2.1 Agriculture plays a vital role in the economic development of the State and continues to be the backbone of our economy. In the coming years, agriculture will face many challenges due to the rising population. Demand on natural resources such as land and water resources from other sectors such as industries and urbanization would further pose challenge for agriculture. The scope of increase in arable land and exploitation of additional water resources for irrigation will also decline in future. Hence, there is a greater need for conservation and efficient utilization of natural resources. Agriculture needs intensification of production and improved efficiency in use of resources.

2.2 Agriculture contributes about 20 per cent of the State Domestic Product. The average size of land holding is 3.07 ha in the State compared to 1.15 ha. at all India level. Agriculture generates employment opportunities for 13.61 million cultivators, 4.93 million agricultural labourers and addition of 0.6 million workforce every year.

2.3 70 per cent of the population of the State is living in rural areas and depends on agriculture as source of livelihood. The geographical features of Rajasthan are dominated by the Aravalli range which divides the State into two distinct zones. The region to the west and north-west, comprising of eleven districts and nearly 61 per cent of the total area of the State, is known as the Great Indian Thar Desert. The type of soil is sandy in this region which is poor in nitrogen and has low water holding capacity. The south-east and eastern parts of the Aravalli Hills are productive for agriculture purposes, having clay loam type soil. The rainfall fluctuates from 200-550 mm in the western and semi-arid parts to 550-1000 mm per annum in south-eastern and eastern parts of the Aravalli Ranges.

Rajasthan’s contribution in National Agriculture

- Stands at fifth position after Uttar Pradesh, Punjab, Madhya Pradesh and Andhra Pradesh in food grain production, and stands at third position in area.
- Second in production of gram and the largest producer of Moth-Bean.
- Third largest producer of total Oilseed and the largest producer of Mustard, third position in Soybean production, for Groundnut, it stands at fourth position in the country.
- Fifth largest producer of wheat and largest producer of all coarse cereals.
- Largest producer of Guar, seed spices like Coriander, Cumin, Fenugreek, Fennel, etc.

**Challenges to Agriculture Sector in Rajasthan**
- Increasing gap between demand and availability of water
- Scanty and uncertain rainfall affecting agriculture in particular and economy in general.
- Deteriorating quality of land and underground water.
- Low value agriculture.
- Large gap between potential and realized yield of crops and high inter-year variation in productivity.
- Mono-cropping in western dry region and southern tribal belt of the State, limiting the scope for diversification.
- Low share of vegetable and fruit crops, seed spices and medicinal plants, depriving the benefits of value addition and extra employment for the rural masses.
- Out of 90 lakh female workers engaged in on farm work, nearly 50 per cent are with sub optimal workdays. Generation of full employment opportunities through labour intensive agricultural activities in areas like horticulture & agro processing, is a great challenge.
VISION

2.4 To enhance farm productivity and income in rural areas through crop-livestock integrated production systems and creating multiple livelihood opportunities through sustainable management of natural resources i.e. land and water and articulating basic parameter of agricultural development by promoting value addition, agro processing, post-harvest management, agri-business, marketing of agricultural produce, crop diversification, use of Biotechnology, information and communication techniques, ensuring timely availability of inputs (seeds, fertilizers and PP chemicals and bio-agents) efficient crop insurance and easy access for credit to farmers so as to become a developed State through sustainable use of human, natural and other resources.

SWOT Analysis of Agriculture Sector

2.5 To achieve the vision of enhancing farm productivity and income in rural areas, a SWOT analysis has been attempted. The main findings of SWOT analysis are as under:

STRENGTHS

- Diversified Agro- Climatic conditions.
- Availability of huge land mass.
- Large extension network.
- Adequate infrastructure facilities
• Rajasthan Agro Processing and Agri Marketing Promotion Policy 2015.
• Large Livestock base in the State.
• State Agriculture Policy

WEAKNESS
• Scanty and erratic rainfall.
• 75 per cent area is rain-fed.
• Scarcity of under-ground water. Only 25 out of 243 blocks are safe as per the ground water survey, 2011.
• Lesser availability of hybrid seeds for Oilseeds and Pulses.
• Lesser availability of market network and agro-processing facilities.
• Sharp variation in day – night & seasonal temperature.
• Large area affected by Salinity and Alkalinity problem, nearly 10 lakh ha.
• Large area under waste land, nearly 50 lakh ha.
• Scarcity of fodder during famine years.
• Inadequate staff in Soil, Seed and Quality Control Laboratories in comparison to norms.
• Low rate of popularization of new techniques at farm level.

OPPORTUNITIES
• Area expansion by land reclamation and use of waste lands.
• Export of seed spices, vegetables and fruits.
• Development of processing & storage facilities.
• Scope for diversification in Agriculture and Allied sectors.
• Scope for increase farm mechanization.
• Farmers ready to take new programmes.
• Varied agro-climatic conditions provide opportunities for diversification & increase in farm income.

THREATS
• High cost of cultivation.
• Drought prone area.
• Inadequate availability of Agriculture labour.
• Deterioration of under-ground water quality.
• Sharp change in climatic conditions.
2.6 The objective to augment the agricultural production has been one of the prime concerns in every Five Year Plan. Up to the Ninth Plan period, the attempt was towards increasing production through extensive area coverage under crops. From the Tenth Plan Period, the shift was towards increasing productivity and growth through efficient use of inputs and better management of natural resources viz. improving Soil Health, Efficient Use of Water, Adoption of New Hi-tech Technologies, Adoption of Integrated Farming Systems Approach, Better Marketing and Agro-Processing Infrastructure and greater access to Farm Credit.

2.7 During the Eleventh Plan, the emphasis was on achieving 4 per cent growth rate in agriculture sector and ensuring food & nutritional security. To achieve this objective, some new and innovative central sector schemes were launched like Rashtriya Krishi Vikas Yojana (RKVY), as additional central assistance, which gave greater flexibility to the State to implement agricultural development programmes as per the local needs of the area. National Food Security Mission (NFSM) was also launched to take care of food and nutritional security. Agriculture Technology Management Agency (ATMA) was further strengthened to take care of extension needs and as an alternate system of extension delivery.

2.8 From, 2014-15, three new missions namely National Mission on Agriculture Extension & Technology (NMAET), National Mission for Sustainable Agriculture (NMSA) and National Mission on Oilseed and Oil palm have been launched. Apart from this, National Food-grain Security Mission (NFSM) has also been modified with the inclusion of Sub-mission on Commercial crop and Coarse Cereals besides Wheat and Pulses. Soil Health Card Scheme has also been launched under NMSA.

2.9 From, 2015-16, two new schemes Pradhan Mantri Krishi Sinchai Yojana (PMKSY) and Parmparagat Krishi Vikash Yojana (PKVY) have been launched by Central Government.

2.10 The review of the initiatives in agriculture is summarized as below:

<table>
<thead>
<tr>
<th>Table No. 2.1</th>
<th>Production and Productivity in the State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Area in lakh ha &amp; productivity in kg/ha)</td>
</tr>
<tr>
<td>Crops</td>
<td>2014-15</td>
</tr>
<tr>
<td></td>
<td>Area</td>
</tr>
<tr>
<td>Cereals</td>
<td>94.69</td>
</tr>
<tr>
<td>Pulses</td>
<td>33.62</td>
</tr>
<tr>
<td>Oil Seeds</td>
<td>44.81</td>
</tr>
<tr>
<td>Guar</td>
<td>46.25</td>
</tr>
<tr>
<td>Cotton</td>
<td>4.87</td>
</tr>
</tbody>
</table>
Table No. 2.2
Seed Replacement Rate in the State (per cent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kharif</td>
<td>20.32</td>
<td>18.91</td>
<td>19.75</td>
<td>18.08</td>
</tr>
<tr>
<td>Rabi</td>
<td>29.80</td>
<td>24.64</td>
<td>28.71</td>
<td>31.13</td>
</tr>
</tbody>
</table>

Table No. 2.3
Seed Distribution (in lakh Qtls.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kharif</td>
<td>6.04</td>
<td>6.25</td>
<td>6.07</td>
<td>6.27</td>
</tr>
<tr>
<td>Rabi</td>
<td>13.17</td>
<td>13.98</td>
<td>12.36</td>
<td>13.25</td>
</tr>
<tr>
<td>Total</td>
<td>19.21</td>
<td>20.22</td>
<td>18.42</td>
<td>19.52</td>
</tr>
</tbody>
</table>
### Table No. 2.4
**Plant Protection-TGM**

<table>
<thead>
<tr>
<th>Items</th>
<th>2012-13</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area covered (in lakh ha.)</td>
<td>134.50</td>
<td>143.45</td>
<td>166.61</td>
<td>164</td>
</tr>
<tr>
<td>TGM used (in MT)</td>
<td>3069</td>
<td>2745</td>
<td>2658</td>
<td>2475</td>
</tr>
<tr>
<td>Seed Treatment (per cent)</td>
<td>74</td>
<td>75</td>
<td>76</td>
<td>77</td>
</tr>
</tbody>
</table>

*Up to January, 2016

2.11 Use of plant protection chemicals depends on occurrence of disease and pest. Hence, there is year to year variation in area covered and use of plant protection chemicals.

**Agriculture Implements Distribution**

2.12 For timely operation in crops, to avoid drudgery and in view of lesser availability of farm labor and higher cost of labor, farm mechanization plays an important role. Plant Protection Equipments (Tractor mounted/ Power/Battery operated knapsack sprayers and hand operated PP Equipments) was promoted accordingly during the Annual Plan.

**Major interventions taken during Annual Plan 2015-16 are as under:**

- To increase the seed replacement rate and productivity of Maize in tribal area, the programme of distribution of hybrid maize was launched for tribal and non-tribal BPL farmers of tribal area. Under this programme, 8300 Qtls Hybrid Maize Seed was distributed. This has increased production, productivity of maize in the area and thereby improved economic condition of the tribal farmers.
• Department has taken up a programme for water harvesting. Under this programme, 9009 Km pipeline, 1653 Diggies, 4785 Farm Ponds and 292 Water Storage Structures were constructed during 2015-16. This has resulted in greater sustainability of crops in rain-fed areas by providing at least one life saving irrigation.

