
- Drinking water problem is acute.
- Farmers do not get even the MSP by sale of produce in mandi as they have to go through a very subjective quality assessment done by the traders.

November 24, 2011

7. Meeting at Akhepura Panchayat, Mokhampura Cluster

About 30 farmers participated in the meeting. The Akhepura Panchayat has 4 villages viz., Akhepura, Maheshpura, Manpura and Anantpura. There are about 3500 livestock in this panchayat.

Major issues:

- There were three water ponds in the village. Due to road construction in the catchment area input into the ponds was blocked. Recently, the blockage was removed by the village that resulted to filling the pond.
- Very few farmers have access to extension services.
- Farmers are practicing low input rain-fed agriculture.
- Except for bajra crops, farmers use farm saved seeds or buy from each other. During droughts, the seeds saved by the farmers are lost and they have to replenish the stocks by buying from the market.
- Farmer use ash and neem leaves for the protection of home produce seed.
- Seed supplied by the different agencies found unreliable. Growth of plant is there but main product (grain) found missing.
- Farmers follow crop rotation to maintain land productivity.
- Due to erratic rain fall conditions, farmer replaced the maize crop with bajra.
- Farmers do not get remunerative price for the produce such as mung since they are not growing improved varieties because of low or erratic rainfall. Due to low quality of produce

it does not fetch market price. There is no standard system for testing and ascertaining grain quality.

- The panchayat has 552 bighas of pastureland which is fully encroached. All households are involved in encroachment on commons except non-land owning families and certain castes such as balai and kumhar.
- Access of household having grazing animals strictly restricted by the encroachers causing social tension.
- Since the advent of MNREGS the agricultural wage rates have increased from Rs.150 to Rs. 300. Thus, MNREGS had adverse implication on labour market in agriculture sector.

8. Meeting with farmers: village Manpura

About 70 farmers were present of which 35 claimed to be small and marginal farmers.

- The farmers overarching concern was about water. Many farmers had constructed farm ponds on their lands, but it was mentioned that small farmers did not have access to government sponsored schemes.
- Heavy rains cause crop damage due to low lying topography of the village.
- Farmers wanted that the village pond should be further strengthened.
- Constructing grain storage structures will not be useful as farmers have to sell their produce immediately since they have to pay back their loans.
- Pastureland is heavily encroached and pieces of land are fenced off and used by farmers for cultivation. Small farmers and non-land owning families have no access to the pasturelands. Also because of growth of Prosopis in the pastureland women cannot go there to collect fuel wood.
- Most of the small farmers have to migrate for wage employment with the state and outside the state such as Delhi and Chandigarh.

9. Meeting with women: village Manpura

Women from three families of Bairwa caste participated in the discussion. Highlights of the discussion are:

- The families own 4 bighas or less of land. They have no access to the village pond because they cannot afford pipes to transport the water.
- The pond had filled only this year after a gap of 15 years.
- There is a drinking water supply in their village, but supply of water is irregular, about once in two days for an uncertain period of time ranging from 3 hours to full day.
- The families have one buffalo each and also own a few goats. The animals are always stalled since they do not have access to pasturelands. The families who have encroached on the grazing land threaten these families with sticks if they try to enter the pastureland. They buy fodder at the rate of Rs.250 / quintal. Milk produced by livestock is enough only for household consumption.
- There is only one shop of PDS at panchayat level.
- These families experience food insecurity about 4 months a year. They take the help of other families by taking grain on loan during this period.

10. Meeting with women of herder families: Gujaron ki Dhani

The Dhani is populated by a single extended family comprising 11 households. Eight women of the family participated in the meeting. The family owns a large herd of 70 sheep as well as buffalos and cows.

- The herders do not have access to the community pastureland. One man from the family migrates with the herd for about 4 months each year. He travels with five to six such groups from other villages. For the rest of the time the livestock are fed on crop residues.
- Households also sell milk in the local market.
- The income earned from sale of milk is received directly by women.
- Females never visit the market for shopping of household articles. Marketing is done by males of the family.
- The family earns about Rs. 1.5 lakhs, including Rs. 30,000 from wool.

11. Meeting at Ganga Ti kala Dhani

Participants: 4-5 farmers from the Dhani

Major Issues:

- Groundwater became saline since the time the canal that irrigated the area stopped flowing due to reduced inflows into the Kalak dam; but the recharge is good in open wells during normal to good rainfall years
- Farm ponds constructed in the area are very effective in maintaining storages due to impervious layer at 3-4 m below ground level.
- The agriculture produce in Kharif almost doubles with critical irrigation support; main crop is Gram and Moong
- The farmers find use of weedicide effective so are interested in promoting its use

12. Village meeting at Ganga ti kaka Panchayat

Participants: 35-40 farmers (including women)

Major Issues:

- There is need for strengthening agriculture marketing system for objectively assessing quality of produce needed
- Need for warehouse/ storage facility for marketing
- The use of pesticides is not effective
- The cost of agriculture inputs is high; the inputs are not available timely and are inadequate
- High degree of encroachment of pasture land—used for agriculture and housing; for warehouse land can be made available through private land donation

13. Meeting with break-away group of farmers from the village meeting

Participants: 8-10 farmers with wide variation of landholding

Major issues

- Key Kharif crops grown: Moong, Jowar and Bajra; Irrigated crops: wheat, Barley and Cumin (Jeera)
- The village tank used for domestic purpose got filled after many years; it has recharged many open wells downstream; if rainwater harvesting done in u/s areas it may affect inflows to the tank
- Strong interest in collective action for marketing

14. Village meeting at KadvoKa Baas

Participants: 20-25 farmers and agriculture labourers

- Marketing agriculture produce is a challenge; farmers do not get even the MSP
- Cost of agriculture inputs is high;
- Open wells are 40 feet deep; the groundwater below that level is saline
- Major kharif crop is Moong; this year both the production and quality of Moong and Bajra produce was low due to untimely rainfall
- Strong interest for undertaking collective marketing; need for warehouse facility and land can be made available

November 25, 2011

15. Mahuli, NAIP

- IPM and INM are not being implemented in toto
- Focus and emphasis is on use of chemical pesticides only
- No arrangements made for supply or local production of environmentally friendly bio-pesticides or bio-control agents
- Apart from emphasis on preparation of compost, INM also relies on chemical fertilizers only
- Dosage of fertilizers is based on expert recommendations and not backed by soil testing results
- Overall, NAIP demonstrates many technologies that have been transferred from lab to land, but emphasis is on demonstration of techniques and skills, but not on transferring knowledge to the communities
- For example, even after NAIP, communities do not know anything about INM and IPM and how to do it themselves. They are dependent on KVK or MPUAT to give them recommendations for controlling pests and diseases. Thus, KVK and MPUAT have replaced the role that was being played by pesticide dealer. By itself it is a better option, but is not a substitute for empowering the farmer with ability to decide for himself/herself by transferring knowledge
- Overall, while the Mahuli NAIP area shows impressive results in the short term, its impact on soil, water and environment is not being mitigated by suitable measures
- Similarly, on the social front, it has not significant community mobilization and organization efforts

16. Meeting at village NAIP office, Palana Khurd Panchayat, Udaipur

Participants: About 30 villagers (majority tribals) from the 5 villages in the panchayat; representatives of Maharana Pratap University; NAIP NGO—Swami Vivekanand Seva Nyas

Major Issues:

- It is the 4th year of NAIP project; good demonstrations of horticulture, BT cotton, vegetable farming and orchards—guava;
- Water conveyance losses significantly reduced due to provision of pipes to farmers; led to expansion of irrigated area by about 150%.

November 26, 2011

17. Meeting with farmers of command area village Bagora

The meeting took place at KVK and scientists from KVK also participated. Major observations from the meeting are:

- There is seepage from the canal system.
- Canal system as poorly managed due to weak institutional arrangement at the project and village level.
- Even in the mid-reach of the command area farmers do not get enough water. In fact there is no system for regulation of water use; since the construction of canal a maximum of 60% of command area has been irrigated in a single year.
- Soil fertility is low and there is no proper system for soil testing; farmers are not aware about extent of nutrition deficiencies in their soils
- Farmers have small and scattered land holdings situated at a distance from their houses. This situation will pose a constraint in adoption of labour intensive work on the scattered land holdings.
- Water logging/ salinity problem is in 40% of the command area.
- Most of the farmers are small and marginal with holding around 0.1-0.2 ha; many farmers have Kisan Credit Card but are unable to use them; so most sell their agriculture produce in local markets only and not in mandi because the quantity is very small.
- Supply of agriculture inputs (seeds, fertilizer etc.) is inadequate and untimely. Currently only one-tenth of the input demand is met.
- There is no community based organization or WUA to manage equity in water distribution.
- There is no marketing infrastructure. Although about 100,000 Qtls. of wheat is produced in the area, only about 10,000 Qtls. is marketed through the cooperative society.
- Livestock kept by the farmers have low yield. Only the Patidars who keep improved breeds of buffalo are able to earn from livestock rearing.
- Tribal women do the agriculture work but they lack decision making power and control over earnings. KVK organizes some trainings for women relating to use and maintenance of agricultural implements, livestock management, organic manures, IPM etc.

18. Meeting with farmers: village Lokia, Panchayat Arthunia

The village is located at the tail end of the command area. The village comprises 250 households, 200 of which can be categorized as small and marginal farmers comprising Patidars, Bunkars, and tribals. Major findings are:

- The village did not get water from the canal since the last 10 years except recent two years.
- Nearly, one-fourth of the households in the village do not have access to irrigation (from canal or from wells) and they practice rain-fed agriculture taking only one crop a year in kharif.
- Crops grown are makka, tuar, jhalar etc.
- Different castes prefer to keep different types of livestock – Patidars keep buffalos, whereas tribals prefer cows and goats.
- The tribal farmers have problems in accessing seeds, and have no knowledge of using fertilizers.
- Land holdings are about 0.3 ha in size. The small farmers have to work in groups to access agricultural machinery and implements.
- Dominance of local traders in agricultural marketing.

- Livestock rearing is the main source of household income for resource poor households.
- Some famers having irrigation facilities grow the maize crop twice in a season
- Goats are more useful for poor families. Any family member can take goats for grazing. There is no grazing land in this village.
- Access to forest land is restricted for grazing due to plantation. The restriction continues for about five years after plantation.
- Families from all castes migrate in search of wage work, Patidars prefer to work in hotels and sweet shops, whereas tribals take up jobs in construction.
- Both men and women’s savings groups exist in the village.

19. Visit to Custard Apple Processing Unit, Department of Horticulture, MPUAT

Those met:

- Dr. R.A Kaushik, Prof.& Head, Department of Horticulture, MPUAT, Udaipur Mr.Sanjay Bhanawat, Mr. Naresh Trivedi, Directors, Sugam Bio Foods Pvt., Ltd., Udaipur

Observations & Issues

- This is a subproject under NAIP titled “ Value Chain Development on Commercial Exploitation of Underutilized Fruits of Tribal Zones of Rajasthan”
- Since production period of custard apple is very short and shelf life is just 2-3 days, processing is vital to develop a value chain
- Technology for extracting and preserving fruit pulp of custard apple has been developed by MPUAT
- Currently, the technology developed depends on hand removal of pulp from the fruit, but technology for mechanical removal of pulp is on trial. This is important from a hygiene point of view
- Sugam Biofoods has been purchasing all the pulp extracted at the centre (3 tons, this year). They are ready to purchase up to 100t/year.
- Further, they are ready to invest in a processing plant close to the centres of custard apple production
- They are also in parallel developing the technology for mechanical removal of pulp
- They are on the lookout for opportunities for setting up a unit for frozen gram for export purpose. They could be potential value chain partners for the Mokhampura cluster
- This partnership shows how a value chain could be developed with private and public cooperation and is instructive for RACP as well

20. Visit to Aonla Producers Cooperative Society Limited, Baghpura, Tehsil Jhadol, Udaipur

Those met:

- Mr. Nagin Patel, Coordinator, Jhadol Block, BAIF
- Mr. A.P. Thakur, Area Programme Officer, Jhadol Block, BAIF
- Mr. Mangilal, President, Aonla Producers Coop Society Ltd.

Observation & Issues:

- Society registered in 2003 and has 400 members
- Aonla production started in the area with BAIF's interventions that promoted a tree based farming model that included fruit trees, especially aonla.
- The Society produces about 10 different aonla products, but by volume, Aonla Candy is the largest
- It has a marketing outlet in Udaipur and a network of wholesalers in Rajasthan and Gujarat
- The capital investment on the land, building and equipment was provided by BAIF and is estimated to cost around Rs.1 crore at present costs
- To finance its working capital requirements, the Society has allotted shares to Jan Utthan Samiti to the extent of Rs.10 lacs.
- The Jan Utthan Samiti is a federation of 18 Village Development Committees that were set by BAIF during the implementation of their various projects in Jhadol block.
- All beneficiary contributions during the projects were channelled into a Sustainability fund which is worth Rs.42 lacs today. Of this the Samiti has invested Rs.10 lacs as shares in the Society
- From a regulatory perspective, following are the permissions required before setting up a fruit processing centre:
 - Gram Panchayat's NOC for setting up the operation in its limits
 - Water sample testing report from PHED
 - FPO license which needs an application to the Ministry of Food Processing, Govt along with copy of land title deed, water sample report, GP NOC and approved building plan
 - The building plan should be as per FPO norms
 - FPO license is to be renewed every year
 - Sales Tax Registration, approval from Weights & Measures department and registration under Udaipur Mandi and payment of mandi tax is required to act as a procurement centre for aonla
- Disposal of waste water is an issue at this centre and needs to be addressed

21. Visit to Ginger Value Chain Cluster, Jhadol

Those met:

- Khyalilal Jain, President, Udaipur Agro Producer Co., Ltd., Jhadol, Udaipur
- Vishwadeepak Kumar, Project Coordinator, RKVY & Rabo Bank

Observations & Issues

- This is a project being supported by RKVY and Rabo Bank and is focused on building a value chain around ginger
- Jhadol is famous for its low fibre ginger, but in the last 15 years, area under ginger has declined due to repeated failure of crops due to ginger rot
- Access Development Services is the service provider for delivering the value chain development
- The project covers 4 clusters in Jhadol block. In all about 100 Farmer Business Groups have been formed which have been federated and registered as the Udaipur Agri Producer Co. Ltd. It has a total membership of about a 1000 farmers who grow ginger
- Project interventions so far have been only on
 - Stabilizing ginger crop production
 - Organizing supply of inputs including disease free seed material

- However, of the 300 demonstrations set up by Access, 50 plots were severely affected by ginger rot which resulted in total economic loss. In another 50-60 plots there was significant economic damage. Thus about 1/3rd of the demo plots were affected. Thus, as of now, the Package of Practices developed with help from MPUAT has not been fully validated.
- Currently, more investigations are needed to identify how the plants are getting infected
- The PoP has promoted intensive use of chemical pesticides and fungicides and would have implications for economics and environment as well. There was no clearly thought out IPM strategy being implemented on evidence during the visit.
- Regulatory requirements for setting up operations of a Producer Company:
 - Registration of producer company under Section IX A of Companies Act, 1956
 - Registration under VAT Act and Central Sales Tax, getting TIN
 - TAN and PAN of the company for carrying out financial transactions
 - Licenses for storage and sale of seeds, fertilizers and pesticides
- License from APMC to carry out procurement and purchase of produce from farmers

November 27, 2011

22. Visit to wadi at village Mal Dholpura, Kushalgarh Block

The organization (Gramin Vikas Trust) has promoted wadis through the support of NABARD. The wadi owned by Shri Dalsingh bhai and his brother was about 0.8 ha. Agro-horticulture model is followed on the farm where fruit trees like papaya, amla, mango are grown along with vegetable crops. During the visit a crop of cotton was seen among the fruit trees. Bamboo was also grown along the field borders. Some of the fruits were at fruit bearing stage. The farmer sale the produce both fruit and cotton and cereals in local market of Kushalgarh. The family also kept high yielding buffalos. About three year back the farmer installed an open well with financial support by the program implementing agency i.e. GVT. The reliability of well is not more than 3 hours a day and it takes about 24 hour to be recharged.

