

Gender Responsive Planning and Budgeting in Agriculture sector in Rajasthan



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Abbreviations

ACA	Additional Central Assistance
AD	Agriculture Director
AE	Advance Estimate
AES	Agri Eco Situation
AFDP	Accelerated Fodder Development Programme
AGRISNET	Agriculture Resource Information Systems and Network

AH	Animal Husbandry
AIBP	Accelerated Irrigation Benefit Programme
APL	Above Poverty Line
APMC	Agriculture Produce Marketing Committee
ATMA	Agriculture Technology Management Agency
BAPU	Block Agriculture Planning Units
BARC	Budget Analysis and Research Centre Trust
BDO	Block Development Officer
BE	Budget Estimates
BFC	Budget Finalization Committee
BGRF	Backward Region Grant Fund
BPL	Below Poverty Line
C- DAP	Comprehensive District Agriculture Plan
CBGA	Centre for Budget and Governance Accountability
CCAP	Climate Change Action Plan
CCSAMMN	Climate Change & Sustainable Agriculture Monitoring, Modelling & Networking
CDP	Crop Diversification Programme
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
C-SAP	Comprehensive State Agriculture Pan
CSS	Centrally Sponsored Schemes
DA	Department of Agriculture
DAC	Department of Agriculture and Cooperation
DAHD	Ministry of Animal Husbandry and Dairying
DAPU	District Agriculture Planning Units
DARE	Department of Agricultural Research & Education
DDG	Deputy Director General
DPC	District Planning Committee
FAO	Food and Agriculture Organization of United Nations
FFC	Fourteenth Finance Commission
FY	Financial Year
FYP	Five Year Plan
GBC	Gender Budget Cell
GBS	Gender Budget Statement
GDP	Gross Domestic Product
GoI	Government of India
GoR	Government of Rajasthan
GRB	Gender Responsive Budgeting
GS	Gram Sabha
GSDP	Gross State Domestic Product
Ha	Hectares

IAY	Indra Awas Yojna
ICDS	Integrated Child Development Scheme
IMR	Infant Mortality Rate
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
ISAC	Integrated Scheme of Agriculture Cooperation
ISAC&S	Integrated Scheme on Agri-Census & statistics
ISAM	Integrated Scheme of Agriculture Marketing
ISOPOM	Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize
Km	Kilo metre
KSK	Kisan Seva Kendra
MDG	Millenium Development Goals
MDM	Mid-Day Meal
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIDH	Mission for Integrated Development of Horticulture
MMR	Maternal Mortality Rate
MNAIS	Modified National Agriculture Insurance Scheme
MoA&FW	Ministry of Agriculture and Farmers Welfare
MoF	Ministry of Finance
MoRD	Ministry of Rural Development
MoTA	Ministry of Tribal Affairs
MS	Microsoft
MSJ&E	Ministry of Social Justice and Empowerment
MWCD	Ministry of Women and Child Development
N.H.	National Highway
NADP	National Agriculture Development Plan
NCIP	National Crop Insurance Programme
NCRB	National Crime Records Bureau
NDC	National Development Council
NFSM	National Food Security Mission
NGO	Non-Government Organization
NHM	National Horticulture Mission
NMAET	National Mission on Agriculture Extension & Technology
NMOOP	National Mission on Oil Seeds and Oil Palm
NMPS	National mission For Protein Supplements
NMSA	National Mission for Sustainable Agriculture
NREGA	National Rural Employment Guarantee Act
NRLM	National Rural Livelihood Mission
NSDP	Net State Domestic Product
NSDP	Net State Domestic Product
OBC	Other Backward Classes
PAN	Permanent Account Number

PDS	Public Distribution System
PKVY	Paramparagat Krishi Viaks Yojna
PPP	Public Private Partnership
PRI	Panchayati Raj Institution
PSU	Public Sector Undertaking
R&D	Research and Development
RAD	Rain-fed Area Development Programme
RDMIS	RKVY Database Management Information System
RE	Revised Estimates
RFD	Results Framework Document
RKVY	Rashtriya Krishi Vikas Yojana
RRB	Regional Rural Bank
RSAMB	Rajasthan State Agricultural Marketing Board
RMSA	Rashtriya Madhyamik Siksha Abhiyan
SAME	Sub Mission of Agriculture Extension
SC	Scheduled Cates
SGSY	Swarnajayanti Gram Swarozgar Yojna
SHG	Self-Help Groups
SLPSC	State Level Project Screening Committee
SLSC	State Level Sanctioning Committee
SMAM	Sub Mission on Agriculture Mechanization
SMPP	Sub Mission on Plant Protection & Quarantine
SMSP	Sub Mission on Seed & Planting Material
SPSS	Software Package for Social Sciences
SSA	Sarva Shiksha Abhiyaan
ST	Scheduled Tribe
SWOT	Strength Weakness Opportunity and Threat
TAPU	Taluka Agriculture Planning Unit
UC	Utilization Certificates
UN	United Nations
UNIFEM	United Nations Development Fund for Women
VAPU	Village Agriculture Planning Units
VIDP	Vidharbha Intensive Development Programme
VIUC	Vegetable Initiative for Urban Cluster
WBCIS	Weather Based Crop Insurance Scheme
WHO	World Health Organisation

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Gender Responsive Planning and Budgeting in Agriculture sector in Rajasthan

I. Introduction

1.1 Women and Agriculture:

Women have a complex and dynamic relationship with agriculture. In India, out of total number of cultivators, 30.3% are women and out of total number of agricultural labourers 42.6% are women (Agriculture Statistics, 2014). Feminization of farming and agriculture work is evident all over India as the number of women farmers and agricultural workers in total is on an increase. Women perform multiple roles which can be largely classified into three categories viz. productive role, reproductive role and community role. Women engaged in agriculture work extensively in production of major crops, preparation of land for farming, seed sowing, applying manure, fertilizers and pesticide, regular weeding, crops transplanting, threshing, winnowing, harvesting, selling etc. Along with this, they even take care of animals, take them from grazing, collect fodder, etc. Many rural women also engage in artisanal productions such as weaving mats, baskets etc. Landless women work in most of the agricultural operations as agricultural labourers. At home they perform reproductive role which include taking care of the family, bearing and raising children, maintenance of the household, collecting water for drinking and other family chores, wood for fuel, and many such activities which seldom considered as real work. Women contribute by volunteering or taking charge in organising social gatherings, ceremonies, celebrations etc. However, women's contribution in agriculture and related activities is hardly recognized.

The Draft Policy for Women in Agriculture (National Commission for women, 2008) identifies that in agriculture, women work as female agriculture labourer, a farmer, co-farmers, and family labourers and as manager of the farm and farm entrepreneur. It has defined women farmers and agricultural workers as follows:

“The term women farmers and agriculture workers include all paid and unpaid work in agriculture and its allied sector such as animal husbandry, forestry, fisheries, agro-processing, mining and quarrying and other related activities. It refers to all women working in /on farm and farm activities”

Due to low female literacy and other reasons like lack of non-farm employment opportunities for women, poor or no encouragement from family, work over load etc. make women find marginal and casual employment mostly in agriculture sector. Most of the time due to male migration in search of work or in case of widowhood many women end up taking on entire responsibility for farming operations. Even though women are increasingly becoming farmers,

they face constraints like poor access to land, poor credit, no land as co-lateral, poor access to critical inputs such as water, power, seeds, fertilizers, manures etc., neglect from extensions workers and government officials, no crop insurance and no market support. According to the Director (Administration), Ministry of Agriculture and Farmers Welfare, GoI, major chunk of beneficiary oriented schemes under agriculture are targeted towards women. However, due to lack of ownership of land among women, they are unable to receive any benefits of land oriented schemes.

1.2 GRB- A significant tool for gender mainstreaming:

The constitution of India upholds gender equality and empowers States to adopt affirmative action for the development of women. In the recent years especially with the Beijing Platform for Action the UN Millennium Summit and the international conferences on Financing for Development, countries have increasingly recognised the relationship between reducing gender inequalities and development. The ratification by countries of the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), national policies and priorities, legal frameworks and the progress made towards the achievement of Millennium Development Goals (MDGs) are all visible manifestations of the commitment towards these goals. Since the Beijing Platform for Action, many countries have accepted gender mainstreaming as the strategy for achievement of these goals.

In this context, Gender Responsive Budgeting (GRB) has emerged as a critically important tool to assess and measure the progress in gender mainstreaming by incorporating a gender perspective in planning and budgeting processes. GRB not only raises awareness of the differential impacts of the budget on men and women in terms of capacity building, social and economic resources, voice and agency but also enhances accountability of Governments to their budgetary and political commitments towards achieving gender equality and women's empowerment. It emphasises on women's invisible work, a dimension largely ignored by conventional macroeconomic frameworks.

Patriarchal norms, values and practices rooted in the collective conscience in India together with systematic barriers pose multiple challenges preventing girls and women from enjoying their legitimate rights. This gender inequality further poses a significant development challenge in India. The Global Gender Gap Index, 2015 of the World Economic Forum has ranked India 108 out of 145 countries (World Economic Forum, 2015). The ranking is based on a country's ability to reduce gender disparities in four areas: economic participation and opportunity, education, political empowerment and health and survival. India's population Census 2011 found a continuing decline in the sex ratio among children under age 7. It was as low as 927

girls per 1000 boys in 2001 and was found further reduced to 914 in 2011 (Census of India, 2011).

Gender Mainstreaming and empowerment requires resources, social capital and change in the decision making process. Government budget is the most critical source for enabling these requirements as budget is an instrument that presents the intentions of the State in achieving their growth objectives. Gender Responsive Budgeting (GRB) is a tool to engender the public budget and policy making. It is an approach to analyse the budget to see the priorities of the governments as reflected in their budgets and to examine how they impact men and women. It acknowledges the gender patterns in society and allocates money to implement policies and programmes that will change these patterns in a way that moves towards a more gender just and equal society. One of the tools of the GRB is gender budget statement (GBS) which gives an idea of what proportion of total budget is being spent on promoting women's empowerment and gender equality in the society.

In India, GRB has been recognized as a tool for gender mainstreaming since 10th FYP. Ministry of Women and Child Development (MWCD) adopted "Budgeting for Gender Equity" as a mission statement in 2004-05. Gender Budget Statement (GBS) is being produced since 2005-06 and Gender Budget Cells (GBCs) are created in 56 ministries/ departments. GRB initiative has been taken up in more than 18 states and they release GBS along with their regular budget. However, there have been lots of issues with the GRB process in the country. In informal interviews conducted with the officials of few of the ministries which are concerned with women and marginalised communities i.e. Ministry of Women and Child Development (MWCD), Ministry of Social Justice and Empowerment (MSJ&E), Ministry of Tribal Affairs (MoTA), Ministry of Agriculture and Farmers Welfare (MoA&FW), and Niti Ayog, it was found that GRB efforts have often been limited to bringing out the GBS only and it is usually been considered as an extra work and in many cases it has failed to influence planning process in favour of women and girls. The officials in the MWCD said that there is a lack of understanding of the concept of gender itself among many officials in various ministries.

It was also found that the women from marginalized community are not being focused under the current GRB process in India. For example, the MWCD said that it considers women as a homogenous group and its mandate is to provide support to all women and not only to some specific groups. Similarly, the MoA&FW said that it targets at reserving at least 30% of the budget of its various beneficiary oriented schemes for women but does not give adequate attention to the marginalized women groups. Similarly, even in the MoTA and MSJ&E the schemes are not giving enough focus on the issues of the women of the tribal and dalit communities respectively. The officials at the ministries also told that the biggest challenge in GRB is that there is no proper reporting from the field offices and district level offices due to

which there is also a lack of sex segregated data and the monitoring mechanism to ensure the implementation of GRB is not adequate enough.

1.3 GRB in Rajasthan:

In 1996, the Government of Rajasthan launched a State Policy for Women. The State Policy for Women aims at creating schemes and programmes which help in achieving gender equity and gender justice and help women in realizing their Constitutional Rights. GRB can be a strong tool to achieve these policy commitments for gender equity and women's empowerment (State Policy for Women, 1996). In Rajasthan, the GRB process began in 2006-07 when the State Government recognized six key departments viz. Department of Health, Education, Agriculture, Women and Child Development, Registration & Stamps, and Social Welfare for conducting studies with an objective to "integrate gender concerns into the overall plans and budgets of the identified departments and to establish an appropriate gender sensitive monitoring and evaluation framework within them". Then in 2009, a Gender Cell was created in the Department of Women and Child Development as the nodal agency for implementing gender budgeting in the State. In the year, 2010, a High Level Committee headed by the Chief Secretary was constituted and in the year 2012, with the budget for the year 2012-13, Rajasthan started presenting GBS.

The GBS presented by the Rajasthan Government however has many issues including its unorganized nature as it is presented Budget Finalization Committee (BFC) wise and not department wise which make it very complex to comprehend. Also, it does not tell how much money has been actually spent on women. It can be said that in its present form it does not seem much useful for the purpose influencing planning and policy making in favour of women and girls.

The institutional mechanism for GRB in Rajasthan includes a High-Level Committee chaired by the Chief Secretary in 2010, Gender Cells in six departments and gender focal points in other departments. GBS is being reported by more than 100 BFCs of 37 departments and as per the GBS 2016-17, about 20% of their non- plan budget and about 42% of their plan budget is the gender budget.

1.4 Gender Responsive Planning and Budgeting in Agriculture Sector:

Agriculture sector has been playing an important role in shaping the overall growth trajectory of the Indian economy since Independence and employs more than half of the country's total population. However, a near total stagnation in overall growth performance of agriculture and allied sectors in India since mid-1990s has been a matter of concern for development

practitioners as well as policy makers. The Approach Paper to the Eleventh Five Year Plan suggested a road map for 4 percent growth rate per annum for the agriculture and allied sector to attain the long-run growth of 9 percent growth for the economy (Planning Commission, 2006). According to the planning commission, there is evidence from other countries that growth in the agriculture sector is two to three times more effective than growth in other sectors in reducing poverty (Planning Commission, 2011). Thus the performance of agriculture sector is critical to the goal of inclusive growth pursued by the government of India. However, the below target growth in the sector was an important concern in formulating the approach to 12th FYP for the period 2012-17. Related concerns include the increasing stress on water resources and the need for more effective water resource management for agriculture, households, and industrial uses, and the vulnerability of communities and livelihoods to the effects of climate change (ADB, 2013).

In order to achieve desired profit and growth in the agriculture sector, engaging substantial resources in terms of finance and knowledge is imperative so that new frontiers of farmers' progress and productivity can be explored. In its 53rd meeting held in May, 2007, the National Development Council articulated the social imperativeness of reversing the dismal growth performance of the agriculture sector in India and urged the decision making bodies to make strong interventions in the agriculture and allied sectors. Consequent upon this meeting, it was resolved that a special Additional Central Assistance Scheme called Rashtriya Krishi Vikas Yojna (RKVY) was launched with the ultimate goal of achieving 4 percent annual growth in agriculture and allied sectors during the 11th Five Year Plan period (GoI, 2014).

In order to understand the process of planning and budgeting from the perspective of women in Agriculture Sector in Rajasthan, a flagship scheme of Union Government, Rashtriya Krishi Vikas Yojna (RKVY) has been analysed. RKVY is a Central Assistance Scheme launched in 2007-08 with an objective to increase public investment in agriculture and allied sectors, increase production of grains and to maintain at least 4% growth rate in Agriculture. RKVY has many sub-schemes and many projects under the sub-schemes. It is a Part B schemes in the Union Gender Budget which means that at least 30% of the scheme's total allocation has to be spent on the welfare of the women involved in agriculture and allied activities. In the Year 2015-16, the amount of Gender Component in RKVY is Rs.1350 which is 30% of its total budget which is Rs. 4500 crores. In the State of Rajasthan, the total amount allocated for RKVY is Rs. 642 crore out of which Rs. 195 crore are reserved for the welfare of women which is again 30% of the total amount allocated.

The biggest problem here is that most of the projects under RKVY provide subsidy and other kinds of assistance to the farmers who are holding some land. As in India, women hardly has any ownership or holding of the agricultural land but are involved in majority of the agriculture

work, they are not being benefited much from this schemes apart from some training and demonstration based projects. One of the officials at the office of the Director (RKVY), MoA&FW told that as RKVY is a project based scheme it does not focus specifically on women or on the marginalized groups. The projects are sanctioned by the State Level Committee of the States and the money for these projects is transferred by the Central government in two instalments in a year.

RKVY commands the preparation of the Comprehensive State Agriculture Plan (C-SAP) which is prepared by Comprehensive the District Agriculture Plans (C-DAP) which are prepared by collecting plans for agriculture from the panchayats which is further done by collecting demands from Gram Sabhas. But, most of the times women do not participate in Gram Sabhas due to many reasons like, no information about it, Gram Sabhas taking place far from their place etc., their issues related to agriculture and others do not get highlighted in Gram Sabhas. Moreover, mostly, in Gram Sabhas agriculture is given very less importance and most of the discussion involves NREGA work.

1.5 Rationale for studying RKVY from gender perspective:

The present study has chosen RKVY for understanding GRB in agriculture sector in Rajasthan because RKVY is a State Plan Scheme with quite a large budget and the basic thrust governing RKVY is “bottom-up” approach. It is envisaged under RKVY that every state should draw up C-DAP which should integrate the deliberations, need and resources availability of respective Gram Panchayat under the district to formulate district agriculture plan and the compilation of which would give shape to the State Agriculture Plan (SAP). The formulation of C-DAP should also take into notice the opinions of PRIs, public representatives, farmers, NGOs and all other stakeholders.

A few years ago the government of Rajasthan declared that agriculture, along with four other subjects, will be fully devolved to the panchayats in the state. This provides an opportunity to intervene and strengthen planning and budgeting process for agriculture along with other subjects in the gram sabhas of panchayats which can further lead to creation of an enabling environment for girls and women that promote equal opportunities, eliminate discrimination, ensure holistic development and empowerment and enhance capacities.

Therefore, BARC is undertaking a micro level a research and advocacy project to make an intervention to include gender concerns in the agriculture planning and budgeting at panchayat, district and state levels and to analyse the current planning and budgeting process in agriculture sector in the state of Rajasthan from the perspective of gender.

1.6 Objectives of the Study:

Against this background, keeping the broad perspective of gender equality and empowerment of women farmers and agricultural workers in mind, the study sets forth the following specific objectives:

1. To study the contemporary development problems and needs of the rural women in Rajasthan.
2. To analyse the gender differences in roles and activities in agricultural sector in Rajasthan.
3. To record the opinion of the women and the other stakeholders.
4. To identify the obstacles for implementation of welfare schemes and programmes for agriculture and allied sector such as RKVY.
5. To analyze planning and budgeting process for Agriculture sector in Rajasthan from the perspective of GRB at the district and below levels.

1.7 Data Collection:

Finding and noting the sources for data collection for as vast subject as 'agriculture' and 'women's development issues' is itself an exploratory research. The sources used to obtain necessary data for the present study can be broadly classified under two categories as follows:

Secondary data sources:

A desk review was undertaken during April-July 2015 on the available literature and data related to the sector and analysis of the annual budgets from a gender perspective. Various on-going schemes, programmes and initiatives for agriculture by the Department of Agriculture, Government of Rajasthan were studied. Different aspects of RKVY in Rajasthan were examined in terms of type of benefits, budget allocation and utilization, implementation of the guidelines and overall intent. The analysis helped in identifying gender gaps and in recognizing the areas of intervention. It further enabled correlation of the needs and interests identified for the allocation of budgetary resources and expenditure analysis. Apart from this, Census Reports, Planning Commission's Reports, scholarly articles, previous researches etc. are also appropriately used as a source of secondary data in the present study. All these sources are noted at the end of the study as "References".

Primary Data Collection:

Primary Data Collection was done with the help of detailed discussions with the key informants including the officials at the national, state, district and panchayat levels. The purpose of primary data collection was to substantiate the information gathered from the policy and budget documents to understand the implementation of these policies at the grass roots level and to comprehend the situation of the women farmers and farm workers. Field visits were conducted in two blocks Khamnor and Kumbhalgarh, of Rajsamand for need assessment. Discussions were held with the women farmers and agricultural labourer along with the officials of Panchayats and the agriculture department at the village, block, district, state and national level and agriculture experts. Tools used for data collection are as follows:

- a. Questionnaire: Primary data in the form of responses from the women respondents were collected with the help of structured questionnaire. The questionnaire was designed according to the objectives of the study. It consisted of the following items:
 - Socio-economic background information of the respondents
 - Decision making and other socio-economic rights of the women
 - Education level and trainings
 - Experiences in Farming and animal husbandry
 - Problems faced
 - Knowledge of the planning process

Keeping in mind the objectives of the study, both quantitative and qualitative questions were included in the schedule.

- b. FGDs: Besides using questionnaire, FGDs were conducted for achieving better clarity about the opinions and attitudes of the respondents towards women empowerment, agriculture, state run schemes and policies etc.
- c. Interviews: Informal interviews were conducted with the government officials and agriculture experts. Specific questions on agriculture planning and gender were asked to understand the issues with respect to planning and budgeting at the national, state and local level and to know their perspective for making the planning and budgeting process gender responsive.
- d. For this, meetings were held with the elected representatives, Panchayat staff members and the staff members of the Agriculture Department at Panchayat, block and District level and officials at Ministry of Agriculture and Farmers welfare. The Table below informs the officers at the district level and below who were interviewed as a part of data collection process for the project.

Table 1.1: Officers interviewed during data collection

Level	Elected Representatives	Panchayat Staff	Agriculture Department Staff
Panchayat	Sarpanch	Secretary	Agriculture Supervisor
Block	Pradhan	Block Development Officer	Agriculture Officer
District	Pramukh	District Planning/ Development Officer	Agriculture Sub Director

Due to the devolution of power on five State subjects including Agriculture to the Panchayati Raj Institutions (PRIs), a large number of the staff member from the State Government have also been transferred to the PRIs. The in charge at the District level is called the Agriculture Sub-Director (Extension), at the block level there are Assistant Agriculture Sub-Directors, Agriculture Officers, and Assistant Agriculture Officers and at Panchayat level there are Agriculture Supervisors.

