

CHAPTER - 7

AGRICULTURE PRODUCTION

Research and Education

7.1 The Swami Keshwanand Rajasthan Agricultural University (SKRAU), Bikaner, earlier named as Rajasthan Agricultural University Bikaner, established in 1987 with the objective of imparting education, generating information through basic and applied research, was bifurcated in 1999 with the creation of a new University, Maharana Pratap University of Agriculture & Technology (MPUAT) with headquarter at Udaipur. At present SKRAU, Bikaner has a service area of 21 Districts of arid & semi-arid regions while MPUAT, Udaipur has a service area of 12 districts of south & south eastern parts of the state. The major mandates of these Agricultural Universities are (i) Education (ii) Research and (iii) Extension, keeping in view the agricultural development aspects of their respective service areas.

7.2 SKRAU, Bikaner has three colleges of Agriculture at Bikaner, Jobner and Lalsot (Dausa), college of Veterinary and Animal Sciences, college of Home Science, institute of Agri-business Management, Academic Staff College cum Distance Education Centre at Bikaner. MPUAT, Udaipur has six colleges located at Udaipur and Jhalawar including Agriculture, Home Science, Engineering, Dairy and Food Science, college of Horticulture, Veterinary and Animal Sciences.

7.3 For developing improved varieties of crops and cost-effective improved technologies for sustainable development of agriculture in the seven agro-climatic zones spread over the service area, SKRAU, Bikaner has seven Agricultural Research Stations and eight sub-stations. For veterinary & animal science research the University has four Livestock Research Stations at Bikaner, Chandan & Nohar along with two animal Disease Surveillance & Diagnostic Centres (APEX Centres) at Bikaner & Jaipur. The University has also a National Seed Project at Bikaner with the mandate of producing breeder seed used for certified seed production by GOR/GOI agencies for the benefit of farmers. NSP unit also produces truthful labelled seed for direct supply to the farmers.

7.4 MPUAT, Udaipur has three Agricultural Research Stations at Udaipur, Kota, Banswara; Agriculture Research sub-stations at Pratapgarh, Aklera; Dryland Farming Research Station, Bhilwara and Agricultural Research Station at Vallabhagar. The University has also a NSP unit catering the need for Breeder Seed Production and Production of TFL seed for benefiting the Farmers in the operational area of 12 districts.

7.5 For extension activities SKRAU, Bikaner has 14 KVKs at Bikaner Jaisalmer, Fatehpur, Jhunjhunu, Bharatpur, Dholpur, Nagaur, Dausa, Sriganganagar, Navgaon, Ajmer, Jalore, Hindon-Karoli & Swaimadhopur. MPUAT, Udaipur has 10 KVKs at Banswara, Baran, Bhilwara, Bundi, Chittorgarh, Dungarpur, Jhalawar, Rajsamand, Sirohi & Kota.

7.6 The Extension Programmes of the University have been reset to disseminate technologies through programmes like village adoption, development of model technology units at KVK's, Knowledge centres in villages etc. The University has embarked on ambitious programmes of promoting horticulture.

7.7 In SKRAU Bikaner for the Annual Plan 2010-11 an outlay of Rs. 496.68 lac has been proposed. In MPUAT, Udaipur for the Annual Plan 2010-11 an outlay of Rs. 330.74 lac has been proposed.

Crop Husbandry

General Scenario and Current Trend:

7.8 Total cropped area in the state is 206.22 lac out of which 10.69 lac ha. has saline soil and sodic soil problem and 1.79 lac ha is under soil alkalinity. 125 lac ha area is mono cropped 4.95 lac ha area is occupied by gully and ravines and 0.23 lac ha is water logged. Soil fertility is declining at present and deficiency of zinc, iron and sulfur has been noticed in vast areas. 33% of the cropped area is irrigated out of which 27% is irrigated through canals and 65% through ground water. 67% of the area is rain fed due to the fact that the state has only 1% of country's water resources. Average annual rainfall is 557 mm. Agriculture and allied sector contributes about 27% to the GSDP.

Strength:

7.9 Largest state covering 10.5% of geographical area, State has 10% of livestock of the country, 83% of available water used for irrigation, food grain production is increasing, five agro-climatic regions.