Along with fruit plantation, farmer grows cotton crop during kharif season and wheat and gram during rabi season. Farmer applies the domestic labour in agriculture operation but in collection of cotton hired labour is deployed i.e. costly as compared to other farm operations. It is reported by the female member that the present intervention has enhance the work load on them. But it is compensated by the improved household income level and drudgery has been reduced by implements promoted by the organization.

23. Meeting with women, village Sodalía

The SHG leader was Srimati Sunder Bai Sarpota, and there were 8 other members.

The group was undertaking savings activities, but they had also received training on agriculture, livestock management, hygiene and sanitation. Members had gone on exposure trips to other states and felt that this increased their confidence to the level that they can participate effectively in decision making in village meetings. Women felt that if they are given intensive training they can function as jaankars to train other women farmers.

Women mentioned that with introduction of horticulture and cotton crops their workload had increased. The organization addressed the need of drudgery reduction for women by providing light

weight pesticide sprayers, maize deseeding devices, improved sickles, and smokeless chulhas that required lesser amount of fuel wool and also reduced the cooking time. Provision of fibre sheets that could be inserted into the thatched roofs to serve as skylights reduced energy consumption.

24. Focus meetings with farmers at Bhoodanpura, Rohida Panchayat, Banswara

Participants: Five farmers from the Dhani; one farmer having 10 goats

Major issues:

- Cost of agriculture inputs cost increased due to intensive chemical input based agriculture
- The farmers do not get appropriate price for selling agriculture produce when the production goes up.
- There is lack of capacity on agriculture practices and awareness is low on resilient agriculture practices
- Most of the pastureland is encroached.
- All the 10 goats that were provided under the project died due to some strange disease; timely action could not be taken because the farmer did not inform the government; no scheme for insuring goats

25. Meeting vegetable nursery growing farmer supported by Agriculture produce company

Major issues:

- Nursery promoted as a entrepreneurial activity on demonstration basis by (Jambu Khand) agriculture producers company
- The failures of saplings in nursery are not compensated by the company

26. Meeting at RTC office, Sagvadi Gram Panchayat

Participants: 20 farmers, SHG members, Agriculture produce company representatives

Major issues:

- Low productivity of crops especially Maize even in good rainfall years
- Farmers take on rent the agriculture equipments kept at RCT and have benefited at lot from this service
- Farmers do not get even the MSP price by sale of agriculture produce in the Mandi; middlemen corner most of the profits; the village does not have storage/ warehouse facility and there is a felt need for the same
- Only 900 out of the 2600 farmers are members of Agriculture produce company; there seemed to be low awareness on existence of such an institution

27. Stakeholder Consultation and Disclosure Workshop

The Disclosure Workshop on Environment and Social Management Framework was held at International Horticulture Innovation and Training Centre, Durgapura, Jaipur on 19th January, 2010. The event was attended by representatives of the State Agriculture Department, Social Justice and Empowerment Department, Department of Women and Child Development, NAIM, Agricultural

University Bikaner, RACP officials, NGOs including RRIDMA, FES, CEDS, CECOEDECON, GVT, Morarka Foundation etc., ITC Ltd., Access Development, Consultants, farmers from the Boraj cluster, representatives of the World Bank and IESA consultants.

Presentations were made on the RACP, Environment Assessment, and Social Assessment. The suggestions related to Social Assessment were:

- The text of relevant World Bank Policies should be available on line
- For smallholder farmers and tribal farmers to be competitive we have to explore the aggregation model
- Considering the situation of low access of smallholder farmers, SC, tribals and women headed households, a system of Revolving Fund should be made available otherwise they will not be able to make their contributions for accessing project benefits.
- Many projects in Rajasthan have promoted food processing with women groups, but due to lack of forward linkages the livelihoods have not taken off. Establishing forward linkages is essential.
- Providing training for women in their villages
- Young women should be trained for providing various services in the villages such as veterinary services
- Efforts should be made to increase women's participation in marketing of agricultural produce
- Advocacy efforts should be made to make marketing yards women friendly
- Gender sensitization workshops should be organized with men and male project staff to enable women's participation
- Advocacy component should be added to influence policies
- Thematic studies needed for monitoring

The List of participants in the disclosure workshop is provided below.

S. No.	Name	Occupation	Address
1	Ganga devi	Farmer	Gangatikalan Teh.-Mojmabad
2	Indra Devi Meena	Farmer	Gangatikalan Teh.-Mojmabad
3	Ram lal	Farmer	Gangatikalan Teh.-Mojmabad
4	Jagadish prasad Bairwa	Farmer	Gangatikalan Teh.-Mojmabad
5	Jagan Singh Choudhary	Farmer	Mokhampura, Teh-mojmabad, Jaipur
6	Ridhkaran Gurjar	Farmer	Keriya, teh.-Mojamabad,
7	Sivaji Ram Choudhary	Farmer	Jebliyo ka bass teh.- mojmabad
8	Rajendra kumar Kadwa	Farmer	Kadwa ka bass teh.- Mojmabad
9	Ramratan singh Choudhary	Farmer	Mokhampura, Teh-mojmabad, Jaipur
10	Sharvan Kumar	Farmer	Guddha Kumwatan , Gram- Bobas
11	Bina devi	Farmer	Guddha Kumwatan , Gram- Bobas
12	Kamla devi	Farmer	Guddha Kumwatan , Gram- Bobas
13	Gulab devi	Farmer	Guddha Kumwatan , Gram- Bobas
14	Laxminarayan	Farmer	Guddha Kumwatan , Gram- Bobas
15	Rajkumar Verma	Farmer	Guddha Kumwatan , Gram- Bobas
16	Mahendra kumar Sharma	Farmer	Gram- Bobas, teh- Shambar,
17	Visharam Meena	Officer	Additional Director SJED
18	Narendra singh chouhan	Officer	Advisor, ICDS, DWCD
19	Hotst reinhad	Officer	24 shivaji nagar jaipur
20	Dr. Phuspendra s. Rathor	Officer	Rridma, Sec-14, Udhaipur
21	Sanjay joshi	Officer	FES
22	Priya Tendan	Officer	FES
23	Ramkumar Jat	Officer	P.D ATMA, Jaipur
24	Srivastav roy	Officer	ITC Limited jaipur
25	H.B. Yadav	Officer	Add. Director hort.
26	Mahesh Saxena	Officer	ITC Limited Jaipur
27	Mahesh Chand Jain	Officer	Agri supervisor Bichun
28	Babulal Prajapati	Farmer	Agri Director Bobas
29	Goverdhan lal Verma	Farmer	Guddha Kumwatan , Gram- Bobas
30	Bansi lal Verma	Farmer	Guddha Kumwatan , Gram- Bobas
31	Pintu Gehalot	Farmer	Guddha Kumwatan , Gram- Bobas
32	Dr. R.P Jangid	Officer	Director RSS SKRAU Bikaner
33	Hema Yadav	Officer	NIAM Jaipur
34	Shyamendra	Officer	ACCESS Dev. Jaipur
35	Rajesh Jain	Officer	ACCESS Dev. Jaipur
36	Anand lal Mathur	Officer	RPCB
37	S.S Rana	Officer	Zonal Programme manager(Kribhco)
38	Anil Chopra	Officer	GVT Jaipur
39	Narand Pratap Singh	Officer	RACP
40	Dalvir singh	Officer	RACP
41	Ladhu Lal Sharma	Officer	RACP

42	Satvendra Singh		Morarka Foundation-Jaipur
43	Ramdhan	Farmer	Teh.- Hindoli dist.-Bundi
44	Devendra Solanki	Farmer	Teh.- Hindoli dist.-Bundi
45	Kalu lal Meena	Farmer	Teh.- Hindoli dist.-Bundi
46	Hajari lal Mali	Farmer	Teh.- Hindoli dist.-Bundi
47	Satveer Beniwal	Officer	Morarka Foundation-Jaipur
48	Dr. HS Yadav	Officer	Manorpur
49	Rajesh kumar yadav	Officer	Navalpura
50	Kewal Likhyani	Officer	USA
51	Dr. Sangeeta Ladha	Officer	Director IHITC- Jaipur
52	Kamlesh Choudhary	Farmer	Jhotwada (Basedi) Jaipur
53	Khemaram Choudhary	Farmer	Guddha Kumwatan , Gram- Bobas
54	Dr. VP Singh	Officer	Dy. Director RACP Jaipur
55	Anil kumar vijay	Officer	Asst. Director RACP Jaipur
56.	Participants from World Bank, and Consultants		

Annexure 2 - List of Scheduled Tribes in Rajasthan

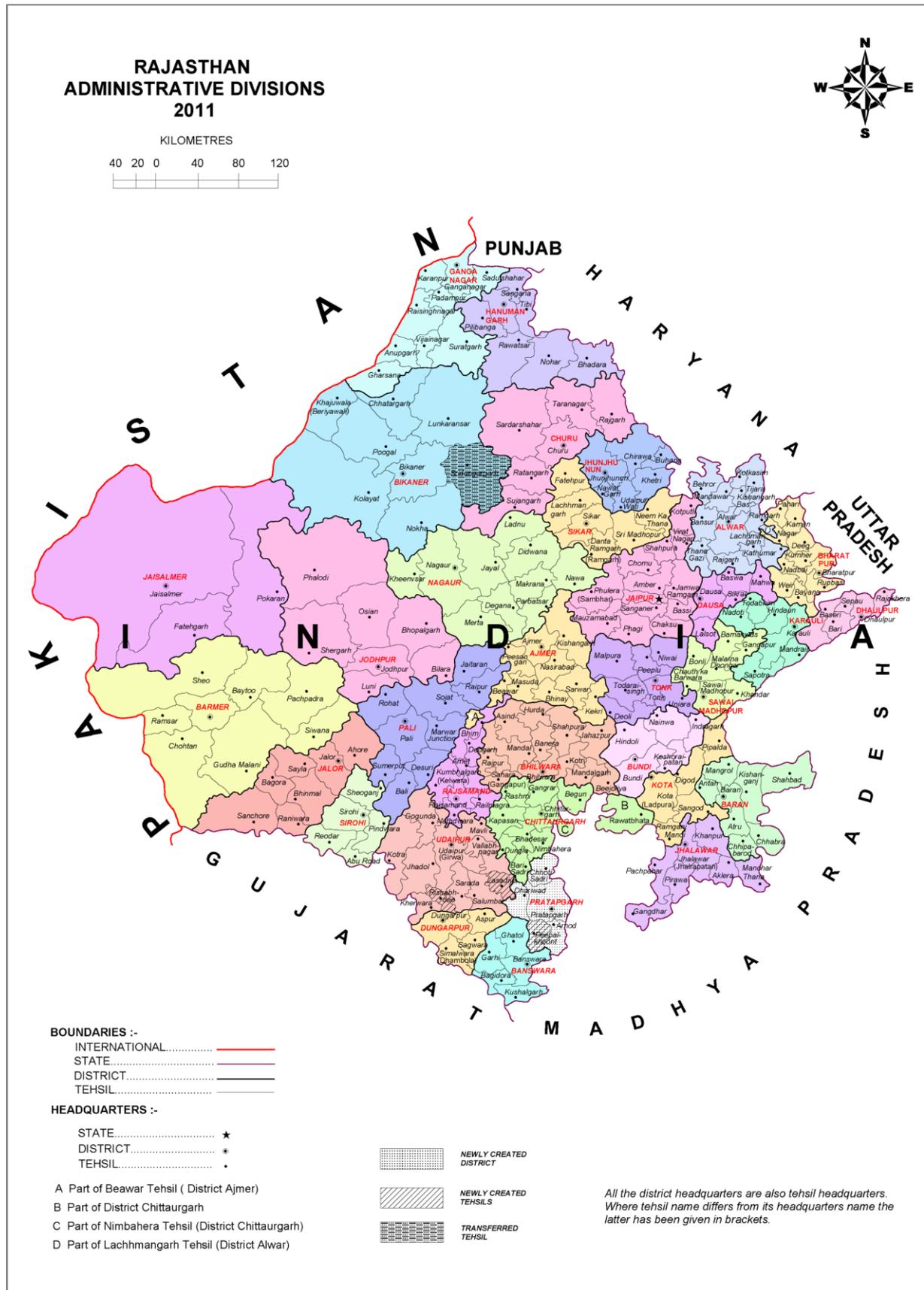
List of STs in Rajasthan

1. Bhil, Bhil Garasia, Dholi Bhil, Dungri Bhil, Dungri Garasia, Mewasi Bhil, Rawal Bhil, Tadvi, Bhagalia, Bhilala, Pawra, Vasava, vasave
2. Bhil Mina
3. Damor, Damaria
4. Dhanka, Tadvi, Tetaria, Valvi
5. Garasia (Excluding Rajput Garasia)
6. Kathodi, Katkari, Dhor Kathodi, Dhor Katkari, Son Kathodi, Son Katkari
7. Kokna, Kokni, Kukna
8. Koli dhor, Tokre Koli, Kolcha, Kolgha
9. Mina
10. Naikda, Nayaka, Cholivala Nayaka, Kapadia Nayaka, Mota Nayaka, Nana Nayaka
11. Patelia Seharla, Sehria, Sahariya, Seharla, Sehria, Sahariya

Annexure 3 - List of Scheduled Castes in Rajasthan

SI	Name of SC	SI	Name of SC
1.	Adi Dharmi	42.	Mahyavanshi, Dheda, Dheda, Vankar, Maru, Vankar
2.	Aheri	43.	Majhabi
3.	Badi	44.	Mang, Matang, Minimadig
4.	Bagri, Bagdi	45.	Mang, Garodi, Mang Garudi
5.	Bairwa, Berwa	46.	Megh, Meghval, Meghwal, Menghvar
6.	Bajgar	47.	Mehar
7.	Balai	48.	Nat, Nut
8.	Bansphor, Bansphod	49.	Pasi
9.	Baori	50.	Rawal
10.	Bargi, Vargi, Birgi	51.	Salvi
11.	Bawaria	52.	Sansi
12.	Bedia, Baria	53.	Santia, Satia
13.	Bhand	54.	Sarbhangi
14.	Bhangi, Chura, Mehtar, Olgana, Rukhi, Malkana, Halalkhor, Lalbegi, Balmiki, Valmiki, Korar, Zadmalli	55.	Sargara
15.	Bidakia	56.	Singiwala
16.	Bola	57.	Thori, Nayak
17.	Chamar, Bhambhi, Bambhi, Jatia, Jatava, Mochi, Raidas, Rohidas, Regar, Raigar, Ramdasia, Asadaru, Asodi, Chamadia, Chambhar, Chamgar, Haralavya, Harali, Khalpa, Machigar, Mochigar, Madar, Madig, Telegu, Mochi, Kamati, Mochi, Ranigar, Rohit Samgar	58.	Tirgar, Tirbanda
18.	Chandal	59.	Turi
19.	Dabgar		
20.	Dhanak, Dhanuk		
21.	Dhankia		
22.	Dhobi		
23.	Dholi		
24.	Dome, Dom		
25.	Gandia		
26.	Garancha, Gancha		
27.	Garo, Garura, Gurda, Garoda		
28.	Gavaria		
29.	Godhi		
30.	Jingar		
31.	Kalbelia, Sapera		
32.	Kamad, Kamadia		
33.	Kanjar, Kunjar		
34.	Kapaida, Sansi		
35.	Khangar		
36.	Khatik		
37.	Koli, Kori		
38.	Kooch Band, Kuchband		
39.	Koria		
40.	Madari, Bazigar		
41.	Mahar, Taral, Dhegumegu		

Annexure 4 - Administrative Divisions of Rajasthan



Annexure 5 – Resettlement Policy Framework

GOVERNMENT OF RAJASTHAN

Department of Agriculture

Rajasthan Agriculture Competitiveness Project

Resettlement Policy Framework

Draft

January 2012

Rationale for Resettlement Policy Framework. RACP triggers World Bank’s Operational Policy on Involuntary Resettlement (IR) as some of the project interventions like silvipasture and fodder plantations, agriproduce, and market infrastructure would require common or panchayat lands. While this would not involve land acquisition (LA), these interventions have the potential for causing small, scale, localized adverse impacts for some households. The canal rehabilitation component could also result in adverse impacts. To mitigate such potential adverse impacts, a Resettlement Policy Framework (RPF) is included as part of the overall social management framework (SMF). The main objectives of RPF is to i) avoid, minimize or mitigate any small scale losses of structures, livelihoods and access to village commons; ii) and to provide suitable economic rehabilitation/livelihood assistance to mitigate any unavoidable losses. The RPF summarizes the resettlement and livelihood rehabilitation principles that would be applied to all Cluster Agriculture Competitiveness Plans (CACPs), including Detailed Project Reports and microplans prepared during project implementation.