1.8 Study Area:

Agriculture is the biggest sector in terms of employment and contribution to the GDP in Rajasthan and more than 52% of total cultivators are women. In the view of constraints of time and logistics, field visits were confined to only the District of Rajsamand, Rajasthan where two Panchayat Samitis, Khamnor and Kumbhalgarh, were visited for data collection. Rajsamand was selected for the present study because agriculture is predominant in its economy and almost 44% of women are farmers and 28.8% are agriculture workers against 32.7% and 12.5% men respectively. Apart from this, the topography of Rajsamand makes it an interesting area for conducting agriculture based research. It has a wide range of agro climatic situations from very low rainfall, in Bhim Panchayat Samiti to high rainfall in South Eastern parts of the district. Major parts of district is, however, covered by arid & semiarid climatic conditions which have a characteristic low erratic & uneven distribution of rainfall associated with lack of other water resources for irrigated farming.

State: Rajasthan

Zila Prishad: Rajsamand

Panchayat Samiti: Khamnor and Kumbhalgarh

Gram Panchayat: Semal and Kesuli in Khamnor and; Banokra and Kuncholi in Kumbhalgarh

1.9 Sample:

For the survey during the study 400 women farmers and farm workers from all the four panchayats i.e. 11% of 3656 (the total number of households in all four panchayats) in each panchayat were interviewed with the help of a questionnaire using the 'Stratified Random

Sampling method including women farmers and farm workers from marginalized groups namely Scheduled Castes, Scheduled Tribes and Other Backward Classes based on the percentage of their population in the total population. Older, single and differently abled women also became the part of the sample. Thus while taking into account the increased feminisation of agricultural work and labour and recording the needs and problems of women farmers and farm workers, the special needs of the women from marginalize section can also be recorded.

Hence, the stratification of the total sample size will be as follows:

Total sample: 400 women farmers and farm labourers i.e. 200 in each block; 100 in each panchayat. Out of the total sample, 40% are from General category, 40% are from Scheduled Tribes, 10% are from Scheduled Castes and 10% from OBC.

1.10 Methodological Framework:

The program framework has tried to use the five step framework developed by Debbie Budlender as a basis for the actual analysis of RKVY. The framework follows a logical sequence including: situation analysis of women in engaged in agriculture in Rajsamand, review of RKVY and nature of allocation of resources for various programmes in the agriculture sector, identification of the gaps and recommendations for change.

Strategy used:

At first, a local partner was chosen. After this, the first visit was made to the selected study area in the month of January 2015 with two field staff members of Local Self Governance Resource Unit of Astha Sansthan to all the four gram panchayats in the month of January 2015 to understand and get an overview of the area of study under this project. After which a qualitative and quantitative analysis of agriculture in Rajasthan and RKVY was done. The elected representatives, panchayat and agriculture department officials were informed about the study through letters seeking their cooperation in the process.

In July, the process of data collection started by finalizing the questionnaire and conducting a pilot survey in order to ensure against difficulties of comprehension and ambiguities of questions. In the months of August, September and October, 2015 beneficiary assessment was done by way of hearing voices of the women farmers and agricultural workers using questionnaires and FGDs focusing on the overall priorities as identified by the RKVY Guidelines. During the same period, interviews with the elected representatives, officials, GRB experts and Agriculture experts were conducted. The completed questionnaires were brought for Data

entry which was done in December with the help of MS Excel and SPSS. This was followed by the data analysis which was completed in January. This was followed by the analysis of the inputs from the conducted interviews and feedback received from Questionnaire survey were analyzed against the actual data collected and the literature review and report writing was done in February and March.

1.11 Limitations:

This research has its limitations.

1. The research study is confined to the women from only two blocks of Rajsamand District of Rajasthan.
2. The MIS of RKVY does not report sex-disaggregated data for every scheme and sub-scheme under RKVY and the raw data from the district and block offices could not be extracted for previous years due to poor data keeping practices followed by them.

1.12 Chapter Plan:

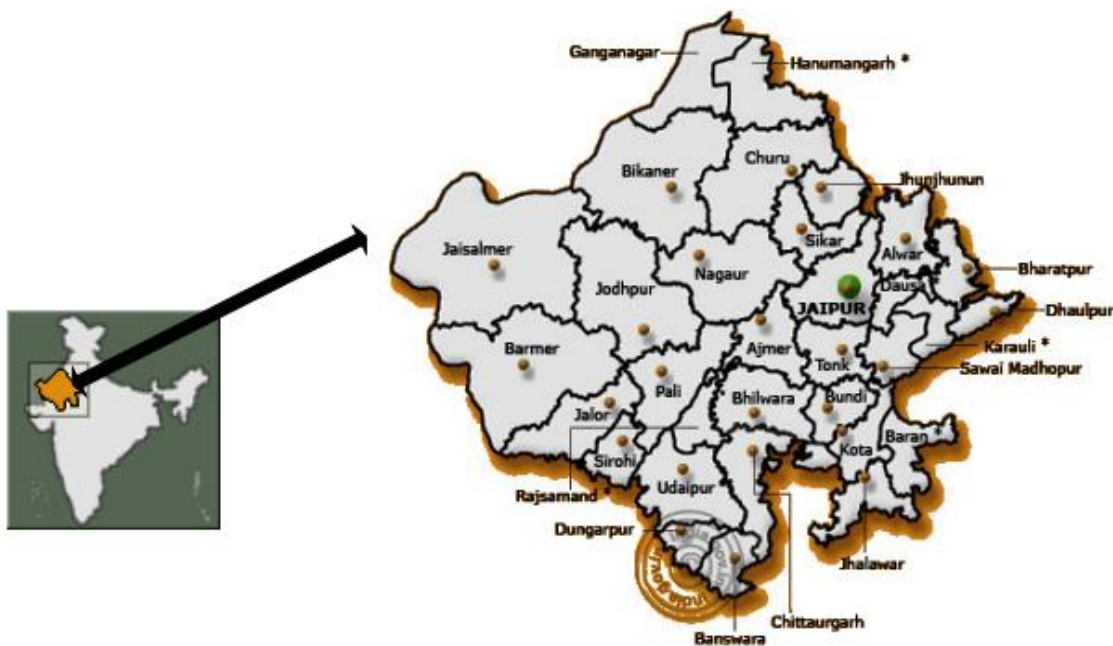
The entire study is running into eight chapters. The first one on Introduction brings out the importance of the study. It introduces the topic and presents a brief theoretical framework of the study. It also states objectives of the study, research design, methodology and gives an outline of the entire project. Chapter II gives a qualitative and quantitative analysis of agriculture scenario of Rajasthan, planning and budgeting and priorities of the state. Chapter III contains the analysis of RKVY in Rajasthan, its implementation, challenges and budgetary provisions of the State Government for RKVY in the 11th and 12th Five Year Plans. In Chapter IV the status of women farmers and farm worker, constraints in their development, land issues and GRB etc. are discussed. Chapter V contains the analysis of agriculture scenario, implementation of RKVY and agricultural planning in Rajsamand district in Rajasthan. Chapter VI provides the analysis of the primary data collected including the results of the study and its major findings in detail. In Chapter VII recommendations are given followed by Chapter VIII which will be the last chapter and will have the summary and conclusions of the study which will be further followed by references and annexures.

II. Status of Agriculture in Rajasthan

2.1 State's profile:

Located in the north-western part of India, Rajasthan is the largest state covering an area of 3.42 lakh square km which is 10.4% of the total area of India. Rajasthan shares border with Pakistan along Sutlej-Indus river valley. It also shares borders with other Indian states such as Gujrat, Madhya Pradesh, Uttar Pradesh Haryana, and Punjab. It has thirty three districts which are clubbed under seven administrative divisions which are Jaipur, Udaipur, Jodhpur, Bikaner, Kota, Ajmer, and Bharatpur. Around 54% of the total area of Rajasthan is covered by the Thar Desert also known as the Great Indian Desert. The vast geographical area of Rajasthan, however, commands only one percent of the total water resources in the country. The Aravali Hills demarcate the State into two distinct climatic zones viz. semi-arid trigon lying in the east of the Aravalis and arid region in its western side. Agriculture is dependent mainly on rainfall, which is low and erratic.

Figure 2.1: Rajasthan: the north-western part of India



Source: rkvy.nic.in/static/download/compendium/Rajasthan.pdf

Total population of the state is 6.86 crore (Census of India, 2011), which is 5.67% of country's population. Majority of population (about 70%) of the State is living in rural area and agriculture and allied activities i.e. livestock and forestry are main activities of their livelihood. The table below highlights some important features of Rajasthan:

Table 2.1: Important features of Rajasthan

Feature	Rajasthan	India	% share of Rajasthan
Demographic Profile			
Population (Lakh) (2011)	685.4	12108.5	5.6
Population density per square km (2011)	200	382	
Percentage of decadal growth rate of population for the period 2001-11	21.44	17.64	
Total Number of Males (2011)	355.5	6232.7	5.7
Total Number of Females (2011)	329.9	5875.8	5.6
Percentage of Rural Population (2011)	75.13	68.85	
Percentage of Urban Population (2011)	24.87	31.14	
Percentage of SC population (2011)	17.8	16.6	
Percentage of ST Population (2011)	13.4	8.6	
Percentage of Minority Population (2011)	11.5	20.13	
Socio-Economic Indicators			
Literacy	67.06	74.04	
Sex Ratio (Total Population) (2011)	926	940	
Sex Ratio (age group 0-6) (2011)	883	914	
Birth Rate (2011)	26.20	21.8	
Death Rate (2011)	6.7	7.1	
IMR (per 1000 live birth)	52	44	
MMR (per lakh live birth)	318	212	
Population Below Poverty Line (2011-12)	14.7	21.9	
Per-capita income at current prices (Rs.) (2011-12)	47506	60603	
Workers (in lakh)	298	4817.4	6.18

A. Total	136.1	1186.9	11.45
B. Cultivators	49.4	1443.2	3.39
C. Agri. Labourer			

Source: Census of India, 2011; Mohanakumar, 2012

The table above shows that Rajasthan has a total population of 685.4 lakh accounting for almost 6 percent of the total population in India in 2011. The percentage decadal growth rate of population for the period of 2001-11 in the state has been as high as at 21.44%, being much higher than the national growth rate of 17.64% for the same period. It also shows that the relative share of socially backward and marginalised population in Rajasthan is higher than the national average. The population of Scheduled Tribes in Rajasthan is almost 13.4% of the total population of the State concentrated mainly in five districts, namely, Banswara, Dungarpur, many parts of Udaipur, Pratapgar tahsil of Chittaurgarh district and Abu Road Block of Abu Road tahsil in Sirohi district (MoTA, 2011). According to the Census 2011, Rajasthan's population is mostly made of Hindus comprising of nearly 88.8% of the entire population whereas the percentage of Muslims, Sikhs, and Jains are 8.5%, 1.4%, 1.2% of the total population respectively. Hindi (91%) is the main language spoken in the state of Rajasthan (Census, 2011).

Though the number of females per 1000 males population in state has progressed from 910 to 928 between 1991 and 2011, sex ratio in Rajasthan is yet to advance further to be or par with the national average (940). The sex-ratio in the age group 0-6 years is 883 in 2011 which has declined from 909 in 2001. Literacy rate is also on the lower side as compared to the country. Other human development indicators like birth rate, IMR, MMR etc. indicate that HDI of Rajasthan is on the lower side compared to the National Average. Per capita income of Rajasthan is 28% less than the national average.

The table highlights that of the total population in Rajasthan only 24.87 percent live in urban agglomerations whereas 75.13 percent live in the rural areas. The proportion of farm dependent population is higher in the State as compared to the national average and the state houses 10% of cultivators in India which is a significantly higher than its share in population. The table shows, the population involved in the non-farm sector is relatively small in terms of its share in the total population which indicates that the farm sector still continues to be the single largest provider of livelihood for the vast chunk of the population. This shows that Rajasthan's economy is primarily agricultural, pastoral and rural.

2.2 Agriculture Scenario in Rajasthan:

In Rajasthan, due irregular rainfall, the problem of famine and drought deeply affects the livelihood and the life of Rajasthan. The average rainfall of the State is 575 mm, out of which 532 mm precipitation occurs in the rainy season i.e. June to September. The average rainfall of

eastern Rajasthan is about 704 mm and that of western Rajasthan is about 310 mm which reflects a vast variation. The water for irrigation comes from wells and tanks which area also recharged by the rain water. Rivers in Rajasthan are non- perennial except for Chambal and Mahi rivers (GoR, 2013).

There are mainly two crop seasons, Kharif and Rabi. The main crops produced are wheat, barley, bajra, rice, oilseeds, pulses, and sugarcane. The highest yielding crop is of wheat and Rajasthan is ranked 3rd in production of wheat in India. The State is 2nd largest in the production of maize, 3rd in production of Jowar, 9th in the production of Bajra, 2nd in the production of pulses, 2nd largest in the production of oilseeds and largest in the production of mustard. Rajasthan is also the biggest wool producing state in India and the main opium producer and consumer (Gol, 2014). In Rajasthan, in 2012, the number of livestock is 567.1 lakh which is 10.7 percent of the total number of livestock in India which is 5296.9 lakh.

The table below gives some of the important indicators for agriculture scenario in Rajasthan.

Table 2.2: Land Utilization in Rajasthan

Feature	Rajasthan	India	% share of Rajasthan
Average size of operational holdings (Lakh hectare) (2010-11)	211.4	1595.9	13.2
No. of Operational Holdings (lakh)	68.9	1383.5	4.9
Total Geographical Area (lakh Hectare) (2011)	342	3287	10.4
Net area sown (Lakh hectare) (2010-11)	217.45	1922	11
Total cropped area (Lakh hectare) (2010-11)	47.71	521.8	9
Land not available for cultivation (Lakh hectare) (2010-11)	42.68	429.5	10
Fallow Land(Lakh hectare) (2010-11)	169.74	1400.2	12
Net irrigated area (Lakh hectare) (2010-11)	73.08	864.2	8

Source: Mohanakumar, 2012; Census of India, 2011; Agriculture Statistics, 2014

The above table shows that Rajasthan has 13.2% of the average size of operational holdings of India and 4.9% of total number of operational holdings in India. Rajasthan also has 12% of total fallow land of India. In Rajasthan, the land available for agriculture is 211.4 lakh hectares which

is 61.8% of the total reporting area. In the State, only 34.5% of total agricultural area is irrigated and rest of the area is un-irrigated and dependent on rain.

2.3 People engaged in Agriculture:

Agriculture is a way of life of people living in rural Rajasthan. The Directorate of Economics & Statistics of the Government of Rajasthan says that about 70 percent of the State's total population depends on agriculture and allied activities for their livelihood.

The National Policy for Farmers, 2007 (DAC, 2007) defines farmers as

“a person actively engaged in the economics and/or livelihood activity of growing crops and producing other primary agricultural commodities and will include all agricultural operational holders, cultivators, agricultural labourers, sharecroppers, tenants, poultry and livestock rearers. Fishers, beekeepers, gardeners, pastoralists, non-corporate planters and planting labourers as well as persons engaged in various farming related occupations such as sericulture. Vermiculture, and agro-forestry. The term will also include tribal families/ persons engaged in shifting cultivation and in the collection, use and sale of minor and non-timber forest produce.”

The First Agriculture Labour Enquiry Committee (Thorner, 1956) defined Agricultural Labourers as

“those who are engaged in raising crops on payment of wages”.

The Second Agriculture Enquiry Committee (Raj, 1961) widened the definition by including

“those who are engaged in other agricultural occupations like dairy, farming, horticulture, raising of live-stock, bees, poultry etc.”

The table below presented below shows the number of farmers and agricultural labourers in Rajasthan in the year 2011.

Table 2.3: No. of Farmers and Agricultural labourers in the State in 2011 (in Lakh)

Details	Women			Men			Total		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Population	329.98	248.59	81.39	355.5	266.42	89.09	685	515	170
Cultivators	61	60.08	0.9	75.18	73.49	1.68	136.18	133.58	2.58
Agriculture labourer	28.06	27.2	0.8	21.3	20.13	1.19	49.39	47.33	2.05

Source: GoR, 2011

The above table shows that the total population of Rajasthan is almost 685 lakh out of which 98.09% live in rural areas and only 1.8% lives in the urban areas. Around 136.18 lakh people i.e. 19.8% of the total population is cultivator and 49.39 lakh i.e. 7.2% of the total population are agriculture labourers. The table also shows that out of the total population of women in Rajasthan, 18.48% are cultivators and 8.5% are agriculture labourers whereas 21.14% of total male population is cultivator and 5.9% is agriculture labourer. This shows that Out of the total number of cultivators, women are 45% out of which 98.49% live in the rural areas and only 1.9% lives in the urban areas. The table below shows the number and area of operational holdings in Rajasthan

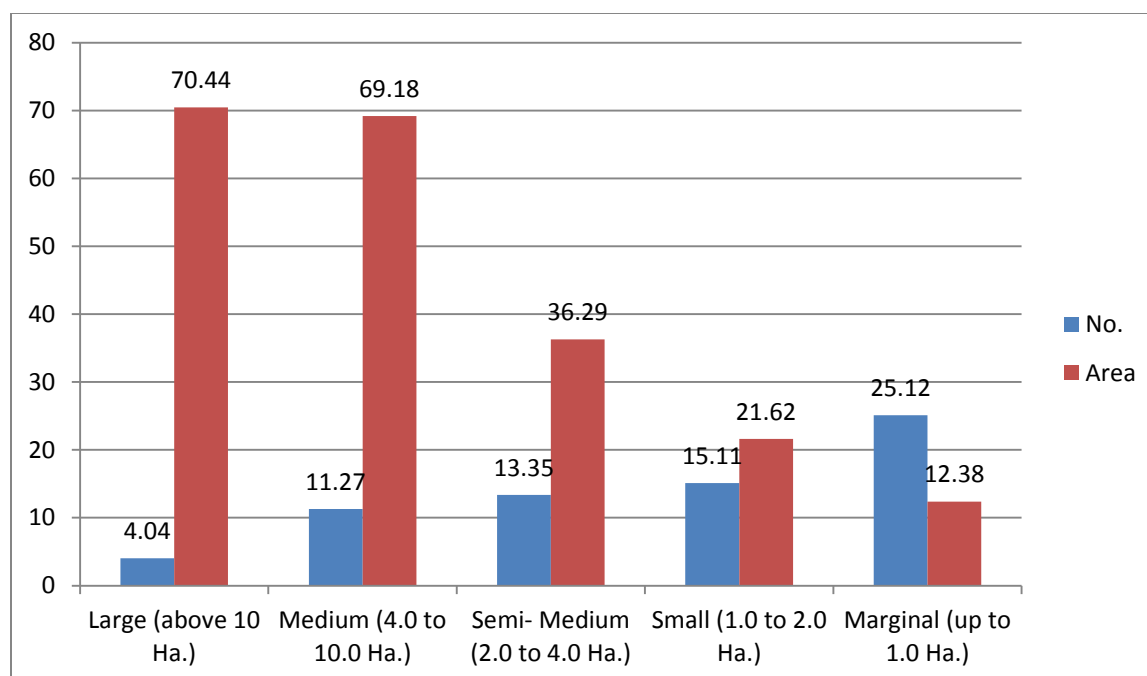
Table 2.4: Number and Area of Operational holdings in Rajasthan and India, 2010-11 (Number in Lakh and area in lakh Ha.)

Farmers' Category	Rajasthan		India		% share of Rajasthan	
	No.	Area	No.	Area	No.	Area
Large (above 10 Ha.)	4.04	70.44	9.73	169.07	41.52	41.66
Medium (4.0 to 10.0 Ha.)	11.27	69.18	58.75	338.28	19.18	20.4
Semi- Medium (2.0 to 4.0 Ha.)	13.35	36.29	138.96	377.05	9.6	9.6
Small (1.0 to 2.0 Ha.)	15.11	21.62	247.79	352.44	6.36	6.13
Marginal (up to 1.0 Ha.)	25.12	12.38	928.26	359.08	2.7	3.44
Total	68.89	209.91	1383.49	1595.92	4.9	13.15

Source: Agriculture Census, 2010-11

The table above shows that in Rajasthan, out of the total number of operational holding, 36.46% is marginal holding, 21.9% is small holding, 19.37% is semi-medium holding, 16.35% is medium holding, and 5.86% is large holding. While looking at the area of operational holdings, it can be seen that more than 50% of the land owners are small and marginal farmers (having less than 2 hectares of land), who own less than 14 % of total land. On the other hand the large farmers, owning more than 10 hectares land, control about 37% of total agricultural land in the State. Figure below graphically presents this difference.

Figure 2.2: Number and Area of Operational holdings in Rajasthan and India, 2010-11



Source: Agriculture Census, 2010-11

2.4 Minimum Wage in Agriculture in Rajasthan:

It was only in January 2014 that Rajasthan State Government implemented the minimum wage of the agricultural labourers. The Minimum wages that have been fixed by the state government depend on the skill level of the workers. The following table gives an overview of the minimum wages for the agricultural labourers according to the level of their skill revised as on December, 17th, 2015.

Table 2.5: Minimum Wage for Agricultural Labourer in Rajasthan w.e.f December, 2015.

Type of workers	Minimum Wage/Day (in Rs.)	Minimum Wage/Month (in Rs.)
Unskilled	197	5122
Semi- Skilled	207	5382
Skilled	217	5642
Highly Skilled	267	6942

Source: Minimum Wages Notification, Department of Labour, GoR, 2015

According to the above table, the minimum wages that have been decided by the government of Rajasthan for the agricultural labourers vary from Rs. 197/Day to Rs. 267/Day according to the skill level. According to ADB (2013), Measure taken by the Government like passing of the Minimum Wage Act, abolition of Bonded Labourers, providing land to landless labourers, etc. have helped in improving the conditions of the Agricultural labourers.

2.5 Contribution of Agriculture in State's Growth:

A large proportion of population in Rajasthan is primarily engaged in agriculture and allied activities but still the growth rate in Agriculture and allied sector is inconsistent and has seen an overall decline in the 11th and 12th plan period in the state. In the year 2006-07, the growth rate in agriculture sector at constant price with the base year 2004-05 was 7.51% which declined to 2.5% in 2011-12. The base year for sector wise growth at constant prices was changed in the year 2012-13 and 2011-12 was made the new base year. The growth rate in agriculture sector at constant price with the base year 2013-14 was 5.15% which declined to 2.5% in 2015-16.