• To ensure balanced and integrated use of fertilizer on soil test basis, 13 soil testing labs are operational on PPP mode.

• To ensure the fodder availability, 3310 fodder minikits have been distributed under AFDP of RKVY.

• On the principle of “seeing is believing” 4.29 lac demonstration of different crops have been laid out on farmers fields.

• To promote farm mechanization, 54711 agricultural implements have been distributed among farmers during 2015-16.

• Integrated Pest Management and safe use of plant protection chemicals is the key for Good Agricultural Practices. Integrated Pest Management demonstrations along with Farmers Field School based Integrated Pest Management training are to be organized on farmers' fields to educate and popularize the above practices for efficient plant protection.

• Under crop insurance two schemes Weather based Crop Insurance and Modified National Agriculture Insurance schemes are being implemented in the state. MNAIS is being implemented in 13 districts namely Barmer, Jaisalmer, Pratapgarh, Rajsamand, Chittorgarh, Bhilwara, Jalore, Pali, Ajmer, Sirohi, Hanumangarh, Jodhpur & Tonk. In rest 20 districts Weather based Crop Insurance is under implementation.

• For increasing participation of girls in agriculture education 9736 students benefited with the incentives. To upgrade the technical skill of women farmers, 13002 women farmers were imparted training during 2015-16.

• Gypsum is a source of secondary nutrients i.e. calcium and sulphur and also used as soil amendment for reclamation of alkali soils. 1.16 lakh MT Gypsum have been distributed among the farmers during 2015-16.

• A World Bank funded project namely Rajasthan Agriculture Competitiveness Project has been launched during 2012-13. This project is mainly focusing upon judicious use of irrigation water including ground and surface water; and efficient use of water in rain-fed area. Under this project increased crop production and productivity farming of small ruminants, marketing of agriculture produce and other allied activities of agricultural sector will be aimed at taken for overall economic empowerment of farming
community. Rajasthan Agriculture Competitiveness Project would support the farmers groups and farmers companies in selected clusters.

**Annual Plan 2015-16 & 2016-17**

2.13 Details of agreed outlay and expenditure to be incurred in the year 2015-16 and outlays for the Annual Plan 2016-17 for State Plan Schemes, CSS Schemes, World Bank funded Rajasthan Agricultural Competitiveness Project and Rashtriya Krishi Vikas Yojana are as follows:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Heads of Expenditure</th>
<th>Annual Plan 2015-16</th>
<th>Annual Plan 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agreed Outlay</td>
<td>Actual Expenditure</td>
</tr>
<tr>
<td>1</td>
<td>State Funded Schemes</td>
<td>58961.30</td>
<td>42736.38</td>
</tr>
<tr>
<td>2</td>
<td>CSS Schemes</td>
<td>47670.54</td>
<td>29406.44</td>
</tr>
<tr>
<td>3</td>
<td>Rajasthan Agriculture Competitiveness Project</td>
<td>8500.00</td>
<td>1307.56</td>
</tr>
<tr>
<td>4</td>
<td>Rashtriya Krishi Vikas Yojana</td>
<td>60000.00</td>
<td>53783.22</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>175131.84</strong></td>
<td><strong>127233.60</strong></td>
</tr>
</tbody>
</table>

The details of schemes proposed are as under:

**Direction and Administration:**

2.14 For strengthening of Agriculture Department 2090 posts of various levels available under state plan. Further, against the construction of 248 Kisan Seva Kendra at Panchayat Samiti level and 2500 KSKs at Gram Panchayat level under RIDF support by NABARD, 189 KSKs at Panchayat Samiti level and 1090 at Gram Panchayat level have been constructed. Rest will be constructed by the end of this financial year. For strengthening of these KSK, basic facilities such as Electricity-water connection, Furniture, Technical material i.e. insect-pest Chart, measuring tape, electronic balance and office material stationery etc. are proposed to be provided. In year 2013-14, the post of Assistant Agriculture Officer and Agriculture Supervisor has been created at each Panchayat Samiti and Panchayat level. Similarly, some posts of statistics and Computer have been created. Besides this, strengthening of Kisan Seva Kendra is to be done by providing them furniture and other facilities, Hiring of vehicle, contract service, purchase of furniture etc.

2.15 An expenditure of ₹3738.48 lakh has been incurred in the year 2015-16 and an outlay of ₹5593.81 lakh is kept for the purpose for the Annual Plan 2016-17.
**Rajya Kisan Ayog:**

2.16 Rajya Kisan Ayog has been constituted in the State. An expenditure of ₹27.22 lakh has been incurred in the year 2015-16 and an outlay of ₹51.22 lakh for salary, contractual services etc. of Rajya Kisan Aayog is kept for the Annual Plan 2016-17.

**Seed Sector:**

**Seed testing laboratory, Bharatpur:**

2.17 A new seed testing lab is being established at Bharatpur. Building work is under construction. An outlay of ₹23.40 lakh for Equipments/Machineries/lab articles and accessories is kept for the Annual Plan 2016-17.

**Operational cost for 6 Seed Testing Laboratory:**

2.18 An expenditure of ₹17.31 lakh has been incurred in the year 2015-16. An outlay of ₹15.01 lakh is kept for the Annual Plan 2016-17 for the purpose.

**Manure and Fertilizer and Eradication of Pest and Diseases**

**Contractual staff for soil testing labs:**

2.19 It includes provision for hiring of labour on unit job basis through service providers for 32 soil and 7 IPM labs. An expenditure of ₹10.00 lakh has been incurred in the year 2015-16 and an outlay of ₹20.00 lakh is kept for the Annual Plan 2016-17.

**PPP contract for 14 static soil labs under NPMSF:**

2.20 14 static soil testing labs were sanctioned under National Project of Management of Soil Health and Fertility in 2009-10. An expenditure of ₹100.00 lakh has been incurred in the year 2015-16. An outlay of ₹20.00 lakh is kept for the Annual Plan 2016-17.

**Operational cost of 32 soil testing labs:**

2.21 For operation of 32 soil testing labs like METP, Material supply, Maintenance, Light & water etc. funds are provided from state plan. An expenditure of ₹25.00 lakh has been incurred in the year 2015-16 and an outlay of ₹70.02 lakh is kept for the Annual Plan 2016-17.

**Advance Stocking of Fertilizer:**

2.22 For timely arrangement of fertilizer to farmers, advance stocking will be done. An expenditure of ₹400.00 lakh has been incurred in the year 2015-16 and an outlay of ₹400.00 lakh is also kept for the Annual Plan 2016-17.

2.10
Pesticide laboratory at Bharatpur:

2.23 A new Pesticide lab is to be established at Bharatpur. Building work is under construction. An outlay of ₹41.50 lakh is kept for Equipments / Machineries /lab articles and accessories in the Annual Plan 2016-17.

Prevention and Eradication of pest and diseases in non-endemic areas including seed treatment and weed control:-

2.24 It is very important to protect crops from infestation of insects, pests and disease to keep causal organism below ETL level for economic production. Therefore, provision has been created for eradication of Pests/ Diseases in Endemic/Non endemic areas by use of PP chemicals and PP equipment, seed control and weed control, distribution of PP equipments, soil and seed treatment by Trichoderma and differential subsidy for IPM activities under NFSM (Pulses). An expenditure of ₹311.20 lakh has been incurred in the year 2015-16. Being need based programmes, an outlay of ₹520.00 lakh is kept for the Annual Plan 2016-17.

Establishment of new Fertilizer Testing Labs, Soil Testing labs under NPMSF (under PPP Mode), operation of 03 new FTL and residual laboratory:

2.25 14 static soil labs and 03 Fertilizer testing labs were sanctioned under National Project of Management of Soil Health and Fertility in 2008-09 & 2009-10. For soil labs the cost sharing is 50:50, between GoI and State, except staff and building and full operational cost from II year onwards. For Fertilizer lab lump-sum amount of ₹50 lakh, one time assistance was provided by Central Government for a lab. This includes part cost of staff for 1st year also.

2.26 An expenditure of ₹123.06 lakh has been incurred in the year 2015-16 and an outlay ₹149.75 lakh is kept for the Annual Plan 2016-17 for operation of above object heads.

Collection cost of samples:

2.27 For collection of quality control samples by notified inspectors posted all over the State (434 Inspectors) as per respective Act of Seed, Fertilizer and Insecticide. The provision includes cost of collection of QC samples (Samples of Seed, Pesticide and fertilizer). An expenditure of ₹3.50 lakh has been incurred in the year 2015-16. An outlay of ₹35.00 lakh is kept for Annual Plan 2016-17.

Operation cost for state Bio Control and seven IPM labs:-

2.28 01 state bio control lab at Jaipur and 07 IPM labs at Adaptive Trial centers at each Agro-climatic Zones are working. These labs are engaged in production of bio agents and maintenance of different strains. For
operation of these labs funds are provided from State Plan. An expenditure of ₹22.00 lakh has been incurred in the year 2015-16. An outlay of ₹16.01 lakh is kept for METP, Material supply, Maintenance, Light & water etc. for Annual Plan 2016-17.

**Agriculture Mechanization (Plant Protection Equipments – Tractor mounted/Power/Battery operated knapsack sprayer and hand operated PP equipments):**

2.29 For use of PP chemicals for control of insects, pests and diseases and for control of weeds by the use of herbicide, PP Equipments are required. For Plant Protection Equipments (Tractor mounted/Power/Battery operated knapsack sprayers and hand operated PP Equipments), an expenditure of ₹43.14 lakh has been incurred in the year 2015-16 and an outlay of ₹60.00 lakh is kept for the Annual Plan 2016-17.

**Extension and Training**

**Demonstration on Crops:**

2.30 Demonstration on Crops, Crop production technology, Latest technology, Organic farming etc. will be organized. For full package demonstration, assistance is limited to ₹7500 per ha for Guar, ₹5000 per ha for Barley, ₹7500 per ha for Wheat. Under Organic Farming Demonstration, organic inputs viz. vermi compost/enriched organic manure, bio-agents, bio-pesticides and seed is provided to popularize organic farming practices on farmer’s field. The incentive on demonstration is 50 per cent of cost of inputs or maximum ₹2000/- per demonstration. On sites of successful demonstration training camps are also organized for greater awareness and to motivate the farmers to adopt organic farming for which ₹ 4000/- per FFS is provided.