Rajasthan Agriculture Competitiveness Project. RACP aims to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan – each marked by different agro-ecological, climatic, water resource and social conditions – capable of significantly increasing agricultural productivity and farmer incomes. The guiding principles under the project are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state’s water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state’s agro-processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services.

RACP has four components: Component 1: Climate Resilient Agriculture; Component 2: Markets and Value Chains; Component 3: Farmer Organization and Capacity Building; and Component 4: Project Management, Monitoring and Learning. These project components will address capacity, access and participation-related issues by (i) incentivizing group formation among smallholder farmers (e.g. water user groups, ground water management communities, watershed groups) through specialized service providers; (ii) promoting farmer access to farm inputs, advisory services, product markets as well as agriculture insurances; and (iii) promoting gender-equitable practices in the sector. Implementation of the four components will take place over six years and across selected clusters in the state. Twenty clusters, distributed across all agro-climatic regions covering will be covered representing ground water (5), canal water (5), rain-fed watershed (5) and livestock (5) dominated agriculture production environments. Total project area under all clusters is 200,000 ha. The interventions in each cluster will be summarized under a Cluster Agriculture Competitiveness Plan (CACP)

The project will directly benefit 155,000 farmers, predominantly small holders by sustainably increasing their income levels. The primary beneficiaries of RACP are smallholder farmers with an actual or potential commercial outlook, brought together through collective action towards achieving economies of scale, e.g.: water user groups, ground water management communities, watershed groups as well as farmer producer organizations. In addition, secondary beneficiaries will comprise other farmers obtaining better access to water through improved groundwater recharge or

better water distribution at the tail-end of command areas, as well as agricultural labourers through increases wages. In addition, other stakeholders consist of private sector partners (i.e. agro processors and agro industries, wholesalers, traders participating through value chains); public institutions (i.e. the seven GoR line departments); and I service providers (including three universities and a range of NGOs).

Scope for Land Acquisition and adverse impacts. While no large scale infrastructure, private land acquisition and physical relocation is envisaged under RACP, the following project interventions are expected to come up on panchayat or community lands (through participatory planning processes) or private lands (based on voluntary decision)

- Storage facilities, grading and sorting equipment, collection centres etc.
- water harvesting structures
- Silvi-pasture plantations and fodder plots on common land:
- fodder processing and storage and warehousing facilities;
- rural markets and infrastructure

Rehabilitation/modernization of canals and rehabilitation/modernization of Structures (such as off take structures/gates, siphons, aqua ducts, falls & canal crossing village bridges) could also result in minor localized social impacts, without resorting to compulsory land acquisition. All subprojects related to canal works would be subjected to a social impact screening.

Legal and Policy Framework. Since, no private land acquisition is envisaged under RACP, the Land Acquisition Act, 1894 (LAA, amended in 1984) is not applicable. However, RACP triggers World Bank's Operational Policy on Involuntary Resettlement (IR) as some project interventions like silvipasture and fodder plantations, agriproduce, market infrastructure and canal rehabilitation could result in loss of access and livelihoods and cause small, scale, localized adverse impacts. The RPF follows the principles and operational experience of the World Bank's operational policy on IR, and will guide the economic rehabilitation of any persons affected by RACP interventions.

Key Resettlement Principles. The key principles for resettlement and rehabilitation under RACP are summarized below.

- RACP investments and interventions will not involve any compulsory acquisition of private land or involuntary physical relocation of people,
- The selection of the design, size and location of RACP sub projects will be based on social impact screening, participatory consultations and decision-making among the user groups, and documentation of user-group agreements.
- Sites free of encroachments, structures, livelihood dependence and conflict will be selected for any common infrastructure and interventions.
- Prior and informed consultations among all the users and right-holders will be held and documented for any land- related sub-project or intervention

- Common/panchayat land for any interventions would be taken up on the basis of a formal resolution of the Gram Panchayat (GP) and signed off by all the elected representatives of the GP and the government GP official. These would be endorsed by all the identified users/beneficiaries of the common infrastructure or intervention.
- Given the ecological and socio-economic significance of the grazing lands in the rural farming economy, RACP, as a matter of principle, will not put the grazing lands to any use other than for development of pastures.
- No interventions will come on the lands of vulnerable households

Economic and Rehabilitation Assistance. Based on the type and extent of adverse impacts resulting from the proposed project interventions, an entitlement framework for the economic rehabilitation of the project affected families (PAF) has been developed. Based on this framework, the affected families will be receiving their entitlements to restore their economic livelihood. The entitlement framework has is summarized below.

- Only poor and vulnerable households (SC, ST, BPL, marginal farmers, landless, women headed households, non title holders, sharecroppers, agriculture labour etc) will be eligible for any livelihood assistance.
- Eligible households need to be assessed and endorsed by the other subproject beneficiaries and supported by the Gram Sabah. These households would also include non-titled persons currently dependent on common/panchayat lands for shelter, livelihoods.
- Suitable assistance will be provided to user/s losing access to grazing lands, which may adversely impact their livelihoods;
- Compensation for replacement of temporary structures and allowance for relocating them would be provided;
- Productive assets grants, financial linkages for taking up a productive enterprise and support in skill training would be provided;
- Wage employment and project benefits would be extended on preferential basis.
- Tenants, share croppers and lease holders on common/panchayat lands will be entitled to reimbursement of unexpired lease value:
- Households affected by loss of common property resources, civic amenities will be entitled to replacement of such resources;
- Loss of standing trees, crops on leased land would be compensated at market rate;
- Non vulnerable affected persons, using public properties and encroachers will not qualify for financial or any other form of assistance
- However, vulnerable among them, if becoming landless, will be eligible for livelihood support

Rehabilitation Assistance and social mitigation plans would make full use of GORs development schemes for vulnerable people (SC, ST, BPL households, women, landless, marginal farmers etc.). Typically, such assistance would involve support from programmes of GOR, Panchayats or RACP on allocation of alternative sites for grazing/residence, relocation assistance, wage labour opportunities, access to credit, farm ponds, seeds, livestock etc.

Implementation Guidelines

Social Impact Screening. All CACPs and business plans of producer groups will be screened for any adverse social impacts, and will highlight the need for preparation of any abbreviated resettlement plans (ARPs). This would specifically cover interventions involving physical infrastructure or village commons (Panchayat land, community land, grazing land, government land etc.), including silvi-pastoral, soil/water conservation, water harvesting/ recharge structures, pasture/fodder plot development, canal rehabilitation. The social impact summary would be further updated once the DPRs are finalized. The social impact summary would profile any adverse social impacts related to loss of private land, structures, trees, or crops; loss of income, if any; livelihood dependence on common or Panchayat land that is required for any sub-project; loss of and access to grazing land, traditional grazing routes. A screening checklist is provided in Annexure.

Baseline of affected households. A baseline will be prepared for all affected persons (PAP). Preparation of the baseline will involve data collection with/from PAPs and other relevant stakeholders. The data collected will provide the benchmarks for monitoring progress/ impact of mitigation measures applied. Prior, informed and willing consent of PAPs will be taken for provision of the above information, and participation in preparation of the RAP. The final list of all affected households, the extent of loss, and names of persons/ households entitled to receipt of rehabilitation/ resettlement assistance will be read out in a meeting of the Gram Sabha for validation and final approval. The list will also be disseminated/ displayed.

Consultations. In accordance with WB OP 4.12, consultation and communication are the cornerstones of developing a resettlement action plan (RAP), and must be started right from the time of identification of the sub-project. At the community level, meetings and FGDs will be held with the project affected persons to discuss the social impacts of project operations, and mitigation measures suggested. The mitigation plans would be developed in consultation with affected households, taking into consideration its assets, human resources, skills, knowledge and other factors. Inputs and feedback would also be taken from the Gram Sabha, farmers' business groups and other relevant organizations.

Abbreviated Resettlement Plans for Livelihood Restoration. An abbreviated resettlement plan (ARP), would be prepared for all RACP subprojects that result in any adverse impacts on the project affected persons (PAPs) on account of usage of community or panchayat land, such as loss of structures, crops, grazing areas, and other livelihoods. The main objective of the ARP is to mitigate any adverse impacts thereof at the household and community levels. RAP preparation and implementation would be based on close consultations with affected households, and would need to be endorsed by them. RAP would spell out a livelihood assistance/restoration program based on consultation with PAPs and their socio-economic profile, skill-set, level of education etc. The feedback received from the PAPs will be integrated into the sub-project implementation process and RAPs, from its planning to evaluation.

The ARP would be prepared outlining the following. List of all adversely affected households, Household wise description of adverse impact/s and proposed mitigation measures; consultations with affected people about acceptable alternatives; institutional responsibility for implementation and procedures for grievance redress; arrangements for monitoring and implementation; and timetable and budget.

Institutional Arrangements. The Social Development Specialist of SPMU will be responsible for guiding and supervising the preparation and implementation of ARPs under RACP. At the field level, the Social Development Specialist of the Field NGO will be responsible for preparing and implementing the ARP at the sub-project level. The farmers' organizations on watershed, groundwater, canal command areas would monitor the implementation of the ARPs and be responsible for addressing grievances related to ARP.

Appraisal of ARPs would be done by the District PIU staff and the SPMU Social Development Specialist. ARPs would also be randomly checked by State SDS, SP2, Process Monitoring Agency, and World Bank supervision missions.

Upon completion of RAP implementation, the concerned DPMU would prepare a completion note, to be endorsed by the concerned Gram Panchayat, and send it to the SPMU.

The concurrent monitoring by the project will also include monitoring of potential adverse social impacts of RACP interventions. RACP would also engage short term, individual consultants for review of social impact screening and RAP preparation and implementation. The consultant will provide its findings and specific recommendations for improvement of the RAP implementation process and outcomes to the SPMU.

A core training module will be designed and administered to all project staff, partners and community institutions.

An overall budget of Rs 25 lacs has been kept within the SMF budget, for preparation and implementation of ARPs. This amount would be reviewed at midterm review of RACP for its adequacy and utilization.

Rajasthan Agriculture Competitiveness Project

Social Impact Screening Checklist

A. Background Information	
A1. Short Description and Justification of the proposed activity	
A2. Physical Location of the activity	
A3. Name and designation of the focal point for the activity	
B. Expected benefits	
B1. List of main benefits to the local community	
B2. Total number of beneficiary households	
B3. Number of SC, ST, SMF and women beneficiaries	
B4. Number of other minority beneficiaries, if any	
C. Potential adverse social impacts	
C1. Will the activity involve involuntary physical relocation of the local community or any household?	Yes No <i>(If Yes, exclude from the project)</i>
C2. Will the activity involve any acquisition of private land?	Yes No <i>(If Yes, exclude from the project)</i>
C3. Will the activity involve change in the use of designated grazing lands?	Yes No <i>(If Yes, exclude from the project)</i>
C4. Will the activity involve removal of encroachments	
C4. Restriction of access/ use of community used common lands	
(i) Will the activity entail restriction of access to any common lands, e.g., grazing areas, areas used for sanitation purposes, collection of fuelwood, etc.?	Yes No
(ii) If Yes, how many households will be affected? (number)	
(iii) How many of these households belong to the SC/ST/ vulnerable category? (specify each)	

(iv) What is the total area that is going to be restricted? (ha)	
(v) For how many years will the restriction be applied?	
(vi) List the impacts to the affected households (gender-disaggregated)	
(vii) List alternatives/ assistance that will be provided to the affected households. Have these been endorsed by community and affected persons? Are these Adequate in mitigating the losses?	
(viii) Has community consultation been carried out? Has it been documented in a resolution?	Yes No
(ix) Has PRA been carried out (esp mapping of common land use)?	Yes No
(x) Has intra- and inter-community agreement been established?	Yes No

Prepared by:

Reviewed by:

(Gram Sabha representative for the village/ hamlet)

(Sarpanch of concerned Gram Panchayat)

Date:

Date:

Comments:

(Social Development Specialist, F-NGO)

Date:

(Attach Minutes of Gram Sabha meeting signed by the residents, inter- and intra-community agreements, sketch map of the area)

Annexure 6 – Tribal Development Framework

GOVERNMENT OF RAJASTHAN

Department of Agriculture

Rajasthan Agriculture Competitiveness Project

January 2011

Tribal (Indigenous People) Development Framework

1. BACKGROUND

1.1 RACP: Objective and Strategies

The proposed Project Development Objective (PDO) is to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan – each marked by different agro-ecological, climatic, water resource and social conditions – capable of significantly increasing agricultural productivity and farmer incomes.

The guiding principles under the project are: (a) improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings for economic purposes outside of agriculture in support the state’s water policy of reducing water consumption by the agricultural sector; (b) increased private sector participation in the development of value chains in processing and marketing in support of the state’s agro-processing and agri-business policy; and (c) improved public sector capacity in delivering agriculture support services.

The primary stakeholders of the project are smallholder farmers with actual or potential commercial outlook, and farmers’ collectives for the improved regulation, use and management of resources, including cultivable land and water. Other stakeholders include private sector partners, public institutions, and service providers for planning, community mobilisation and technical support.

1.2 Components and Key Interventions

The RACP has four components:

Component 1: Climate Resilient Agriculture

Component 2: Markets and Value Chains

Component 3: Farmer Organization and Capacity Building

Component 4: Project Management, Monitoring and Learning

These project components will address capacity, access and participation-related issues by (i) incentivizing group formation among smallholder farmers (e.g. water user groups, ground water management communities, watershed groups) through specialized service providers; (ii) promoting farmer access to farm inputs, advisory services, product markets as well as agriculture insurances; and (iii) promoting gender-equitable practices in the sector.

1.3 Implementation Areas/Clusters

The RACP will be implemented in selected locations in each of the ten agro-ecological zones (AEZ) in Rajasthan. Within an AEZ one District will be identified across which (for reasons of ease of implementation), two Clusters will be developed with a primary focus on improving water management across the three water sources, i.e. either canal water or ground water or harvested rainwater (watersheds.) There would be up to 20 Clusters supported under the RACP. Currently, six Clusters have been selected, as follows:

- Two clusters are at an advanced stage of preparing Cluster Agricultural Competitiveness Plans (CACP), i.e. Boraj and Mokhampura clusters, both in Jaipur District;
- One cluster has initiated preparation of a CACP, i.e. Oshia in Jodhpur District; and
- Three further clusters have been identified: in Bundi, Alwar and Sriganganagar Districts, respectively.