The decadal rates of growth for GDP in agriculture and allied activities in the state were (-) 0.53% and 2.72% for 1980-81 to 1990-91 and 1990-91 to 2000-01 respectively (DA, 2012). The agriculture though contributes only around one-fifth of the GSDP employs more than 60% of the total workforce (Census, 2011). Agriculture has shown an inconsistent growth rate during the last five years. The following table presents sector wise annual growth rate of GSDP with the base year as 2004-05.

Table 2.6: Sector wise Growth at Constant Prices (2004-05) (% Change over last year)

Sectors of Economy	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Agriculture Sector	7.51	1.62	4.19	-2.31	27.20	2.50
Industrial Sector	17.69	2.62	7.09	5.95	5.38	5.08
Services Sector	9.73	8.88	12.89	8.79	7.99	7.01
Total GSDP	11.67	5.14	9.09	5.52	10.97	5.41

Source: Economic Review, 2011-12, GoR

As seen from the above table, there is no consistency in the growth rate in the Agriculture Sector with the base year as 2004-05. In the year 2006-07, it was 7.51% which declined to only 1.62% the next year. In 2008-09 it increased to 4.19% but again in the year 2009-10, it declined to -2.31%. The following year saw a spectacular increase in the growth rate which was 27.2%, however, again in 2011-12, there was a drastic decrease.

The base was changed to 2011-12 in the year 2012-13. The following table shows the sector wise annual growth rate with the base year as 2011-12.

Table 2.7: Sector wise Growth at Current (2011-12) (In Rs. Crore)

Sectors	2012-13	2013-14	2014-15	Annual Growth (%)
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				2012-13 to 2013-14	2013-14 to 2014-15
GSDP	245665	257432	272227	4.79	5.75
Agriculture Sector	48960	51479	52896	5.15	2.75
Industrial Sector	79946	80806	83234	1.08	3.00
Services Sector	116760	125148	136098	7.18	8.75

Source: Economic Review, GoR, 2015-16

As seen from the table above, the growth rate in the Agriculture Sector at the constant prices with the base year as 2011-12 is 5.15% in the year 2012-13 to 2013-14 which saw a decline 2.75% in the year 2013-14 to 2014-15. However, as evident in the table, the other sectors have witnessed positive growth rate since 2011-12.

2.6 Planning in Agriculture Sector in Rajasthan:

Enhancing the growth of Agriculture Sector is vital for Rajasthan as the last 2 plan periods have seen an insufficient growth in agriculture. This is also important for ensuring food security, poverty eradication, price stability and overall sustainability and growth of the economy. Planning plays a significant role in this. According to the Comprehensive State Agriculture Plans for 11th and 12th plan periods, planning in agriculture and allied sectors in Rajasthan is participatory. There are planning units at the local levels that create plans after consultations with the stakeholders and also conduct a SWOT analysis of the area. There are Village Agriculture Planning Units (VAPU), Block Agriculture Planning Units (BAPU) and District Agriculture Planning Units (DAPU) which prepare the Comprehensive District Agriculture Plan (C-DAP) which is further consolidated to prepare a Comprehensive State Agriculture Plan (C-SAP).

Box 2.1: The Departments related to agriculture in Rajasthan

- Horticulture
- Agriculture Marketing
- Marketing Board
- Rajasthan State Seeds & Organic Production Certification Agency
- Rajasthan State Warehousing Corporation
- State Institute of Agriculture Management

Source: DA (n.a)

The C-SAP gives due emphasis to agro-climatic conditions, natural resources issues and technology. Rajasthan has diversified topology. It has dry desert region on west and hilly area in the north-east side. The Aravalli Range and the lands to the east and southeast of the range are generally more fertile compared to other regions. The amount of common land in the form of

the permanent pastures and other grazing lands in the state of Rajasthan is around 1.7 million 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.

For regional planning, the State of Rajasthan has been agro-climatically demarcated into ten zones according to the agro-climatic the factors such as rainfall, temperature, humidity, wind, type of soil, etc (Integrated State Water Resource Plan, 2014). The ten agro-climatic zones are as follows:

- Arid Western Plain covering Parts of Barmer and Jodhpur
- Irrigated Northe Western Plain covering Ganganagar and Hanumanagar
- Hyper Arid Partial Irrigated Zone covering Bikaner, Jaisalmer and parts of Churu.
- Transitional Plain of Inland Drainage Zone covering Nagaur, Sikar, Jhunjhunu, Part of Churu
- Transitional Plain of Luni Basin covering Jalore, Pali, Part of Sirohi and Jodhpur
- Semi-arid Eastern Plains covering Jaipur, Ajmer, Dausa, Tonk.
- Flood Prone Eastern Plain covering Alwar, Dholpur, Bharatpur, Karauli, Swai Madhopur
- Sub-humid Southern Plains covering Bhilwara, Sirohi, Rajsamand, Udaipur and Chittorgarh
- Humid Southern Plains covering Dungarpur, Udaipur, Bansawra and Chittorgarh
- Humid South Eastern Plain covering Kota, Jhalawar, Bundi and Baran.

2.7 Analysis of C-SAP for 11th Five Year Plan period:

The State decided to achieve a target of 4.1% growth for agriculture sector during 11th FYP using RKVY assistance. C-SAP for this period mentions the interventions/ activities/ projects along with their funding requirement purposes by the respective C-DAPs but it does not mentions the physical targets. The C-DAPs for Bundi, Jaisalmer and Rajsamand were not prepared for 11th FYP period and the average of the remaining districts was taken as the plan fund for these three districts in the C-SAP for 11th FYP period.

The C-SAP mentions adopting bottom-up approach during its formulation however the C-DAPs were prepared under the supervision of the Department of Agriculture, GoR. The SAP was attempted to analyse and state the agriculture situation through systematic SWOT analysis across 32 districts. The SAP for 11th FYP is not clear on attempting convergence of inter and intra department/ programmes in the state. SAP proposes funds from various agriculture and allied sectors under State Plans, Special Projects under Agriculture Departments etc besides the funding proposals under RKVY emerging from the C-DAPs. Mechanism for planning, baseline information collection, monitoring, documentation and regular reporting progress are not clear

in the SAP. It is a gender neutral plan and only at one place (page 31) it talks about percentage distribution of agriculture dependent women, SC and ST.

It does not estimate yield gaps between the progressive farmer's yields and average farmer's yields. It compares all the districts yields with State average. The SAP provides strategies to bridge the yield gaps in crop/ livestock/ fisheries and to maximize returns to farmers. Yet it is not clear about prioritization of these strategies.

Objectives of the C-SAP for 11th FYP:

- To target the growth rate of agriculture and allied sectors to be 4 percent per annum.
- To undertake vigorous productivity augmentation strategy as constraints on area expansion
- To attract investment to agriculture and provide remunerative income for livelihood to the dependent workforce on par with non-farm sector of the regional economy.
- Minimize risk involved in agriculture in the arid and semi-arid zones
- Ensure supplementary as well as complementary income to farmers through crop-diversification and supplementary sources of employment.

The SAP provide the total fund demand including all programmes and schemes of the State and Central government for agriculture sector in Rajasthan and RKVY is one of them. The SAP proposes a total fund demand of Rs. 50324.83 crores for agriculture and allied sectors out of which Rs. 36925.21 crore was for agriculture and Rs. 13399.62 crore for allied sectors for the 11th FYP period. However, it states the proposed allocation on yearly basis only for the last two years of the 11th plan period i.e. 2010-11 and 2011-12. It says, SAP proposes under RKVY: Rs. 11962.25 crores for the year 2010-11 and Rs. 6865.16 crores for the year 2011-12. The RKVY website shows the approved allocation for (as per the consolidated statement) 2007-08 to be Rs.99.61 crore, 2008-09 to be 460.06 crore, 2009-2010 as 824.58 crore, for 2010-2011 as 1032.77 crore and 2011-2012 as 62.39 crore which brings to the total of Rs. 2479.41 crore. This shows a gap of Rs. 47845.42 (95.07%) between the estimated budgets under SAP and the approved budget. This huge mismatch between proposed and approved amounts severely affects targeted outputs (growth for projects proposed.)

According to the C-SAP for 11th Plan, two major and perennial threats faced by Rajasthan are poor quality of soil and water shortage. It has also identified major growth drivers for agriculture as well as other allied sectors of the regional economy. They are:

For Agriculture:

- Capacity Building of Field Functionaries
- Improved irrigation system and water use

- Farm mechanization
- IPM, INM and IWM for better yield realization
- Promote organic farming
- Productivity augmentation
- Higher replacement rate for important crops.

For Animal Husbandry:

- Availability of high breed cows
- Availability of adequate and sufficient fodder and cattle feeds

2.8 Analysis of C-SAP for 12th Five Year Plan period:

In order to keep up the momentum gained during the 11th Plan and achieve the targeted growth rate of 4% during the 12th Five Year Plan as also to ensure focused approach and to avoid overlap, all the schemes of the Department has been restructured into five Missions viz. National Food Security Mission (NFSM), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oil Seeds and Oil Palm (NMOOP), National Mission for Sustainable Agriculture (NMSA) and National Mission on Agricultural Extension & Technology (NMAET); four Central Sector Schemes viz. National Crop Insurance Programme (NCIP), Integrated Scheme on Agri-Census & Statistics (ISAC&S), Integrated Scheme of Agriculture Marketing (ISAM) and Integrated Scheme of Agriculture Cooperation (ISAC); and one State Plan Scheme viz. Rashtriya Krishi Vikas Yojana (RKVY). Details of the Missions/ Schemes proposed during the 12th Plan are given in the succeeding chapters (DA, 2015).

Total amount allotted for the 12th Five Year Plan Period for agriculture and allied activities is Rs. 49738.69 crore out of which Rs. 36799.63 are allotted for agriculture and allied activities under RKVY and Rs. 12339.06 crore under the other State Sponsored Schemes.

Objectives of the C-SAP for 12th FYP:

- Attract more resources to the farm sector by making it economically remunerative and comparatively profitable through a better and assured price regime in the domestic market
- Substantially increase the return from a unit of land, capital and labour
- Develop State specific packages of technology for enhancing the climatic resilience of agriculture while augmenting farmers' income
- Strengthen research and its infrastructure for low carbon agriculture growth

Issue identified by the C-SAP for 12th FYP in Livestock sector in Rajasthan are:

Shortage and non-availability of quality fodder at reasonable price; lack of high-breed cattle; predominance of low productivity indigenous stock of population; depletion of grazing land; high price of cattle feed; lack of marketing facilities; low and non-remunerative price of milk; lack of adequate insurance to cattle and farmers; spread of cattle diseases; shortage of veterinary medical facilities and insemination centres; lack of incentives to cattle rearing and labour shortage due to migration.

Among the growth drivers identified by the districts for the livestock, only one district reported “participation of women” as growth driver for animal husbandry.

In order to address the exclusion of tenant farmers, lessees and share croppers from access to bank credit on account of extant restrictions on recording of oral lease and other legal impediments, it was expected in the C-SAP of the 12th FYP that the banks would make some token provision for facilitating formation, linkages and financing such groups during the implementation of the scheme. However, the cooperatives and Regional Rural Banks (RRBs) expressed their inability to identify such beneficiaries mainly due to lack of evidence/ proof of lease and adequate security.

2.9 State Agriculture Policy of Rajasthan:

The State Agriculture Policy of Rajasthan was approved by the State Cabinet on June 26, 2013. The policy aims at ensuring food, nutritional security and economic empowerment of the people through accelerated yet substantial growth in agriculture. It strives for doubling the production of food grains in the next 10 years and maintaining a minimum of 4% of agricultural growth per annum and also to achieve fodder security to meet the demands of livestock population which is increasing every year. The policy proposes integrated farming system approach especially for dryland agriculture as an important strategy along with optimum use of resources, enhanced availability of quality seeds, nutrients management, Integrated Pest Management, Fodder Production, improving infrastructural facilities, increasing support for Agricultural Research and Education, increasing the utilization of renewable energy, increasing extension support and capacity development, improving livelihoods of farmers, credit support, gender mainstreaming, capital formation and investment in agriculture for diversification, organizational and management reforms, in achieving the aforementioned mentioned aims.

The policy also talks about strengthening of the contingency planning. It says that frequency and intensity of disasters such as droughts, floods, frost, etc. have increased in the recent years and so effective and reliable information and communication systems, needed climate services, contingency planning and resources will be put in place and further strengthened.

2.10 Budget for Agriculture and allied activities in Rajasthan

Despite the huge dependence on agriculture and allied sectors, the percentage of expenditure on these sectors is not even 4% of the total expenditure of the State since last 3 years. In the current financial year i.e. 2016-17, the estimated expenditure is only a meager amount of 3.80% of the total budget of the state which 1% more than the revised estimates for the year 2015-16. The Budget for agriculture and allied activities and their proportions in the total budgets of the respective years has been given in the table below.

Table 2.8: Expenditure for agriculture and allied activities and their proportions in the total Expenditure of the State

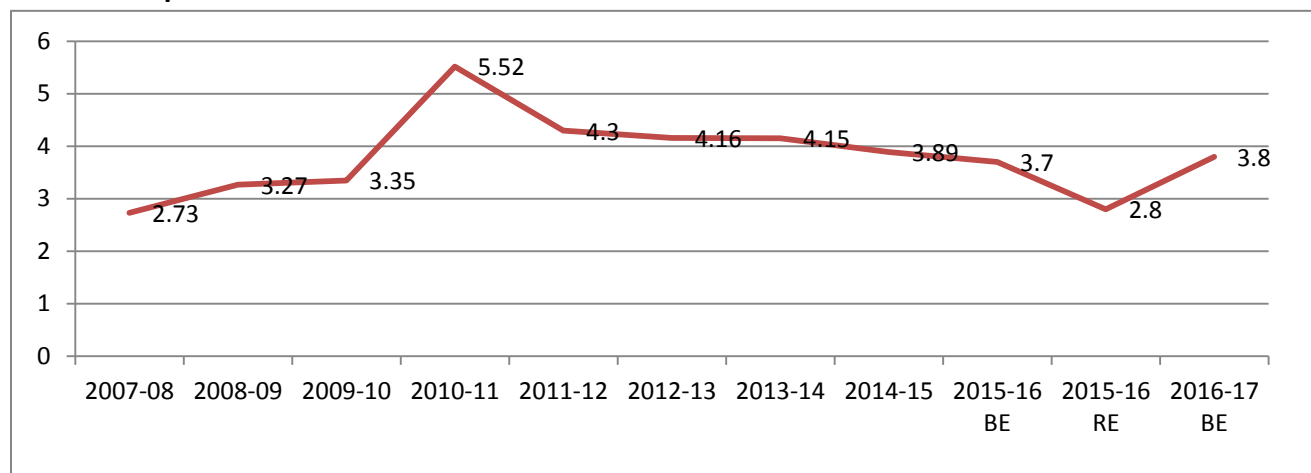
Year	Expenditure on Agriculture and Allied Sector (Rs. In Crore)	Percentage of total expenditure budget of the State
2007-08 AE	1031.06	2.73
2008-09 AE	1411.27	3.27
2009-10 AE	1723.20	3.35
2010-11 AE	2966.62	5.52
2011-12 AE	2812.29	4.3
2012-13 AE	3384.5	4.16
2013-14 AE	3906.65	4.15
2014-15 AE	4537.8	3.89
2015-16 BE	5235.55	3.7
2015-16 RE	5129.85	2.8
2016-17 BE	6515.93	3.8

Source: Budget Books, Government of Rajasthan, 2007-07 to 2016-17.

According to the above table, the budget allocated for Agriculture and allied sector in Rajasthan for the year 2016-17 is Rs. 6515.93 crore which is Rs 1386.08 crore more than the revised estimate for the year 2015-16 and Rs. 1283.93 crore more in comparison to the budget estimate of the same year. The above table shows that the budget for the year 2015-16 has been reduced by Rs. 105 crore in the revised estimates of same year. This shows that the budget allocated for agriculture and allied activities is not being spent properly. If we look at the trend of the percentage share of expenditure on agriculture in the total budget of the state we can see that public expenditure in agriculture and allied activities in proportion to the total expenditure of the State increased from 2007-08 to 2011-12 i.e. during the 11th FYP period.

However, the above table shows that during the 12th FYP period, the percentage share of expenditure on agriculture in the total budget of the state we can see that public expenditure in agriculture and allied activities in proportion to the total expenditure of the State has been decreasing every year. The figure below presents the trend in the percentage share of Expenditure on Agriculture and Allied Sector to the total expenditure from 2007-08 to 20016-17

Figure 2.3: Trend in the percentage share of Expenditure on Agriculture and Allied Sector to the total expenditure



Source: Source: Budget Books, Government of Rajasthan, 2007-07 to 2016-17.

Though the amount of expenditure for agriculture in absolute term has been increasing continuously over the 11th and 12th FYP plan period in Rajasthan, a relative share of agricultural expenditure in budget is found to be decreasing. This shrinkage has significant effects on the development of agricultural sector. Besides, the fluctuations in expenditure in agriculture, investment in irrigation facilities, technology breakthrough, infrastructure development etc. are also factors affecting agricultural production in the state.

2.11 Priorities Sectors for the State for Agriculture and Allied Sectors:

State's expenditure tells about the priority of the State. Sector wise analysis of expenditure done on agriculture and allied sector tells that during both 11th and 12th FYP periods, the State Government of Rajasthan has done maximum expenditure on crop husbandry. The table below highlights the top five priorities of the State for agriculture and allied sectors during the 11th and 12th plan.

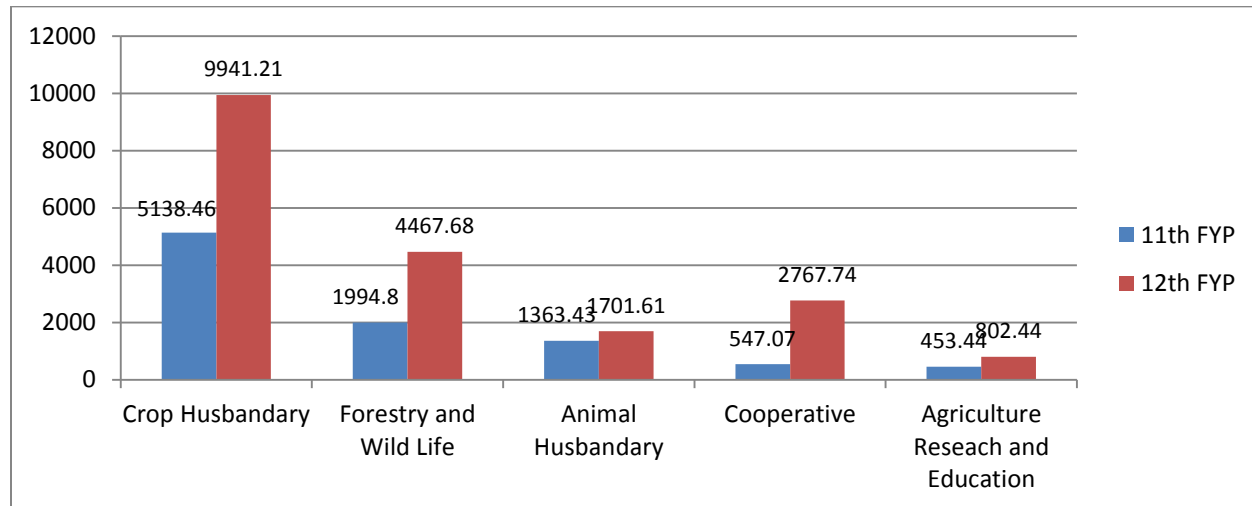
Table 2.9: Top five priorities of the State for agriculture and allied sectors (in Rs. crore)

Sector	11th FYP	12th FYP
Crop Husbandry	5138.46	9941.21
Forestry and Wild Life	1994.8	4467.68
Animal Husbandry	1363.43	1701.61
Cooperative	547.07	2767.74
Agriculture Research and Education	453.44	802.44

Source: Budget Books, Government of Rajasthan, 2007-07 to 2016-17.

On the basis of the expenditure done by the State Government on agriculture and allies sectors, it is found that Crop husbandry is on the top most priority followed by forestry and wild life, animal husbandry, cooperative and agriculture research and education.

Figure 2.4: Top five priorities of the State for agriculture and allied sectors



Source: Budget Books, Government of Rajasthan, 2007-07 to 2016-17.

2.12 Major Schemes and programs currently going on in the State:

Following schemes and programmes are currently being implemented in Rajasthan under agriculture and allied sectors:

- National Food Security Mission (NFSM)
 - NFSM- Wheat
 - NFSM- Pulses
 - NFSM Coarse Cereals
 - NFSM- Commercial crops (cotton)
- National Mission on Oil Seeds & Oil Palms (NMOOP)
 - Oil Seed Crops
 - Tree Borne Oil Seed Crops
- National Mission for Sustainable Agriculture (NMSA)
 - Rain-fed Area Development (RAD) Programme
 - Climate Change & Sustainable Agriculture Monitoring, Modeling & Net Working (CCSAMMN)
 - Soil Health Management: a. Soil Health Card Scheme, b. Parampragat Krishi Vikas Yojna (PKVY)- Popularization of Organic Farming
- National Mission on Agriculture Extension & Technology (NMAET)
 - Sub Mission of Agriculture Extension (SAME)

Sub Mission on Seed & Planting Material (SMSP)
Sub Mission on Plant Protection & Quarantine (SMPP)
Sub Mission on Agriculture Mechanization (SMAM)

- Rashtriya Krishi Vikas Yojna (RKVY): Project Based
- Pradhan Mantri Krishi Sinchayee Yojna (PMKSY)
Accelerated Irrigation Benefit Programme (AIBP)
Har Khet Ko Pani
Per Drop More Crop
Watershed Development
- Weather Based Crop Insurance Scheme (WBCIS)- 20 District
- Modified National Agriculture Insurance Scheme (MNAIS)
- State Plan

In addition to the existing Missions/ Schemes, following two new schemes have been introduced in the year 2014-15:

- (a) Price Stabilization fund for Cereals and Vegetables – The Union Government has established a Price Stabilisation Fund of Rs.500 crore in order to reduce price volatility in perishable agricultural commodities (onions, potatoes & tomatoes etc.). With the setting up of this Price Stabilisation Fund, farmers will be able to get fair price for their produce while consumer would be able to purchase the same at affordable prices.
- (b) National Agri-tech Infrastructure: An Agri-Tech infrastructure fund has been proposed to create a common e-marketing platform for agri-commodities in the Agriculture Produce Marketing Committees (APMCs) in the State, as a first step towards creation of a national market.