2.31 An expenditure of ₹1308.11 lakh has been incurred in the year 2015-16 for above demonstrations and an outlay of ₹434.00 lakh is kept for the Annual Plan 2016-17 for demonstration of new varieties and improved production technologies.

**Incentive to cultivators**

2.32 In order to popularize organic farming in farmers, an incentive of ₹8000/- per ha. per farmer is provided, out of which ₹2000/- per ha. for Kharif, ₹3000/- per ha. for Rabi and ₹3000/- is for registration and certification charges. It is a cluster based programme in which assistance is given for 0.5-2 ha. Area for 3 consecutive years. ₹5000/- is given for training to 50 farmers. The programme is taken in 10 districts of Rajasthan including TSP areas. An expenditure of ₹170.00 lakh has been incurred in the year 2015-16 and an outlay of ₹66.00 lakh is kept for the Annual Plan 2016-17.
**Computerization and Related Communication Expenditure**

2.33 The state government has decided to incur 3 per cent of total plan outlay on Computerization and IT. Presently, all treasury operations, planning activities are performed on IFMS website. Besides these, Rajasthan Sampark Portal, CMIS, and Rajasthan krishi website involve internet and computers. Presently all the major operations and monitoring of programmes are done by the use of computers and internet. An expenditure of ₹38.88 lakh has been incurred in the year 2015-16. An outlay of ₹39.00 lakh is kept toward e-governance, computerization, IT infrastructure for Annual Plan 2016-17.

**Dispersal of Agriculture Knowledge through Mass Media and Literature**

2.34 Department of Agriculture is primarily responsible for dissemination of agricultural technology, improved package of practices and latest know-how to the farming community of the state through printed literature, exhibitions, advertisement by print as well as electronic media, broadcasting on Akashwani, Door Darshan & other channels. These programmes play an important role in enhancing the capacity building and knowledge level of farmers. An expenditure of ₹154.00 lakh has been incurred in the year 2015-16 and an outlay of ₹200.00 lakh is kept for dispersal of Agriculture Knowledge through Mass Media and Literature for the Annual Plan 2016-17.

**Global Agri-Tech Fair**

2.35 Global Agri-tech Fair will be organized during the month of sep. to Nov., 2016 in Jaipur or vicinity. Event may be organized through event organizing agencies. Department of Agriculture will play role of nodal department and will seek participation from line department likes Cooperative, Animal Husbandry, Dairy, Agriculture Marketing, Fisheries, Horticulture, Gopalan and other government enterprises/agencies like Rajasthan State Seed Corporation, Rajasthan State Agriculture Marketing Board, Rajasthan State Seed Certification Agency, State Institute of Agriculture Management, Rajasthan State Warehousing Corporation, Rajasthan Olive Cultivation Limited etc. The event will be organize on the scale of national/international level in which workshops, conferences exhibition, technical session, seminars and B2B meetings would be held. The actual budget requirement could be asses after deciding co-organizing agency. A provision of ₹1000.00 lakh is kept in Annual Plan, 2016-17 for the purpose.

**Agriculture Extension Services:**

**Incentive to Girls:**

2.36 Farming is the main source of subsistence in rural areas of the state. Involvement of women in agriculture ranges more than 70 per cent
in different parts of the State. In Rajasthan, more than 70 per cent of the agricultural operations are performed by women. As an effort to have Gender Responsive Budgeting in Agriculture, girls are being encouraged by providing incentives to them for taking agriculture subject at Sr. Secondary and College level. During the year 2014-15, incentive has been increased to ₹5000 per girl per year in Sr. Secondary Agriculture, ₹12000 per girl per year in B.Sc. Ag and M.Sc. Ag, and for Ph.D. incentive has been increased to ₹15000 per girl per year. An expenditure of ₹ 575.88 lakh has been incurred in the year 2015-16 and an outlay of ₹650.00 lakh is kept for the Annual Plan 2016-17 for the purpose.

Agriculture Extension Services

2.37 One day Gram Panchyat Level Woman Training and International/ Interstate Farmers visit for awareness of New Technology: To have Gender Responsive Budgeting in Agriculture, a project on technological empowerment of women in agriculture is proposed to be undertaken. Under the project, One day women trainings are organized @ ₹3000 per training for 30 women farmers. Women farmers will be trained in agriculture technology to become Vikas Vahini for dissemination of technology. This will help in increasing agricultural production. Besides this, under the programme of abroad visit of farmers is also included. An expenditure of ₹432.00 lakh has been incurred in the year 2015-16 for the women training and visit of farmers abroad/ Interstate Farmers visit for awareness of New Technology and an outlay of ₹357.60 lakh is kept for Annual Plan 2016-17 for the women training.

2.38 Incentive to Farmers and M & E Kits: Regular crop cutting experiments are conducted by Agriculture Department. To compensate the losses occurred to farmer, incentive to farmers is made after crop cutting experiment. An expenditure of ₹8.03 lakh has been incurred in the year 2015-16 for crop cutting and an outlay of ₹11.00 lakh is kept for Annual Plan 2016-17 for crop cutting experiments. Apart from this, an amount of ₹11.70 lakh is also kept for M & E Kits i.e Measuring Tape, Spring balances, Gunny bags etc. in Annual Plan, 2016-17.

Crop & Weather Insurance

2.39 Under crop insurance, two schemes Weather based Crop Insurance and Modified National Agriculture Insurance schemes are under implementation in the state. MNAIS is being implemented in 12 districts namely Barmer, Jaisalmer, Pratapgarh, Rajsamand, Sawai Madhopur, Bhilwara, Jhunjhunu, Sikar, Jalore, Pali, Ajmer & Tonk. In rest 21 districts Weather based Crop Insurance is under implementation. Funds will be utilized on premium subsidy and incentive for crop cutting experiments. Recently, Central Government has launched Pradhan Mantri Fasal Bima Yojna. An expenditure of ₹26995.92 lakh has been incurred in the year 2015-16. An outlay of ₹67637.02 lakh is kept for the
Annual Plan 2016-17 for premium subsidy in Crop Insurance and incentive for Crop Cutting Experiments.

**Water Management**

2.40 Water Management is a crucial issue not only in well irrigated areas but also gaining importance in surface areas particularly in command areas of IGNP. With lesser release of water from Punjab (Pong and Bhakra Dam), the timely availability of water has been affected, thereby affecting the timely release of water in IGNP areas of Ganganagar, Bikaner and Hanumangarh districts. Construction of Diggies (Water Storage Tank) in command areas on individual farmer’s field is gaining importance for providing timely irrigation at critical crop growth stages. By storing water in these diggies on their turn, farmers can provide irrigation as per requirement of the crop resulting in efficient use of water. Installation of Drips and Sprinklers is encouraged on these diggies for water saving and for increasing area under cultivation. Besides crops, orchards can also be taken up with diggi cum sprinkler/ drip model. Sufficient provision of Diggi and farm pond and sprinklers is available under different CSS/ Missions. To promote efficient use of water in the State, an expenditure of ₹411.17 lakh has been incurred for pipeline/diggs/water tank/farm pond/during the year 2015-16. An outlay of ₹500.00 lakh is kept for Annual Plan 2016-17.

**Innovative programme, Contractual Research, Bio-techniques, Massive Seed production programme etc:-**

2.41 Proposals of innovative nature which are not covered under departmental programmes are being considered under it. It includes Traditional technology, new research findings which are not included in the package of practices and is important to solve the problems in the field like new implements, water conservation technology, weed control, plant protection technology, agro forestry, silvi pasture and crop diversification. The technology is demonstrated in 0.4 ha area and compared with control plot. An expenditure of ₹14.26 lakh has been incurred in the year 2015-16.

**Enhanced seed Programme, Infrastructure Development and Hi-tech demonstration on Government farms:**

2.42 To enhance the seed production programme to a large extent, some infrastructure development is essential to avoid the losses like grazing of stray animals in experimental fields, storage losses, incidental hazards etc. As most of the farm implements equipment, tractor power threshers available with the ATC are very old and not in working capacity. Besides these, ATCs are facing irrigation water scarcity which affects the overall progress of seed production and technical programme. To overcome these problems some infrastructure development works are essential.
2.43 To enhance irrigation efficiency and maximum coverage of area under irrigation, adoption of Micro irrigation devices are essential. Therefore, demonstration of Drip system and sprinkler are to be laid out at ATCs. Similarly for fruit and vegetable nursery demonstrations of green houses are taken at ATCs to grow a good and healthy seedling, which can be transferred in proper time.

2.44 Organization of training programme at ATCs has been found most effective and successful tool for dissemination of the technology among the farmers of the area. In view of this, department has taken up a capacity building programme for high tech training. Modern method of A.V. system to display the technology in more effective and impressive way is needed at ATCs. An expenditure of ₹124.98 lakh has been incurred in the year 2015-16.

**Minikit Distribution:**

2.45 An expenditure of ₹1076.46 lakh has been incurred in the year 2015-16 and an outlay of ₹447.23 lakh is kept for distribution of Minikits of new varieties of crop and fodder for the Annual Plan 2016-17.

2.46 An amount of ₹ 500.00 lakh is kept for minikit distribution of Micro-nutrients as compliance of Budget Announcement for the Annual plan 2016-17.

**Adaptive Trial Center (ATC)**

2.47 Adaptive Trial Centers (ATC) were established with the objective to have advance verification / modification of existing/incoming research recommendation given by SAUs for particular region or soil type which can give maximum economic returns. The ten Adaptive Trial Centers (ATC’s) are engaged in taking experiments on various problems viz. soil and water management, plant protection, soil salinity and weed management, screening of high yielding new varieties and crop geometry etc. Apart from these main objectives, various programmes of Department of Agriculture like seed production programme, rearing of earthworm, IPM work, Organization of farmer’s fair, training on various aspects, productivity based demonstration, organic farming/ vermi culture demonstration and testing of private company materials i.e. different varieties /products are also being taken up at ATCs. The main objectives of ATCs are –

- To verify /modify research recommendations obtained from research stations for a particular agro-climatic zone according to local need.
- The major thrust of the investigation is aimed at judging the compatibility of proven technology and involved package recommendations that can fit in the farming system without disturbing the economy of the beneficiaries. This work is conducted
in close linkage with the extension agency so that technologies generated can percolate to the grass root level.