1.4 WB OP 4.10 on Indigenous People.

RACP triggers World Bank's Operational Policy (OP) 4.10 on Indigenous People as some of the RACP clusters, and targeted beneficiaries, will be in tribal dominated areas of Banswara, Udaipur, Dungarpur, Bhilwara etc. The tribal population will be in minority in other RACP clusters. When Indigenous Peoples are present in, or have collective attachment to, the project area in which investment projects are supported by the World Bank, the Bank's OP 4.10 is triggered. The Bank recognizes that because of their distinct socio-cultural identity, and their intimate relationship with the natural resources, tribal populations are exposed to different types of risks and levels of impact from development projects. Further, the gender and inter-generational issues among the tribals are also different and often more complex.

The Social Assessment and Field Consultations in tribal areas have highlighted the need to ensure inclusion and participation of the tribal people in project processes, institutions, benefits etc. As part of the Social Management Framework, a Tribal Development Framework (TDF) is provided, which aims to effectively promote participation of tribal families and communities in every stage of the project cycle, from planning through implementation and institution-building to monitoring, and impact evaluation. The overall objective of the TDF is to enable and facilitate inclusion of tribal communities in the project in order to achieve the best possible outcomes of the project for the tribals in terms of their organization and empowerment, institutions, capacities, and quality of life. The specific objectives of the TDF are to: ensure that project activities and interventions uphold the social and cultural norms and practices of the tribal communities and that the project engages with the communities in a free, prior and informed consultation through processes that are appropriate to the local institutional context, and that their participation is ensured in the entire process of preparation, implementation and monitoring of the CACP/ sub-project activities; ascertain that the project does not inadvertently lead to or induce disempowerment, or increase disparities between the tribal and other communities; avoid, minimize and/or mitigate any kind of adverse impacts on tribal households; establish appropriate strategies for information sharing, communication, training and decision-making with the different tribal communities in all stages of the project;

1.5 Social Assessment and Consultations

As part of project preparation, the GOR has undertaken an integrated environment and social assessment (IESA) of the proposed RACP with the help of individual consultants. The IESA has been undertaken with the objective of identifying and assessing the key environmental and social issues related to RACP interventions, and mainstreaming the social and environmental strategies in project planning, detailed design and implementation. The Social Assessment also assessed the applicability of the World Bank's operational policies (OP) on Indigenous People (OP 4.10) and involuntary resettlement (OP 4.12). The IESA included consultations with a range of primary and secondary stakeholders at different locations; primary stakeholders included farmers from the small, marginal, semi-medium and medium categories, women farmers, agriculture labourers (women and men),

share-croppers, herders and graziers, dairying households, migrant labourers, Gram Panchayats, WUAs, SHGs, and other CBOs/village-level institutions. Among the secondary stakeholders were NGOs, relevant government departments, agriculture inputs suppliers, traders, market/ mandi officials and commission agents, agriculture cooperatives' officials, agriculture universities and so on. Based on the secondary literature available and discussions with stakeholders, a social assessment report and social management framework for the RACP were prepared.

Two multi-stakeholder consultations were organized. The first consultation was organized in Jhotwara Panchayat Samiti, Jaipur District. Participants included representatives of Department of Cooperatives, NABARD, Department of Animal Husbandry, ICDS, Department of Agriculture and NGOs working on agriculture. The second multi-stakeholder consultation was organized at KVK in Banswara. The consultation was attended by representatives of KVK, Agriculture Department, and NGOs working in Banswara District. The World Bank consultants and IESA consultants participated in both consultations. One consultation was organized with tribals in village Patalia, Kushalgarh Block, Banswara District in which tribals from 25 villages of 5 Panchayats of the block participated. Field visits were also undertaken to two clusters proposed in Boraj and Mokhampura clusters (including many meetings in 8 villages of 4 Panchayats), visit to NAIP villages and RTC in Udaipur District, Apple Processing Unit, Department of Horticulture, MPUAT at Udaipur, Aonla Producers Cooperative Society Limited, Baghpura, Tehsil Jhadol, Udaipur, Ginger Value Chain Cluster, Jhadol, village Bhoodanpura, Rohida Panchayat, Banswara, Bagoda Command Area Banswara, wadi and SHG programs of Gramin Vikas Trust in Kushalgarh Block. More consultations on the tribal framework and the social strategies of RACP would be held in January 2011.

Overall, the response to the project components and activities has been positive and was welcomed by the primary stakeholders. The Consultations have highlighted the challenges of farmer mobilisation around irrigation water/commons in large, dispersed and socioeconomically diverse villages with largely unregulated ground water extraction and use of commons. There is a need for adapting the project interventions and strategies for the benefit and inclusion of small and marginal farmers, mainstreaming women's participation and community based approaches, and adopting socially inclusive beneficiary targeting of SC, ST, and other vulnerable groups, benefit sharing (for community assets) and farmer contribution strategies. Consultations with the tribal and non-tribal stakeholders would be the focus of the implementation planning in the 20 RACP clusters, and this has been included as a key strategy of the TDF.

1.6 Positive and adverse impacts on tribals

RACP aims to sustainably increase the productivity of natural resources and farmer income through efficient management of agriculture. RACP clusters will cover 200,000 ha and will directly benefit 155,000 farmers. These will predominantly be smallholder farmers with an actual or potential commercial outlook, brought together through collective action towards achieving economies of scale, e.g.: water user groups, ground water management communities, watershed groups as well as farmer producer organizations. In addition, secondary beneficiaries will comprise other farmers obtaining better access to water through improved groundwater recharge or better water distribution at the tail-end of command areas, as well as agricultural labourers through increases wages. Other stakeholders consist of private sector partners (i.e. agro processors and agro industries, wholesalers, traders participating through value chains); public institutions (i.e. the seven GoR line departments); and (c) service providers (including three universities and a range of NGOs). The

economic and financial analysis of RACP also estimates that the more competitive agriculture will generate incremental wage income for about 29,500 agriculture labour HHs in the project area of which 40% are landless and 55% are from SC and ST category.

Significant proportion of the direct project beneficiaries are expected to be tribals in the RACP clusters that could potentially cover Banswara, Dungarpur, Pratapgarh, and Udaipur. The positive impacts of RACP on tribals are likely to be much the same as for the other stakeholders, and some others in addition to them:

- Seed replacement rate will go up, resulting in enhanced crop productivity
- Improved access to agriculture inputs and services
- Use of improved technology and techniques in agriculture
- Enhanced capacities to access agriculture extension series and inputs
- Reduced transaction costs resulting from collective marketing and procurement
- Reduced disparity between tribal and non-tribal groups as far as knowledge and access to services is concerned
- Tribal groups will specifically benefit from the project interventions on agriculture, horticulture and specially livestock.

No adverse impacts on tribals are envisaged as a result of RACP. As part of the Social Management Framework, a Tribal (Indigenous People) Development Framework is provided, which aims to effectively promote participation of tribal families and communities in every stage of the project cycle, from planning through implementation and institution-building to monitoring, and impact evaluation.

2. SCHEDULED TRIBES IN RAJASTHAN

2.1 Demographic, geographic, administrative distribution

Whereas approximately 13% of the state population belongs to the Scheduled Tribe (ST) category, the tribal population is concentrated in the southern and south-eastern districts of the state, comprising agro-ecological zones IVA (Humid Southern) and IVB (Sub-Humid Southern Plain); the districts with the highest proportions of tribals are Banswara (72%), Dungarpur (65%), Pratapgarh (60%)¹¹, and Udaipur (48%). In addition, tribal population is also present in all the other districts, varying from 0.2% in Nagaur to 27% in Dausa. The district-wise tribal population estimates are provided in annexure 1.

The Tribal Sub-Plan area consists of the entire districts of Banswara, Dungarpur, Pratapgarh and specified Tehsils of Udaipur and Sirohi districts (Annexure 2). Of the total ST population of Rajasthan, 45% reside in the TSP areas, consisting of five Integrated Tribal Development Projects¹². Outside the

¹¹ Pratapgarh district has been carved out of Chittorgarh district with predominantly tribal populations.

¹²The ITDPs are generally contiguous areas of the size of a Tehsil or Block or more in which the ST population is 50% or more of the total.

tribal sub-plan area, there are 44 pockets of MADA areas¹³ spread over 16 districts, and 11 MADA clusters¹⁴ spread over 9 districts.

The state has one PTG¹⁵, inhabiting the Kishanganj and Shahbad Blocks of Baran district; the two tehsils are included in the Sahariya Area, and a Sahariya Development Committee has been constituted. The Sahariya population (0.84 lakhs) is 34.2% of the total population (2.43 lakhs) of the area (<http://tad.rajasthan.gov.in/otherareaSa.asp>).

2.2 Socioeconomic, human development, housing, access to services

- Over 70% of the ST land ownership falls in the small holder (< 2 ha) category; more recently, a number of STs (approximately 30,000) have received land entitlements under the FRA, 2006, with average size of titles being less than 0.6 ha
- In terms of the Human Development Index (HDI), tribal districts of Rajasthan rank among the lowest in the state, with Banswara at 31, Dungarpur at 32, and Udaipur at 20 (out of the 32 districts in the state)
- As per the 2004-05 NSS survey (61st round), the STs have the highest percentage of BPL population in rural areas at 32.6%, against 8.2% in general category, 13.1% in OBC category and 28.7% in SC category

2.3 Livelihood, occupation, agriculture, water, rain-fed, markets

- Sixty-nine percent of total workers within STs are classified as 'Cultivators', whereas 'agricultural labourers' constitute 14 %, except among the PTG (Saharias), where agriculture labourers constitute the major category of workers (66%)
- Although the large majority of STs are cultivators, their land holdings are considerably smaller (1.83 ha) than the average for the state for all social groups (3.83 ha). However, within the tribal districts, there are no significant differences between average land holding size of tribals and non-tribals; in the tribal dominated districts, in fact, the average land holding size among STs is slightly higher than among the other social groups

2.4 Land tenure, land holding, land alienation, land rights

- While 50.2 per cent of the total land holdings fall under the category of marginal and small holdings at the state level, the extent of such holdings in Dungarpur is 77.8 per cent, Udaipur 74.6 per cent, Rajsamand 74.3 per cent, Banswara 74 per cent, Sawai Madhopur 67 per cent, Chittorgarh 61 per cent, Sirohi 60 per cent, Bundi 59 per cent, Jhalawar 57 per cent and Baran 54 per cent.
- Despite the regulatory provisions and legal safeguards, land alienation among tribals is not uncommon. As of 2007-08, a total of 2,084 cases of land alienation involving 2,646 ha of land had been filed in the court in Rajasthan, of which 187 cases were disposed of in favour of the tribals.

¹³These are identified pockets of concentration of ST population containing 50% or more ST population with a total population of minimum of 10,000. Generally, MADA pockets do not have separate administrative structures to implement development programmes. The line Departments of the State Govt. are expected to implement development programmes in MADA pockets under the overall control of the District authorities.

¹⁴These are identified pockets of tribal concentration containing 50% or more ST population with a total population of about 5,000 or more. As in the case of MADA pockets, there are no separate administrative structures for Clusters.

¹⁵PTGs (Particularly Vulnerable Tribal Group) are tribal communities among the STs who live in near isolation in inaccessible habitats. They are characterized by a low rate of growth of population, pre-agricultural level of technology and extremely low levels of literacy.

Tribal presence in RACP clusters, including PTGs

	Agro-climatic Zone	District		Main tribes present
IA	Arid Western	Barmer	(6.04)	
		Jodhpur	(2.76)	
IB	Irrigated North Western Plain	Sriganganagar	(0.82)	
		Hanumangarh	(0.66)	
IC	Hyper-arid Partial Irrigated	Bikaner	(0.36)	
		Jaisalmer	(5.48)	
		Churu	(0.52)	
IIA	Internal Drainage Dry	Nagaur	(0.23)	
		Sikar	(2.73)	
		Jhunjhunu	(1.92)	
IIB	Transitional Plain of Luni Basin	Jalore	(8.75)	
		Pali	(5.81)	Garasia
		Sirohi	(24.76)	Bhil, Garasia
IIIA	Semi-arid Eastern Plain	Jaipur	(7.86)	
		Ajmer	(2.41)	
		Dausa	(26.82)	Meena
		Tonk	(12.04)	
IIIB	Flood Prone Eastern Plain	Alwar	(8.02)	
		Dholpur	(4.84)	
		Bharatpur	(2.24)	
		S. Madhopur	(21.58)	Meena
		Karouli	(22.37)	Meena
IVA	Sub humid Southern Plain	Bhilwara	(8.97)	
		Chittorgarh		Bhil, Meena
		Rajsamand	(13.09)	
IVB	Humid southern	Dungarpur	(65.14)	Bhil, Meena, Damor
		Udaipur	(47.86)	Meena, Bhil, Damor
		Banswara	(72.27)	Bhil
		Pratapgarh	(60)	Bhil, Meena
V	Humid Southern Eastern Plain	Kota	(9.69)	
		Jhalawar	(12.02)	
		Bundi	(20.24)	Meena
		Baran	(21.23)	Saharia (PTG)

Tribal group-wise distribution of STs in Rajasthan

Tribe	Area/s where found
Bhil	Udaipur, Dungarpur, Banswara and Chittorgarh
Meena	Jaipur, Sawai Madhopur, Alwar, Chittorgarh and Udaipur
Damor	In the 10-12 Panchayats of Damriya region of Simalwara Panchayat (Dungarpur)
Khatodi	In Pindwara (Sirohi District) Jhadol (Udaipur District) in Desiya, Ambasa (Panawa) regions
Garasiya	In Sirohi District, in and around Abu Road area in 24 villages comprising the "Bhakkar Patta"
Sahariya	In the Hadothi region, Shahbad and Kishanganj villages and the jungles of Baran
Patelia	Dungarpur and Banswara

Source: http://www.rvkv.org/vanvasi_anchal.htm (accessed December 30, 2011)

The list of nomadic and semi-nomadic tribes found in Rajasthan is provided at Annexure 3.

2.5 Summary of salient statistics and features

- There are twelve STs in Rajasthan, with a total population of 7.1 million; 94.6 % of them reside in rural areas
- Meena and Bhil are the two most populous tribes, and make up 93% of the state's tribal population
- Compared to a sex ratio of 921 for Rajasthan, the figure among the STs stands more respectably at 944
- Literacy rates among tribals have historically been low but developments have kept pace with the dominant regions in recent times. In 2001, the literacy rate among STs in Rajasthan was 44.7%, far below the state average of 60.41%; it was lower still among ST women (26.2%)

The human development profile of tribals and state policies are covered in detail in Chapter 6 and Chapter 9.

2.6 Summary of specific issues of tribals related to RACP components

- As in other parts of the state, there is over-exploitation of ground water resources, manifest in the number of wells going dry. The number of wells that are out-of-use in these Banswara and Dungarpur districts are 62% and 45% respectively; and 29% in Udaipur, 18% in Karouli, 13% in Bundi, and 10% in Sawai Madhopur, Baran and Jhalawar.
- Against 66 per cent of work-force depending on agriculture at state level, the dependence of work-force on agriculture, as cultivators or agricultural labourers, in the tribal belt is relatively very high, ranging from 86% in Banswara to 72% in Karouli
- The category of land classified as "barren, uncultivated" is higher than the state average (7.5%) in the tribal districts, with the highest being in Udaipur (23.6%), Rajsamand (23%), and Dungarpur (20%). It is approximately 15% in Banswara and Sirohi.
- In the tribal districts, net sown area as percentage of total geographical area of the district is significantly lower than the state average of 46.3%, the lowest being in Udaipur at 15.9%, followed by Rajsamand at 18.8%, Sirohi 26% and Dungarpur 30%.
- In the tribal belt, food security is a major challenge due to low share of area under plough.
- Apart from agriculture, there is a very high reliance on cattle-farming, goat-rearing and poultry. The tribal districts demonstrate a higher livestock density than other districts, and it is even higher than the human population density.
- The rate of fertilizer consumption in the tribal belt is relatively more with 102 kg/ha in Baran, 95 kg/ha in Bundi, 92 kg/ha Chittorgarh, 86 kg/ha in Karouli, 81 kg/ha in Jhalawar and Banswara, 56 kg/ha in Udaipur, 53 kg/ha in Sawai Madhopur and 40 kg/ha in Sirohi against 39 kg/ha at state level.
- Low level of farm mechanisation is observed in the tribal districts
- Against 32 per cent of irrigated gross crop area at state level, the extent of irrigated area in Dungarpur is only 10.3 per cent, Udaipur 10.4 per cent, Rajsamand 11.9 per cent, Banswara 17.3 per cent, Chittorgarh 22.7 per cent, Jhalawar 29.7 per cent and Sirohi 30.4 per cent.