The Director- Extension, Ministry of Agriculture and Farmers Welfare told that the ministry is focusing on promoting Farmers' Friends under ATMA scheme to help the farmers. During the 12th FYP, the GoR announced a special scheme for the distressed category of farmers who have suffered production and income loss on account of successive recurrence of natural calamities like drought, flood, infection of pests and diseases, etc. Their due were restructured/ rescheduled over a suitable period and they were made eligible for availing fresh loans. However due to lack of data on marginalized farmers, tenants and distressed farmers, the banks are not implementing this scheme.

2.13 Agrarian Crisis in Rajasthan

Agriculture sector in the country is in distress due to heavy population, decreasing average size of land holdings and lack of investment and therefore the rural people are forced to migrate as there are not much non-farm livelihood options. Farmers' suicide is an indication of non-

viability of agriculture in Rajasthan. According to S. Mohanakumar, Agriculture Planning expert, IDS, Jaipur, more than 80% of farmers in Rajasthan are petty producers but the ruling ideology is such that the small producers are indirectly being asked to leave the rural landscape and give way to the private sector and so the farmers in Rajasthan are vulnerable to exploitation from the private sector and also receive no adequate help from the State machinery. He further warned that due to the falling rate of profit in agriculture, the number of farmers migrating to the urban slums in search of other employment is increasing. This is further putting an adverse impact on the wage rate as the supply of labour is increasing heavily. Due to poor wage rate, the condition of the people migrating from villages is getting even worse. These are all indications towards the depleting state of agriculture in Rajasthan.

According to NDTV's report, Cultivating Hope, In Rajasthan, 1448 villages have faced a severe agriculture adversity in the year 2015-16 due to irregular rains. A total of 56 lakh farmers have been affected and the government estimates put the crop loss at 10,000 crore (NDTV, 2016). Various other reasons attributed for the present agrarian crisis include the deflationary public policies and trade liberalization, which has slowed output growth, contributed to rising unemployment, income deflation for majority of cultivators and labourers, putting cultivators in unrepayable debt and loss of assets including land to the creditors (Biru & Barpujari, 2007).

According to NCRB, in Rajasthan, at least 414 farmers committed suicide on an average every year over five years till 2013 (Singh, 2015). However, according to the new methodology adopted by NCRB, in 2014, not a single farmer ended his life in the State. Under the new methodology, farmer suicides have been reported to be clubbed under Self Employed (Agriculture) category under which Rajasthan has reported 373 farmer suicides. This change in methodology which leads to concealing of the distress on the farmers of the State indicates the denial from the State Government.

The increased feminisation of agricultural work and labour means concentration of women in a sector which is already experiencing severe decline. Because of this the destitution of the agrarian population due to the crisis has also meant a feminisation of poverty.

2.14 Future strategy and interventions for agriculture and allied sectors as identified by the State:

In order to achieve a growth target of 9 percent per annum of NSDP with significant achievements in agriculture development, the State in its C-SAP for 12th FYP has identified the following strategies:

- Production and distribution of quality seed at affordable prices to farmers:
- Maintenance of soil help through judicious application of fertilizers
- Distribution of soil health cards

- Promotion of Integrated Pest Management System
- Introduce Integrated Nutrient Management System
- For rain fed areas:
 - Watershed approach
 - Soil moisture practices
- Strengthening input delivery mechanism
- Farm Mechanization
- Crop Diversification
- Human Resource Development

The above mentioned strategies should be based on agro-climatic sub-regions of the State and a mix has to be developed to have sustainable agriculture development in the State.

III. RKVY in Rajasthan

3.1 Introduction:

RKVY, a flagship scheme of the Union Government of India was launched in 2007-08 as a result of the resolution of National Development Council (NDC) in which targeting a minimum of 4 percent of growth rate in agriculture and allied sector was decided. The NDC resolved that agricultural development strategies must be reoriented to meet the needs of farmers and called upon the Central and State governments to evolve a strategy to rejuvenate agriculture. Till 2013-14, it remained as 100% Additional Central Assistance (ACA) to State Plan. From 2014-15 it began to be implemented as Central Assistance to States Schemes and from 2015-16, due to the recommendations of 14th Finance Commission, there has been a reshuffle in the budget allocation with regard RKVY along with some other schemes regarding agriculture and allied activities and the share of States has been made mandatory. It is expected that states would contribute 40% towards the programme. According to the guidelines for RKVY (GoI, 2014) two important conditions to be fulfilled by the State to become eligible for funding under RKVY are:

- The baseline share of agriculture and allied sectors in its total State plan (excluding RKVY funds) expenditure is at least maintained. The base line level of expenditure will be the “minimum of the percentage expenditure incurred on agriculture and other identified related sectors during three years proceeding to previous year”. For States to become eligible, “average percentage share of expenditure in agriculture and other identified related sectors during last three years” should be at least equal to base line level. In the case of Rajasthan, the minimum baseline expenditure during the last three years is 9.35% for the year 2009-10. Average of last three year’s share of expenditure in agriculture and allied sector is 14.93%. Since the average is more than baseline percent, the State is eligible.
- The DAP and SAP should be formulated. Every state should draw up C-DAP which should integrate the deliberations, needs and resources availability of respective gram panchayats under the districts. The formation of C-DAP should also take into notice the considered opinion of PRIs, public representative, farmers, NGOs and all other stake holders. The Department of Agriculture in Rajasthan has prepared C-DAPs for 33 districts

Box 3.1: Officers involved in planning process

- At the Cluster Level there is an Agriculture Director (AD)
- Then Agriculture Officer and Asst. Agriculture Officer at the Panchayat Level
- Then Supervisor at the Village level

Source: Director- Planning, RKVY, Department of Agriculture, GoR.

3.2 List of Allied Sectors:

- Crop Husbandry (including Horticulture)

- Animal Husbandry, Dairy Development and Fisheries
- Agricultural Research and Education
- Agricultural Marketing
- Food storage and Warehousing
- Soil and Water Conservation
- Agricultural Financial Institutions
- Other Agriculture Programmes and Cooperation

The main objectives of RKVY are:

- To incentivize the States so as to increase public investment in agriculture and allied activities
- To provide flexibility and autonomy to States in the process of planning and executing agriculture and allied sector schemes.
- To ensure the preparation of agriculture plans for the districts and the States based on agro-climatic conditions, availability of technology and natural resources.
- To ensure the goal of reducing the yield gaps in important crops, through focused interventions.
- To maximize returns to the farmers in agriculture and allied sectors.
- To bring about quantifiable changes in the production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner.

3.3 Planning under RKVY

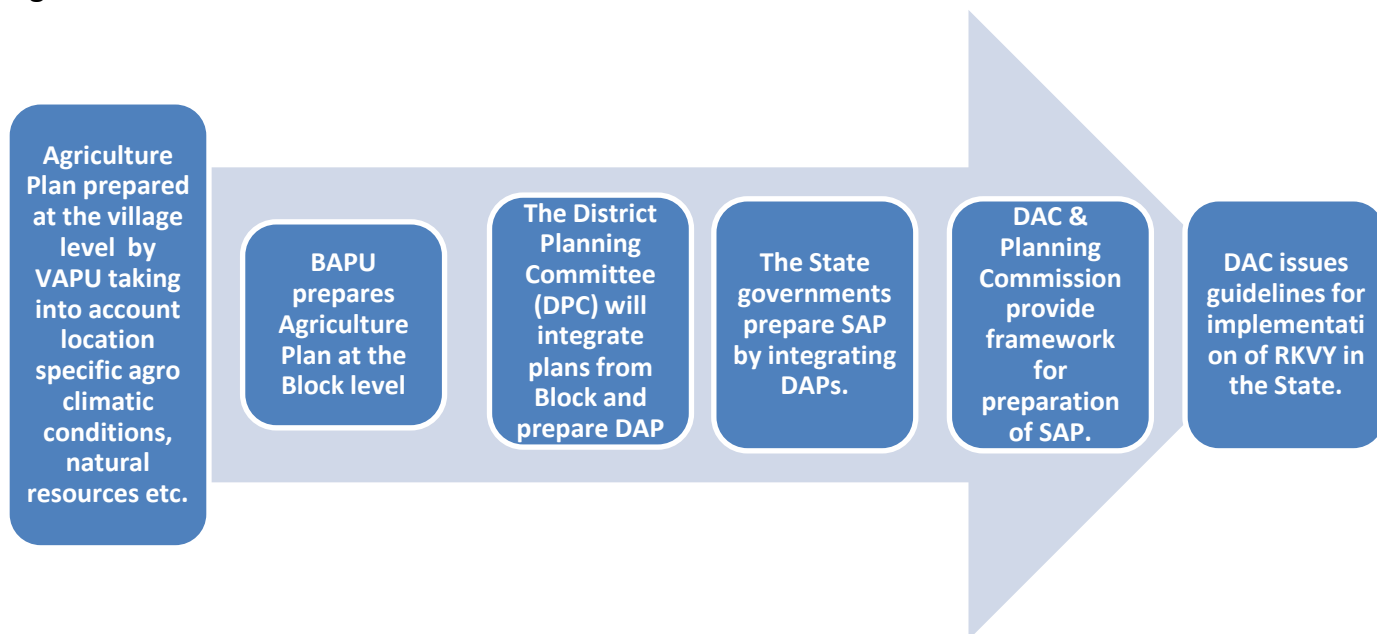
RKVY is a transformational jump in evolution of agricultural development schemes with a completely new approach in agriculture planning by allowing the States to plan their strategy and design appropriate schemes to implement that strategy with complete flexibility in scheme designs and autonomy in its implementation. RKVY guideline provides high level of flexibility to the states to identify the needs of the state and plan accordingly. The Nodal department for the scheme in the states is the State Agriculture Department. The department is required to take appropriate steps for identification of the projects that are important for agriculture, horticulture and allied sector development. If the government of the state is in hurry, it can also constitute an agency by notification for implementation of the RKVY. If the state does so, the funds would be disbursed to this agency but the administrative expenses of such agency cannot exceed 1% of total allocation under RKVY.

The State department of agriculture or the constituted agency will ensure the preparation of the DAPs (District Agriculture Plans) and preparing the SAP (State Agriculture Plan). District Agriculture Planning Unit (DAPU) may be actively associated in formulation of Comprehensive

District Agriculture Plan as per the Planning Commission guidelines. Block/ Taluka Agriculture planning units (BAPU/ TAPU) may be associated in giving the inputs for the C-DAP. Village Agriculture Planning Unit (VAPU) maybe associated in identifying clusters and the selection of beneficiaries. The DAP should include clear roadmap of the sectors. Then, the comprehensive State Agriculture Plan (SAP) should evolve out of the DAPs. The State is required to prepare a SAIDP in similar manner too that of DAPs and SAPs for identifying shelf of projects for RKVY. Finalized SAP should be placed by the State Planning Department before the Department of Agriculture /Planning Commission, as a part of the State Plan Exercise.

The determination of eligibility of the State is done by Planning Commission. How much money should be allocated is also determined by the Planning Commission. Once the state becomes eligible, the Distribution of Funds is done by the Department of Agriculture (DAC), under the Ministry of Agriculture. The money is released to the state governments. For further flow of the money, the state government is required to create a State Level Sanctioning Committee (SLSC) constituted under the Chairmanship of the Chief Secretary of the concerned State Government/UT. The vice chairman of SLSC is Principal secretary of agriculture in state departments. It has representations from the DAC, DAHD, and Planning Commission. The quorum for its meeting is incomplete without at least one GoI representative. It must meet in a quarter for at least once. This SLSC approves the projects under RKVY to the agency.

Figure 3.1: Institutional Mechanism under RKVY



Areas of focus of these schemes has been Seeds, fertilizers, IPM Testing laboratories, Horticulture, Farm Mechanization, Extension, Crops, Marketing and Cooperatives,, animal husbandry etc. At present RKVY has following sub-schemes: Sub- Schemes of National

Importance being implemented under RKVY: Bringing Green Revolution To Eastern India (BGREI), Integrated Development of 60,000 Pulses Villages in Rainfed Areas, Promotion of Oil Palm, Vegetable Initiative For Urban Cluster (VIUC), National mission For Protein Supplements (NMPS), National Saffron Mission, Vidharbha Intensive Irrigation Development Programme (VIIDP), Crop Diversification programme in Original Green Revolution States (CDP).

3.4 Program Components (Streams) under RKVY:

Till before December 2014, RKVY funds were provided to the states as 100% grants by the central government in the following streams (GoI, 2014):

(a) RKVY (Production Growth) with 35% of annual outlay.

(b) RKVY (Infrastructure and Asset) with 35% of annual outlay

(c) RKVY (Special Schemes) with 20% of annual outlay and

(d) RKVY (Flexi Fund) with 10% of annual outlay (States can undertake either Production Growth or Infrastructure & Asset project with this allocation depending upon State specific needs/priorities).

However, since an office order dated 11th December from RKVY Cell, DAC, MoA, GoI (RKVY Website) says that the DAC has decided to held back the outlays for Special Schemes for allocating among Programmes of national priorities e.g. BGREL, VIUV, NMPS, etc. The States will be provided with allocations under RKVY (Normal) category comprising of Production Growth, Infrastructure & Assets and Flexi Fund in the ration 43.5%, 43.5%, and 12.5% respectively in which spending minimum of 43.5% of the funds on Infrastructure and Assets is mandatory.

3.5 Implementation of Projects:

RKVY is implemented by 13 departments including universities/Institutions. Across the departments: Agriculture, Forest, Animal Husbandry, Horticulture, Co-operative, Fisheries, Higher Education (RSAMB), Water Resources, and Agriculture Universities. The district level planning units prepare the agriculture plan at the district level and below in association with the planning units at the village level. These plans after being consolidated in State Agriculture Plan help the State in identifying the projects required to be implemented to address the needs of the districts for agriculture and allied sectors. The projects screened by the State Level Project Screening Committee (SLPSC) headed by Agriculture Production Commissioner or any other officer nominated by the Chief Secretary. The SLSC is vested with the authority to sanction specific projects recommended by the SLPSC under each stream of RKVY. DAC releases funds to the State in two installments. 50% of the RKVY annual allocation will be released as first installment to the State, upon the receipt of the minutes of SLSC approving

implementation of new projects and/or continuation of ongoing projects during current financial year along with lists of projects approved and their entry in RKVY Database (RDMIS). Release of the second and final installment would be considered on the fulfillment of the following conditions:

- 100% Utilization Certificates (UCs) for the funds released upto previous financial year;
- Expenditure of at least 60% of funds released in first installment during current year;
- Submission of performance report in terms of physical and financial achievements as well as outcomes, on a quarterly basis, within the stipulated time frame in specified format.

State Government releases funds to the implementing agencies/ departments (District Panchayats and agriculture departments). DPC priorities projects based on availability of funds. The district panchayat will be associated in selection of site/ location of projects in consultation with implementation agencies. Intermediated panchayats will be associated in selection of locations/ villages for implementation of projects. Village panchayat will be associated in selection of beneficiaries based on cluster approach (however, there should not be any repeated beneficiaries year after year in RKVY). Priority should be given to SC/ST, women and weaker section of the society. According to the AAO, Rajsamand, implementation of RKVY is very challenging at the district level and below due to lack of staff in all RKVY related departments.

3.6 Institutions/ actors involved:

Institutions/ actors involved in planning, budgeting, implementation and monitoring of the RKVY are as follows:

- Department of Agriculture and Cooperation, Govt. of India.
- Planning Commission, Govt. of India.
- Agriculture Department, Govt. of Rajasthan.
- Allied Departments (1. Horticulture. 2. Animal Husbandry 3. Dairy Development. 4. Fisheries. 5. Cooperative and Cooperation 6. Minor Irrigation 7. Higher Education (RSAMB), and Agriculture Universities.
- Zila Parishads and General Administration at the District level.
- State Planning Department, Rajasthan.
- Agriculture and Allied Departments at District level.
- Agriculture and Allied Departments at Sub District level

3.7 Monitoring and evaluation of projects: DA does the impact evaluation, State Government does the concurrent evaluation, DPC supervises implementation, District Panchayats, quarterly

review meetings for monitoring progress of RKVY projects in district, providing feedback for policy formulation and planning. Intermediate panchayat does the monitoring of the progress of RKVY interventions and providing feedback for DAPs. The social audits are done at the gram sabha levels.

3.8 Convergence with schemes of other departments:

RKVY is additional central assistance to the State Plan for Agriculture and allied sectors and thus it is essential to encourage convergence with schemes like MGNREGS, SGSY and BGRF. There is convergence as shown in the C-DAP but there is hardly any consultation with other departments. Plans for various programs like MREGS, NHM, NFSM, ATMA etc. are not available simultaneously. Convergence should also be done with other Central Schemes of Ministry of Agriculture (e.g. Department of Agriculture & cooperation, Department of Animal Husbandry, Dairying & Fisheries, and Department of Agriculture Research & Education) and other relevant Ministries/ Departments viz., Ministry of Food Processing Industries, Ministry of New and Renewable Energy, Department of Land Resources, Ministry of Rural Development, Ministry of Water Resources etc. Ministry of Panchayati Raj should be appropriately consulted for ensuring that local/ panchayat level requirements are adequately addressed in District Development Plans.

3.9 Impact of FFC:

There has been a reshuffle in the funding pattern due to the recommendations of the Fourteenth Finance Commission (FFC). The FFC in its report in 2015 recommended an increase in the share of States in the Central taxes but other transfers like grant to the States have been slashed by the union government (CBGA, 2015). In 2015-16 budget, the Indian government has decreased its allocation to major centrally sponsored schemes (CSS) arguing that the state governments are now receiving increased fund due to the 14th Finance Commission's recommendations. The CSSs have been grouped in three categories in 2015-16 union budget. Some of the CSSs have been scrapped, while the ratio of centre state share has been changed for some other, while for some CSSs the union government has said that those would continue as earlier. The third category of CSSs includes those schemes which are aimed at development of the weaker sections of the society or for which the government has legal or constitutional obligations (Ahmad, 2015).

RKVY along with other major schemes like SSA, RSMA, ICDS, MDM, IAY, NRLM and NHM has seen major decline in their allocation in 2015-16 compared to 2014-15. In the year 2016-17, the Union Government allocated only Rs. 5,400 Crore for RKVY which has increased in comparison with the Budget Estimate for the year 2015-16 which was Rs. 4500 crores and the revise

estimate for 2015-16 is Rs. 3,900 crore. In the year 2014-15 i.e. before the implementation of the recommendation for FFC, the allocation for RKVY was Rs. 8444 crore.

3.10 Budget for RKVY:

The State Government of Rajasthan presents the budget for revenue expenditure for agriculture and allied sectors under RKVY in the Budget Book Volume 2d- Economic services under the Major Head 2401 i.e. Crop Husbandry and sub major heads 789 (03), 796 (64) and 800 (27). The table below presents the budget for agriculture and allied sectors under RKVY.

Table 3.1: Budget for agriculture and allied sectors under RKVY (Rs. In crore)

Year	BE	RE	AE
11th FYP			
2007-08	-	-	71.9*
2008-09	-	-	233.8*
2009-10	-	-	186.1
2010-11	241.5	583.7	582.64
2011-12	515.77	749.01	630.66
12th FYP			
2012-13	624.4	499.94	434.35
2013-14	601.99	734.92	671.64
2014-15	549.26	767.3	714.31
2015-16	599.8	601.81	-
2016-17	642.8	-	-

Source: Budget Books 2008-09 to 2016-17, Government of Rajasthan; *Rao, 2014

The table above shows that during the 11th FYP the AE has increased every year from Rs. 71.9 crore in 2007-08 to Rs. 630.66 crore in 2011-12. In the year 2012-13, there has been a decrease of Rs. 196.31 crore in the AE which was Rs. 630.66 crore in the year 2011-12. The AE in the years 2013-14 and 2014-15 have also increased as compared to the preceding years. The BE for the year 2015-16 is Rs. 599.8 crore which is Rs. 50.54 crore more than the BE for the year 2014-15. The RE for 2015-16 is slightly less than the BE for the same year but it is Rs. 165.49 crore less than the RE for the year 2014-15. This significant amount of decrease is because of the changes in the funding pattern as recommended in the FFC. The budget allocated for RKVY for the current financial year i.e. 2016-17 is Rs. 642.8 crore which is Rs. 43 crore more than the BE for the previous year and only Rs. 41 crore more than the RE for the previous year.

Despite the fact that Rajasthan has not been able to achieve the targeted growth in farm sector, the scheme has been continued with increased outlays and increase number of sub schemes every year. Thus it became the biggest scheme in the agriculture sector.

3.11 RKVY and Gender:

Even though the guidelines of RKVY provide a space for planning at the Gram Sabha level it largely fails to address the barriers faced by women farmers and farm labourers. The monitoring and evaluation process fails to ensure gender mainstreaming and addressing of the strategic needs of the women engaged in agriculture and allied sector. Even though, the women folk of Rajasthan are increasingly getting engaged in the agriculture and allied sectors, the guideline of RKVY does not provide any kind of policy measures that can ensure equality in outcomes and the existing agriculture plans of the State make no attempt at mainstreaming role of women in agriculture and allied activities. Also, RKVY guideline does not recognise the regional diversity based in caste, class, ethnicity and geographical locations.

The Under Secretary- RKVY at the DAC, GoI told that RKVY is a project based scheme that is moulded by the concern for increasing production, encouraging public expenditure and maintaining a higher growth rate in agriculture. He told that RKVY provides Additional Central Assistance from the GoI and there is no allocation especially for women and marginalized sections as Agriculture is a State subject as per the constitution and the State decide the nature of the projects they want to undertake.

The following table highlights the proportion of the gender component in the budget allocated for RKVY by the State Government of Rajasthan.

Table 3.2: Gender Budget in RKVY budget

Year	RKVY budget	Gender budget	Percent of RKVY budget
2012-13	624.4	62.4	10
2013-14	Not available	Not available	Not available
2014-15	Not available	Not available	Not available
2015-16	599.8	179.9	30
2016-17	642.8	195.85	30.47

Source: Budget Books for the years 2012-13 to 2016-17, GoR

The data for gender component in RKVY before 2012-13 is not available as the government of Rajasthan started presenting Gender Budget Statement in the 2012-13 and also because the department of agriculture both at the State level and the local level does not have proper sex disaggregated data available.