- For rapid transfer of technology at the door steps of cultivators, adaptive trials are also conducted at farmer’s field.
- To lay out observational trials on specific problems of particular locality.
- Farmers training and extension workers training programme are being organized at regular basis.

2.48 An expenditure of ₹107.09 lakh has been incurred in the year 2015-16 and an outlay of ₹47.77 lakh is kept for trials at ATC’s in the Annual Plan 2016-17. The funds will be utilized for material supply, contract services, vehicle, trainings, Kisan Mela and for the trials.

**Award to Organic Farmers**

2.49 3 awards of 1 lac each at state level will be given to organic farmers during 2015-16 as per Hon’ble CM budget declaration. An expenditure of ₹4.05 lakh has been incurred in the year 2015-16 and an outlay of ₹5.00 lakh is kept for the Annual Plan 2016-17.

**Construction/Renovation/New/Extension of Departmental Office Buildings:**

2.50 It is very important to construct/renovate departmental building regularly so that building may not be damaged and remain in good condition. An expenditure of ₹700.00 lakh has been incurred in the year 2015-16 and an outlay of ₹640.00 lakh is kept for the Annual Plan 2016-17 for construction/renovation of departmental buildings to provide proper working environment to field functionaries and ₹60.00 lakh is kept for replacement 3 Lifts in Pant Krshi Bhawan.

**Lab Establishment (Pesticide testing labs and pesticide Residue Testing lab):**

2.51 An expenditure of ₹40.00 lakh has been incurred in the year 2015-16. An outlay of ₹5.00 lakh is kept for the Annual Plan 2016-17 for necessary modernization, addition, alteration of buildings and furniture fixtures in Bio-pesticide lab/ Residue Testing for PRTL/Pesticide Testing Laboratories.

**Strengthening of quality control labs (4 FTLs and 33 Soil testing labs):**

2.52 An expenditure of ₹29.52 lakh has been incurred in the year 2015-16 and an outlay of ₹40.00 lakh is kept for repair and maintenance of lab buildings and furniture fixture for the Annual Plan 2016-17.
Establishment of new FTLs, STLs and static STLs under NPSMF (PPP model):

2.53 An expenditure of ₹25.00 lakh has been incurred in the year 2015-16 and an outlay of ₹45.00 lakh is kept for establishment of new FTLs, STLs and static STLs under NPSMF (PPP model for the Annual Plan 2016-17.

Construction of KSK & LIRC through loan Funding By NABARD:-

2.54 To facilitate the farmers, construction of Kisan Seva Kendra cum Knowledge Centres at Gram Panchayat and Panchayat Samiti head quarter is proposed at the roof top of nearby Rajeev Gandhi Knowledge Centre under RIDF-XVII with the financial assistance of NABARD. Against the construction of 248 Panchayat Samiti level & 2997 Gram panchayat level Kisan Seva Kendras in the State, 209 KSKs at Panchayat Samiti level and 1396 at Gram Panchayat level have been completed. Rest will be constructed during the year 2016-17. An expenditure of ₹3065.12 lakh has been incurred in the year 2015-16 and an outlay of ₹10900.00 lakh is kept for the Annual Plan 2016-17 for these Centers.

Loan to Rajasthan State Warehousing Corporation

2.55 Rajasthan State Warehousing Corporation (RSWC) is a State Government undertaking. The main objective of the Corporation is to construct godowns and warehouses in the State for scientific storage of agricultural produce, fertilizer, seeds and other notified commodities. An expenditure of ₹2500.00 lakh has been incurred in the year 2015-16 and an outlay of ₹13400.00 lakh is kept for the Annual Plan 2016-17.

Rajasthan Agriculture Competitiveness Project (RACP)

2.56 A World Bank funded project namely Rajasthan Agriculture Competitiveness Project was launched during 2012-13. This project is mainly emphasizing judicious use of irrigation water including ground and surface water; and efficient use of water in rain-fed area. Under this project increased crop production and productivity, farming of small ruminants, marketing of agriculture produce and other allied activities of agricultural sector will be aimed at for overall economic empowerment of farming community. Rajasthan Agriculture Competitiveness Project would support the farmers’ groups and farmers companies in selected clusters. An expenditure of ₹1307.56 lakh has been incurred in the year 2015-16 and an outlay of ₹32270.00 lakh is kept for the Annual Plan 2016-17 for the RACP.

Rashtriya Krishi Vikas Yojana (RKVY):

2.57 In compliance of the resolution adopted by the National Development Council (NDC) in its meeting held on 29th May, 2007, a special Additional Central Assistance Scheme 'Rashtriya Krishi Vikas Yojana (RKVY)' was launched by Central Government to achieve 4 per
cent annual growth in the Agriculture Sector during the 11th plan period. RKVY is to incentivize States to draw up plans for their agriculture sector more comprehensively, taking agro-climatic conditions, natural resource issues and technology into account, and integrating livestock, poultry and fisheries etc. The main objectives of the scheme were:

- To incentivize the states so as to increase public investment in Agriculture & allied sectors.
- To provide flexibility and autonomy to states in the process of planning & executing Agriculture & 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 that the local needs / crops / priorities are better reflected in the agricultural plans of the states.
- To achieve 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.

2.58 The RKVY scheme is project based and funds are allotted to Agriculture, Animal Husbandry, Dairy, Fisheries, Horticulture, Cooperative, State Agriculture Universities, Agriculture Marketing Board, Water Resources, Forest etc.

**Progress of RKVY**

2.59 Details of the funds received since inception, Department-wise administrative & financial sanction issued and expenditure incurred from 2008-09 to 2014-15 and Physical Progress for the year 2015-16 under Rashtriya Krishi Vikas Yojana are available at Annexure 2.1, 2.2, 2.3 & 2.4 respectively.

2.60 An expenditure of ₹53783.22 lakh has been incurred in the year 2015-16 and an outlay of ₹65000.03 lakh is kept for the Annual Plan 2016-17 for RKVY.
Centrally Sponsored Missions

1. National Food Security Mission

2.61 National Food Security Mission on Wheat and Pulses was launched in Rajasthan during 2007-08 as a Centrally Sponsored Scheme by the Central Government, with the objective to increase production and productivity of wheat and pulses on a sustainable basis so as to ensure food security. The approach is to bridge the yield gap in respect to these crops through dissemination of improved technologies and farm management practices.

2.62 NFSM-Wheat is being implemented in 14 districts of the State viz. Banswara, Bhilwara, Bikaner, Jaipur, Jhunjhunu, Jodhpur, Karauli, Nagaur, Pratapgarh, S. Madhopur, Sikar, Tonk, Udaipur and Pali. An expenditure of ₹1333.26 lakh has been incurred in the year 2015-16 and an outlay of ₹3650.00 lakh is kept for Annual Plan 2016-17.

2.63 NFSM-Pulses-All the districts of the State have been included from the year 2010-11. An expenditure of ₹11165.56 lakh has been incurred in the year 2015-16 and an outlay of ₹23020.01 lakh is kept for Annual Plan 2016-17.

2.64 NFSM- Coarse Cereals- The Crops involved are Maize, Sorghum, Barley and Pearl Millet and implemented in 12 Districts (Ajmer, Alwar, Barmer, Bhilwara, Bikaner, Churu, Jaipur, Jalore, Jhunjhunu, Jodhpur, Nagaur, Sikar) of the State. An expenditure of ₹2327.56 lakh has been incurred in the year 2015-16 and an outlay of ₹5595.67 lakh is kept for Annual Plan 2016-17.

2.65 NFSM- Commercial Crops In Twelfth Five Year Plan, Commercial Crop like Cotton has been included under NFSM-Commercial Crops. NFSM-Commercial Crops is being implemented in 16 district of the State namely, Ajmer, Alwar, Bikaner, Banswara, Bhilwara, Chittorgarh, Jalore, Jodhpur, Hanumangarh, Sriganganagar, Kota, Pratapgarh, Nagaur, Rajsamand, Sirohi and Sikar. Front line demonstrations on Integrated Crop Management are being organized at different location under the crop. An expenditure of ₹0.88 lakh is incurred in the year 2015-16 and an outlay of ₹40.04 lakh is kept for the Annual Plan 2016-17.

2. National Mission on Oil Seed & Oil Palm (NMOOP)

2.66 The ISOPOM programme was successfully implemented from 2004-05 to 2013-14. Now NMOOP has been started from 1st April, 2014. An expenditure of ₹5241.42 lakh has been incurred in the year 2015-16 and an outlay of ₹8165.09 lakh is kept for the Annual Plan 2016-17. National Mission on Oil Seed & Oil Palm consists of following 2 sub missions :
Table No. 2.6
(₹ in lakh)

<table>
<thead>
<tr>
<th>Mini Mission (MM)</th>
<th>Target of Twelfth Plan</th>
<th>Outlay for Annual Plan 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM I on Oilseeds</td>
<td>To achieve production of 35.51 million tonnes and productivity of 1328 kg/ha of oilseeds from the present average production &amp; productivity of 28.93 million tonnes and 1081 kg/ha during the 11th Plan period respectively.</td>
<td>7839.93</td>
</tr>
<tr>
<td>MM III on TBOs</td>
<td>MM III on Tree Borne Oilseed: Enhance seed collection of TBOs from 9 lakh tonnes to 14 lakh tonnes and to augment elite planting materials for area expansion under waste land.</td>
<td>325.16</td>
</tr>
</tbody>
</table>

3. National Mission on Agriculture Extension & Technology

2.67 The aim of the Mission is to restructure & Strengthen Agriculture extension to enable delivery of appropriate technology and improved agronomic practice to the farmers. This is envisaged to be achieved by a judicious mix of extensive physical outreach & interactive methods of information dissemination, use of ICT, popularization of modern and appropriate technologies, capacity building and institution strengthening to promote mechanization, availability of quality seeds, plant protection etc. and encourage the aggregation of farmers into Interest groups (FIGs) to from farmer Producer Organization (FPOs).