3. TRIBAL (INDIGENOUS PEOPLES) FRAMEWORK

4.1 Rationale

The overall objective of the TDF is to enable and facilitate inclusion of tribal communities in the project in order to achieve the best possible outcomes of the project for the tribals in terms of their mobilisation and empowerment, institutions, capacities, and quality of life.

4.2 Objectives

The specific objectives of the TDF are to:

- (i) ensure that project activities and interventions uphold the social and cultural norms and practices of the tribal communities
- (ii) ensure that the project engages with the communities in a free, prior and informed consultation through processes that are appropriate to the local institutional context, and that their participation is ensured in the entire process of preparation, implementation and monitoring of the CACP/ sub-project activities
- (iii) ascertain that the project does not inadvertently lead to or induce disempowerment, or increase disparities between the tribal and other communities
- (iv) avoid, minimize and/or mitigate any kind of adverse impacts on tribal households
- (v) establish appropriate strategies for information sharing, communication, training and decision-making with the different tribal communities in all stages of the project
- (vi) ensure that the project benefits and investments are equally accessible to the tribal communities living in the project area
- (vii) develop appropriate training and/or development interventions in accordance with their articulated needs and concerns

4.3 Applicability in tribal dominated areas

The Tribal Development Framework is based on the World Bank's Operational Policy 4.10, and is applicable to all clusters with presence of tribal population.

In the Schedule V areas, MADA areas, MADA clusters and Sahariya Development Area (see Annexure 4), the tribal development framework will be incorporated within the overall project design. However, in all the other agro-ecological zones where the project will be implemented, with scattered tribal population which is likely to be differently impacted by the project, a Short Tribal Development Plan will be prepared. Further, the need for a Tribal Development Plan will be established at the CACP preparation stage, by the SPMU in consultation with the DPMU, on the basis of the following criteria:

- (i) presence of tribal communities in the cluster
- (ii) adverse impacts on customary rights of use and access to land and natural resources, including village commons, Panchayat and grazing lands
- (iii) negative impacts on socio-economic or cultural identity
- (iv) impacts on health and sanitation, education, livelihood and social security status any other impacts that may undermine indigenous knowledge and customary institutions.

4.4 TRIBAL DEVELOPMENT FRAMEWORK - Key Actions and Features

The key actions and features of the TDF are summarised below

Major phase/ activity	Tribal presence/ area	
	Scheduled Areas, MADA Pockets, MADA Clusters, Sahariya Development Areas	Scattered tribal development areas across all other project districts
Start-up activity	<ul style="list-style-type: none"> Structured dialogue and consultations with tribal community leaders/ CBOs and change agents (viz., NGOs in the area) 	<ul style="list-style-type: none"> Tribal situation analysis with the tribal group/ Gram Panchayat
IEC Campaign	<ul style="list-style-type: none"> Targeted IEC materials in the local language, with focus on folk practices and culture RACP awareness campaigns mounted through folk media 	<ul style="list-style-type: none"> Folk media campaigns mounted
Capacity building of SP2/DPMU	<ul style="list-style-type: none"> All teams working in these areas are oriented and trained on tribal development and social safeguards 	<ul style="list-style-type: none"> Social Development Coordinator/ Specialist from the teams working in areas with scattered tribal population is oriented and trained on tribal development and social safeguards
Representation	<ul style="list-style-type: none"> In tribal exclusive villages – all the small and marginal farmers are included in the project-promoted and/or supported institutions Federated institutions of tribal CBOs to have equal representation of women and men 	<ul style="list-style-type: none"> In scattered tribal population villages - all the small and marginal farmers are included in the project-promoted and/or supported institutions Proportionate representation of tribals in village-level institutions At least one tribal member in federated/ higher level institutions
Training and exposure visits	<ul style="list-style-type: none"> Separate, customised training and exposure visits for tribal farmers (women and men) 	<ul style="list-style-type: none"> Proportionate inclusion of tribal households in all RACP training and exposure visits
Prioritisation of beneficiaries	<ul style="list-style-type: none"> Identification and prioritisation of beneficiaries by the CBO, depending on participatory wealth ranking and the budget 	<ul style="list-style-type: none"> Prioritised list of beneficiaries to have proportionate representation of tribal households
SP1 staffing	<ul style="list-style-type: none"> To include one Tribal Development Coordinator Engagement of tribal resource persons for local level planning and consultations 	<ul style="list-style-type: none"> Social Development Specialist will have overall responsibility for incorporation of TDF provisions and preparation of short TDP Engagement of tribal resource persons for local level planning and consultations
SP2 staffing	<ul style="list-style-type: none"> One social development specialist at the cluster level Local tribal youth (women and men) engaged as volunteers/ animators 	<ul style="list-style-type: none"> Social development specialist responsible for implementation of TDP At least one local tribal youth (preferably woman) engaged as volunteer/ animator
Community Resource Persons	<ul style="list-style-type: none"> Development of a cadre of tribal CRPs, similar as in the non-TDF areas 	<ul style="list-style-type: none"> CRP cadre to consist of at least one male and one female tribal youth

Selection of Tribal Clusters. Selection of clusters for the project is to be determined on the basis of crops cultivated, existing value-addition potential, and water regimes. One of the cluster will be located in **Zone IV B (Humid Southern), which is a TSP area**, comprising the districts of Banswara, Dungarpur, Udaipur and Pratapgarh. Other zones in which there is a relatively higher concentration of tribals are (tribal districts are highlighted in the text below):

- Zone IIB (Transitional Plain of Luni Basin), comprising the districts of **Sirohi**, Jalore and Pali

- Zone IIIA (Semi-Arid Eastern Plain), comprising the districts of Jaipur, Ajmer, **Dausa**, and Tonk
- Zone IIIB (Flood Prone Eastern Plain), comprising the districts of **S. Madhopur**, **Karouli**, Alwar, Dholpur, and Bharatpur
- Zone IVA (Sub-Humid Southern Plain), comprising the MADA areas of **Chittorgarh**, Bhilwara and Rajsamand
- Zone V (Humid Southern Eastern Plain), consisting of **Bundi**, **Baran**, Kota, and Jhalawar districts

During selection of clusters in each of these zones, suitable priority will be given to blocks/ tehsils/ districts with higher proportion of tribals, i.e., MADA areas, MADA clusters, and Sahariya Development Area.

Baseline. CACP planning process will include a baseline on the socioeconomic and agronomic profile of the tribal groups in the cluster, along with other relevant information on the tribal population present in the cluster. Based on the consultations key issues of the tribals with respect to RACP interventions would be summarised in a Tribal Assessment Report. Every CACP will contain a separate section on the baseline tribal situation in the cluster. This baseline will be used in preparation of the TDP, and will include the following:

- List of villages with tribal presence, and their identification (name of tribe and sub-tribes, if any)
- Village-wise listing of all tribal households
- Village-wise socio-economic profile of tribals vis-à-vis other social groups (occupations, land-holdings, animal husbandry, debt status and so on)

Tribal Situation Assessment. The participatory assessment methods used during the planning stages will include use of the following tools, outputs of which will be annexed in the CACP:

- Social and Resource mapping, including location and usage of agriculture fields, common lands and forest resources, if any
- Village Transect Walk to be undertaken with members and leaders of the community, concerned officials of the Tribal Development Department, RACP officials and SP1/SP2 representatives.
- Nature and degree of dependence of tribal households on common lands
- Mention of any existing tribal institutions functioning in the cluster, as well as exclusive tribal CBOs, including SHGs, if any
- Gender relations and gender issues among the specific tribal groups in the cluster
- Key tribal issues of relevance to RACP
- Key impacts of RACP (gender-disaggregated) on tribal groups and households, including an assessment of the exact nature and extent of impact

The key issues of tribal groups will be summarised in a tribal situation assessment report.

Informed Consultations and Broad Community Support. Free, prior and Informed Consultations will be held with tribal communities, CBOs, NGOs, tribal department (all cluster with tribal population) during CACP preparation process, and their broad community support will be documented.

- Separate consultations with tribal households and groups will be organised in every tribal hamlet/ village and Gram Panchayat during the CACP preparation stage (SP1/SP2)
- In CACP clusters with tribal population in minority, SP1 will hold exclusive consultations with tribal farmers (women and men), leaders, tribal-focused NGOs, and the Tribal Development Department to identify the priorities and strategies for ensuring tribal inclusion in project institutions, interventions and project benefits
- Weekly/ fortnightly meetings in tribal hamlets/ villages for information sharing and consultation during the planning stages – this will be in addition to the participatory process consultations at various levels that are an integral part of the planning process (SP1/SP2)
- Monthly meetings will take place in tribal hamlets/ villages for information sharing and review during the implementation stages (SP2), minutes of which will be recorded in the CBO records, and reproduced when required (e.g., for monitoring and review purposes)
- Focused consultations and with tribal farmers on interventions on common lands, rural infrastructure and markets
- Given the over-whelming majority of tribals in the small and marginal farmer category, agriculture and technological interventions introduced by RACP will be customised for greater applicability and relevance for smallholders, including tribal farmers. Any selection of technology, inputs, seed variety, crops will be done on the basis of consultations with tribal and non tribal groups.

Tribal –sensitive Information Dissemination, Awareness and outreach. Given the linguistic, cultural and literacy constraints in TDF areas, there will be added emphasis on adapting the information dissemination and communication activities to local tribal context and sensibility. Service Providers for CACP planning will engage local tribal youth, folk artists for information dissemination, consultations and community mobilisation during CACP planning cycle. Such local groups will be engaged for a short periods over the CACP planning cycle. SPMU will develop a strategy for community outreach and communication in tribal areas.

Adaptable Project Cycle in Tribal Areas. The project cycle in TDF areas will be flexible could be extended, adapting to the situation and beginning with a longer planning phase, which will be devoted to preparatory activities, including identification of tribal groups and households, exclusive consultations with tribal farmers, women and men, and identification of their specific needs and concerns vis-à-vis agriculture, water and use of common lands.

Inclusion of Scheduled Tribes in Farmers Organisations

- Representation of tribal men and women in farmer organizations and their federations, especially in non-tribal areas
- In tribal-dominated areas, apex level institutions of farmers’ organisations will be headed by tribal leaders (woman or man)
- In all clusters and Gram Panchayats with a presence of tribal groups, there will be proportionate representation of tribals in every committee and at every level (general body, executive committee and office-bearers’ group) – every committee/organisation will have equal membership of tribal women and men
- Where regulatory and programmatic provisions prescribe democratic elections in institutions, and should there be an absence of tribal representation in the body elected, then tribal members will be co-opted to these committees and will have the same rights as the other members of the committee. S/election of the co-opted member will be done by the tribal community in the village/ GP.

Training and capacity building

- Core Orientation Module for RACP Staff on Tribal Development Issues of relevance to RACP (SP1, SP2, DPMUs, PIUs, SP3) – by ARAVALI
- Capacity Building of SPMU, DPMU, SP1, SP2 on tribal development framework.
- Participation of tribal farmers in training and exposure visits
- Project training modules to be tailored in terms of language, content and methodology, as required, to make them useful and effective in tribal dominated pockets
- Training of tribal youth (women and men) in INM, IPM, watershed works, water management and conflict resolution mechanisms, livestock development, etc.

Prioritisation of vulnerable tribal groups for individual goods. Targeting is critical at every stage of the project cycle: from area selection and planning, through implementation, formation of resource management/water user institutions, training and exposure visits, value addition initiatives, to review, monitoring and evaluation. At every stage and all activities and institutions, there will be proportionate representation of all tribal communities resident in the cluster. Equal numbers of males and females will be either selected or co-opted, as necessary.

In addition to the strategies for targeting of tribals in general, the implementing agency will prioritise between different tribal groups, with respect to their socio-economic and political status, geographic remoteness, and degree of advancement vis-à-vis adoption of improved agriculture techniques and technology; where necessary, preference will be given to the less advanced and more remote groups. Within a group, the agency will also address gender issues while planning and facilitating selection of beneficiaries, so as to ensure equal representation of, and benefits to, males and females.

Targeting of tribals will be all-encompassing, and will be applicable for/in:

- all private goods such as farm ponds, agri demo, seeds, agriculture inputs, livestock, and other RACP benefits
- resource use agreements in respect of public goods (ponds, aquifer, fodder)
- all resource management institutions and decision-making forums

Cost Subsidy for tribals

Wherever there are cost-contribution norms for private goods in RACP, they will be relaxed in the case of tribals. The following measures will be applied for different goods, depending on their appropriateness to context:

- higher subsidy, or lower contribution
- staggered payment of farmer share (in instalments) of the contribution
- flexible pay-back mechanism/ period
- option of contribution in-cash or in-kind
- credit support to farmers for meeting the cost-sharing criteria ;
- Cost subsidy and tribal inclusion guidelines of GOR/GOI etc

Publication and information dissemination. RACP will enhance awareness of tribal development initiatives through timely and routine publication and dissemination of information on relevant government schemes and programmes (written in the local language and well-illustrated), as well as educate project communities of their rights and entitlements.

Convergence with tribal schemes, especially credit. The Social Development Specialist (SODS) will promote convergence with government schemes and programmes targeting scheduled tribes, especially rural livelihoods, irrigation, agriculture, NREGA etc. Promotion of credit would be an important area of credit. In order to enable small and marginal tribal farmers to meet the cost of capital for farm development and transition to use of improved, water-efficient technology, there will be support for a revolving fund to be used by all small and marginal farmers, with priority being given to marginal tribal farmers, particularly women. The revolving fund will be managed by apex SHG institutions, wherever they exist. The revolving fund will be provided by RACP.

5 TRIBAL DEVELOPMENT PLAN

A short TDP will be prepared in scattered tribal population areas. The procedure, principles and contents of the plan are outlined below.

5.1 Procedure

In order to prepare a Tribal Development Plan, the following steps will be taken:

1. Social screening to establish the presence of tribes in the project area, or have collective attachment to, and/or dependence on the project (or sub-project) area
2. Based on a detailed social assessment, establish baseline data on the tribal communities and households in the project area, including but not limited to:
 - a. Socio-economic profile – land-holding, source/s of income, migration status, indebtedness, and so on
 - b. Livelihood strategies
 - c. Dependence on common lands, for grazing, housing, etc.
 - d. Existing participation in resource management and local governance institutions, as well as the role of tribal institutions, if any
3. Review the relevant Acts, policies and guidelines applicable to the different tribal groups residing in the Cluster
4. Identify the specific project impacts (both positive and negative) on the tribal groups and households
5. Prepare and validate a list of affected households, specifying the nature and extent of impact, if any
6. Discuss mitigation measures with the affected households and groups and prepare a plan of activities, with clear time-lines, responsibilities and a budget. Convergence with other ongoing programmes and schemes of the GoR/ GoI will be an important element of the Plan.
7. Discuss the final plan in the Gram Sabha and have it validated and endorsed by all the affected households, concerned CBOs, and the Gram Panchayat.
8. Submit the TDP to the DPMU and leave copies with the community members/ leaders in the village, with a copy marked to the GP, and the District Collector/ ITDP officials

5.2 Principles

The major project principles will also be applicable in the TDP preparation and implementation, which includes:

- Focus on the marginalized and disadvantaged tribal poor households
- Specific interventions to target the most vulnerable and poorest social groups
- Women will be the priority of project interventions
- Project implementation and activities will adhere and perpetuate principles of transparency and accountability
- Planning and implementation of project activities will be participatory, and ensure appropriate inclusion of the members of the tribal households guided by the principles of the Community driven development (CDD)
- Emphasis on convergence with other ongoing schemes of GoR/Gol for overall area development

5.3 Contents

The short TDP will contain a brief description of the baseline tribal situation, the specific adverse impacts of RACP on tribal households, options for avoidance and/or mitigation, and an implementation framework. The contents of a typical short Tribal Development Plan are placed at Annexure 5.