The above table shows that in the first year of GBS, only 10% of the total budget for RKVY was allocated for women. In the year 2016-17, this has increased to 30.47% of the total budget for RKVY. The total budget allocated for RKVY was Rs. 642.8 crore out of which the gender budget is Rs. 195.85.

To understand the implementation of RKVY on the ground and inclusion of dalit and tribal women a couple of FGDs with tribal and dalit women in agriculture were conducted in Rajsamand and Dausa districts respectively. During these FGDs it was found that the women from Tribal and Dalit communities did not have any knowledge about the schemes under RKVY or any other schemes run by the Department of Agriculture in Rajasthan. They are spending a large portion of their day in the farm and are suffering from various problems like lack of irrigation and electricity facilities; stray animals like nil gai destroy their farms, crop diseases, lack of adequate transportation facilities, difficulty in livestock maintenance, etc.

For making RKVY gender responsive, it is important that the women engaged in agriculture are made more aware about various schemes under RKVY in order to get a fair share of its benefits. The issues of marginalized, migrant and seasonal women workers in agriculture and allied sectors need to be addressed in the process of planning for projects under RKVY and the monitoring mechanism must be strengthened for ensuring better implementation of RKVY in the State. The In charge of the Gender cell of the department of agriculture told that biggest challenge faced by the department as far as the effective implementation of the schemes and programmes is concerned is that the department does not receive physical achievement from the districts most of the time. Therefore, the data keeping process at the local level needs to be strengthened. Acknowledgement and evaluation of women's work in agriculture must form the basis of all policies and schemes in agriculture.

IV. Women in Agriculture in Rajasthan: GRB a significant tool for mainstreaming

Since independence, the Indian subcontinent has essentially been an agrarian economy, employing 4/5th of the economically active women. 48% of India's self-employed farmers are women. In the dairy sector, 75 million women are engaged as against 15 million men and 20 million in animal husbandry as compared to only 1.5 million men. The idea that women work as the care giver only or just do some light farming and only men do the hard work involved in agricultural production is also false as a large number of agricultural women are engaged in heavy manual work such as land preparation which is still done using traditional methods and only a very few agricultural fields have been mechanized.

4.1 GBR in Rajasthan:

The GoR initiated the process of implementation of GRB by identifying six key- departments- health, education, agriculture, women and child development, registration and stamp and social welfare (Ahmad, 2015). A study was conducted by the GoR in order to analyse these departments from gender perspectives and provide necessary recommendations to facilitate the process of gender budgeting in them in 2005-06 (Department of Planning, 2006). This study also aimed at establishing gender sensitive monitoring and evaluation framework within these departments. This study was again conducted for eight departments in 2006-07. In the year 2008, the GoR announced its intention to implement the GRB strategy in the State. In 2009, a gender cell was created in the Department of Women and Child Development. A high-level committee was constituted in 2010 headed by the Chief Secretary. GBS was mentioned in the Budget circular in 2011 and in the first GBS was presented along with the budget in 2012-13.

The GBS format is divided into four categories. They are as follows:

Category A: Where the percentage of women beneficiaries/ Share of allocation towards women and girls is more than 70%.

Category B: Where the percentage of women beneficiaries/ Share of allocation towards women and girls is 70-30%.

Category C: Where the percentage of women beneficiaries/ Share of allocation towards women and girls is 30-10%.

Category D: Where the percentage of women beneficiaries/ Share of allocation towards women and girls is less than 10%.

The GBS presented by GoR does not provide information department wise or major head wise. It is presented Budget Finalization Committee (BFC) wise. This information is further divided and reflected under three categories- non-plan, plan and Centrally Sponsored Scheme. The BFC,

that are constituted in each department to assist the Finance Department in evaluating and assessing the budget proposals prepared by the department, are more than in each department. In 2016-17, number of BFCs covered in the GBS is 122. This is approximately across 40 out of the total of 60 departments. The practise of reporting as per BFCs makes it difficult to identify the departments included in the GBS and to understand the pattern of allocation made for schemes in those departments under the prescribed four categories.

4.2 Study conducted by the GoR in 2005 for Department of Agriculture (DoA) from Gender Lens (Department of Planning, 2006):

The study on GRB for the DoA in the year 2005-06 was conducted by the Directorate of Economics and Statistics based on the financial and physical data obtained from the department. Following are the major findings of the study:

- From 1991 to 2001, there was an increase of 22% in the share of women work participation in Rajasthan where as it was only 1.4% for men.
- Under Amulya Neer Scheme in the years 2004-06 in Dausa district, only 12% of the total beneficiaries were women.
- Under Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM), in the years 2004-06 in Dausa district, only 5% of the total beneficiaries were women.
- In the Mini Kit demonstrations in the years 2004-06 in Dausa district only 7.28% of the total beneficiaries were women.
- Similarly the number of women beneficiaries for subsidy for plant protection and for buying agriculture equipments was extremely low.
- In the year 2005-06, DoA conducted training for 6,180 women on various aspects of agriculture in the State. However the study says that there has been a decrease in this number since 1999.

Based on the analysis, following recommendations were given in the study:

- The Management Information System (MIS) within the department must be strengthened, to enable compilation of sex-disaggregated data.
- More options should be explored to increase and promote subsidies offered to women.
- Special crop insurance packages like reduction in insurance premium, early payment of the insurance claim, etc should be provided to women.
- The Government should consider including new “women friendly” activities such as vermiculture, organic farming, floriculture, horticulture into the scope of agriculture.
- The DoA, GoR can liaise with the Gender Resource Centre in the Department of Agriculture, GoI for setting up of a Gender Resource Centre within the department.
- Impact assessment studies can be undertaken.

- The Government should consider reserving some posts of Agriculture Supervisor and Assistant Agriculture Officer for women.
- The DoA should build up a cadre of trained women with expertise in the field of agriculture.
- The scope for participation of women's self-help groups in agriculture can be widened.

4.3 Gender Budget in Agriculture:

The GBS for Agriculture and allied activities shows that the only few of the BFCs of the Department of Agriculture provide for the gender component in the allocations for their schemes. The BFCs of agriculture and allied sectors that provides gender budget are as follows:

- In the year 2012-13, BFC18 (Agriculture Department), 20 (Swami Keshavnand Rajasthan Agriculture University), 21 (Animal Husbandry Department), 23 (Horticulture Department), has the provision of gender budgeting.
- In the year 20113-14 and 2014-15, BFC 18 (Agriculture Department), 19 (Agriculture Marketing Department), 20 (Swami Keshavnand Rajasthan Agriculture University), 21 (Animal Husbandry Department), 23 (Horticulture Department) has the provision of gender budgeting.
- In the year 2015-16, 2016-17, BFC 18 (Agriculture Department), 21 (Animal Husbandry Department) has the provision of gender budgeting.

Numbers of projects for which the above mentioned BFCs have provided gender budget in the four categories are given in the following table.

Table 4.1: Schemes for Agriculture and Allied Activities under the Four Categories

Categories	A				B				C				D			
	No n Pla n	Pla n	CS S	Tot al	No n Pla n	Pla n	CS S	Tot al	No n Pla n	Pla n	CS S	Tot al	No n Pla n	Pla n	CS S	Tot al
2012-13	0	2	0	2	0	4	0	4	0	2	0	2	10	5	1	16
2013-14	0	2	0	2	10	2	13	25	19	2	0	21	5	23	4	32
2014-15	0	1	0	1	1	1	0	2	7	6	1	14	8	8	2	18
2015-16	0	3	-	3	2	3	-	5	1	27	-	28	11	1	-	12
2016-17	0	3	-	3	2	5	-	7	6	29	-	35	3	0	-	3

Source: Rajasthan Budget Book Vol. 4b for years 2012-13 and 16-17, Government of Rajasthan

The above table shows that maximum projects for which gender budget is provided fall under the 'C' category in which the percentage of women beneficiaries/ Share of allocation towards women and girls is 30-10%. This shows that the work done by women in Agriculture and Allied Sector remains largely unacknowledged in Rajasthan. The table also shows that only 3 projects allocate

100% on women. The table below shows the amount of money that has been allocated for women engaged in farming in the budget for the agriculture and allied sectors.

Table 4.2: Gender Budget for the Agricultural and allied sectors (in cr.)

Year	Non- plan expenditure	gender budget in Non plan expenditure	Plan Expenditure	Gender Budget in Plan expenditure	CSS	Gender in CSS	Total Budget	Gender budget in total budget
2012-13	366.14	24.88 (6.79%)	980.46	121.03 (12.34%)	46.13	4.61 (10%)	1392.73	150.52 (10.8)
2013-14	736.51	159.21 (21.6%)	103.02	24.1 (23.3%)	87.56	14.34 (16.37%)	927.09	197.65 (21.3%)
2014-15	413.8	36.82 (8.8%)	516.74	135.64 (26.24%)	730.19	91.82(12.57%)	1660.69	264.28 (15.91%)
2015-16	793.85	221.08 (27.8%)	1717.28	559.16 (32.56%)	-	-	2511.13	780.24 (31.07%)
2016-17	1155.65	207.56 (17.96%)	3046.71	887.36 (29.12%)	-	-	4202.36	1094.92 (26.05%)

Source: Rajasthan Budget Book Vol. 4b for years 2012-13 and 16-17, Government of Rajasthan

The amount mentioned in the table for non-plan, plan and CSS component for the agriculture department and allied sectors is the amount allocated for the BFCs for which the gender budget has been allocated and not the total non-plan, plan and CSS amount for the department.

The table shows that the proportion of gender budget in the total budget for agriculture and allied sectors has increased from 10.8% in 2012-13 to 31.07% in 2015-16 and has decreased to 26.05% in the year 2016-17. The format in which Rajasthan is currently presenting its GBS does not provide information about the Actual Expenditure done and so the complete picture of the status of gender budgeting in Rajasthan is not clear.

4.4 Women's Access to Farming Support

The Director- Extension, Ministry of Agriculture and Farmers Welfare told that the Union Government is trying to bring the women farmers and agricultural workers in the mainstream of development. There is a Gender Resource Centre in the ministry and the annual report and outcome budget of the ministry also carry a chapter in gender mainstreaming. Women's say in decision-making is being improved by mandating 33% of the quorum to be represented by women in the Block-level committees. The ministry has also come up with a 'Farm women friendly' handbook in Hindi and English languages.

At the State level, the incharge of the Gender Cell of the Department of Agriculture told that only women are the beneficiaries of the mini-kits distributed by the department. Apart from this, incentives are given to the girls studying agriculture in intermediate and in college. Women are also given priorities in the trainings and demonstrations. Women are provided subsidy in stamp duty for registration of land in Rajasthan.

In the state of Rajasthan, an initiative has been taken to empower the women in agriculture. One of the key initiatives was the "Mahila Kisan Shashaktikaran Pariyojana" (MKSP) which is a central government scheme launched by the Ministry of Rural Development. It was planned with 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. MKSP project is a consortium project to empower 25,500 women farmers (SHG members), across 450 villages in 7 districts of Rajasthan with 6 field partners. The overall project outlay is of Rs 11.24 Crores for 3 years starting from May 23, 2013. Ministry of Rural Development is contributing Rs 8.42 Crores under MKSP component of National Rural Livelihood Mission (NRLM) and the Trusts support is Rs. 2.82 Crores. An addition support is mobilized to make interventions more comprehensive from Heifer Project International (HPI) of Rs 1.61 Crores for supporting livestock based livelihoods. Similarly, the Trusts is agreed to extend additional support of Rs 1.31 Crores, bringing to total support to tune of Rs 4.13 Crores from the Trusts to MKSP project.

Box 4.1: State Agriculture Policy of Rajasthan on Gender Mainstreaming

The State Agricultural Policy says that Women empowerment in agriculture will be 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.

In the state of Rajasthan, The Rajasthan Farmer's Participation in Management of Irrigation System Act, 2000 was passed in accordance with the PIM Act by the National Ministry and it

had come into force from 20th July 2000. Through this act every area under the irrigation system has been divided into command areas and declared as water user's area. Every water users who are land owners under the command area have been declared the members of that particular Water User's Association. All members of the association will be a part of the general body of association and will have a right to vote. Therefore it is evident from the law itself that in a state where only 8% of the land owners are women, the chance of women's membership in Water User's Association is pretty slim. Though women are the primary consumer and collector of water in Rajasthan they have a very poor representation when it comes to the user's association.

4.5 Women and Land:

The In charge of the Gender cell of the department of agriculture told that most of the subsidies provided by the State are on the basis of the landholding only because of which women are unable to procure any benefits as women does not own land. The women who do own land rarely have control of the land or on the asset flowing from the land (Mukund 1999, Agarwal 1994). Women in India have the legal right to own land but in reality very few get the opportunity to practice this right. Only 6% of the total area of land holding and 8 % of the total number of land holding is owned by women in Rajasthan. In case of India the percentage of number of operational land-holding owned by women is only 11% of the total number of operational land-holding. The situation of Rajasthan is much worse as the percentage is only 5.1%.

Land reforms that have taken place over the years have brought a fundamental change in the entire approach towards development. But they have majorly failed to address the issue of women land holding and have failed to facilitate women's right to land. The government of Rajasthan has only very recently started to acknowledge the plight of the women in their all reformative works. The Rajasthan Agricultural Competitiveness Project (RACP) has identified one of the key issues on land reform as - "unequal access of small and marginal farmers, tribal farmers, SC and women farmers to resources, agriculture inputs, extension services and markets".

Issue of women's right to land holding were left out of the purview of the interventions by the government for land reforms. Almost all of the State Governments passed the Agricultural Land Ceiling Act without ever mentioning any rights of the women to hold or own lands. These rights entail the ability of women to own, use, access, control, transfer, inherit and otherwise take decisions about land and related resources. Hindu Succession Act 1956, granted ownership of all property acquired either before or after the signing of the Act, abolishing their "limited owner" status. It originally didn't give daughters equal rights to ancestral property. This disparity was removed by an amendment that came into force on September 9, 2005. The amendment to the Hindu Succession Act giving daughters equal rights to ancestral property is

applicable even for girls born before the law was changed in 2005. The amendment was brought into force to remove the inequality between the heirs. But this benefits only Hindu women, leaving intact the disabilities facing non-Hindu women, especially Muslim and tribal women— something that should concern those working for gender justice.

V. Status of Agriculture in Rajsamand district of Rajasthan

5.1 General Profile of the District

Rajsamand is situated 67 km north of Udaipur and 352 km south of state capital Jaipur on N.H.8. It is basically an agrarian economy and most of its population lives in small villages and hamlets. The district spreads over seven Tehsils and seven Blocks. Most of the area of Rajsamand is hilly. Some portions of Panchayat Samiti Rajsamand, Khamnor, Amet and Rialmagra are plains. Rajsamand is surrounded by Pali in the west, Ajmer in the north, Bhilwara and Chittorgarh district in the east and Udaipur in the south. The district is well known for its historical background, geographical features, mineral deposits and religious dedications. Some of the important features of Rajsamand are highlighted by the table below.

Table 5.1: Important features of Rajsamand

Total Population (2011) (in Lakh)	11.5
No. of Females (2011) (in Lakh)	5.7
No. of Males (2011) (in Lakh)	5.8
Percentage of Urban population	15.89
Percentage of rural population	84.11
Percentage of SC population	12.8
Percentage of ST Population	13.9
Percentage of Minority Population	4.4
Literacy Rate	63.14
Literacy among Females	47.95
Literacy among Males	78.9
IMR (per 1000 live birth)	6
MMR (per lakh live birth)	28
Per-capita income at current prices (Rs.) (2011-12)	5012
No. of Tehsils	7
No. of Blocks	7
No. of Gram Panchayats	206
No. of Villages	1010
Electrified Villages	988
Percent of electricity used for domestic consumption	10
Percent of electricity used for agriculture consumption	7
Percent of electricity used for industrial purposes and other purposes	83

Source: Directorate of Economics & Statistics, 2011, Government of Rajasthan, Census of India, 2011; C-DAP, 12th FYP, Rajsamand

The table shows that as per the Census, 2011, the total population of Rajasthan is 11.5 lakh out of which 5.7 lakh are females and 5.8 lakh are males. Out of the total population only 5.89% live in the urban areas, rest 84.11% live in the rural areas. The total SC population in the district is 12.8% of the total the total population and the total ST population is 13.9% of the total population. Out of the total population the minority communities accounts for 4.4%. The literacy rate in Rajsamand is 63.14% which less than the State. The IMR and MMR are 6 and 28 respectively and the per capita income of the district is only Rs. 5012 which very less when compared to the State. There are 206 Gram Panchayats in Rajsamand and 1010 villages. Out of 1010 villages, 988 are electrified. However, only 10% of the electricity is consumed for household use and only 7% of the electricity is being used in agriculture. Rest of the electricity is being used for commercial purposes like for industrial use, and other purposes like street lighting etc.

Banking:

The district has branches of various bank i.e. cooperative, rural and commercial banks. The total number of creditors of the district is 263732 lakhs with loan amount of Rs.819.96 crore. A District Central cooperative bank with 7 Branches of commercial bank and 6 branches of primary land development banks. There is also branch of Rajasthan finance Corporation State Bank of Bikaner and Jaipur is the Lead bank of the district.

District Income:

District Economy is Mainly Agriculture based and dairy & animal rearing comes to next agriculture. Marble and JK tyre industry contributed to the district economy significantly and providing job the people of the district. Kelwara Panchayat Samiti received income from Jetropha & Custard apples also. There is growth differentially in the district. Railmagra & Rajsamand P.S. are economic rich in comparison to other blocks due to better agriculture production & marble mining and economic growth is lowest in Bhim block.

5.2 Agro-climatic situations of Rajsamand:

The district has hot and dry summers where the maximum daily temperature reaches up to 45 degree Celsius (C-DAP for 12th FYP, 2011). The temperature continuously rises from March to June. The winters are comparatively more pleasant. Generally, cold season begins from December and lasts up to February. The minimum daily temperature drops down considerably at night and remains around 4 degree. The total rainfall and its month-wise distribution are two important factors affecting crop production and land use intensity. Average rainfall received in the district

is 543mm. Almost 90% of the total rainfalls is received during four month i.e. from June to September. Therefore, crop production is concentrated only in *Kharif* season. There are some post monsoon rains in the month October and November, which enables growing some rain fed Rabi Pulses and Oilseeds. The predominant soils in the district are loam and sandy loam which are medium in organic carbon and nitrogen content. These soils have less water retention capacity. In Kelwara, Khamnor and some part Bhim and Deogarh region has undulated topography with calcareous soils. District have 58325 open well, 950 tube wells and dams & tank but capacity all of open depended on rainfall. The following table presents the pattern of land utilization in Rajsamand.

Table 5.2: Land use pattern in Rajsamand (lakh hectares)

Total Geographical Area	4.5
Total Agriculture Area	2.4
Forest Area	0.24
Land under non-agriculture use	0.85
Cultivable wasteland	1.22
Permanent Pasture Land	0.58
Fallow Land	2.1
Net Sown Area	0.87
Gross cropped Area	1.12
Misc. use	0.07
Irrigate Area	0.55

Source: Directorate of Economics & Statistics, 2011, Government of Rajasthan; Annual District Plan, 2015-16, Rajsamand

The above table shows that the total geographical area of Rajsamand is 4.5 lakh hectares which is 1.39% of the total geographical area of the State. Out of which the total agricultural area is 2.4 lakh hectares and fallow land is 2.1 lakh hectares. The net sown area is 0.87 lakh hectares which is 36.25% of the total agricultural area and only 22% of the total agricultural area i.e. 0.55 lakh hectares is irrigated.

Each block in Rajsamand has different agro-ecological situation. Growth of agriculture in the district varies from block to block because soil conditions and rainfall pattern vary from block to block. Railmagra is the most potential block whereas the Bhim is the least potential block of the district. Therefore, for the purpose of planning Rajsamand district is further divided into three agro ecological situations as AES I with Undulated with low soils fertility status, AES II with Rich fertile soils with black soils and plain region and AED III with Humid hilly aravali range with lush green vegetation.

Due to frequent droughts, low capital investment capacity, lesser availability of facilities such as electricity, roads, etc. more subsistence farming takes place than the commercial farming.

Almost all the farmers follow the traditional method farming. Maize is the major rain fed *Kharif* crop grown in the district. Wheat is the major crop grown in Rabi season. Both maize and wheat are sown in 60-65% area of the total agricultural area in relevant seasons. Sorghum, Groundnut, Black Gram, Green Gram, Barley, Mustard & Gram Crops are other cultivated crops in the district. A good amount of rainfall at desired interval is required during June-September for bumper crops production in the Kharif season and possibilities of good Rabi crops because the wells & tube wells along with dams & tanks are recharged due to good rains.

5.3 People engaged in Agriculture:

Around 84% of the population of Rajsamand lives in the rural areas where agriculture is the largest source of livelihood. The table below presented below shows the number of farmers and agricultural labourers in Rajsamand in the year 2011.

Table 5.3: No. of Farmers and Agricultural labourers in Rajsamand in 2011 (in Lakh)

Details	Women			Men			Total		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Cultivators	1.02	1	0.02	1.04	1.02	0.02	2.07	2.03	0.04
Agriculture labourer	0.66	0.64	0.23	0.39	0.38	0.01	1.06	1.02	0.03

Source: Directorate of Economics & Statistics, Government of Rajasthan

It can be seen from the table above that 49.2% of the total cultivators in Rajsamand are women and 50.24% men. Out of the total agricultural labourers 62.2% are women and this is even higher than the proportion of women in the total agricultural labourers in Rajasthan which is 56.8% and only 36.7% of the total agricultural labourers in Rajsamand are men. The table below presents the category-wise description of the farmers based on the number of land holdings.

Table 5.4: Category wise Farmers

Farmers' Category	Families	Percent
Large	991	0.68
Medium	8764	6.01
Semi- Medium	20448	14.03
Small	31665	21.95
Marginal	83556	57.33
Total	145754	100

Source: Annual District Plan for Agriculture, 2015-16, Rajsamand

Farmers of the district mainly come under the Marginal Farmers and Small Farmers category due to small size of holdings throughout the district. Small size of holding is responsible for low

income standard of people in the district. Over all there is 145754 holding in the district having 205388 hectares. In the district, there are about 83566 Marginal Farmers, 31975 Small Farmers, 29091 Medium Farmers and 991 Large Farmers.