2.68 National Mission on Agriculture Extension and Technology (NMAET) consists of following 5 sub missions:

Table No. 2.7
(₹ in lakh)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Sub Mission</th>
<th>Expenditure 2015-16</th>
<th>Outlay for Annual Plan 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agriculture Extension</td>
<td>3429.31</td>
<td>4974.64</td>
</tr>
<tr>
<td>2.</td>
<td>Seed and Planting Material</td>
<td>421.99</td>
<td>200.00</td>
</tr>
<tr>
<td>3.</td>
<td>Agriculture Mechanization</td>
<td>879.89</td>
<td>1962.52</td>
</tr>
<tr>
<td>4.</td>
<td>Plant Protection &amp; Plant Quarantine</td>
<td>2.08</td>
<td>0.07</td>
</tr>
<tr>
<td>5.</td>
<td>e-governance</td>
<td>676.14</td>
<td>321.01</td>
</tr>
</tbody>
</table>

4. National Mission for Sustainable Agriculture (NMSA)

2.69 NMSA is one of the restructured schemes subsuming National Mission on Micro Irrigation, NPOF, National Project on Management of Soil health & Fertility and RADP to focus on climate change adaptation during 2014-15. NMSA has been formulated for enhancing agriculture
productivity especially in rain fed areas focusing on integrated farming, water use efficiency, soil health management and resource conservation.

2.70 National Mission for Sustainable Agriculture (NMSA) consists of following 3 sub missions:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Sub Mission</th>
<th>Expenditure 2015-16</th>
<th>Outlay for Annual Plan 2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rainfed Area Development</td>
<td>1330.69</td>
<td>1500.03</td>
</tr>
<tr>
<td>2</td>
<td>Soil Health Management</td>
<td>341.03</td>
<td>2398.32</td>
</tr>
<tr>
<td>3</td>
<td>Climate Change and Sustainable Agriculture</td>
<td>0.00</td>
<td>0.11</td>
</tr>
</tbody>
</table>

PKVY (Paramparagat Krishi Vikas Yojana)

2.71 A new programme on Promotion of organic farming through cluster approach and PGS certification has been taken up during 2015-16 in the state on cluster basis. The scheme is shared on 60:40 bases between Centre and State. The main objectives of the programme are as under:

- Promotion of organic farming through cluster approach and PGS certification.
- Increase in productivity by promoting eco-friendly agriculture.
- Reduction on dependence on chemical fertilizers.
- Promotion of local organic inputs

2.72 An expenditure of ₹1867.03 lakh has been incurred in the year 2015-16 and an outlay of ₹3556.13 lakh is kept for Annual Plan 2016-17.

Pradhan Mantri Krishi Sinchai Yojana (PMKY)

2.73 PMKSY has been conceived as an amalgamation of ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP), Integrated Watershed Management Programme (IWMP) and the On Farm Water Management (OFWM) and being implemented from 2015-16. The scheme will be shared on 60:40 bases between centre and state.

2.74 The Major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies “(More crop per drop)”, enhance recharge of aquifers and introduce sustainable water conservation practices.

2.22
2.75 The works to be taken up include creation of new water resources, repair, restoration and renovation of water bodies, CAD, strengthening of distribution network, groundwater development, Improvement in water management and distribution, diversion of water to scarce areas, rejuvenation of traditional water resources, promoting precision water application devices-sprinkler, drip, construction of tube wells and dug wells, secondary storage structures at tail end of canal system, water lifting devices, extension activities and crop planning, Improved soil and moisture conservation activities, drainage Line Treatment(DLT), Converging with MGNREGS for creation of water source to full potential, WHS, etc.

2.76 The programme will be implemented through preparation of District Irrigation Plan and SIPs. 3 IAS officers and 3 IFS officers of junior batch has been trained on preparation of DIPs at National Water Academy, Pune. DIPs of 8 districts have to be prepared by these trained officers by assigning one district to each. A provision of ₹ 10 lac per district has been kept for DIP preparation. The process has been initiated by collectors. Funds during 2015-16 are directly being transferred by Central Government to concerned departments and funds for 2016-17 will be allocated as per State Level Sanctioning committee recommendations. Tentative demands of departments have been proposed for 2016-17.

2.77 This year, under PMKSY, programmes related to preparation of climate demonstration exposure visit, famers fair, farmers training, farmers scientists interaction etc will be implemented. An expenditure of ₹389.60 lakh has been incurred in the year 2015-16 and an outlay of ₹48466.88 lakh is kept for Annual Plan 2016-17.

Gender Budgeting

2.78 The gender budgeting in agriculture acknowledges the increasing feminization of agricultural labour force. In Rajasthan, more than 70 per cent of the agricultural operations are performed by women. Women empowerment in agriculture target the development and promotion of women friendly drudgery reducing implements, training for skill upgradation, and formation of SHGs of women, improved skill, credit linkages and their mobilization for economic empowerment. The Department is benefitting the women farmers in all the schemes on priority basis. Some of the schemes are exclusively implemented for women farmers. The details are as under:

Incentives to Girls

Incentive to Girls

2.79 Girls are encouraged by providing incentives for taking agriculture as subject at Sr. Secondary @ ₹ 5000 per year, for graduation level @ ₹12000 per year, for post-graduation and Ph.D. level @ ₹15000 per year.
During the year 2015-16, 9736 girls have been benefitted with the incentives of ₹ 575.88 lakh during 2015-16. An outlay of ₹ 650.00 lakh is kept for Annual Plan 2016-17.

**One Day Gram Panchayat Level Training**

2.80 A programme on technological empowerment of women in agriculture has been undertaken. Technological Empowerment of women helps in increasing agriculture production. Under the scheme, women farmers are imparted one day gram panchayat level training in agriculture technology. During the year 2015-16, 13002 Nos. of women training programmes have been organized with the expenditure of ₹432.00 lakh during 2015-16. An outlay of ₹357.60 lakh is kept for organising 11920 training programmes during the Annual Plan 2016-17.

**HORTICULTURE**

2.81 A target of 4 per cent growth rate in Agriculture Sector has been kept for the Twelfth Five Year Plan and to achieve this target, 8 per cent growth has been envisaged in Horticulture with earmarked 30 per cent budget for Horticulture. Rajasthan is having diverse agro-climatic conditions, which favors growing of large number of horticultural crops like fruits, vegetables, spices, flowers and medicinal & aromatic plants throughout the year.

**VISION**

2.82 To achieve targeted growth rate for Horticulture Sector by enhancing Horticulture area & production and improving income level of farmers by successful implementation of various new initiatives in field and in protected conditions by using water saving devices such as drips, sprinkler, mini/micro sprinklers with the use of renewable and non renewable energy to ensure the food security of the State and surplus for marketing and processing purpose.

**OBJECTIVES**

- To increase area coverage under horticulture crops- Fruits, Vegetable, Flowers and Spices, Medicinal & Aromatic plants etc. and with increase in production thereof.
- To layout demonstrations to show effect of technology
- To promote, develop and disseminate technologies for horticulture development.
- Extension of protected cultivation technology to farmers for off season, round the year production.
- To promote rain water harvesting and judicious use of irrigation water with the use of micro irrigation devices Drips, Sprinklers, Mini /Micro Sprinklers.
• To improve post harvest management, processing for value addition.
• To promote capacity building and human resource development at all levels.
• To popularize use of Solar Energy in agriculture sector.

**CHALLENGES**

• State has about 1 per cent country’s water resources and ground water is rapidly depleting. Therefore, for ensuring judicious use of irrigation water - installation of Sprinklers in about 530 thousand ha and Drips in 280 thousand ha on farmers fields.
• Frequent droughts & uncertainty in rainfall affecting the growth of the sector.
• Small size of holding and long gestation bearing period of fruits. Therefore, increasing additional area under fruits, flowers and spices to the tune of 50 thousand ha, 1125 ha and 27.5 thousand ha respectively.
• Gap between Technology available and adopted in the field. Therefore, to popularize latest technology to farmers through dissemination of latest horticulture production technology and horticulture development programmes to farmers.
• To reduce losses of perishable horticulture produce and process surplus horticulture produce by providing assistance to farmers/entrepreneurs for establishing processing units, pack houses, cold storages.
• Price fluctuations and market gluts resulting in lack of remunerative prices.
• Poor participation by private sector to invest in post harvest infrastructure.
• Harnessing the vast potential of medicinal and aromatic plants through increased production of existing crops and introduction of new crops and varieties.

**CONSTRAINTS**

• Lesser availability of adequate quantity of quality seeds of notified/ Hybrid varieties of vegetables and spices.
• Inadequate availability of quality planting materials, inadequate infrastructure and skilled manpower.
• Improper post harvest management and marketing facilities like cold storage, pre-cooling and waxing centers, processing units etc.
• No support price for spices particularly for seed spices cumin, coriander etc and isabgol.

• Small size of holding is adversely affecting the drip installation and new orchard establishment as its initial installation cost is very high.

• Problem of some chronic diseases like Guava wilt, Citrus decline, Pomegranate blight, Mango malformation and viral disease in Cucurbits.

• Poor research support and data base.

• Low purchasing power of farmers to adopt hi tech horticulture technology.

STRATEGY

2.83 To achieve targeted growth rate for Horticulture sector and enhancing Horticulture production and improving income level of all farmers, programme of area expansion of fruits, flowers, medicinal plants, spices, along with layout of demonstration PoPs' are undertaken. In order to show demonstrative effect of vegetable production, technology demonstrations are laid out on farmers fields. Further, for high-tech and off season production of horticulture produce, assistance is provided to farmers for installation of Green Houses and Shade-nets. For judicious use of precious irrigation water resource for increasing production of horticulture produce per unit volume of water, subsidy is provided on high tech water saving devices Drips, Sprinklers, Mini/Micro Sprinklers. In order to provide remunerative prices of horticulture produce, assistance is provided for establishment of cold storage, pack houses, and processing units. For popularizing use of renewable solar energy in agriculture sector, assistance is provided on Solar Pump Sets.

Annual Plan 2016-17

2.84 State is implementing Centrally Sponsored Schemes- National Horticulture Mission, Pradhan Mantri Krishi Sinchai Yojna -Micro Irrigation and National Agro - Forestry and Bamboo Mission. During 2009-10, new Centrally Sponsored Scheme- National Mission on Medicinal Plants was introduced is now renamed as National Aayush Mission and for implementing this scheme in the state Central Government has designated nodal agency to Aayush Department of the state.