6 INSTITUTIONAL ARRANGEMENTS FOR TDF

6.1 Planning and Implementation

Implementation of the TDF in tribal-dominated areas will require incorporation of the TDF in the main project design. However, given the need for adaptation of project cycle, methods and activities in these areas, and to effectively reach out to the tribal communities in remote geographical locations, additional personnel will be hired at some levels/ within the service provider institutions. The responsibilities of these officials are outlined in the following paragraphs/ figure.

Social Development Specialist (PMU). The overall responsibility for implementation of RACP SMF will rest with the PMU, and more specifically the Social Development Specialist within the PMU. At the cluster level, operational responsibility for facilitating and overseeing implementation of the SMF/TDF/TDP will be that of the Social Development Coordinator of the Field NGO.

Social Development Specialist (SP1). Social Development Specialist (SP1) will be responsible for SMF during CACP planning, and preparation of social management plans, tribal plans, resettlement plans etc. S/he will be the nodal points for ensuring incorporation and implementation of TDF/TDP in the RACP clusters.

Social Development Specialist (Field NGO). Social Development Specialist (FNGO) will implement the social management plan, tribal plans, resettlement plans etc. S/he will be the nodal points for implementation of the TDF and TDP strategy in the RACP clusters.

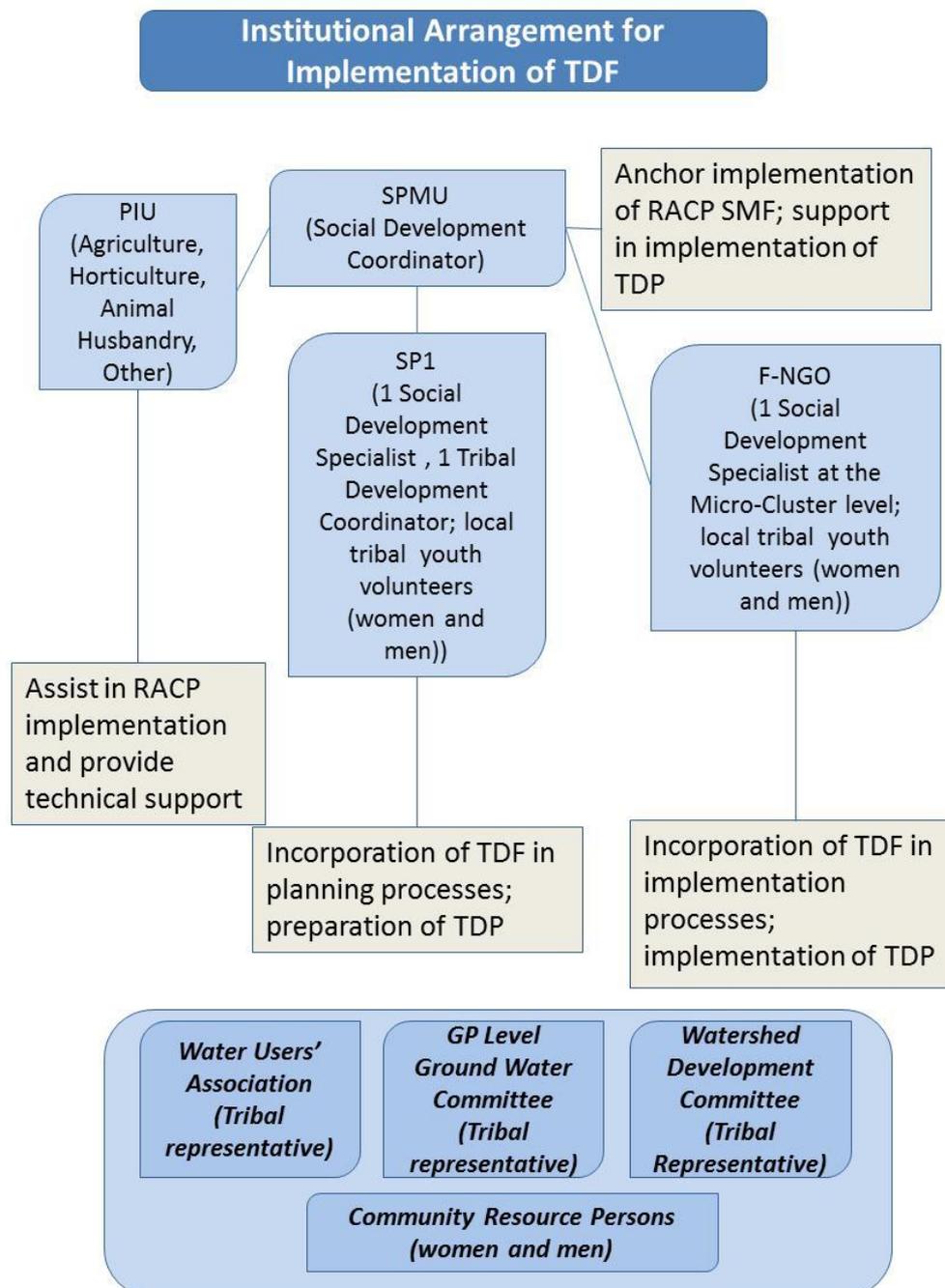
Tribal Coordinators (Field NGO). In tribal-dominated areas, the SP1 will have one Tribal Development Coordinator in addition to the Social Development Specialist. The tribal coordinator will be specifically responsible for roll out of TDF interventions in tribal clusters.

Local Tribal Youth and Resource Persons. The Social Development Specialist (FNGO) and Tribal Coordinator will be responsible for identifying, mobilising and training local tribal youth for detailed CACP planning as well as implementation. Local tribal will be engaged for facilitating consultations, data collection, and farmer mobilisation. Community Resource Persons (CRPs) will be developed on the themes of nutrient and pest management, animal husbandry, water resource management, conflict resolution and so forth; these youth will provide hand-holding support to the beneficiary households, and facilitate local level knowledge-sharing among the members of Farmers' Field Schools.

In so far as community decision-making forums are concerned, tribal representatives will be present in every project-supported and promoted institution, including in democratically elected bodies, where additional members from the tribal community maybe co-opted to ensure adequate representation of tribal groups. These representatives will be responsible for ensuring that the needs and concerns of the groups that they represent are appropriately presented and addressed. F-NGOs will facilitate the process.

A schematic representation of the institutional arrangements is shown in figure 1 below.

Figure 1: Institutional arrangement for implementation of TDF



6.2 Monitoring

The PMU will have the operational responsibility for planning and coordinating M&E activities for the entire project. The PMU will also be responsible for: (i) analysis of all project-level M&E information and generation of regular 6-monthly M&E reports; (ii) updating key performance indicators by consolidating information provided by the different implementing agencies and the external M&E agency; (iii) conducting independent field visits to monitor implementation and outputs of selected project activities; (iv) commissioning special M&E studies as needed; (v) maintaining the PMIS; (v) identifying bottlenecks and corrective actions, if needed; (vi) documenting success stories; (vii) regular reporting to the Project Management Committee and the Project

Steering Committee; and (vii) six-monthly reporting to the World Bank on the project status. A full-time senior M&E specialist will be recruited in the PMU and will be responsible for overseeing all activities related to M&E. In addition, a Management Information Systems (MIS) specialist will be recruited to oversee operation of the PMIS.

M&E framework: The M&E framework for the entire RACP project will cover project implementation, group and beneficiary data on tribals. All aspects of the project, including technical, institutional, environmental, social, economic, financial, and procurement status, will be monitored. The framework will compare actual achievement with the plans in the PAD, Environmental and Social Management framework, Procurement and Financial Management guidelines, Project Operations Manuals and other relevant documents. The M&E framework will clearly specify data collection responsibilities of the different implementing agencies and the external consultants. The M&E consultant will be responsible for collecting data for their independent monitoring of both process and performance indicators.

Baseline Survey in Tribal Areas: The Baseline Survey for the project would include socially and gender disaggregated data of tribal and non-tribal beneficiaries. Baselines and Tribal Situation Assessment will be done in tribal clusters.

Participatory Monitoring. The M and E framework involves monitoring performance of relevant activities such as the activities of the common interest groups, village organizations, and producer companies' activities of self-help groups in the common service centres. The consultants shall identify suitable participatory M&E mechanisms and tools such as the use of community score cards, focus groups, and participatory social auditing. The process monitoring reports will cover project implementation in tribal areas and tribal groups and beneficiaries.

Process Monitoring: This will assess the participatory processes (expected to result in empowerment of tribals). It will be done batch-wise, by an external agency. This will also include an assessment of the functioning and performance of the institutional coordination committees at various levels, set up under the project.

Impact Assessment and Studies. In addition to the regular six monthly monitoring reports, impact assessment studies will be undertaken by the M&E agency. These studies will evaluate RACP's performance and progress towards achieving the project's development objectives. The first impact evaluation would be at the time of the second mid-term review (II MTR) of the Project, and, the second impact evaluation around the time of the Project completion. The impact evaluations will cover project implementation in tribal areas.

The SPMU will also commission studies for documentation of good practices on specific themes of RACP implementation in tribal areas. These studies will cover beneficiary and group and project implementation performance related to small holders, tribes, SCs etc. There will be a special review of RACP implementation/impact in tribal areas before midterm through an external consultant (individual/firm)

6.3 Reporting

The six-monthly reports would include, inter alia: (a) up-to-date physical and financial expenditure data compared to annual and end-project targets; (b) updated indicators of project performance compared to annual and end-project targets; (c) successes and problems encountered during the reporting period with suggested remedial actions; and (d) socioeconomic and environmental impacts of the project. The report would include project implementation performance, processes and outputs in tribal areas, along with reporting on implementation of specific strategies mentioned in TDF.

Attachment 1 - TDF

District-wise tribal population and HDI¹⁶

Sl	District	Human Development index (HDI)	Rank in Rajasthan: HDI	ST population %
1	Banswara	0.425	31	72.27
2	Dungarpur	0.409	32	65.14
3	Udaipur	0.595	20	47.86
4	Dausa	0.576	23	26.82
5	Sirohi	0.645	14	24.76
6	Karouli	0.566	25	22.37
7	Sawai Madhopur	0.561	26	21.58
8	Chittorgarh [‡]	0.558	27	21.53
9	Baran	0.653	12	21.23
10	Bundi	0.649	13	20.24
11	Rajsamand	0.578	22	13.09
12	Tonk	0.571	24	12.04
13	Jhalawar	0.614	16	12.02
14	Kota	0.787	2	9.69
15	Bhilwara	0.633	15	8.97
16	Jalore	0.527	29	8.75
17	Alwar	0.744	6	8.02
18	Jaipur	0.778	4	7.86
19	Barmer	0.578	21	6.04
20	Pali	0.547	28	5.81
21	Jaisalmer	0.673	11	5.48
22	Dholpur	0.497	30	4.84
23	Jodhpur	0.686	9	2.76
24	Sikar	0.698	8	2.73
25	Ajmer	0.677	10	2.41
26	Bharatpur	0.604	19	2.24
27	Jhunjhunu	0.711	7	1.92
28	Ganganagar	0.809	1	0.82
29	Hanumangarh	0.761	5	0.66
30	Churu	0.606	18	0.52
31	Bikaner	0.779	3	0.36
32	Nagaur	0.61	17	0.23
33	Rajasthan			12.56

[‡]The new district of Pratapgarh has been carved out of the former Chittorgarh district and consists predominantly of tribal populations

¹⁶ Source: Census, 2001 and Rajasthan Human Development Report 2008

Although Census 2011 has been completed and some data highlights published, the social-group wise demographic information is not yet available

Attachment 2 - TDF

List of STs in Rajasthan

12. Bhil, Bhil Garasia, Dholi Bhil, Dungri Bhil, Dungri Garasia, Mewasi Bhil, Rawal Bhil, Tadvī, Bhagalia, Bhilala, Pawra, Vasava, vasave
13. Bhil Mina
14. Damor, Damaria
15. Dhanka, Tadvī, Tetaria, Valvi
16. Garasia (Excluding Rajput Garasia)
17. Kathodi, Katkari, Dhor Kathodi, Dhor Katkari, Son Kathodi, Son Katkari
18. Kokna, Kokni, Kukna
19. Koli dhor, Tokre Koli, Kolcha, Kolgha
20. Mina
21. Naikda, Nayaka, Cholivala Nayaka, Kapadia Nayaka, Mota Nayaka, Nana Nayaka
22. Patelia Seharia, Sehria, Sahariya
23. Seharia, Sehria, Sahariya

Attachment 3 - TDF

De-notified & Nomadic Tribes in Rajasthan

De-notified Tribes

1. Badri
2. Kanjar
3. Sansi
4. Jagri (Bawaria)
5. Mogia
6. Nut
7. Naik
8. Multanis
9. Bhat

1

Nomadic Tribes

1. Baldias (Banjaras)
2. Bardhis
3. Domabaris
4. Gadia Lohar
5. Iranis
6. Jogi Kalbelia
7. Jogi Kanphata
8. Dhirpalts
9. Shikkeligar
10. Ghisadis

Semi Nomadic Tribes

1. Saranovial Bhos
2. Rebaris
3. Raths
4. Mangallisa
5. Bhaayas
6. Kannis
7. Kanglus
8. Jalukus
9. Khangas
10. Sindlus
11. Jogis other than those included in Nomadic Tribes.
12. Girinaths
13. Ajaipals
14. Agamnaths
15. Namaths
16. Jalandhars
17. Masanis
18. Ramaswamies
19. Bharaddijadhavs