5.4 Agriculture Planning in Rajsamand:

Under the decentralized planning system, for the first time in Rajasthan the process of preparing plans at the grassroots level i.e. at the Gram Sabha Level, started in the 11th Five Year Plan period. In June 2008, the Agriculture and Animal Husbandry Department of the District of Rajsamand presented a plan for the period of 2008-09 to 2012-13 under National Agriculture Development Plan (NADP) presented to the District Planning Committee (DPC), a committee created as per the constitution of India at the district level for planning at the district level and below.

It says that in Rajasthan under decentralized planning, the 11th Five Year Plan 2007-2012 was prepared at the grassroots level after conducting all the Gram Sabhas. These were then consolidated sector wise at block level.

This plan was made for the years from 2008-09 to 2012-13. However, in the plan document, for agriculture the funds allocation, financial and physical targets are given only for the year 2008-09. For Animal Husbandry Department, Financial and Physical Targets are provided for all five years. This plan is largely gender neutral and only at one place does it talk about women and girls and an allocation of only Rs. 6.95 lakh exclusively on their welfare. The table below presents the Financial Abstract proposed by the plan.

Table 5.5: 2008-09 Financial Abstract for Agriculture and allied sector in Rajsamand (Rs in lakh)

S. No.	Component	Amount
I.	Component wise District Agriculture Development Plan	545.94 l
	1. Maize 30% operation	9.68
	Total	555.62
II.	N.A.D.P.	
	1. Action Research Project	10.00
	2. 150+Guar	47.9
	3. Store bins	12.5
	1. Activities under National Horticulture Mission	100.5
	Total	170.9
	Only 22.5 lakh were disbursed to blocks.	
III.	Horticulture	
	1. Vermi compost	30.00
	2. Organic Farming Demonstration	10.00

Total	40.00
Grand Total (I+II+III)	766.52

Source: Chief Planning Officer (2008), Approved plan for agriculture and animal husbandry departments under NADP

In the year 2008-09, apart from the other committed activities, as a part of District Agriculture Development Plan, Department of Agriculture, there was more emphasis on increasing the production of maize in the district by at least 30% for which Rs. 555.62 lakh were allocated and 35000 farmer families were expected to be benefited. Apart from this, Rs. 170 lakh were allocated for activities under NADP and Rs. 40 lakh for horticulture. The schemes operation 150+ guar was targeted to benefit 1000 farmer families. 100 vermi composts were proposed to be established for which Rs. 30 lakh were proposed.

Even though the sex-disaggregated data for physical and financial targets for the schemes implemented for Maize 30% is not available in the department, the data available in the plan document about the schemes gives an idea about involvement of women in agricultural planning in Rajsamand. It shows that out of the 32 schemes implemented in the year 2008-09 under the Maize 30% operation, only 2 schemes, two days farmers' training/ women empowerment and encouraging the women students and researchers studying agriculture, were women oriented schemes where 47 and 45 women respectively were targeted as beneficiaries and Rs. 4.41 lakh and 2.55 lakh respectively were targeted expenditure which was only 0.7% and 0.45% of the total respectively under the maize 30% operation.

According to the C-SAP for the 11th FYP for 11th FYP of Rajasthan, C-DAP for Rajsamand, Bundi and Jaisalmer was not prepared and so the plan fund demand for these three districts for agriculture and allied sector was considered as Rs. 1034.58 crore which is the average of the State. Out of this, Rs. 1018 crore were demanded for Agriculture Sector which is 3.65% of the total plan fund demand of Rajasthan for Agriculture Sector. For the Allied Sector the Rs. 15.71 crore was demanded which is 0.12% of the total plan fund demand of Rajasthan for Allied Sector.

5.5 C-DAP for 12th FYP:

The Gross capital formation in agriculture as a proportion of GDP in the agriculture sector to be raised to during the 12th plan period to achieve targeted growth rate of 4% with this aim, in District Rajsamand, NADP project is proposed for five year with the total plan fund demand of Rs. 132.80 crore. Out of this the financial requirement from on-going scheme will be Rs. 63.56 crore and the assistance required under RKVY is of Rs. 69.24 crore.

Due to the unavailability of data with the Department of Agriculture, Rajsamand, for previous years, the table below provides the scheme wise financial progress only for the years 2013-14 and 2014-15.

Table 5.6: Scheme wise Financial Progress for last two years for Agriculture Department, Rajsamand (Amount in crore)

Name of the Scheme	Amount Allotted		Total Expenditure	
	2013-14	2014-15	2013-14	2014-15
Normal RKVY	0.57	1.01	0.38	0.72
INSIMP Sub Scheme RKVY	0	0	0	0
AFDP Sub- Scheme	0.18	0	0.15	0
RADP Sub- Scheme	2.39	0	2.20	0
Nutri farm Sub-Scheme	1.16	0.90	0.84	0.90
Total RKVY	4.32	1.91	3.58	1.62
NFSM	0.57	0.71	0.40	0.53
ATMA (Agriculture Technology Management Agency)/ NMAET (National Mission on Agriculture Extension and Technology)	1.31	0.66	1.29	0.60
ISOPOM (Integrated Scheme of oilseed, pulses, oil palm and maize) (merged with NFSM and Accelerated Pulses Production Programme)	0.24	-	0.17	-
National Mission on Oil seeds and Oil Palm	-	0.12	-	0.10
National Mission for Sustainable Agriculture	-	0.90	-	0
State Plan	0.23	0.87	0.22	0.74
ICDP Cotton	0.01	-	0.01	-
Other CSS (ARISNET & Soil Health)	-	0.12	-	0.08
Total	6.72	5.32	5.69	3.69

Source: Annual Agriculture Plan, 2015-16, office of Deputy Director Agriculture (Extension), Rajsamand

The above table shows the total amount allotted for agriculture department for the year 2013-14 was Rs. 6.72 crore out of which only Rs. 5.32 crore was spent. The amount allotted for agriculture department for the year 2014-15 decreased to Rs. 5.69 crore out of which an amount of only Rs. 3.69 was spent. This indicates that the department is not utilizing the allotted amount in the proposed schemes which may be due to inefficient planning and implementation at the district level and below.

The table also tells that the biggest proportion of the funds is going towards RKVY. This tells that RKVY is the biggest scheme for agriculture and allied sector in Rajsamand district. The table gives the total amount of funds allotted for RKVY for 2013-14 which is Rs. 4.32 crore out of

which only Rs. 1.1 crore was spent and for the year 2014-15 the amount allotted for RKVY was Rs. 3.58 crore out of which only Rs. 1.62 crore was spent on the schemes and sub-schemes under RKVY. The table provides category wise physical progress for every component of RKVY for the year 2014-15.

Table 5.7: Category wise Physical Progress for ever components of RKVY for the year 2014-15

Components	Physical Targets					Physical Achievements				
	Gen	SCP	TSP	Total	Women	Gen	SCP	TSP	Total	Women
Crop Demonstration (ha.)	2049	336	395	2780	786	2049	336	395	2780	40
Farm Pond (No.)	70	15	15	100	9	25	3	2	30	0
Micro-Nutrient Demonstration (ha.)	345	90	65	500	98	379	102	75	556	0
Bio-Fertilizer Distribution (ha.)	518	135	98	751	136	448	117	94	659	0
Gypsum for soil reclamation (mt.)	250	50	50	350	105	236	19	0	255	41
Soil testing labs (Soil Health Cards in No.)	5500	0	0	5500	1650	1169	0	0	1169	0
Quality Control	545	0	0	545	0	173	0	0	173	0
Mobility Administration Expenses	0	0	0	0	0	0	0	0	0	0
Computer Operators as contractual services	0	0	0	0	0	0	0	0	0	0
RKVY under Inter State visit	1	0	0	1	0	1	0	0	1	0
RKVY under Intera State visit	1	0	0	1	1	1	0	0	1	0
Gram Set	9	3	7	19	0	9	3	3	15	0

Training										
RKVY under strengthening of KSK (decoration)	6	1	0	7	0	4	1	0	5	0
RKVY under strengthening of KSK (Magazine)	106	24	0	130	0	37	8	0	45	0
Certified Seed Distribution (Qt.)	112	29	23	164	0	0	0	0	0	0
Pipeline (km.)	36	8	6	50	0	24	0	0	24	0
Jal Hauz (No.)	52	13	5	70	15	48	5	1	54	0
Rabi Mlnikits (No.)	0	0	0	0	0	0	0	0	0	0
TOTAL (RKVY)	9600	704	664	10961	2800	4603	594	570	5108	81

Source: Office of Deputy Director Agriculture (Extension), Rajsamand

The above table shows the total number of beneficiaries targeted under various components of RKVY in Rajsamand for the year 2014-15 was 10961 out of which 2800 were expected to be women. However, the number of actual beneficiaries was 5180 which is approximately 46% of the targeted beneficiaries. Out of the achieved physical target only 81 are women which just 2.8% of the targeted number of women beneficiaries and only 1.5% of the actual number of beneficiaries for the year 2014-15. The achieved physical targets shows that during the year 2014-15 the SC and ST beneficiaries in the total beneficiaries are 11.4% and 11% respectively. This data show the degree of negligence women farmers and agricultural labourers are facing from the government. There is absolutely no mechanism that can ensure proper representation of women at various stages of planning and budgeting and thus their voice is not properly recorded and most of the time they do not receive benefits of the schemes and programmes run by the State.

The Zila Pramukh of Rajsamand told that most of the time discussions in the meetings of Zila Parishad revolve around the implementation of NREGA and the issues related to agriculture are hardly discussed. Even if the issues related to agriculture are discussed, they are generally based on concerns related to production of crops and no women related issues are discussed. One of the biggest problems the district is facing is the lack of staff at almost all the levels of implementation of RKVY. According to the Assistant Planning Officer, Rajsamand the post for Planning Officer of Rajsamand is empty since last 20 years. Some of the weakness, threats, strengths and opportunities identified by the C-DAP for agriculture and allied sectors of Rajsamand under the C-DAP for 12th FYP are given in the following table.

Table 5.8: Major SWOT finding of the District

STRENGTHS	OPPORTUNITIES	WEAKNESSES	THREATS
Low cost of cultivation	Use of MIS	Dependence of kharif crops on rainfall	Low return from rainfed kharif crops may reduce the benefits
Production of staple food	Wide use of IPM techniques	Use of local varieties of seed	Decreasing soil fertility status
Additional income from animal husbandry	Proper weed management	Poor weed management	Decreasing ground water table
Organic waste available as manure	Establishment of processing unit for agriculture and dairy products	Poor water management	Low living standard of village community due to low income
Easy availability of man power	Seed production	Lesser use of IPM techniques	
	Organic farm produce & vermi composting	Unbalanced use of fertilizer and organic manure	
	Farm mechanization	Lack of processing & post-harvest technology unit	
	Dry land agriculture practices	Small land holdings	
	Marketing facilities	Poor breeding & feeding management	

Source: C-DAP for 12th FYP, Rajsamand

According to the C-SAP for 12th FYP, absence of technical institutions and extension services is also one of the major problems faced Rajsamand with regard to agriculture. Another major weakness of Rajsamand is the lack of adequate irrigation facility/ water shortage from tank, rainfall and non-availability of seeds and planting material and other inputs. Soil erosion due to wind, wild animals and fire are the major threats identified by the C-SAP for 12th FYP for agriculture in Rajsamand. Some of the other problems identified by the district are high population growth, poor availability of planting material, low pace of horticulture development, non-command area, lack of water harvesting structure results in high run off without percolation due to undulated topography, people are not future oriented and have low awareness about on-going development schemes of the government and lack of agro processing industries.

5.6 Extension Strategies proposed by the C-DAP:

The following feasible extension and research strategies have been proposed based on the analysis of data collected agriculture and related issues, problems in Rajsamand district.

Strategies –

- A. Improvement of productivity and income of farmers in the existing enterprises and farming system.
- B. Diversification and intensification of existing farming system.
- C. Sustainability in productivity / income
- D. Improving knowledge and skill of INM
- E. Improving knowledge and skill of IPM
- F. Seed multiplication & Replacement
- G. Horticulture Planting Material
- H. Natural resource management
- I. Issues for policy consideration
- J. Farm mechanization
- K. Marketing & media strategies
- M. Human resource development
- N. Farmers organizations
- O. Public private partnership

5.7 Animal Husbandry:

Growing of rain fed crop in Kharif season that too associated with high risk has led to dependence of village community on livestock & movement of labour to other sector for earnings. The condition of Animal Husbandry is not sound in the district because the breeds of most cows, buffalos, sheep & goats are indigenous and the improved breed contributes only 0.47% to the total population of animals. The table below present the number of livestock and poultry in Rajsamand.

Table 5.9: Animal census for Rajsamand

Animals	Numbers
Cattle	260835
Buffaloes	222293
Sheep	100488
Goats	536901
Camels	1572
Others	5080
Total Livestock	1127169
Total Poultry	36170

Source: 19th Livestock census, Rajasthan, 2012

The table above shows that the population of goats in the total livestock is the highest in Rajsamand followed by cattle. An amount of Rs. 1202.9 Lakh was proposed as plan Animal Husbandry Department, Rajsamand for five years under RKVY during the 12th FYP period. According to the notification for directions from Directorate of Animal Husbandry, Jaipur for the utilization of amount funds allocated under RKVY for 2015-16, the major activities to be carried out for the welfare of the livestock in the State included surra control programme, combat infertility programme, strengthening of B.P. lab, strengthening extension services, strengthening livestock training institutes, strengthening poultry training institutes, strengthening animal food laboratory, free livestock treatment plan, strengthening Rajasthan State Livestock Management and Training Institute, Travis for animal health and breeding services, maintenance of cold chains and electrification of offices.

Veterinary care in Rajsamand is suffering a lot due to lack of staff members. The Joint Director of Animal Husbandry Department, Rajsamand told that at present the most important issue to be addressed is the lack of staff in the Polly Clinics Veterinary Polyclinic, hospitals and sub-centres. Most of the sub-centres are closed because of this. There are only 7 senior Veterinary doctors against the requirement of at least 25 doctors. Out of 114 posts of compounder only 81 posts are filled. Out of 8 clerical posts seven are vacant. Number of drivers for ambulances is not enough. He told that the district is unable to provide care on time due to less dispensaries, doctors, hospitals, and staff members.

VI. Findings from the field: Analysis of the Primary Data

6.1 About the Study Area:

For the purpose of understanding the status of women farmers and agriculture labourers, field study was conducted in Kumbhalgarh and Khannor blocks of Rajsamand. In both these block the number of women involved in agriculture and allied sectors is much more than men. Primary data was collected from two panchayats in each block i.e. Kucholi and Banokra in Kumbhalgarh and Semal and Kesuli in Khamnor. The survey covered 400 households (one woman from each household) of a total of 20 villages in both blocks.

In Kumbhagarh, there are 37 gram panchayats and 171 villages and in Khamnor there are 41 gram panchayats and 217 villages. According to the Office of Deputy Director Agriculture (Ext.), Rajsamand the amount spent under RKVY since 2007-08 to 2013-14 is 224.81 crore and the amount spent under RKVY since 2007-08 to 2013-14 is 232.38 crore.

The table below gives the demographic profile of the select blocks.

Table 6.1: Demographic Profile of the select blocks of Rajsamand

Name of the block	Population (As per 2001 census)	% of Literacy	Male No.	Female No.	Workers No.				Categories No.		
					Agriculture		Non. Agri		SC	ST	Gen-
					Male	Female	Male	Female			
Kumbhalgarh	131346	46.00	64616	66730	4538	8114	12054	2883	12045	36079	83222
Khamnor	209421	57.93	105311	104110	3098	5216	37281	8976	18333	44053	147035

Source: Office of Deputy Director Agriculture (Extension), Rajsamand

Note: The information given in the above table was retrieved from the office of the Deputy Director Agriculture (Extension), Rajsamand but due to the lack of updated information for block level demographic profile, the data for 2001 is considered for the present study.

The above table shows that in Kumbhalgarh the population of women is 50.8% of the total population and that of men is 49.2%. Literacy rate in Kumbhalgarh is only 46%. Out of the total number people involved in agriculture 64% are women and only 35.8% are men. Looking at the data for non-agricultural workers, it is found that out of the total non-agricultural workers

80.7% men and only 19.3% is women. This shows that for women in Kumbhalgarh, the primary source of livelihood is agriculture. The table also shows that in Kumbhalgarh, tribal population is 27% of the total population. 46257

In Khamnor Block, out of the total population, female population is 49.7% and male population is 50.2%. Literacy rate of the block is 57.93% which is comparatively better than Kumbhalgarh. Like Kumbhalgarh, in Khamnor also, the number of women involved in agriculture is quite higher than the number of men involved in agriculture. Out of the total number people involved in agriculture 62.7% are women and only 37.2% are men. The data for non-agricultural workers shows that out of the total non-agricultural workers, 80.5% is men and only 19.4% is women. The table also shows that in Khamnor, tribal population is 21% of the total population.

The following table provides the demographic profile of the four selected gram panchayats of the two selected blocks.

Table 6.2: Demographic profile of the select Gram Panchayats (2014)

Particulars	Kumbhalgarh		Khamnor	
	Kucholi	Banokda	Semal	Kesuli
General	1836 (45.47%)	2221 (52.24%)	1971 (53.14%)	2706 (58.6%)
SC	182 (4.5%)	262 (6.16%)	630 (16.98%)	363 (7.86%)
ST	2019 (50%)	1768 (41.59%)	1108 (29.87%)	1545 (33.48%)
Total	4037 (100%)	4251 (100%)	3709 (100%)	4614 (100%)
Number of households	908	945	807	996

Source: National Rural Drinking Water Programme, 2014

The table shows that in both the selected panchayats of Kumbhalgarh, the tribal population is very high. Out of the total population of Kucholi, 50% is ST population and 45.47% is general population whereas only 4.5% is SC population. In Banokra Panchayat of Kumbhalgarh, the proportion of ST population is 41.59%, of general population is 52.54% and the SC population is only 6.16%.

In the selected panchayats of Khamnor the population of tribal communities is lower than the selected panchayats in Kumbhalgarh. Out of the total population of Semal, 29.87% is ST population and 53.14% is general population whereas 16.9% is SC population. In Kesuli Panchayat, the proportion of ST population is 33.48%, general population is 58.6% and the SC population is only 7.86%.

The table below provides information on the category of farmers in both the block.

Table 6.3: Information on operational land holdings (2011)

Name of the Block	Operational holding (number and area)											
	Marginal Gen.		Small		Semi Medium		Medium		Large		Total	
	No. of holdings	Area	No. of holdings	Area	No. of holdings	Area	No. of holdings	Area	Number of holdings	Area	Number of holding	Area
Kumbhalgarh	1052 2	406 8.94	4233	599 2.01	3095	863 0.32	1457	844 3.54	221	325 3.90	1952 8	3038 8.71
Khamnor	1382 3	580 3.36	5293	750 4.43	3503	962 4.79	1608	910 1.14	86	572 8.12	2445 0	3776 1.87

Source: Office of Deputy Director Agriculture (Extension), Rajsamand

The table shows that in both the block, out of the total operational holdings, a large number of holdings are marginal. In Kumbhalgarh, 53.8% of the holdings are marginal holdings and only 1.13% is large holding. In Khamnor 56.5% of the holdings are marginal holdings and only 0.35% is large holdings. The table below shows the land use pattern and provision of irrigation in Kumbhalgarh and Khamnor.

Table 6.4: Information on land use pattern and on rain fed and irrigated area in the district Rajsamand (2011) (Area in Ha.)

Name of the block		Kumbhalgarh	Khamnor
Geographical area		77036	79762
Cultivable area		35736	51096
Cultivated area		9244	16126
Cultivable waste area		17469	11646
Fallow land area		441	20
Forest	Reserved area	139.33	0.93
	Open area	4411	2895
Area of Pasture land		12184	8594
Area of Land put to non-agriculture use		1954	6333
Barren & uncultivable land area		7184	10046

(waste land)			
Rain fed area		7857.4 (85%)	14513.4 (90%)
Irrigated area (source wise)	Major	0	0
	Medium	0	3255.06
	Minor	875.28	2505.26
No. of Wells / Bore wells		188	1323

Source: Office of Deputy Director Agriculture (Extension), Rajsamand

The above table shows that out of the total geographical area of Kumbhalgarh, 46.4% is cultivable area and in Khamnor 64% of the total geographical area is cultivable. Out of the cultivable land only 25.8% is cultivated in Kumbhalgarh and only 31.56 % is cultivated in Khamnor. The table also shows that the proportion of land area dependent on rain for irrigation is very high in both the blocks. In Kumbhalgarh 85% of the cultivated land is rain fed and in Khamnor 90% of the cultivated land is rain fed. There are only 188 wells/ bore wells in Kumbhalgarh and 1323 wells/bore wells in Khamnor which is 1135 more than Kumbhalgarh.

According to the BDO of Kumbhalgarh told that the Block office does not have adequate staff due to which implementation of various schemes at the block level is not effective. Apart from this, interference of politically influential people, poor road connectivity, insufficient transportation and lack of awareness among the people are biggest challenges faced during implementation of the government schemes.

6.2 Basic Profile of the respondents:

Primary data collection included survey using questionnaire and focused group discussions along with observing the study area and photographs. As discussed earlier the size of the holdings are very small and due to lack of irrigation and other infrastructure facilities, many women farmers are involved subsistence farming. The following table presents the basic profile of the respondents from Kumbhalgarh and Khamnor.

Table 6.5: Basic profile of the respondents

Particulars		Kumbhalgarh	Khamnor
Social Category	SC	15	21
	ST	87	80
	OBC	17	20
	General	80	80
Economic Category	APL	105	95
	BPL	94	90

	State BPL	0	6
	Antodya	0	10
Old (55 and more)		35	45
Differently abled		2	1
Marital Status	Married	167	177
	Widowed	29	23
	Divorced	0	1
	Unmarried	3	0
Head of the household		15	16
Member of SHGs		20	23
Have Voter ID Card		199	201
Have Aadhar Card		199	201
Have Rshan Card		199	201
NREGA Job Card		138	139

Source: BARC survey, 2015

As seen in the above table, out of the total respondents, 40% (160 women) are from General Castes, 41.75% (161 women) from ST, 9% (36 women) from SC and 9.25% (37 women) from



A women working on her family farm, Khmanor (Picture Credit: Barkha Mathur, BARC)

OBC. No women famers from minority communities were found in the villages visited for the study. In Kumbhalgarh and Khamnor, respondents from general and tribal communities are maximum as their proportions in the total population of these

two blocks are also higher. In

Kumbhalgarh, out of 200 respondents, 87 are from tribal communities, 80 are from general category and the numbers of respondents from SC and OBC communities are 15 and 17 respectively. In Khamnor, out of 200 respondents, 80 are from tribal communities, 80 from general category and rest of them are from SC and OBC.