2.85 The National Horticulture Mission (NHM) is being implemented with 60 per cent central share and 40 per cent State share in 24 districts of the State namely- Ajmer, Alwar, Barmer, Banswara, Baran, Bhilwara, Bundi, Chittorgarh, Dungarpur, Jaipur, Jalore, Jaisalmer, Jhalawar, Jhunjhunu, Jodhpur, Karauli, Kota, Nagaur, Pali, Sirohi, Sawai Madhopur, Sri Ganganagar, Tonk and Udaipur.
2.86 The PMKSY Micro Irrigation is being implemented with 60 per cent central share and 40 per cent State share in all the district of the State.

2.87 National Agro - Forestry and Bamboo Mission is being implemented with 60 per cent central share and 40 per cent State share in 12 districts namely Baran, Banswara, Bhilwara, Chittorgarh, Dungarpur, Jhalawar, Karauli, Sawai Madhopur, Sirohi, Udaipur, Pratapgarh and Rajsamand.

2.88 State has introduced one new scheme Date Palm Project under which tissue culture date palm planting material will be provided to the farmers in selected districts at 75 per cent subsidy.

2.89 All Centrally Sponsored Schemes are being implemented through District Horticulture Development Society under the Chairmanship of District Collector. The funds are directly made available to the district level offices through treasury.

2.90 Although, the National Horticulture Mission has emphasized the need for Development of Horticulture in the State but in the present context, when this sector has got prominent place in overall scenario of Agriculture. Horticulture produces specially vegetables and fruits being perishable in nature, require immediate marketing cooling chain and processing facilities. Therefore, appropriate steps are being taken in this direction to protect interest of farmers.

2.91 An expenditure of ₹23657.23 lakh has been incurred in the year 2015-16. An outlay of ₹44692.66 is kept for the Annual Plan 2016-17. Scheme-wise details are as follows:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Budgeted Outlay</td>
<td>Expenditure</td>
</tr>
<tr>
<td>1</td>
<td>Direction and Administration for Horticulture</td>
<td>77.51</td>
<td>86.58</td>
</tr>
<tr>
<td>2</td>
<td>Development of Horticulture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>(1) Offices of Horticulture Department</td>
<td>884.01</td>
<td>692.79</td>
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<tr>
<td>2.2</td>
<td>(2) Labour (Legal and Court Cases)</td>
<td>5.01</td>
<td>4.83</td>
</tr>
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<td>2.3</td>
<td>(11) Publicity, Exhibition/Media Support</td>
<td>7.00</td>
<td>5.24</td>
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<tr>
<td>3</td>
<td>(27) Subsidy on Processing Unit</td>
<td>0.01</td>
<td>32.66</td>
</tr>
<tr>
<td>4</td>
<td>(28) Additional subsidy for Drip</td>
<td>7200.00</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>(29) Establishment of fruit orchard</td>
<td>20.00</td>
<td>6.61</td>
</tr>
<tr>
<td>6</td>
<td>(30) Demonstration</td>
<td>38.00</td>
<td>32.38</td>
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<tr>
<td>7</td>
<td>(31) Assistance on PP measures</td>
<td>15.00</td>
<td>14.00</td>
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<tr>
<td>8</td>
<td>(32) Establishment of green houses</td>
<td>460.00</td>
<td>844.07</td>
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<tr>
<td>9</td>
<td>(33) Innovative schemes (33)</td>
<td>6.00</td>
<td>2.75</td>
</tr>
<tr>
<td>10</td>
<td>(34) Horticulture Park</td>
<td>0.03</td>
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</tr>
<tr>
<td>11</td>
<td>(35) New Scheme of Horticulture</td>
<td>0.01</td>
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<td>Budgeted Outlay</td>
<td>Expenditure</td>
<td>Budgeted Outlay</td>
</tr>
<tr>
<td>12</td>
<td>(36) Additional subsidy for Solar Pump sets</td>
<td>10015.15</td>
<td>9307.45</td>
</tr>
<tr>
<td>13</td>
<td>(37) Assistance on Automation</td>
<td>505.74</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>(40) Date Palm Project</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Revitalization and Development</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total - A</strong></td>
<td><strong>19233.52</strong></td>
<td><strong>11029.36</strong></td>
</tr>
<tr>
<td>16</td>
<td>(25) NHM</td>
<td>6638.04</td>
<td>5893.04</td>
</tr>
<tr>
<td>17</td>
<td>(26) NMMI(on farm water management)</td>
<td>18261.68</td>
<td>6645.46</td>
</tr>
<tr>
<td>18</td>
<td>(38) NBM</td>
<td>225.00</td>
<td>49.37</td>
</tr>
<tr>
<td>19</td>
<td>(39) NMMP</td>
<td>50.00</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>(41) Per Drop More Crop Scheme</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total - B</strong></td>
<td><strong>25174.75</strong></td>
<td><strong>12627.85</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total (A+B)</strong></td>
<td><strong>44408.27</strong></td>
<td><strong>23657.23</strong></td>
</tr>
</tbody>
</table>

**Direction and Administration for Horticulture**

2.92 Effective monitoring of CSS and State Plan schemes is required to deliver real benefits to farmers. Posts have been created at headquarter under the State plan to serve the purpose. An outlay of ₹96.51 lakh is kept for establishment cost for the Annual Plan 2016-17.

**Development of Horticulture Crops**

2.93 Latest horticulture technology to farming community will be disseminated through establishment of district level horticulture infrastructure and various methods of publicity. Under this head, establishment cost of regional and district level offices of Horticulture Department are involved.

2.94 Dissemination of latest horticulture technology through various methods of publicity including audio/video and print media etc. will also be covered under Development of Horticulture Crops. An outlay of ₹741.88 lakh, ₹5.01 lakh and ₹6.00 lakh is kept for the Annual Plan 2016-17 for field offices of Horticulture, payment of wages as per Court cases and Publicity & Media Support respectively.

**Subsidy for Processing Unit of Horticulture Produce:**

2.95 In order to reduce the post harvest losses and for fetching better market prices, establishment of processing units of Horticulture crops are promoted in the State. The objective of the scheme is to encourage entrepreneurs to establish processing units so that farmers may get remunerative prices of produce and post harvest losses of perishable horticulture and agriculture produce is minimized. Thus, financial assistance is provided to farmer and farmers' entrepreneurs who own agriculture land or take land for long term lease. State has introduced
new policy for processing of Agri- Horticulture produce and therefore an outlay of ₹0.01 lakh is kept for the Annual Plan 2016-17.

Additional Assistance for Drip

2.96 To increase the area under the most efficient methods of irrigation i.e. drip irrigation, sprinkler, Mini and Micro Sprinkler State Government announces additional subsidy for these water saving devices. An outlay of ₹0.03 lakh is kept for the Annual Plan 2016-17 for additional subsidy on Drips, Mini and Micro Sprinkler and Sprinkler system.

Establishment of Fruit Orchards

2.97 In order to promote the diversification of agriculture for sustainability of the farm economy, programme of new orchard is mainly undertaken under NHM. Under NHM, each district has a list of selected fruit crops. Therefore, for establishment of orchards of non-selected fruits, in NHM districts, assistance is provided under this scheme from State Plan. Assistance admissible under NHM is ₹30000 per ha. of which ₹18000 is provided in the first year and rest ₹ 6000 each in second and third years. An outlay of ₹19.99 lakh is kept for the Annual Plan 2016-17.

Demonstration of Horticulture Crops

2.98 In order to propagate production technology of horticultural crop, demonstration would be laid out, for which assistance of ₹1500/- per beneficiary for vegetables, spices, flowers, medicinal & aromatic crops, Mehandi and ₹5000/- per beneficiary for fruits demonstration will be provided for demonstration size of 0.2 ha. The programme is being implemented in all districts. An outlay of ₹43.76 lakh is kept for the Annual Plan 2016-17, for demonstration of Horticulture Crops.

Assistance on Plant Protection Measures

2.99 Plant protection measures for horticulture crops are very essential for protecting the crop at the time of infestation/incidences of insects pest as it may cause severe loss of crop yield. Therefore, the assistance is given @ 50 per cent cost of pesticide up to maximum limit of ₹500/- per ha. The programme is implemented in all the districts. An outlay of ₹20.00 lakh is kept for the Annual Plan 2016-17 for plant protection measures in 4000 ha. area.

Additional Subsidy for establishment of Green House

2.100 With the use of High Technology, off-season cultivation of high value crops could be done in Green House (Poly House) or Shade-nets for getting higher income. The objective is to cultivate high value crops with the use of high technology in off season. This technology is not getting momentum due to high cost involvement. Thus, for growing off season vegetables seedlings and other horticultural crops under controlled
Providing Assistance on Innovative schemes

2.101 The horticulture development has got multi-dimensional applications and emerging areas and every day a new technique is evolved. The specific need-based activities are also required to be planned and implemented in the field. The objective is to try up new things, which we may not cover in any of the State Plan/Centrally Sponsored Scheme. Assistance on innovative activity/programme is provided to the farmers to the extent of 75 per cent of the cost of activity. The programme will be implemented in all the districts. An outlay of ₹4.00 lakh is kept for the Annual Plan 2016-17.

Horticulture Park

2.102 With an objective to popularize horticulture crops and to make necessary information of horticulture available at one place. A Horticulture Park will be established on Public Private Partnership (PPP) basis in Alwar district in 39.41 ha. land allotted in village Jainpur Bas, Tehsil Behror.

2.103 Detail Project Report of project is being prepared. An outlay of ₹0.03 lakh is kept for the Annual Plan 2016-17 for construction work, consultancy, VGF (Viable Gap Fund) etc.

Additional Subsidy on Solar Pump Set

2.104 The 'Scheme' is increasingly contributing towards enhancing the total irrigated area under cultivation in the State while reducing groundwater and grid-connected electricity consumption/requirements by utilizing solar power available in abundance in the State and deploying drip-based micro-irrigation systems at large scale.