Attachment 4 - TDF

Schedule V areas in Rajasthan

1. **Banswara** district
2. **Dungarpur** district
3. The following in **Udaipur** district:
 - A. Tehsils of Phalsia, Kherwara, Kotra, Sarada, Salumbar and Lasadia
 - B. The eighty one villages of Girwa tehsil as mentioned below:
 - i. Sisarma Devali, Baleecha, Sethji Ki Kundal, Rayta, Kodiyat and Peepliya villages of Sisarma Panchayat
 - ii. Bujra, Naya Gurha, Popalti and Naya Khera villages of Bujra Panchayat,
 - iii. Nai village of Nai Panchayat, Dodawali Kaliwas, Kar Nali Surna, Borawara Ka Khera, Madri, Bachhar and Keli villages of Dodawali Panchayat
 - iv. Bari Undri, Chhoti Undri, Peepalwas and Kumariya Kherwa villages of Bari Undri Panchayat
 - v. Alsigarh, Pai and Aar Villages of Alsigarh Panchayat
 - vi. Padoona Amarpura and Jawala villages of Padoona Panchayat
 - vii. Chanawada village of Chanawada Panchayat
 - viii. Saroo and Baran villages of Saroo Panchayat
 - ix. Teeri, Borikuwa and Gojiya villages of Terri Panchayat
 - x. Jawar, Rawan, Dhawari Talai, Nayakhera, Kanpur and Udaiya Khera villages of Jawar Panchayat
 - xi. Barapal, Torana Talab and Kadiya Khet villages of Barapal Panchayat
 - xii. Kaya and Chandani Villages of Kaya Panchayat
 - xiii. Teetardi, Phanda, Biliya, Dakankotra, Dholiya Ki Pati and Saweena Khera villages of Teetardi Panchayat
 - xiv. Kanpur village of Kanpur Panchayat
 - xv. Wali, Boodel, Lalpura, Parawal, Kheri and Jaspur vllages of Wali Panchayat
 - xvi. Chansada, Damaron Ka Guda, Mamadeo, Jhamar Kotra, Sathpura Gujran, Sathpura Meenan, Jali Ka Gurha, Kharwa, Manpura and Jodhipuriya villages of Chansada Panchayat
 - xvii. Jagat village of Jagat Panchayat
 - xviii. Dateesar, Runeija, Basu and Rodda villages of Dateesar Panchayat
 - xix. Lokarwas and Parola villages of Lokarwas Panchayat
 - xx. Bhala Ka gurha, Karget, Bhesadha and Bichhri villages of Bhala Ka Gurha Panchayat
4. Pratapgarh, Arnod, Dhariawad and Peepalkhunt tehsils of **Pratapgarh** district (new district, formerly a Block of Chittorgarh district)
5. Abu Road Panchayat Samiti of Abu Road tehsil in **Sirohi** district

Tehsil-wise population of Schedule V areas in Rajasthan (Census, 2001)

Sl	District	Tehsil	Total population	ST population	ST population as % of total
1	Banswara	Ghatol	230344	173515	75.33
		Gadhi	247468	129440	52.31
		Banswara	371320	226605	61.03
		Kushalgarh	283534	253015	89.24
		Bagidora	287935	231384	80.36
		Total	1420601	1013959	71.38
2	Dungarpur	Dungarpur	392424	280782	71.55
		Aaspur	184508	91190	49.42
		Sagwada	287288	156473	54.47
		Simalwada	243423	193042	79.30
		Total	1107643	721487	65.14
3	Udaipur	Kotda	163744	152950	93.41
		Jhadol	193810	135152	69.73
		Girwa	137305	93905	68.39
		Lasadiya	72068	61973	85.99
		Salumber	201867	100942	50.00
		Sarada	195119	115195	59.04
		Kherwada	162634	115724	71.16
		Rishabhdev	134603	109805	81.58
		Gogunda	19760	10953	55.43
Total	1280910	896599	70.00		
4	Pratapgarh	Pratapgarh	206965	88087	42.56
		Arnod	112072	73080	65.21
		Dhariawad	152655	117129	76.73
		Peepalkhunt	118439	106359	89.80
Total	590131	384655	65.18		
5	Sirohi	Abu Road	114818	76526	66.65
		Total	114818	76526	66.65
Grand total			4514103	3093226	68.52

Pockets of MADA Areas in Rajasthan (based on Census, 2001)

Sl	District	MADA Area	Number of villages	Total population	ST population	Percent
1	Alwar	Rajgarh – Alwar	131	140,831	74,290	52.75
		Thanagazi	61	35,420	20,054	56.62
		Laxmangarh	29	40,418	20,510	50.74
		Total	221	216,669	114,854	53.01
2	Dholpur	Baseri – Baadi	68	60,497	33,888	56.02
		Total	68	60,497	33,888	56.02
3	Bhilwara	Jahajpur – Mandalgarh	206	116,833	60,322	51.63
		Total	206	116,833	60,322	51.63
4	Bundi	Bundi	56	43,680	21,415	49.03
		Bundi – Keshoraipatan	56	42,613	21,904	51.40
		Hindoli – Bundi	40	35,844	17,729	49.46
		Keshoraipatan	35	27,691	15,000	54.17
		Nainwa-Bundi-Hindoli	65	45,642	22,854	50.07
		Total	252	195,470	98,902	50.60
5 & 6	Chittorgarh and Pratapgarh	Badi Saadri – Chhoti Saadri	151	67,486	38,072	56.41
		Begun	118	40,764	22,742	55.79
		Begun-Chittorgarh	72	15,653	7,898	50.46
		Total	341	123,903	68,712	55.46
7 & 8	Jaipur and Dausa	Lalsot-Chaksu-Dausa-Baswa	424	323,731	182,569	56.40
		Jamwaramgarh-Chaksu-Bassi-Dausa-Sanganer-Amer	277	233,531	133,860	57.32
		Sikrai-Baswa	76	99,380	53,984	54.32
		Total	777	656,642	370,413	56.41
9	Jhalawar	Aklera	126	55,530	33,231	59.84
		Jhalrapatan-Khanpur	117	47,776	27,883	58.36
		Total	243	103,306	61,114	59.16
10 & 11	Kota and Baran	Atru-Chhipabador-Chhabra	36	21,050	9,962	47.33
		Chhipabadod	50	27,584	19,043	69.04
		Pipalda-Mangrol-Digod	108	67,372	34,551	51.28
		Chhabra	53	22,135	13,599	61.44
		Ramganjmandi-Ladpura	44	21,423	10,187	47.55
		Baran-Mangrol-Sangod	29	20,009	10,876	54.36
		Total	320	179,573	98,218	54.70
12	Pali	Bali	21	52,041	31,845	61.19
		Total	21	52,041	31,845	61.19
13 & 14	S. Madhopur and Karouli	Bamanwas-Gangapur	40	36,059	21,765	60.36
		Bamanwas	41	38,425	21,862	56.90
		Gangapur-Karouli	26	60,236	33,569	55.73
		Nadoti – Hindon	30	40,542	20,145	49.69
		Hindon - Todabhim	40	59,729	33,204	55.59
		Karouli	41	54,042	27,236	50.40
		Karouli-Sapotara-Baulin	77	88,061	49,931	56.70
		Mahua	58	57,309	33,100	57.76
		Baulin	70	68,700	35,501	51.68
		Sawai Madhopur – Khandhar	80	104,900	55,648	53.05

Sl	District	MADA Area	Number of villages	Total population	ST population	Percent
		Todabhim-Nadoti – Todabhim	76	102,575	53,792	52.44
		Total	579	710,578	385,753	54.29
15	Sirohi	Pindwara-Sirohi-Khedwar	55	79,060	57,818	73.13
		Total	55	79,060	57,818	73.13
16	Tonk	Devli-Todaraisingh-Tonk	61	48,777	25,431	52.14
		Niwai	71	40,162	21,945	54.64
		Uniyara	74	42,219	23,584	55.86
		Uniyara-Tonk	40	15,143	7,833	51.73
		Total	246	146,301	78,793	53.86
17 & 18	Udaipur and Rajsamand	Girwa-Nathdwara-Mavli	59	57,359	27,620	48.15
		Gogunda-Kumbhalgarh-Nathdwara	117	108,112	65,742	60.81
		Vallabhnagar	101	44,749	18,392	41.10
		Total	277	210,220	111,754	53.16
		Grand total	3,606	2,851,093	1,572,386	55.15

ST Population in MADA Cluster Project Areas

Sl	MADA Cluster	District	Tehsil	No. of villages included	Population (in		ST population as % of total
					Total	ST	
1	Kekri	Ajmer	Kekri	11	8729	5110	58.54
2	Ataru-Baran	Bran	Ataru	6	4983	2649	53.16
		Baran	Baran	3	2306	1207	52.34
		Total Ataru-Baran Cluster		9	7289	3856	52.90
3	Bair (N)	Bharatpur	Bair	11	12370	6934	56.05
4	Bair (N)	Bharatpur	Bair	4	9286	4788	51.56
		Total district Bharatpur		15	21656	11722	54.13
5	Keshoraipatan	Bundi	Keshoraipatan	32	13620	7146	52.47
6	Khanpur	Jhalawar	Khanpur	13	7460	3924	52.60
7	Aklera (E)	Jhalawar	Manoharpura	22	13583	7005	51.57
8	Aklera (S)	Jhalawar	Manoharpura	12	7724	5142	66.57
		Total tehsil Manoharpura		34	21307	12147	57.01
		Total district Jhalawar		47	28767	16071	55.87
9	Digod	Kota	Dagod	19	10165	5046	49.64
10	Chanjikunt-	Rajsamand	Nathdwara	18	7141	3867	54.15
		Rajsamand	Rajsamand	1	140	112	80.00
		Total Nathdwara-Rajsamanad		19	7281	3979	54.65
11	Khandar	Sawai Madhopur	Khandar	9	7250	4396	60.63
Total				161	104757	57326	54.72

Scattered tribal population in 32 districts of Rajasthan

Sl	District	Total ST population	Population of Scattered ST Project
1	Ganganagar	14744	14744
2	Hanumangarh	10029	10029
3	Bikaner	5945	5945
4	Churu	10063	10063
5	Jhunjhunu	36794	36794
6	Alwar	239905	125051
7	Bharatpur	47077	35355
8	Dholpur	47612	13724
9	Karouli	270630	86749
10	Sawai Madhopur	241078	69443
11	Dausa	353187	100506
12	Jaipur	412864	260499
13	Sikar	62512	62512
14	Ajmer	52634	47524
15	Tonk	145891	67098
16	Jaisalmer	27834	27834
17	Jodhpur	79540	79540
18	Nagaur	6497	6497
19	Pali	105814	73969
20	Barmer	118688	118688
21	Jalore	126799	126799
22	Sirohi	210763	76419
23	Bhilwara	180556	120234
24	Rajsamand	129198	105310
25	Udaipur	1260432	154859
26	Chittorgarh	388311	123386
27	Dungarpur	721487	0
28	Banswara	1085272	0
29	Bundi	194851	88803
30	Kota	151969	112324
31	Baran	216869	66166
32	Jhalawar	141861	64676
	Total	7097706	2291540

Attachment 5 - TDF

Suggested summary of contents of a short TDP

1. Executive Summary
2. Area/Cluster description
3. Consultations
4. Situation of tribals in the Cluster – baseline description
5. Tribal livelihood strategies
6. Specific adverse impact/s of RACP as a result of activities on (related to livelihoods):
 - a. Private lands, if any
 - b. Common lands, if any
 - c. Any other (specific)
7. Mitigation measures
 - a. Description of available options, their pros and cons
 - b. Compensation summary
 - c. Compensation Budget
8. Implementation of TDP
 - a. Timeline
 - b. Responsibilities
9. Reporting, monitoring and evaluation
10. Endorsement by the CBOs and affected households

Annexure 7 - Participatory Planning for Interventions on Panchayat Lands and Village Commons

Step 1: Selection and Screening of Panchayat Land

- Select encroached, unencumbered and conflict-free site;
- Hold focus groups and consultations with women, graziers and other common land users
- Hold Consultations with the Gram Panchayat;
- Obtain formal “No Objection Certificate” from concerned Gram Panchayat for the intended use
- Jointly verify title of the land from Revenue records, tenancy (if any),
- Identify and map all users of the land/resource (site/s identified)
- Jointly hold physical verification of the sites for existing use, encroachment site visit with a group of villagers (SP1/F-NGO)
- Hold a joint transect walk and apply social screening checklist to ensure adverse social impacts are identified and mitigated (SP1)
- Establish the need for preparation of ARP (Abbreviated Resettlement Plan), if any (refer RPF) (SP1/F-NGO)
- Follow implementation steps provided in RPF, for preparing and implementing social mitigation plans/ARPs

Step 2: Pasture Development

- For pastureland, follow all relevant steps listed above.
- Advance notice to all groups and hamlets about the Ward Sabha
- Selection of members in Ward Sabha (size of committee may range from 9-15 members generally)
- Cover representative range of social groups (castes and tribes), age, and gender (women and men) from among the common land users
- Representatives should be interested in pasture development and be prepared to take on the responsibilities
- All residents of the concerned village, and current users are members of the general body
- Inform Gram Panchayat of PDMC constitution

Step 3: Preparation of Pasture Development Plan (PDP)

- Resource mapping, including identification/confirmation of all user groups, and the nature of their dependence on the resource
- Discussion and consultations with users (especially graziers and women) on:
 - Objective/s of pasture development
 - Possible options and nature of interventions suitable for the identified area and objective
 - Physical works to be undertaken – e.g., tree planting, soil and moisture conservation works, species selection, and so on
- Prepare a budget, clearly identifying the sources of funds, including beneficiary contribution norms and amount (to be) contributed
- Develop an action plan with time-lines and responsibilities

- Facilitate development of use norms, cost- and benefit-sharing arrangements (F-NGO) – this will include:
 - Protection system and responsibilities
 - Grazing system (rotational or other)
 - Silvicultural management (tree lopping and other techniques to be adopted)
 - If “cut and carry” system is applied for fodder, then benefit-sharing norms for it
 - Penalties for flouting norms, if any
- ARP, if required, will be appended with the PDP (SAP preparation norms mentioned in RPF)
- The PDP will be a short and illustrated document, written in simple words using the local language
- Attach site-map, participatory resource map, list of users, and PDMC member names with the PDP

Step 4: Validation and Agreement on PDP by the Ward Sabha

- Advance notice to all groups and hamlets regarding Ward Sabha – organization of the meeting in collaboration with the Gram Panchayat, and with their participation
- PDMC members share PDP contents in the Ward Sabha meeting, inviting feedback and objections, if any – if possible, the issues will be immediately addressed and the PDP modified as required
- Concurrence and agreement of users on the PDP and its implementation obtained
- Submit copies of PDP to Gram Panchayat and RACP DPMU; original PDP with all maps and minutes of meetings retained by the PDMC

Step 5: Pre-implementation Arrangements

- Site visit by PDMC, accompanied with F-NGO personnel, members of the Gram Panchayat, and Revenue department field officials
- Physical demarcation and delimitation of the identified site
- Proclamation of management rights and responsibilities of PDMC through banners and notice-boards
- Meeting of all members at the pasture development site; review and revision of plan, if required

Step 5: Implementation of PDP

- As per the revised plan, under supervision of the PDMC and Gram Panchayat
- Technical assistance provided by PIUs/ DPMU
 - Regular meetings and consultations continue throughout the process, facilitated by F-NGO.

Annexure 8 - Provisions for Social Inclusion

1. Rajasthan Farmers participation in management of irrigation systems Act, 2000

The Act states that "Every Water Users' Association shall consist of all the water users who are land owners in such water users' area as members".

Recognizing the scale at which PIM program is to be implemented in the country, Government of India has given special emphasis on involving women in the process. In pursuance to the provisions in National Water Policy 1987 (and also 2002) on efforts to be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates, Ministry of Water Resources, while issuing guidelines in April, 1987, specifically emphasized the States to consider representation of women in the WUAs at all levels. Some of the State Governments have taken some initiative including Madhya Pradesh and Andhra Pradesh.

2. RWSRP Tribal Strategy

WUAs in the project (as outlined in the "Rajasthan Farmers Participation in Management of Irrigation Systems Bill" -RFPMIS Bill) composed of the farmers and their representatives. The project is based on the fundamental premise of synchronizing investment in schemes with the formation of WUAs below the minor distributory head. All farmers within a WUA area are members of WUA and the executive committee is formed through a democratic process as outlined in the RFPMIS Bill. However, in schemes where tribals do not get proportional representation, members from this community would be co-opted in WUAs, either through existing tribal organizations or groups formed by participants themselves (and this representation will form part of the By-laws of such WUAs) to ensure that they are fully involved in the decision making process. NGOs undertaking IEC campaigns will explain the need for active tribal involvement in the formation of WUAs and facilitate their participation in the process of social assessment and planning.

3. Draft State Agriculture Policy

5.15 Gender Mainstreaming: Women empowerment in agriculture will be a major thrust of this policy. Special programmes for women empowerment in agriculture sector, especially targeting maternal and child health care, to overcome their drudgery and to provide them proper education/training/skills associated with required incentives will be launched. Appropriate policies will also be put in place to ensure their effective role in decision making.