Looking at the economic status, it was found that out of the total women farmers and farm workers interviewed, 50% (200 women) are APL, 46% (184 women) are BPL, 1.5% (6 women) are State BPL and 2.5% (10 women) are Antodya. The table also shows that out of the total respondents, 20% (80 women) are old women (55 years and above) and 3 women are differently abled. Total number of married respondents is 344 i.e. 84% of the total respondents. 52 respondents i.e. 13% of the total respondents are widowed, three unmarried and one divorced. Of the total respondents, 31 respondents which form 7.75% of the total respondents i.e. 15 from Kumbhalgarh and 16 from Khamnor are the heads of the household.

When asked about their involvement with some women's self-help groups, the respondents told that there only few women SHGs in their panchayats and only 20 respondents from Kumbhalgarh and 23 from Khamnor are members of some SHG. Some women told that they are associated with various groups run by Seva Mandir Swamseva Sansthan. The above table also shows that all the respondent have Voter ID Card, Aadhar Card and PAN Card. Only 138 respondents in Kumbhalgarh and 139 respondents in Khamnor have NREGA Job Card. The following table tells the panchayats the respondents belong to.

Table 6.6: Panchayat of the respondent in Kumbhalgarh and Khamnor blocks

Category	Kumbhalgarh			Khamnor		
	Kuncholi	Banokra	Total	Kesuli	Semal	Total
SC	9	6	15	8	13	21
ST	43	44	87	43	37	80
OBC	10	7	17	10	10	20
Gen	37	43	80	40	40	80
Total	99	100	199	101	100	201

Source: BARC survey, 2015

In Kumbhalgarh block 199 women farmers and agricultural workers were interviewed, out of them 99 are from Kucholi panchayat and 100 are from Banokra panchayat. In Khamnor block, 201 women farmers and agricultural workers were interviewed, out of them 101 are from Kesuli panchayat and 100 are from Semal panchayat. The following table informs about the villages the respondents are residents of.

Table 6.7: Village of the respondent in Kumbhalgarh

Category	Parmaro ki bhagal (Banokra)	Pasoon (Banokra)	Lakhmavat o ka guda (Banokra)	Banokra (Banokra)	Boyla ka Bhilwar a (kucholi)	Nava Khet (kucholi)	Ghata ki Bhagal (kucholi)	Kesar Mata ka (Kucholi)	Kucholi (Kucholi)

Category	Parmaro ki bhagal (Banokra)	Pasoon (Banokra)	Lakhmavato ka guda (Banokra)	Banokra (Banokra)	Boyla ka Bhilwara (kucholi)	Nava Khet (kucholi)	Ghata ki Bhagal (kucholi)	Kesar Mata ka Bhilwara (Kucholi)	Kucholi (Kucholi)
SC	-	-	6	-	-	-	-	6	3
ST	5	6	12	21		1	27	6	9
OBC	2		1	3			3	6	1
Gen	6	4	10	23	5	7	12	3	10
Total	13	10	29	47	5	8	42	15	20

Source: BARC survey, 2015

From the above table, it can be found that in Kumbhalgarh block nine villages were visited for data collection. Out of the total respondents from Kumbhalgarh block's Banokra Panchayat, 13 are from Village Parmaro ki Bhagal, 10 are from Village Pasoon, 29 are from Village Lakhmavato ka guda and 47 are from Village Banokra. I

n Kucholi panchayat, out of the total respondents, 5 are from Village Boyla ka Bhilwara, 8 are from village Nava Khet, 42 are from Village Ghata ki Bhagal, 15 are from Village Kesar Mata ka Bhilwara and 20 are from Village Kucholi.

Table 6.8: Village of the respondent in Khamnor

Category	Pippalvas (Kesuli)	Puniya Talayi (Kesuli)	Nohra (Kesuli)	Vavdiya ki Factory (Kesuli)	Charbhuj Mandir (Kesuli)	Bahupri (Kesuli)	Falan ki Bhagal (Semal)	Sagrooniya ka guda (Semal)	Meghwal Basti (Semal)	Kesuli	Semal
SC				1				1	12	7	
ST	9	17	8	2	3		9	7	5		16
OBC					3	4	2			3	8
Gen	1		8	4	1	8	23	10		19	7
Total	10	17	16	7	7	12	34	18	17	29	31

Source: BARC survey, 2015

The above table shows that in Khamnor 11 villages were visited for data collection. Out of the total respondents from Kesuli Panchayat of Khamnor Block, 10 are from Village Pippalvas, 17 are from Village Puniya Talayi, 16 are from Village Nohra, 7 are from Village Vavdiya ki Factory, 7 are from Charbhuj Mandir, 12 are from Villare Bahupri, and 29 are from Village Kesuli.

In Semal Panchayat of Khamnor block, 34 respondents are from Village Falan ki Bhagal, 18 are from Village Sabrooniyon ka Guda, 17 are from Village Meghwal ki Basti and 31 are from Village Semal.

6.3 Education:

Most of the women farmers and agricultural workers in both the selected block of Rajsamand are illiterate and only a very few women could study up to senior secondary level. None of the respondents could study higher than sr. secondary. The table below gives a picture of the level of education among the women farmers and agricultural labourers in Rajsamand.

Table 6.9: Education level of the respondent

Block	Illiterate	Literate (able to read and write)	Primary	Secondary	Sr. Secondary	University
Kumbhalgarh	147	14	23	13	2	0
Khamnor	140	26	30	4	3	0
Total	285	40	53	17	5	0

Source: BARC survey, 2015

The above table shows that out of the total respondents, 71.25% are illiterate, 10% only know how to read and write, only 13.25% have received primary education, only 4.25% have received secondary education and only 5 i.e. 1.25% of the total respondents have gone up to senior secondary level. However, none of the respondents could go up to college/ university level.

Hence, it can be seen that level of education is very low among women farmers and agricultural workers and a large percentage of them cannot even write their names. Lack of education is one of the root causes of the misery they are facing. This makes all the paper work relating to the land, buying of inputs for farming and selling the produce in the market very difficult. Sometimes, the elder sibling is required to look after the younger ones

Box 6.1. Case: Education: an unfulfilled dream

Gulabi Bai, 34 years, is ward panch in Puniya Talayi village of Khamnor. She is a farmer and her husband is a school teacher. She has been working in farms since her childhood and even though she liked going to school and was a good student, she could not study after class V. Education was not given any importance at her parents' home and she was married off when she was only 17 years old. After marriages she got very busy in taking care of her husband's family, pet animal and the farmland. She told that after becoming a ward panch, most of the time she is dependent on her husband for taking decisions and understanding the document sent from Panchayat Samiti.

when the parents are working and so they are deprived of education. Many respondents told that they would like to see their kids studying well but the public schools in their villages do not have proper infrastructure. Even Aganganbadi centres are poorly maintained and seem unfit for kids.

During the data collection it was also found that none of the respondent had received any kind of training or demonstration from the Department of Agriculture, GoR. Due to lack of training they are not aware of the modern techniques which can help in increasing the yield. Also, none of them have received any minikit even though the GoR says that distribution of minikits is their biggest project which is 100% focusing on women farmers. All the women farmers told that they learnt about farming from their families while working on farms with their parents.

6.4 Land Ownership and Financial Independence:

Ownership, access and control over assets by women are vital to their empowerment. Land is considered to be one of the most important assets because of its higher economic value and its bearing on social security especially for women. The following table gives information about the area of land on which the respondents are cultivating.

Table 6.10: Area of land the respondents have for farming

Block	Landless Labourer	0-0.5 Ha.	0.5-1 Ha.	1-1.5 Ha.	1.5-2 Ha.
Kumbhalgarh	13	130	51	5	1
Khamnor	9	150	41	0	0
Total	22	280	92	5	1

Source: BARC survey, 2015

The above table shows that out of all the respondents, 22 women i.e. 5.5% are landless, 372 women i.e. 93% are marginal farmers with land from 0-1. Hectares and only 6 women i.e. 1.5% total respondents are small farmers with land from 1.0 to 2.0 hectares. This sample shows that maximum women in the two selected blocks are either marginal farmers or small farmers.

Women can own land through direct government transfer, purchase or lease from the market and through inheritance. The director-RKVY, Department of Agriculture, GoR told that in most of the land and house building schemes of the government, most of the time identity of woman as an individual is incorporated within the identity of the husband or the definition of a household/family. Therefore, in Kumbhalgarh and Khamnor, reaching the women including single women with land and house building entitlements was very challenging. The following table gives information about land ownership among the respondents. The present study enquired about the farm land and other immovable assets that the respondents or their

families own. However, all the women told that the land on which they carry farming activities and the house they live-in are the only immovable asset they have.

Table 6.11: Land Ownership

Block	Partially own land	Fully own land	Fully own the house	Husband	Father-in-law	Father
Kumbhalgarh	6	2	2	70	105	3
Khamnor	5	1	1	85	102	0
Total	11	3	3	155	207	3

Source: BARC survey, 2015

The above table shows that the out of total number of respondents, 0.75% i.e. 3 women said that the land they work on is in their name and they possess full ownership of these assets. However, 2.75% i.e. 11 women said they own only some proportion of the land they do farming on. 155 (38.75%) said their husbands own the land, 207 (51.75%) said their father-in-law owns the lands and 3 said that their father own the land they does the farming on. In most of the cases transfer of ownership from father-in-law to the husband was pending.

While talking about their land, the respondents also told that as their own/ family land insufficient, they take some land on lease. Out of the total number of respondents, 159 (39.75%) said that they have taken some land on lease for farming. Out of them, 93 are from Kumbhalgarh and 66 are from Khamnor. However, only 8 women said they have given some of their land on lease.

While enquiring about financial independence, it was found that 129 women on Kumbhalgarh and 73 women in Khamnor, has Bhamasha card for which having a bank account is compulsory in order to get subsidies and pensions from the State government. Apart from this, the respondents do not have any kind of financial independence. Earning from farming and animal husbandry is very little and most of the time claimed by the men of the household.

6.5 Irrigation Facilities:

Around 90% of farming in Kumbhalgarh and Khamnor area is dependent on rains and there is a complete lack of irrigation facilities in the farms of these two blocks. Most women said that only 1/4th of their land is irrigated by the local well/ pond/ river through tube wells and motors, the other said there is no irrigation mode available. The farmers usually make route for water and direct it from the source which most of the times is almost 2-3 kilo meters away to the farm by preparing small streams. But as these streams are made in the soil, most of the water gets percolated in the soil and does not reach the farm. The table below show the medium of irrigation used by the respondents in the selected blocks.

Table 6.12: Medium of irrigation used by the respondents

Block	Rain	Bring an Engine on rent	Tube well
Kumbhalgarh	87	89	26
Khamor	69	121	11
Total	156	210	37

Source: BARC survey, 2015

The above table shows that 39% of the respondents are totally dependent upon rain fall for agriculture. Out of the total respondents, 52.5% of the respondents told that for irrigation they have to bring a motor engine on rent to pull water from the nearest wells in to their farm land but they have to pay at least Rs. 60 per hour for renting a motor/engine for irrigation in the farm. However, only 9% of the total respondents have reported to have tube well for irrigating.

6.6 Information about work:

As we have seen earlier most of the respondents were marginal and small farmers. Due to this, many women work as agricultural labourer after working on their family farm. During the survey, 207 out of 400 respondents told that they work in other's farm after completing work in their own farm for some more income. They told that most of the time they are not paid in cash but are promised a proportion of the yield of that season. But some also told that they receive Rs. 150- 200 per day for working as labourer in other's farms. The table below gives information about the number of respondents working as labourer, working on their family farm and on other's farm, and work only on family farm.

Table 6.13: Number of Respondents as farmers and labourers

Block	Landless labourers	Work as labourer on others farm after working on her family farm	Work only on family farm	Do not work on farm anymore
Kumbhalgarh	19	101	77	4
Khamor	20	106	71	2
Total	39	207	148	6

Source: BARC survey, 2015

The above table shows that 9.75% of the total respondents are working as landless labourers while 51.75% of the respondents said they work on their family farm as well as on other people's farm as hired help in order to earn more. However, only 37% of the total respondents told that they do not work as labourers and are only involved in farming activities in their own farm. The table below tells the number of year the respondents have been involved in agriculture related activities.

Table 6.14: Years of being engaged in agriculture

Block	2-5 years	5-10 years	10-15 years	15-20 years	More than 20 years
Kumbhalgarh	14	22	32	70	61
Khamor	14	29	40	57	61
Total	28	51	72	127	122

Source: BARC survey, 2015

Out of the total number of respondents have been working on farms since more than 15 years. 31.75% respondents said they have been working on farms since last 15-20 years where as almost 30% said they have more than 20 years of experience of agricultural activities. Just 7% told they are new at farming with experience of only 2-5 years, 12.75% said, they have been working on farms since last 5-10 years and 18% said they have been involved in agricultural activities since last 15-20 years. The table below enumerates the number of months in a year in which the respondents are involved in agricultural activities.

Table 6.15: Number of months during the respondents are engaged in farming

Block	6 months	9 months	12 months
Kumbhalgarh	81	72	46
Khamor	102	65	34
Total	183	137	80

Source: BARC survey, 2015

The above table tells that 183 respondents i.e. 52.25% of the total respondents do farming for 6 months in a year, 137 (34.25%) do farming for 9 months in a year and rest are involved in farming the whole year. The table below gives the number of hours in a day that the respondents spend in agricultural activities.

Table 6.16: Hours of working

Block	<6 hours	6-8 hours	8-10 hours
Kumbhalgarh	99	78	20
Khamor	107	62	32
Total	206	140	52

Source: BARC survey, 2015

The above table shows that 206 (51.5%) women work for almost 6 hour per day on the farm, 140 (35%) work for almost 6-8 hours per day on the farms and 52 (13%) work for almost 10 hours per day on the farm. They said that during the sowing season and in the cutting season they work for more than 13-14 hours in a day.

While trying to find the incidences of child labour, the study revealed that children are not involved in farming activities but they do accompany their mothers to the farm and sometimes even help them out in their activities.

The activities related to farming in which the respondents are involved in include preparing the land for farming, helping men in ploughing, mowing, levelling, digging, sowing, weeding, irrigating, bringing water through engine for irrigation, cutting, winnowing, threshing, sieving, fertilizer application, collecting fodder and wood. They told that ploughing is done only by men and men are mainly involved in only the

Box 6.2: Domestic Violence

While enquiring about domestic violence, it was found that women were hesitating in answering this question and only 32 women out of 400 revealed that they face abuses from their husband and his family. However, most women said that they are always over-burdened with work because of which they are always tired and are unable to take care of themselves.



Farmers levelling and preparing their field for sowing for Rabi season, Kumbhalgarh (Picture Credit: Barkha Mathur. BARC)

ploughing part of agriculture in these two blocks. The respondents also told that most of their time and efforts go in weeding. This makes them prone to back aches as they have to work at plucking the weeds out

either by bare hands or using traditional tools continuously for hours.

Besides farming, women perform their productive roles that includes taking care of various needs of the family and also take up multiple roles and responsibilities in a the community. Out of the total respondents, 243 women said they do the household work, take care of the animals and bring wood for the kitchen besides farming activities and 162 women said they are also engaged as construction labour besides the household work and farming.

The tools used by the respondents for agriculture include Plough (hal), Mower, Leveller, Harrow (Dantli), Kudali, Spade (Fafda), Sickle (darati), Axe (kulhaddi/ karaadi) and Winnower.

6.7 Activity Profile of women farmers (using Harvard Framework of GRB):

An activity profile was prepared by conducting a focused group discussion with eight women in the village Puniya Talayi of Khamnor Block of Rajsamand. Out of the eight respondents, five were farmers and three farm labourers in the age group 25-45. For preparing the activity profile of women engaged in farming in order to understand strategic needs of the women, Harvard Framework of Gender Analysis was used. The table below provides the activity profile of the women engaged in farming during a sowing season for Maize crop i.e. Kharif season. It gives a picture of the productive, reproductive and community roles played by the women farmers and agricultural workers. The men are usually working as construction labourers or as waiters in road-side hotels in the city. The table shows the kind work done by women/ girls and the kind of work done by men/boys and both during one farming season.

Table 6.17: Activity Profile of the respondents

Activities	Time Spent on the task	Women/ Girls	Men/ Boys
Agriculture:			
• Buying inputs			M
• Ploughing the field	8-9 hours		M
• Assisting men in ploughing	8-9 hours	F	
• Sowing maize seeds (one by one)	8-9 hours	F	
• Digging after 15 days	2-5days	F	M
• manure application (after 5 days of digging)	8-9 hours	F	
• weeding	5-6 Days	F	
• cutting	2-3 Days	F	
• threshing	10-12 Days	F	

• winnowing	4-5 Days	F	
• Market	1 Day	F	M
• Taking care of other plants at home/ field	Everyday	F	
Animal Husbandry:			
• Feeding/ Grazing	Everyday	F	
• Cleaning	Everyday	F	
• Milking	Everyday	F	M
• Health	Everyday	F	
Household Chores:			
• Getting woods for fuel	Every 2 nd Day	F	
• Food	Everyday	F	
• Water from nearby hand pump	Everyday	F	
• Cleaning the house	Everyday	F	
• Child care	Everyday	F	
• Care of the in-laws	Everyday	F	
• Clothes cleaning	Everyday	F	
• Preparing for festivals	Sometimes	F	M
• Attending guests	Sometimes	F	
• Participating in Panchayat Meetings	Sometimes		M
• Participating in village meetings	Sometimes	F	M
• Participating in organizing village fairs	Sometimes		M

• Attending village fairs	Sometimes	F	M
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Source: BARC survey, 2015

As seen in the above table, most of the work related to agriculture, animal husbandry and household are done by the women. While analysing the activity profile one can see that men does the ploughing and digging of the farm and takes care of buying of the inputs and selling of the produce. This indicates that activities that involve making important decisions like selecting the crop for farming, kinds of seeds, fertilizers, tools etc. to be bought, selling the produce, and activities involving muscular strength like ploughing and digging, are done by men. However, the activities that require continuous labour of hours are all mostly done women. This is mainly because of the patriarchal set up of the society and also due to lack of technical know-how on the part of women which again can be because of the patriarchal set up of the society. The table below provides a picture of access, control and ownership of resources between males and females as told by the respondents.

Table 6.18: Access, control and ownership of resources

Resources/ Benefits	Access		Control		Ownership	
	Female	Male	Female	Male	Female	Male
Resources:						
• Land	Yes	Yes		Yes		Yes
• Equipment	Yes	Yes	Yes	Yes		Yes
• Labour	Yes	Yes		Yes		Yes
• Cash	Yes	Yes		Yes		Yes
• Education	Yes	Yes	Yes	Yes		
Benefits:						
• Income				Yes		
• Assets	Yes	Yes		Yes		Yes
• Political Power		Yes		Yes		

Source: BARC survey, 2015

The table above reveals that women have access to all the resources but the control and ownership of most of the resources are with men. Looking at the benefits, one can see that women have no access, control and ownership of benefits like income and political power.

6.8 Last season's yield:

Many women farmers said that their farms are so small that they are never able to sell their farm products in the market. In fact, sometimes, the grains produce in not enough for the family too. Out of the total number of respondents, 14 women said that they were able to sell the farm yield, 262 women said that the farm is only able to produce enough for the household consumption and 124 women said that the produce is not enough for household consumption.

Crops produced by the respondents: maize, wheat, mustard, gram, ground nuts, sugarcane, lady finger and roses.

6.9 Animal Husbandry:

Most of the female farmers and agricultural workers own livestock like goats, buffalos, cows etc. which help them in increasing the household income and also provide dairy products for home. But due to lack of space in their house and due to lack of medical services, they are not able to take proper care of their animals.

Table 6.19: Livestock owned by the respondents

Block	No	Goats	Buffaloes	Cows	Ox
Kumbhalgarh	13	95	46	52	7
Khamor	16	108	60	44	13
Total	29	203	106	96	20

Source: BARC survey, 2015

The above table tells that most women farmers and agricultural labourers in the selected blocks of Rajsamand have goats and buffaloes. Out of the total respondents, 203 said they have goats, 106 said they cows, 20 women said they have ox while 29 said they have no animals at all. Most of the respondents told that these animals are used mainly for milk and other dairy products which they use at home and also sell it to others. The male goats are usually sold for good amount to the breeders and the butchers. The other major uses of these animals include using cow-dung as fuel for cooking, ploughing the fields with the help of ox, etc.

The respondents told that there are no medical services for animals in their panchayats and this forces them to go to the city in case of emergencies and as the roads are in very poor condition and transportation is inadequate, the difficulty in taking their animals to veterinary medical facilities increases. Out of the total respondents only 141 women said the department of animal husbandry does the vaccination and provide required medical help for the animals.

6.10 Social Security:

As discussed earlier, all the respondents are either marginal farmers or small farmers. A large number of them have been working on others farms as agricultural labourers due to lack of adequate land and resources. Due to informal nature of their employment, most of them are far from the social security schemes of the government. Although all the respondents have Voter ID Cards only a few of them have a PAN card. There is no provision for Provision Funds or Pension Funds for them.

While talking about the old age pension received by the senior respondents from the State Government, they told that they get paid on time but the pension amount which is Rs.500 per month is very less and does not help them at all. They said that the pension amount should be increased to at least Rs. 1000 per month.

On enquiring about insurance, it was found that only 13 respondents from Kumbhalgarh and 10 respondents from Khamnor said they have some medical insurance policy. However, they were not aware of the details and told that their husbands are taking care of it. Only 9 of them said that they are covered under their husband's insurance.

6.11 Loans:

The respondents from both the districts reported to have taken loans at some point or the other but 13 women from Kumbhalgarh and 14 from Khamnor said they are currently under debt. Marriage of the daughter was found to be the biggest reason for taking loans in Khamnor Block and buying new seeds and tools was the biggest reason for taking loans in Kumbhalgarh block. The following table provides information about the reasons for taking loans.