2.105 Under Jawahar Lal Nehru National Solar Mission, subsidy is admissible approximately @ 30 per cent of cost of Solar Pump Sets. Even after this subsidy farmers cannot afford to buy Solar Pump Sets due to its high cost. Therefore, additional subsidy is being provided to different categories for which an outlay of ₹13500.00 lakh is kept for the Annual Plan 2016-17.

Assistance on Automation

2.106 For judicious use of water, there is an urgent need to use Automation with drips for enhancing production and productivity of crops. Therefore, an outlay of ₹0.03 lakh is kept for the Annual Plan 2016-176.
**Date Palm project**

2.107 Date palm plants developed by tissue culture techniques are found most suitable for the North western districts of Rajasthan (Jaisalmer, Barmer, Bikaner, Jodhpur, Churu, Nagaur, Jhunjhunu, Sirohi, Pali, Jalore, Sri Ganganagar, Hanumangarh). The costs of tissue culture plants are too high Viz. approximately ₹. 2500 per plant and farmers are unable to bear the high cost. Therefore it is proposed to provide the tissue culture date palm plants and other inputs at subsidized rates (@ 75 percent of the cost). For this an out lay of ₹0.03 lakh is kept for the year 2016-17.

**National Horticulture Mission**

2.108 NHM was launched in the year 2005-06 with 100 per cent Central assistance. From the year 2007-08, 15 per cent matching share is provided from the State Plan. Now, from the Year 2015-16 onwards the cost is being shared between Centre and State on 60:40 cost sharing pattern.

**The schemes undertaken under NHM are**

- Establishment of new orchards of fruits, flowers, spices and medicinal plants,
- Development of nurseries to produce quality planting material,
- Seed production programme,
- Rejuvenation of old orchards,
- Development of water resources,
- Establishment of green houses, shade-nets,
- Promotion of bee keeping,
- Mechanization in Horticulture,
- Integrated Pest Management/Integrated Nutrition Management,
- Mushroom,
- HRD,
- Organic farming, certification of organic farming,
- Good Agricultural Practices
- Vermi compost production,
- Cold storages,
- Pack houses,
- Refrigerated vans,
- Mobile processing units,
- Infrastructure of mandies etc.
2.109 An outlay of ₹9620.00 lakh is kept for the Annual Plan 2016-17 for NHM.

**Pradhan Mantri Krishi Sinchai Yojna - Micro Irrigation**

2.110 From the year 2015-16, On Farm Water Management has been merged in Pradhan Mantri Krishi Sinchai Yojna - Micro Irrigation. In the scheme, 40 Per cent matching share is provided from State Plan. An outlay of ₹20345.27 lakh is kept for the Annual Plan 2016-17.

**National Agro - Forestry and Bamboo Mission**

2.111 With an objective of development of Bamboo growing areas & market, to increase the productivity of bamboo and to generate the employment, National Bamboo Mission was launched by Central Government in the year 2007-08 now; the name of Mission is changed to National Agro - Forestry and Bamboo Mission. Under the mission, various programmes/schemes such as development of bamboo and other tree plantation in public & private sector and HRD are being implemented. An outlay of ₹290.00 lakh is kept for the Annual Plan 2016-17.

**Ayuash Mission (National Mission on Medicinal Plants)**

2.112 With an objective of assured supply of raw material to Ayush industry through adoption of agronomic practices in medicinal plants cultivation, National Mission on Medicinal Plants was launched by Central Government in the year 2009-10. It would not only protect the forest but also increase export through diversification in Agriculture and fetch higher returns per unit area. Establishment of Medicinal Plants orchards and HRD are the main components of the mission in the State. In 2015-16 Central Government has designated Aayush Department of the State as state nodal agency for implementation of this Mission. An outlay of ₹0.03 lakh has been kept for the Annual Plan 2016-17.

**Per drop more Crop**

2.113 Central Government has announced to launch a new scheme Per Drop More Crop for efficient use of available water. In the year 2016-17, for implementing the scheme in the state a provision of ₹0.03 lakh is kept.

**RESEARCH AND EDUCATION**

**Swami Keshwanand Rajasthan Agricultural University, Bikaner**

2.114 Rajasthan Agricultural University, Bikaner was established w.e.f. 1st August, 1987 by transferring Colleges, Institutions, Research Stations and Extension Centers belonging to Agricultural Wing of Mohan Lal Sukhadia University, Udaipur.
2.115 This Agricultural University is administering 3 Colleges, 2 Agricultural Research Stations, 1 Agricultural Research Sub-Station and 7 Krishi Vigyan Kendras.

2.116 Two faculties of the University, viz., Agriculture and Home Science has Graduate, Post Graduates and Doctoral programmes. The University has three constituent colleges in faculty of Agriculture, one in Home Science and one relates to Agricultural Business Management.

2.117 University has an important mandate of research for the development of new varieties of crops as well as technologies for the benefit of farmers to fulfil the mission of contributing towards sustainable development of agriculture in the State. Agricultural research is carried out at 3 research stations (2 main stations and 1 sub-station) covering 3 agro-climatic zones spread over 6 districts of the State. 16 All India Coordinated Research Project(s) are running in the University on the cost sharing pattern of 75 per cent by ICAR 25 per cent by the State.

2.118 During the year 2013-15, “Krishna” variety of Lucerne has been developed at Agricultural Research Station, Bikaner. This variety will enhance fodder production in the Lucerne growing areas. Desi cotton variety GNG-1985 and GNG-1969 (Triveni) of Chickpea have been developed at Agriculture Research Station, Sriganganagar. Two varieties of mustard i.e. RGN-298 for rain-fed cultivation and RGN-303 for irrigated areas have also been developed at Agriculture Research Station, Sriganganagar.

2.119 The University also undertake seed production programme under the National Seed Project, and the primary objective is production of breeder seed of prevalent varieties for meeting the needs of certified seeds for the benefit of farmers in different regions of the State, in particular, and the country in general. University have developed one high yielding variety of mustard RGN 298 notified for rain fed areas of Zone II of India and two chickpea varieties were identified for released on all India basis and 15 production and protection technologies for sustainable enhancement of soil health and crop production during the year 2014-15. Furthermore, 5 important research projects were sanctioned of worth 492.1 lacs on different aspects in various units. Annual group meet of AICRP on arid fruits was held from 4-6 February, 2016 in the university campus. Various units of university published 510 total publications including research articles, books, manuals, report and others.

2.120 In the Annual Plan 2016-17, an outlay of ₹1207.61 lakh is kept for Agriculture Education & Research Sector of the University.

Maharana Pratap University of Agriculture & Technology, Udaipur

2.121 The University was established by the State Government on 1.11.1999 through promulgation of the ordinance No. 6 dated
25.10.1999 and which became an Act No. 8 of 2000 dated 03.05.2000. Agricultural Research Stations, Agricultural Research Sub-Stations and Krishi Vigyan Kendras situated at Udaipur, Dungarpur, Chittorgarh, Banswara, Rajsamand, Bhilwara and Pratapgarh districts of Rajasthan. Maharana Pratap University of Agriculture & Technology, Udaipur (MPUAT, Udaipur) is shouldering responsibilities of Agricultural Education together with identifying/developing and/or adopting new production technology for agriculture development.

2.122 The Rajasthan College of Agriculture, Udaipur, College of Technology & Engineering, Udaipur, College of Home Science, Udaipur, College of Dairy and Food Science Technology, Udaipur, College of Fisheries, Udaipur and College of Agriculture, Bhilwara is functioning under this University.

2.123 Directorate of Research has Agricultural Research Stations at Banswara & Udaipur, Dry Land Farming Research Station at Arjia (Bhilwara) and Agricultural Research Sub-Stations at Pratapgarh & Vallabhnagar.

2.124 The Mandate of the University is to:

- Impart teaching and training in different branches of agriculture and allied fields particularly Agriculture, Horticulture, Dairy, Fisheries, Forestry, Agricultural Engineering, Basic Engineering, Home Science, etc.
- Conduct research and developing new technologies for sustainability of agriculture, increased production and income and livelihood security in the region.
- Transfer of technology to farming community.
- Provide diverse technical services and consultancy to industries and other stake holders.
- Develop linkages nationally and internationally for education, research and extension education.

2.125 Mission of the University is to facilitate sustainable growth and development of agricultural and allied fields by developing quality human resource and by generating relevant, efficient and effective transferable technologies.

2.126 In the Annual Plan 2016-17, an outlay of ₹1829.63 lakh is kept for Agriculture Education & Research and Animal Husbandry Sector of the University.

Sri Karan Narendra Agriculture University, Jobner

2.127 Sri Karan Narendra Agriculture University, Jobner was established in September, 2013. The service area of the university spread over in 8
districts i.e. Jaipur, Ajmer, Dausa, Tonk, Dholpur, Bharatpur, Alwar & Sikar. This university covers 3 agro-climatic zones and has 18 units located in these 8 districts.

2.128 Sri Karan Narendra Agriculture University, Jobner is administering 4 Colleges, 2 Agricultural Research Stations & 1 Agricultural Research Institute, 4 Agricultural Research Sub-Stations and 7 Krishi Vigyan Kendras

**Education**

2.129 The University has four Colleges of Agriculture at Jobner, Lalsot, Bharatpur and Fatehpur. In recent years, the students from other developing countries are also joining the University through Indian Council of Cultural Relations (ICCR) and Indian Council of Agricultural Research (ICAR), thus enabling the University to create a niche across the globe. The students are being awarded Student Research Projects by the Government of Rajasthan and private agencies like Aspee Agricultural Research and Development Foundation. The University has also linkages with international institutes like the International Crop Research Institute for Semi-Arid Tropics (ICRISAT) and with other National institutes for carrying out research work by Scientists and research workers.

**Research**

2.130 There are 20 AICRP projects running at various centres of the University under 75per cent:25per cent ICAR/State Govt. share. The Assistance is required for payment of salary & recurring expenditure against 25per cent State Govt. Share. During 2015-16 for new verities of different crops viz. Ground nut (RG 559-3), Fenugreek (RMT – 354), Taramira (RMT – 1351) and Fennel (RF – 137) and 21 agro-technologies were developed. Furthermore 2690.72 qtls. of breeder and 187.5 qtls. of TL seeds were also produced.