6.17. Women Empowerment: Development and promotion of women friendly drudgery reducing implements, trainings for skill upgradation, formation of SHGs of women, improved skills, credit linkages and their mobilization for economic empowerment will be targeted. Besides, incentives to women for undertaking education in agriculture discipline will be encouraged and promoted in a time bound manner.

5.6 Farm Mechanization: Seed-cum-fertilizer drill, zero till drill, lazer levellers and various farm implements and tools need to be popularized along with bullock drawn implements for small and marginal farmers.

5.13 Improving the Livelihoods of Farmers: Crop-livestock integrated farming systems and creating better livelihood options through agro processing and value addition will be promoted. Conversion of landless labour and resource poor farmers into skilled workers through imparting skill oriented training with strong follow-up support will be a key for off farm employment generation.

5.14 Credit Support: Credit at lower interest rates (around 3-4 percent) will be ensured to all smallholder farmers in the State.

6.16. Credit Support: Special monitoring will be done, concerning the efforts put in by the Banks to extend credit support to small/marginal/ landless farmers.

4. Common Guidelines for Watershed Development Projects, 2008

People's Participation

6.1 Self Help Groups

42. The Watershed Committee shall constitute SHGs in the watershed area with the help of WDT from amongst poor, small and marginal farmer households, landless/asset less poor agricultural labourers, women, shepherds and SC/ST persons.

6.2 User Groups

43. The Watershed Committee (WC) shall also constitute User Groups in the watershed area with the help of WDT. These shall be homogenous groups of persons most affected by each work/ activity and shall **include those having land holdings within the watershed areas**. Each User Group shall consist of those who are likely to derive direct benefits from a particular watershed work or activity.

6.3 Watershed Committee (WC)

44. The Watershed Committee (WC) will comprise of at least 10 members, half of the members shall be representatives of SHGs and User Groups, SC/ST community, women and landless persons in the village.

5.4 Roles and Responsibilities of WDT:

Mobilising women to ensure that the perspectives and interests of women are adequately reflected in the watershed action plan.

Preparing DPR

Baseline surveys needed for preparation of Detailed Project Report (DPR), selection of sites and beneficiaries. Every effort must be made to collect gender-disaggregated data to adequately reflect the situation and priorities of women.

Preparation of the DPR, including activities to be carried out, selection of beneficiaries and work-sites and design and costing of all works, ensuring that the interests, perceptions and priorities of women, dalits, adivasis and the landless are adequately reflected in the DPR.

Expected Outcomes and Benefits, especially with respect to livelihoods for different segments, benefits to women and regeneration/conservation of resources, etc.

9.6 Watershed Development Fund

73. One of the mandatory conditions for selection of villages for watershed projects is people's contribution towards the Watershed Development Fund (WDF). The contributions to WDF shall be a minimum 10% of the cost of NRM works executed on private lands only. However, in case of SC/ST, small and marginal farmers, the minimum contribution shall be 5% of the cost of NRM works executed on their lands. However, for other cost intensive farming system activities such as Aquaculture, Horticulture, Agro-forestry, Animal Husbandry etc. on private land directly benefiting the individual farmers, the contribution of farmers will be 40% for General category and 20% for SC & ST beneficiaries and the remaining cost of the activities i.e. 60% for the General and 80% for SC/ST category will come from the project funds subject to a maximum limit of an amount equal to double of the standard unit cost norm for Watershed Development Project.

9.5 User Charges

72. The Gram Sabha through the Watershed Committee (WC) shall put in place mechanism for collecting user charges. No charge will be taken from landless, destitute or disabled / widow headed households for work done on private or public land. The user charges collected shall be credited to the WDF for maintenance of assets created during the project.

Expected Outcomes/ results

Increase in income of farmers/ landless labourers in the project area.

5. Policy for Promotion of Agro-Processing and Agri-business, 2010.

8. Employment based Capital Investment Incentive

Besides the capital investment subsidy admissible under the Rajasthan Investment Promotion Scheme, as amended from time to time, eligible agro-processing and agri-business enterprises will be given an additional direct employment based incentive @Rs.4000 per year of completed service for each newly appointed person. In case of women employees and employees belonging to SC/ST, the incentive would be Rs.6000 per person per year. This incentive will be available for a maximum period of three years from the commencement of commercial production.

6. State Water Policy

11. Water Rates

Water rates shall be so decided that it conveys the scarcity value of water to users and foster the motivation for economy in water usage. Rates shall be gradually increased to cover the annual maintenance and operation charges and part of the fixed costs to assure undisturbed and timely supply of irrigation water. Water rates shall be rationalised with due regard to the interests of small and marginal farmers.

7. State Livestock Development Policy

2. Vision:

The Policy envisages strengthening of the animal husbandry sector in order to enhance production, productivity, livelihood of the poor and self-reliance of underprivileged sections of the rural society through sustainable development of the sector. The vision encompasses:

2.5. Empowerment of ESWS families, especially women, by improving their household income through improved animal husbandry.

8. Guiding principles of the Policy:

6.1 Pro-poor, pro-women and pro-youth face: Rajasthan livestock policy has a pro-poor, pro-women and pro-youth focus for attaining enhanced growth to generate more house hold income, increased production and induction of new technologies to meet future demands of livestock products.

6.2 New employment opportunities: The policy shall generate new employment opportunities both in public and private sector. There shall be substantial increase in self-employment amongst rural youth by making the sector more remunerative. The policy aims at strengthening of Animal Husbandry related formal, non-formal and vocational education programmes to educate rural youth including women.

8. National Policy for the Empowerment of Women, 2001

Women and Agriculture

5.5 In view of the critical role of women in the agriculture and allied sectors, as producers, concentrated efforts will be made to ensure that benefits of training, extension and various programmes will reach them in proportion to their numbers. The programmes for training women in soil conservation, social forestry, dairy development and other occupations allied to agriculture like horticulture, livestock including small animal husbandry, poultry, fisheries etc. will be expanded to benefit women workers in the agriculture sector.

9. State Policy for Women

(F) Natural Resources and the environment

Women as farmers, agricultural workers, users and managers of forests, care takers of animals and the like, can be engaged in a meaningful partnership to manage their environment. Recognising the importance of involving women in planning and management of natural resources, programmes have been formulated where women can voice their concerns and influence policies and strategies.

- Recognising the importance of finding amicable solutions to this vexing issue, the Government is committed to exploring avenues for community, especially women's involvement in management of natural resources and the environment.
- Returning common property resources like common village lands, public land and grazing land to the community and ensuring unfettered access to such resources requires innovative strategies. This has major implications for women from poor landless families, especially those belonging to disadvantaged communities/castes.

10. Draft Rajasthan Common Land Policy, 2010

5.1.3 Institutions at the Habitation Level

To strengthen the coordination between the village/ habitation and Gram Panchayat, for the development and governance of grazing lands, the Rajasthan Panchayati Raj Rules, 1996 -Rule No. 170 provides for giving the 'control of Charagah land of each village to a five men committee headed by a Ward Panch of the village concerned and four members to be elected by Gram Sabha.' To enable the participation of women in grazing land development, at least two women representatives shall be included in the Committee. In the event that the Ward Panch does not belong to the habitation, one of the four members of the Grazing Land Development Committee belonging to the Habitation shall Co Chair the Grazing Land Development Committee along with the Ward Panch.

5.1. Institutional arrangements for the management of common lands: The Gram Panchayat shall initiate the processes for management of common lands by constituting a Standing Committee for natural resource management and biodiversity management at the Gram Panchayat, Grazing Land Development Committee at village/ habitation level and shall strengthen the Ward Sabha to address the issues of governance of common land. The management of common lands shall be devolved to the village/ habitation level where the primary users of, and dependents on, common lands are located.

5.1.1 Standing Committee at the Gram Panchayat addressing issues of Natural Resource Management & Biodiversity Management:

vii. Ensure that all community rights over common land are registered in the Prohibitory Order Book.

5.1.2 Ward Sabha

.....However as per the Rajasthan Panchayati (Modification of Provisions in Their Application to the Scheduled Areas) Act, 1999, the Gram Sabha at the village level will be responsible for execution of functions as detailed out in the functions of the Ward Sabha for the development of common lands. In addition the Gram Sabha as may be prescribed, in a Scheduled Area, shall have –

- (ii) The ownership of minor forest produce subject to such rules as may be prescribed by the State Government as to control and management of minor forest produce;
- (iii) The power to prevent alienation of land in the Scheduled Areas and to take appropriate action in accordance with laws in force in the State, to restore any unlawfully alienated land of a Scheduled Tribe;
- (vii) The power to control over local plan and resources or such plans including tribal sub-plan to the extent and in the manner to be specified by the State Government from time to time.

11. Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996

(g) The reservation of seats in the Scheduled Areas at every Panchayat shall be in proportion to the population of the communities in that Panchayat for whom reservation is sought to be given under Part IX of the Constitution;

Provided that the reservation for the Scheduled Tribes shall not be less than one-half of the total number of seats;

Provided further that all seats of Chairpersons of Panchayats at all levels shall be reserved for the Scheduled Tribes;

m) While endowing Panchayats in the Scheduled Areas with such powers and authority as may be necessary to enable them to function as institutions of self-government, a State Legislature shall ensure that the Panchayats at the appropriate level and the Gram Sabha are endowed specifically with-

(ii) The ownership of minor forest produce;

(iii) The power to prevent alienation of land in the Scheduled Areas and to take appropriate action to restore any unlawfully alienated land of a Scheduled Tribe;

(iv) The power to manage village markets by whatever name called;

(v) the power to exercise control over money lending to the Scheduled Tribes;

(vi) the power to exercise control over institutions and functionaries in all social sectors;

(vii) the power to control over local plans and resources for such plans including tribal sub-plans;

Annexure 9 - Conflict resolution mechanism

Community level conflicts

In the majority of conflict situations, community level conflict resolution mechanisms would be most appropriate and effective; there is therefore the need to strengthen community institutions to take on this role, and define the responsibilities of different structures/groups within the institutions in resolving potential and actual conflicts (as part of COM).

The formal structures, such as the executive committee (office bearers like president, secretary and treasurer) and general body of the WUA/GPLGWC/WDC are empowered take a call on a conflict situation, particularly in case of conflicts arising from planning and/or implementation of RACP sub-projects. S/elected representatives will participate in customised training modules on conflict resolution within the context of RACP.

In addition, the following broad principles and modalities will serve as guidelines for conflict resolution at the community/ higher levels:

Approach and principles (FNGO facilitates)

- Ensure that all the interest groups are represented and heard
- Make sure that stakeholders are willing to listen, negotiate, compromise, and communicate – hold separate and joint pre-negotiation meetings with the groups, depending on requirements of the situation
- Develop expectations for win-win solutions
- Define and clearly articulate the interests, takes, concerns, claims and limitations, if any, of all groups that are a part of the negotiation/ consultation process
- Brainstorm creative options, adaptive strategies, and reasons for adaptations
- Prepare stakeholders for sustainable long-term solutions; this may require considerable and lengthy deliberations with all conflicting groups and preparing them to go beyond the initial/ stated bargaining positions
- Combine options and suggest win-win solutions

Depending on the nature, intensity and origin of the conflict, different modalities will apply for its amelioration and/or resolution:

Dialogue – this approach is recommended when positions of conflicting groups are not frozen and the parties are willing and able to engage in constructive dialogue in a threat-free environment; it involves facilitated and structured conversations amongst polarized and/or conflicting groups to increase understanding and trust. For example, this method may be adopted for arriving at negotiated agreements between different groups on the use and management of grazing lands.

Consensus Building – This is the most preferred method in community conflict situations involving multiple stakeholder groups with different interests. It will involve systematic and collaborative data collection and fact-finding, discussions for identification of problems, their analysis, and options for action, identification of the most appropriate solution, negotiations, and joint decision making. F-NGO personnel, who will be imparted training in facilitation skills, communication and collaborative

decision-making, including the principles and methods of conflict resolution, will facilitate the process of consensus building.

Facilitation by a “Third Party”– Neutral management of the dialogue process by a mutually acceptable and agreed upon third party; the initial mediation would be done by F-NGO personnel, which will include identification of the neutral third party, which has no conflict of interest with the situation under discussion. Examples of situations where facilitation by third party will be appropriate include conflicts over the arrangements for cost and benefit sharing of water and other resources.

Cluster level conflicts

The proposed producer companies of the farmer groups will form the cluster level mechanism for conflict resolution. It functions under the ambit of companies act and there are specific rules and guidelines laid out for conflict resolution among the shareholders under the act. However, farmers’ awareness level on these measures is rather low, as they have no experience of operating in a producer company framework. The project will facilitate the awareness creation on functioning of the producer company and the different conflict resolution mechanisms within it.

Annexure 10: Training budget

Sl	What	Duration	Who	When	Number	Unit	Unit cost	Total (INR)
	State-level							
1	RACP SMF Orientation workshop	1 day	PMU, DPMU, DLIC, SP1	Project start-up, repeat after one year	2	LS	100,000	200,000
2	SMF strategies implementation training, including preparation of SMP and short TDP	2 days	DPMU SFP (10), SP1 (entire team)	Year 1 and 2 (2 batches)	2	LS	100,000	200,000
3	Training - Review of SMF implementation, SMP, TDP, ARAP	1 day	DPMU SFP (10), DPMU Coordinator (10)	Year 2 and 3	2	per training	20,000	40,000
4	Training - RPF applicability and Preparation of ARAP	2 days	F-NGO SDS (20), FNGO Coordinator (20)	Year 1/2 (2 batches)	2	per training	80,000	160,000
5	Women and gender issues in agriculture	2 days	DPMU SFP (10), F-NGO SDS (20), F-NGO Corodinator (20), DPMU Coordinator (10)	Year 1 to 3 (staggered)	3	per training	80,000	240,000
	District level							
5	Implementation of SMP, TDP, ARAP	2 days	F-NGO team	Year 1 to 3 (staggered)	4	per training	75,000	300,000
6	Participatory assessment, farmer mobilisation and planning	3 days	F-NGO team	Year 1 to 3 (staggered)	4	per training	112,500	450,000
7	Mainstreaming social inclusion and conflict resolution	2 days	F-NGO team	Year 1 to 3 (staggered)	4	per training	75,000	300,000
8	Refresher training	2 days	F-NGO team (SDS and Coordinator/ another person), DPMU SFP	Year 2 to 4	4	per training	75,000	300,000
9	Gender sensitization and orientation to issues of women in agriculture	1 day	DPMU SFP (10), FNGO SDS (20), FNGO Coordinator (20)	Year 1 to 2	2	per training	31,250	62,500
	Cluster level							
10	RACP SMF provisions - implementation and monitoring	1 day	Farmers' representatives	Year 1 to 3	40	per training	15,000	600,000
11	Collective management of commons	2 days	Farmers' representatives	Year 1 to 3	40	per training	42,000	1,680,000
12	Social impact assessment - review and monitoring	2 days	Farmers' representatives	Year 3 to 5	40	per training	42,000	1,680,000
13	Facilitation and Planning Skills	3 days	CRPs (women and men)	Year 2 to 5	16	per training	52,500	840,000
14	Market and financial literacy skills	2 days	Women farmers and CRPs	Year 2 to 5	24	per training	35,000	840,000
15	Leadership and communication skills	2 days	women farmer representatives	Year 2 to 5	20	per training	35,000	700,000
16	Farm mechanisation	2 days	Women CRPs	Year 2 to 5	8	per training	35,000	280,000
17	Women and gender issues in agriculture	2 days	Women CRPs	Year 2 to 5	8	per training	35,000	280,000
							TOTAL	9,152,500