Table 20: Reasons for taking loans

Block	Sickness	Marriage of the daughter	To buy a new motor for the farm	To buy a motor bike	House Construction	To buy new seeds and tools
Kumbhalgarh	2	0	1	1	3	6
Khamnor	2	7	2	1	0	2
Total	4	7	3	2	3	8

Source: BARC survey, 2015

The table shows that out of the total respondent 27 took loan last year and out of them 4 for sickness, 7 for marriage of a daughter, 3 to buy a motor for the farm, 2 for buying a bike, 3 for house construction and 8 for seeds and tools for farm. The study found that as the ability to procure loan is directly related to the ability to pay it back, most of the women could not take

loan from the banks. Mostly they took loan from local money lenders and relatives and only 4 took loan from the bank. Out of 27 only 5 took loans themselves, the husband of others took loan. They did not face any problem in taking loan.

6.12 Participation in the planning process at the village level:

Women play an important role as key actors and decision makers in the development process. The 73rd and 74th Constitutional amendments have made way for a large number of women to be elected to rural and urban local bodies. Presently, in Rajasthan, fifty percent of the seats in such bodies are reserved for women. However, elected women representatives in public offices face a number of barriers such as low literacy, poor preparatory training, discriminatory attitudes and practices which impede their effective performance. Most of the respondents said that they have never participated in the Gram Sabhas. They don't even get to know the date and time of the Gram Sabhas. Therefore, it is clear that there is absolutely no participation of women in the political and development process at the local level. Out of 400 respondents, only 130 women have participated in a GS. Only 12 women were holding an office in the



Women in the farm after maize cutting (Picture Credit: Barkha Mathur, BARC)

panchayat during the time of the data collection. Out of this 10 were ward panch and 2 were sarpanch. No one was aware about the plans made for agriculture in Gram Sabha. Only 3 women have ever participated in the planning process of the village. Only 13 women have ever received training from the department of agriculture.

The respondents who have ever participated in a Gram Sabha told that most of the time people keep talking among themselves and the issues discussed in the GS are usually revolving around NREGA, pensions, road construction, anganbadi centre, some new schemes, janni surakhsha and drinking water. Some of the issues that are usually discussed in GS about agriculture include construction of boundary wall, crop failure, seed distribution, and irrigation. No discussion related to the issues of women farmers take place in GS. Women are mostly quiet and do not participate actively in the planning process of the panchayat. They told that never before have they ever been asked about the problems they face in agriculture activities or in day-to-day life.

6.13 Problems faced by the respondents related to farming:

Some of the major problems related to agriculture that are faced by the respondents found during the study are as follows:

- Nil gai and monkeys: One of the biggest problems faced by the women farmers are of uncontrollable nil gai (blue bulls/ Jungle cows). No matter what kind of fence they use to protect their farms, the nil gai will come and destroy their farm. The only solution they have been able to find is guarding the farms at night but many of them said it is not possible for them or their family member to keep a watch every night. Apart from Nil gai, monkeys eat the grains and harm the crops.
- Crop Diseases: Even after using pesticides, there are many chances of the crops getting infected and sometimes the whole crops get destroyed. None of them were able to recognize the cause of such crop diseases.
- Lack of Irrigation facilities: Due to lack of irrigation facilities, most of the crops are rain fed. The productivity of crops is adversely affected due to erratic rain fall. Also, Low rainfall in Kharif adversely affects the area of Rabi crops because of recharge of wells, & tube wells depended rainfall. The wells from which they pull water with the help of motors are quite far from the field because of which a lot of energy and money is spent but as most of the water is lost during the process, inadequate amount of water reaches the crop.

- Inadequate land: Most farmers in Rajsamand are Marginal and small. This makes using modern techniques of farming unprofitable. Production is low and not enough for household consumption.
- Lack of proper tools: Many women reported that the tools they use in farming are very old and not good in quality but the financial condition of the family does not allow purchase of the new tools.
- No power at the farm: There is no electric power at their farm. This makes irrigation even more difficult for them. Working at night and protecting crops from wild animals would be easier if there would be electricity at the farm.
- Nuisances created by the mines: There are mines close by due to which the water level has gone extremely down. The water is usually contaminated due to faulty mining practices. Some women also reported that sometimes they find their farms covered with white powder generated by the stone crushing and drilling in the mines.
- Leopards: The leopards living in the forests on the hills keep coming to the villages and harm the animals. Most of the time they take away lambs and are quite dangerous for the humans too.
- No medical care centers for animals: There are no veterinary clinics in the village and as men are mostly away during the day, women find it very difficult to provide proper medical help to the animals in case of emergency.
- No agriculture extension worker: Many respondents told that 2-3 years ago agriculture extension workers called as “sathi ji” in local language used to visit the villages and their farms but nobody has visited in last 2-3 years.
- Lack of information about markets: The respondents do not have proper information about the market. Most of the time the yield is not enough to be sold but sometimes when there is surplus yield, the respondents sell but malpractices like wrong weights or stones used as weights by the middlemen to whom they try to sell their farm produce.

6.14 Problems related to the facilities in the village:

Some of the major problems related to the facilities in the village as reported by the respondents are as follows:

- Lack of electricity facility: The women farmers have to work with the help of kerosene lamps and torches if they have to work after sunset as there is no adequate electricity facility even after many complaints made to the Vidyut Vibhag.
- Inadequate drinking water: Water is a big issue in both blocks. Water for drinking purposes is not available and has to be fetched from the wells. Most of the time women only have to take up the responsibility of collecting water for various purposes for the family.
- No toilets: There are no toilets in the houses of the respondents nor are there any public toilets in the village.
- Poor Roads and lack of adequate transportation facilities: Almost every respondent expressed said that the roads in their villages are in extremely poor conditions. Due to bad roads, public transportation is found after walking for at least 5-6 km. This is one of the biggest reasons women are mostly confined to their villages and hardly go to the cities and so all kinds of better quality facilities are far from their reach.
- Lack of Medical facilities: There is no government hospitals nearby and the women are mostly dependent on home remedies. The local doctor does not sit regularly.
- Poor infrastructure of the public schools: The respondents told that the schools in the villages are not in proper conditions. There are only one or sometimes two teachers only. The Mid-day meal is given every day but not according to the menu. Mostly only 'khichdi' is provided. Some of the anganbadi centres are in bad state that the parents do not want to send their kid to those anaganbadi centres.
- Markets are far: The vegetable mandies and markets in general are usually far from the place of residence of the respondents.
- Corruption at the PDS shops: The respondent told that most of the time they are forced to buy food products from market as the PDS shopkeeper tell them that the subsidies ration is finished and force them to buy as market price.
- Corruption in Indra Awas Yojna: Some of the applicant respondents reported that even after reminding again and again since so many months, they are not yet provided with home.

- NREGA: The respondents told that at most places work under NREGA is not going on since last 2-3 years. When they go and ask for work, they sent back with negative reply and no unemployment pension is given to them. Some of the respondents told that they do not get paid on time for the work they do under NREGA.
- Panchayat office is far: The respondents told that as panchayat office is very far, they are unable to participate in many meetings and also not able to able to avail benefits of many schemes due as the application process for many schemes start at the panchayat office and information about all the schemes are also at the panchayat office.

VII. Recommendations

The study finds that allocating funds through budgets alone is not adequate for better outputs and outcomes in the agriculture and allied sectors. Proper monitoring of the way these funds are put to use in production and in the welfare of the people involved in agriculture and allied sectors is very important to achieve goals and objectives. Since the development of agricultural sector is primarily of State Governments, following are the recommendations to the State Government based on the findings of the study to promote gender equality in agriculture and allied sectors:

- The study suggests that women are major contributors in involved in agriculture and allied activities and so spending a certain percentage of budgets for agriculture on the welfare of women farmers should be identified by the guidelines as an additional condition for the State to become eligible for funding under RKVY.
- Women must be recognized as farmers in their own right.
- There is a need of inculcating sense of ownership and responsibility among the implementing agencies for their decisions, actions and performance. A non-discriminatory institutional framework is to be evolved across departments ensuring gender purposive planning, budgeting, implementation, evaluation and monitoring. Undertake Gender sensitization of all elected representatives and members of decision making bodies.
- All agencies involved in the implementation of various programmes and schemes related to agriculture must take up gender budgeting and must undertake gender audits as an integral strategy to evaluate the impact and outcomes of various interventions.
- Convergence and coordination amongst various departments is very important in order to address the range of intersecting issues and to bring about holistic development of women involved in farming.
- Enable women and women's group to claim their rights over assets, land and housing through legislations and administrative measures. Ensure inheritance rights of women and reflect those inherited rights in the land records. Embark on programmes for different stakeholders on land literacy including entitlements and property rights of women.
- Assurance and stability has to be increased in order to protect women farmer welfare. This can be done by providing basic remuneration to them for producing food for the state. The margin of profit in agriculture should be made equivalent to the manufacturing sector. At the village level, there should be government procurement provision at the remunerative price i.e. cost + margin of profit.

- Developing a cadre of women resource persons in agriculture, animal husbandry, market linkages, and so forth and financial and market literacy among women. Apart from this, promotion and strengthening of community based approaches and capacity building for farmer mobilization and resource use.
- Facilitate access to resources such as technology, finance, capacity building, market linkage and extension services for livelihood promotion. Promote an enabling environment for women to have easy, simple, informed and safe access to financial literacy and services.
- MGNREGA has to function more effectively.
- There has to be improvement in the bargaining position, alternative sources of employment should be created, protection of women and child labourers must be ensured, public works programs should be for longer period in the year.
- The investments in research/ infrastructure/ extension facilities should be at least doubled and emphasis should be given to gender friendly agricultural tools and techniques.
- For strengthening the Gram Sabhas, the local bodies should be substantially strengthened with devolution of more power and funds. Gram Sabhas can be used as the platform for ensuring addressing of their problem in the planning process. Women groups must be encouraged to participate actively in the planning at panchayat level. Promote participation of women in Gram Sabhas and make issues relating to girls and women as agenda in the gram sabhas.
- Improving road connectivity through farm road construction calls for urgent attention and providing better transportation facilities.
- Improving irrigation by building mini dams near the farming areas Providing improved and strong fencing to protect the crops from nil gai and monkeys.
- Looking at the primary data there is a need of vigorous activation of extension activities supplemented with the infrastructure facilities to farmers.
- For women empowerment in Rajsamand, there should be formation of common interest groups and the strategy should be awareness camps exploring marketing opportunities.
- There should be a dedicated planning, monitoring and evaluation mechanism at the State Level.
- The Mismatch between the budget proposal and allocation sanctioned should be minimum.

- C-SAP should state physical targets for various sub-sectors under agriculture and allied sectors. It should elaborate on the methodology used for preparation of the SAP including integration of C-DAPs.
- Spatial –allocation of funds should conform to equitable and optimal distribution of resources.
- Gender disaggregated benefit incidence analysis can be a useful tool for analyzing the distributional impacts of public expenditure on gender.
- The MIS
- The State should develop livestock development plan by agro –climatic zones.
- Fodder and cattle feed should be provided to the farmers at reasonable price.

VIII. Conclusion

Performance of agriculture has been a subject of serious concern for the Central and the State Governments in the recent years. Efforts are being made to increase the much needed public expenditure on agriculture and allied sectors at the levels of planning and implementation. RKVY is one such effort that the Union government launched in the year 2007 with the aim of increasing and maintain the growth of agriculture at 4% and increasing public investment in agriculture. Up till 2014-15, RKVY was 100% funded by the Union Government and the planning for RKVY was entirely on the States. However after the recommendations of the FFC, RKVY is also being funded by the State Governments together with the Union Government.

Even though at national level, RKVY has been able to achieve 4% growth but in Rajasthan, RKVY has not performed well. The study indicates that there is still a need for strengthening planning at the grass root level. One of the basic objectives of RKVY is to incentivize investments in agriculture and allied sectors by linking State wise allocation of RKVY funds to the increased share of State Plan Expenditure in agriculture and allied sectors. However, the study shows that there has been an increase and then a decrease in the share of State's expenditure in agriculture and allied sectors. Even though bottom-up approach is the basic thrust governing RKVY, the study reveals that bottom-up approach need to be strengthened in agriculture planning in Rajasthan.

The present study has once again reconfirmed that women are integral to the growth of agriculture. An analysis of women's involvement in agriculture and allied sector and the policies and budget allocation of the State government can tell us a great deal about the outcomes for women and how even after contributing a lot their well-being is neglected. Their work is low-end, low paying and driven by distress. Rural women are the major contributors in agriculture and its allied fields. Her work ranges from crop production, livestock production to cottage industry. From household and family maintenance activities, to transporting water, fuel and fodder. Despite such a huge involvement, her role and dignity has yet not been recognized.

Apart from inherited social disadvantages in a patriarchal structure, the other important contributory factors are a limited access to assets and other resources, and low level of education and skills. Due to low female literacy and reasons of status, non-farm employment opportunities are not readily available to women in Rajasthan. They hardly own the agricultural land but they work on that land to do agriculture more than men. Poorer women who lack land but have some degree of mobility are concentrated in agricultural wage work which pays most poorly. Most of this work goes unrecorded in census and other statistical processes. Due to lack of data on women work in agriculture as well as the data on budgetary allocation for women farmers and farm workers, the situation becomes even further complicated.

Gender Mainstreaming and empowerment requires resources, social capital and change in the decision making process. Government budget is the most critical source for enabling these requirements as budget is an instrument that presents the intentions of the State in achieving their growth objectives. Though the Rajasthan government has started producing a gender budget statement (GBS) for a couple of years, the data provided in the statement is hardly of any use as it does not provide information about the Actual Expenditure done and so the complete picture of the status of gender budgeting in Rajasthan is not clear. The present study stands for gender focused approach in agriculture planning and budgeting.

In order to find the status of women farmers and agricultural labourers and to understand their relation with agriculture growth and planning and budgeting in the agriculture sector, a micro study was conducted in the district of Rajsamand in Rajasthan with a sample of 400 women farmers and agricultural workers. Rajsamand is a tribal dominated area. The study finds that around 84% of the population of Rajsamand lives in the rural areas where agriculture is the largest source of livelihood and 49.2% of the total cultivators in Rajsamand are women and 50.24% men. Out of the total agricultural labourers 62.2% are women and this is even higher than the proportion of women in the total agricultural labourers in Rajasthan which is 56.8% and only 36.7% of the total agricultural labourers in Rajsamand are men.

The analysis of the findings from the field shows that farming in Rajsamand is dependent on rainfall. It is hugely neglected as far as extension services are concerned. Implementation of the scheme under agriculture and allied sector is suffering a lot due to lack of staff members. The survey revealed that size of the holdings of the respondents are very small and due to lack of irrigation and other infrastructure facilities, many women farmers are involved subsistence farming. It was found that out of the total women farmers and farm workers interviewed, 50% (200 women) are APL, 46% (184 women) are BPL, 1.5% (6 women) is State BPL and 2.5% (10 women) are Antodya. Most of the women farmers and agricultural workers in both the selected block of Rajsamand are illiterate and only a very few women could study up to senior secondary level. Out of all the respondents, 22 women i.e. 5.5% are landless, 372 women i.e. 93% are marginal farmers with land from 0-1. Hectares and only 6 women i.e. 1.5% total respondents are small farmers with land from 1.0 to 2.0 hectares.

During the survey, 207 out of 400 respondents told that they work in other's farm after completing work in their own farm for some more income. 9.75% of the total respondents are working as landless labourers while 51.75% of the respondents said they work on their family farm as well as on other people's farm as hired help in order to earn more. The study shows that men are mostly involved in ploughing and digging the land and rest of the work is done by women still the control over the resources and benefits are laying with men. Many women farmers said that their farms are so small that they are never able to sell their farm products in

the market. Most of the female farmers and agricultural workers own livestock like goats, buffalos, cows etc. which help them in increasing the household income and also provide dairy products for home. But due to lack of space in their house and due to lack of medical services, they are not able to take proper care of their animals.

The women employed in agriculture do not have any social security provisions. Only a few women have insurance and some are covered under their husband's medical insurance. In Rajsamand, small and marginal farmers usually take loans from local money lenders or some relatives and avoid taking loans from bank due to lack of collaterals. Women in the villages of Rajsamand do not participate in Gram Sabhas and quite away from planning and budgeting process for agriculture or any other sectors. A few who ever participated in GS told that not much importance is given to agriculture in GS and issues related to women are never on the agenda. Some of the problems faced by women farmers and agricultural workers identified by the study are lack of irrigation facilities, lack of adequate land, crop diseases, crops harmed by nil gai and monkeys, lack of proper tools for farming, lack of electricity, lack of awareness and lack of extension services. The study reiterates that there is a need of inculcating gender consciousness in the policy makers and implementers especially in a sector as crucial as agriculture which has women employed in large number.

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Annexures

Annexure 1: Questionnaire for women farmers and farm workers

Annexure 2:

Focus Group Discussion 1

Location: Kesuli, Khamnor

No. of Participants: 16

Women: 20

Men: 8

Age Group: 21- 50 years

Main Occupation of the participants: Farming

Discussion:

- **Problems related to farming:** No irrigation facility from government. There is no electric power supply in the area since last 4 months due to which the participants are unable to use rented motors for bringing water to their farms. Another biggest problem they face is that animals like nilgai (blue bull) and monkey destroy the fields
- **NREGA:** According to the participants there is no work going on under NREGA in this block since last two and a half years. When people go and ask for work, they are not responded properly and are always asked to come back after some days. No unemployment allowance provided to the people.
- **Awareness about RKVY and other agriculture related schemes:** Only Rai Singh, husband of the Ward Panch who is a school teacher knew about RKVY and Kisan Call Centre. All the other participants were illiterate and unaware about any scheme.
- **Pensions:** Most of the participants said that they receive old age/ widow pension on time but Gulabi Devi, 39 years, told that there are some older women who should receive old age pension but their application gets rejected due to discrepancy in the age mentioned in their Voter ID Card. She further explained that as there is no birth certificate or correct record of the birth, they are unable to rectify the age in the voter ID card and this is not letting them benefit from old age pension.
- **Gram Sabha:** Women do not participate in the Gram Sabhas as they are never informed about it. Even men do not participate in every Gram Sabha.
- **Facilities in the village:** The biggest problem the participants face is of bad roads in the village due to which there is no connectivity with other villages and the city which is very problematic especially for those men who travel to the city for work on daily basis. It also discourage women to travel as there are no public transportation available and they are required to walk long distances on foot.

The condition of the public schools is very poor too. In a school where the number of students is 72, there are only two teachers. The fee charged in the private school is high and is also quite far from the residences of the participants. Almost 26 children have dropped out of the school after class 2 and most of them are girls. The condition of the anganbadi centre is very poor. There is no ambulance service for animals in the village.

- **Agriculture Extension Services:** Only few male participants told that they have seen agriculture extension workers whom they call “sathi ji” visit their village almost 2 years ago.



Focus Group Discussion on Issues Related to Farming, Khamnor (Picture Credit: Barkha Mathur)

- **Trainings on agriculture by the government:** None of the participant has ever received any training on agriculture from the government or any NGO. Although, six women said they did receive training on Panchayati Raj and Local Self Governance by Astha, an NGO based in Udaipur.
- **Animal Husbandry:** Moti Kunwar, 48 years, said ,”even after many complaints to the agriculture department, there are no sheds for animals”

- **Domestic Violence:** While discussing about domestic violence, surprisingly, the men themselves told that many women suffer due to domestic violence mainly because of alcoholism which is very common among the men in their villages. However, among women, only one of them accepted that her husband and mother-in-law treat her violently.
- **Major Demands:** The major demand from the women participant was alternative source of income as there is no income from agriculture. The participants demanded better irrigation facilities and afforestation.

Rai Singh said, "there should be a branch of the cooperative committee of the department of agriculture in the panchayat so that they can subsidized fertilizers, seeds and tools without going all the way to the city which takes up their whole day and sometimes even 2-3 days due to red-tapism on the part of the officials."

The participants also demanded that the village registrar of lands (Patwari) should visit the villages from time to time so that people can register their lands without delays and hustles and women especially the widows can also register their land without going through long waiting time.

Both male and female participants emphasized on getting the compensation from the government for the crop destroyed due to untimely rainfalls and hail storms in April and May 2015.

Focus Group Discussion 2

Place: Kuncholi, Kumbhalgarh

No. of Participants: 14

Women: 11

Men: 3

Age Group: 21- 50 years

Main Occupation of the participants: Farming

Discussion:

- Problems related to farming:
- **NREGA:** Women participants said they do not get work under NREGA and in most places like the village Ghata-ki –Bhagal, there is absolutely no work going on under NREGA since last 4-5 years. No unemployment fund provided.
- **Pensions:** All the participants said they receive pensions on time.
- **Gram Sabha:** Only one participant, Gulabi, 24 years attended the one Gram Sabha after becoming the ward panch.
- **Facilities in the village:** The biggest problem in the village is of clean drinking water. Most participants told that bad roads and lack of transportation are making their day-to-day life very difficult. The Ration shops (PDS) do not have enough food grains for all and

most of the participants are forced to buy required things from market. Heera Bai, 50 years, emphasized on the lack of toilets in the village. There is a well in the village but the water level is very low.



Focus Group Discussion on Issues Related to Farming, Kumbhalgarh (Picture Credit: Barkha Mathur)

- **Agriculture Extension Services:** An extension officer visits sometimes but no woman participant has ever received a mini kit from the agriculture extension officer.
- **Trainings on agriculture by the government:** No training received.
- **Animal Husbandry:** There are no veterinary doctors in the village because of which animal care becomes difficult during illness.
- **Domestic Violence:** All the participants denied any incident of domestic violence in the village.
- **Major Demands:** Prakash Kunwar, said, “The widows of the village are not getting benefits of Indra Awas Yojna since the beginning even after many complaints, this matter must be solved by the authorities”
Tulsi Kunwar, 32 years, said, “my husband died in a road accident in 2007. Since then I am facing a lot of problem in feeding my three children. I should get ‘palanhaar’ and the widow pension I receive should be increased to at least Rs. 700.”
Few participants also demanded for timely payment of and increase in the old age pension.

All the participants demanded that the PDS shops must have proper ration and the opening hours should be increased. At present the ration shop is open from 8am to 1 pm, the participants demanded it to be opened till at least 5-6 pm.

Ratan Lal, 52 years, demanded for goats or buffalo from the government as his crop was destroyed due to pests and untimely rain and he is too old to look for alternative means of livelihood.