2.131 In the Annual Plan 2016-17, an outlay of ₹3330.50 lakh is kept for Agriculture Education & Research Sector of the University.

**Agriculture University, Jodhpur**

2.132 Agriculture University, Jodhpur was established in September, 2013. The Agriculture University, Jodhpur comprises of six districts of arid & Semi-arid region namely, Jodhpur, Barmer, Jalore, Pali, Sirohi & Nagaur.

**Education:**

2.133 Since 2013, University has two colleges providing education to under Graduate Students at Mandor (Jodhpur) and Sumerpur (Pali). Whereas, the third College of Agriculture at Nagaur was started in July, 2015. Intake capacity in agriculture colleges for B.Sc. (agriculture) is 50
students at Jodhpur, Sumerpur and 40 students at Nagaur respectively. Besides these three agriculture Colleges, in September, 2013, diploma Course in Agriculture was also started at Ladnu, with intake capacity of 25 students and the Course is of 3 years duration.

**Research:**

2.134 Presently to achieve the goal of the Agriculture University, the research is being conducted at Agricultural Research Station, Mandor & Jalore and validation of developed researches either by university or line department are done at Agricultural Research Sub-Stations i.e. Nagaur, Sumerpur and Samdari. Development and identification of suitable varieties of major rabi & kharif crops and to develop agro-techniques for enhancing crop productivity under different agro-ecological situations are the priority areas for research.

2.135 In the Annual Plan 2016-17, an outlay of ₹2578.77 lakh is kept for Agriculture Education & Research Sector of the University.

**Agriculture University, Kota**

2.136 The Agriculture University, Kota was established by the State on 14th September, 2013 through promulgation of act No 22 of 2013. The jurisdiction of Agriculture University, Kota includes 6 districts namely Kota, Bundi, Baran, Jhalawar, Sawai Madhopur & Karauli spread over two agro-climatic zones of the State i.e. Humid South Eastern Plain Zone V and Flood Prone Eastern Plain Zone III b.

2.137 The following units are functioning under the jurisdiction of this university:

<table>
<thead>
<tr>
<th>Agro Climatic Zones</th>
<th>Districts</th>
<th>Units with farm area in ha.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humid South Eastern Plain Zone V</td>
<td>Kota</td>
<td>ARS 105.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanized Agricultural Farm (MAF)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>484.00</td>
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<td></td>
<td>KVK 44.00</td>
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<tr>
<td></td>
<td>Jhalawar</td>
<td>College of Horticulture &amp; Forestry (CH&amp;F) 165.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KVK 16.13</td>
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<td></td>
<td></td>
<td>ARSS 42.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aklera</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ARSS 52.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Khanpur</td>
</tr>
<tr>
<td></td>
<td>Bundi</td>
<td>KVK 37.57</td>
</tr>
<tr>
<td></td>
<td>Baran (Anta)</td>
<td>KVK 12.00</td>
</tr>
<tr>
<td>Flood Prone Eastern Plain Zone III b</td>
<td>Sawai Madhopur</td>
<td>KVK 16.40</td>
</tr>
<tr>
<td></td>
<td>Karauli</td>
<td>KVK 20.25</td>
</tr>
</tbody>
</table>

**Education**

2.138 The university has one College of Horticulture & Forestry (CH&F) at Jhalawar. This is the first and only College of Horticulture and
Forestry in the State. It has three degree programmes namely B.Sc. (Horti.), B.Sc. (Forestry) and M.Sc. (Horti.) with the intake capacity of 45, 15 and 10 students respectively. Presently M.Sc. (Horti.) programme is awarding PG degree in four disciplines i.e. Fruit Science, Vegetable Science, Floriculture and Post Harvest Technology.

Directorate of Research

2.139 The Directorate of Research is functioning at Borkhera, Kota to supervise the research activities of the University. There are four units working under this Directorate. These are one Agricultural Research Station & one Mechanized Agricultural Farm (MAF) at Ummedganj, Kota and two Agricultural Research Sub Stations at Aklera & Khanpur. These centres are actively engaged in conducting research and developing new technologies for sustainability of agriculture in the region and also seed production of major crops of the south-east Rajasthan.

2.140 Total 14 All India Coordinated Research Projects namely soybean, rice, MULLaRP (Mung bean, Urd bean, Lentil, Lathyrus, Rajmash & Pea), pigeonpea, wheat & barley, potato, chickpea, sugarcane, linseed, arid zone fruits (bael, tamarind, lasoda & custard apple), water management and integrated farming system and also 3 volunteer centres on honey bees, coriander, mustard and agro-met advisory are running in the University on 75:25 ratio basis; out of which 12 are located at ARS, Kota and one Arid Zone Fruits is located at College of Horticulture & Forestry, Jhalawar. In addition, 6 projects are funded under RKVY.

2.141 In the Annual Plan 2016-17, an outlay of ₹1102.31 lakh is kept for Agriculture Education & Research Sector of the University.

AGRICULTURE MARKETING DEPARTMENT

2.142 The department is running following two schemes:

Rajeev Gandhi Krishak Sathi Yojana ‘2009’

2.143 Rajeev Gandhi Krishak Sathi Yojana is 50:50 funded by Agriculture Marketing Committee and Rajasthan State Agriculture Marketing Board.

2.144 Scheme is for the benefits & assistance of farmers, Agricultural labours and persons who are involved in the marketing in market committees. Under this scheme assistance is given to those who died or injured during agricultural activities and those who work in market committee.

2.145 At present the assistance is given through a committee constituted at marketing committee level under the chairmanship of Market Committee Chairman and assistance given under scheme is ₹2.00 lakh to the dependent of the deceased and up to ₹0.50 lakh to the injured,
payment is made by crossed cheque or demand drafts in presence of two responsible persons.

**Kissan Kaleva Yojana 2014**

2.146 Kissan Kaleva Yojana, 2014 has been started in the Super Class, A Class & B-Class Mandies. Under the scheme food facility is provided to the farmers, labours & hammals that come to the market yards of Mandi Samities.

2.147 The aim of the scheme is to provide cheaper & nutritious food to the farmers & their companion who come to the Mandies to sale their agricultural commodities. The food is provided with the coupon system. In the food following items are included:-

<table>
<thead>
<tr>
<th>Table 2.11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapati</td>
</tr>
<tr>
<td>Dal</td>
</tr>
<tr>
<td>Vegetable</td>
</tr>
<tr>
<td>Gur</td>
</tr>
<tr>
<td>Chhachh</td>
</tr>
</tbody>
</table>

- The maximum cost of one Thali is ₹40/- out of this ₹5/- is paid by a Farmer, Regd. Hammals/ Palladars & the rest amount worth ₹35/- is paid by the Mandi Samities as subsidy.
- The scheme does not cover fruit & vegetable Mandi yards.
- As soon as the farmer gets the gate pass of his produce of the Mandi gate, the Mandi clerk issues coupon maximum for two persons under this scheme. The coupon is issued to the registered hammals/ labours on the producing their registration card. Account of coupon is maintained daily in the register.
- There is a standing committee to look after the quality of food & other arrangements. The committee is headed by Chairman of Mandi Samiti; Chairman of Vyopar Mandal & Secretary of Mandi Samiti are the member of this committee.
- The concerning Mandi meets the expenses of this scheme up to the limit of 2per cent from the earning of Mandi fee. The approval and sanction is mandatory from the Directorate if the amount goes excess of 2per cent.
- The income of the Mandies may be raised in the form of Mandi fee when more produce come in the Mandies.
2.148 A provision of ₹24000.00 lakh is kept for the Annual Plan 2016-17 for various activities of Agriculture Marketing Board. This amount will be made available from own resources of the Board.

RAJASTHAN STATE WAREHOUSING CORPORATION

2.149 Rajasthan State Warehousing Corporation is working in the State for last 55 years under the Warehousing Corporations Act, 1962 (Central Act, No. 58 of 1962). The Corporation is providing scientific warehousing facilities through 91 warehouses all over the State. Farmer, traders, cooperative societies, cooperative institutions, Government/Non Government Organizations and various industries are availing the warehousing facilities of the corporations by storing their agriculture produce/ seeds/ manures/ fertilizer and other notified commodities such as paper, cement, copper, milk powder etc.

2.150 The Corporation is presently operating 91 State Warehouses in 31 districts of the State of Rajasthan. The total own storage capacity of the Corporation is 891620 MT.

2.151 During the Twelfth Five Year Plan (2012-17), Rajasthan State Warehousing Corporation (RSWC) has planned to construct 81000 MT storage capacity godowns out of this 38000 MT storage capacity has already been completed up to March, 2016. A provision of ₹ 700.00 lakh is kept for the Annual Plan 2016-17 for activities of Corporation. This amount will be made available from own resources of Corporation. In accordance to the state’s directions construction of 5.18 lakh MT storage capacity is being carried out under RIDF scheme. Till 31.03.2016 1.55 lakh MT storage capacity has been built.
## Annexure 2.1

<table>
<thead>
<tr>
<th>Year</th>
<th>No of Projects</th>
<th>Fund Received</th>
<th>Funds Available including unspent balance</th>
<th>Expenditure As per Ag Audited</th>
<th>Actual Expenditure UCs Sent to GOI</th>
<th>Expend -iture per cent</th>
<th>Unspent Balance as on 1st April</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Through Treasury</td>
<td>Out of Treasury</td>
<td>Total</td>
<td>55.76</td>
<td>55.76</td>
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<tr>
<td>2007-08</td>
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<td>55.76</td>
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<td>55.76</td>
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<td>2008-09</td>
<td>44</td>
<td>116.88</td>
<td>116.88</td>
<td>233.76</td>
<td>289.52</td>
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<tr>
<td>2009-10</td>
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<td>186.12</td>
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<td>186.12</td>
<td>299.86</td>
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<td>628.01</td>
<td>679.25</td>
<td>582.66</td>
<td>615.27</td>
</tr>
<tr>
<td>2011-12</td>
<td>25</td>
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Annexure 2.2

Department wise Expenditure incurred under RKVY from 2007-08 to 2015-16

(₹ in lacs)

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- This includes ₹ 53783.22 lakh expenditure through treasury and ₹ 365.79 lakh out of treasury with the approval from GOI.