Limitation:

7.10 Rainfall is highly inadequate, 61% of area is in arid and semi-arid tracts where soil has poor fertility, low water holding capacity, high infiltration rate, 12 lac ha area is either saline or alkaline, crops suffer from high temperature and wind effect, limited availability of ground water, limited spread of retail outlets for agriculture input, limited power – supply, lack of PHM and processing facility, low farm mechanization.

Agriculture Department

7.11 Agriculture plays a vital role in the economic development of the State and continues to be the backbone of our economy. The average size of land holding in the State is 3.96 ha. as compared to 1.41 ha. at the all India level.

Concerns in Agriculture Sector

- Efficient use of water (Uncertain rains, uneven distribution, decreasing availability of ground water, availability of canal water decreasing and uncertain also).
- Deteriorating soil health.
- Low Productivity (High Production Vulnerability) – Uneven and unstable production from year to year and across the region with in the same year.
- Low Technology adoption.
- Inadequate infrastructure.
- Lack of Crop diversification-Reliance on traditional crops due to low investment capacity and uncertain weather conditions.
- Low R&D investment / effort – especially for drought prone / rainfed areas.
- Weak extension machinery – Declining number of extension workers to cater increasing number of clients (farmers)
- Inequity between productivity in irrigated and un-irrigated areas.
- Under developed Markets – Inadequate marketing linkage / support.
- A large tract of land, about one million hectare is having saline and alkaline soils.

Vision

- **Land care and Soil Health Enhancement**-Maintenance of soil health through judicious use of fertilizers. Every farmer should get soil health card in every crop season, which will include the recommendation for micro -nutrients also. Soil Reclamation by use of gypsum.
- **Water Management**- Encouraging optimum use of water through installation of sprinklers on every operational wells by the end of the XI Plan.(Extend the coverage from existing 3 lac to 7 lac wells / tube wells). Promoting diggis/ farm ponds/water harvesting structures in canal command areas and other areas of the state.
- **Extension Support**-Access to improved agricultural practices through extension services, printed literature and other media support. (Every farmer should get farm specific technical message in print form before every crop season.)
- **Input Availability**-Ensuring availability of good quality seed of desired crop / variety to each farmer at his doorstep. Timely availability of fertilizers and pesticides.
- **Fodder Cultivation**- Looking to large animal population, green fodder cultivation to be taken up in rabi and zaid.

- **Agro Processing /Value Addition**-Shift the focus of Extension workers from crop production to Post Harvest Management and Marketing.

Projections on Production of Food-grains and Non Food-grains Crops for XI Plan:

7.12 The production of food-grains has registered a compound growth rate of 2.9 % per annum which is almost similar to the growth in population being 2.8% per annum for last one decade. The growth in food-grains has been contributed by two factors i.e. by increase in yield levels and area expansion. In oilseeds considerable higher growth rate of 6.6% has been attributed primarily due to area expansion. Now the possibilities of increasing agriculture production through area expansion are very little. The expansion in production output, therefore, has to be a function of improvement in yields. Attaining higher levels of growth in agriculture production will become crucial in years to come if the trends in population rise continue to be at the same rate which has been observed in the recent past (2.8 % per annum). With this rising trend of population, the requirement of food-grains by the end of XI Plan for an estimated population of 7.22 crore, be around 122.74 lac ton Cereals, and 21.66 lac ton Pulses, 7.27 lac ton oil based upon per capita requirement. To meet this requirement, the production programme will have to focus a target well above the real requirements. It is highlighted that during last 20 years period (1985-86 to 2005-2006) the growth rate of production of Food-grains and Oilseeds was 2.9% and 6.6% respectively.

7.13 The agriculture production for the XI Plan has been targeted as under:

Projections for field crops production during XI Plan
(Area in lac ha, prod. in lac ton/bales)

S. No	Crop	Average Area		Production.		% Increase Production
		Xth Plan	XIth Plan	Xth Plan	XIth Plan	
1	Cereals	94.90	94.25	134.27	162.74	21
2	Pulses	32.09	40.75	14.82	23.40	58
3	Total Food-grains	126.99	135.00	149.09	186.14	25
4	Oilseeds	45.08	50.55	51.67	69.70	35
5	Sugarcane	0.11	.05	6.30	3.00	
6	Cotton	3.50	5.00	7.47	13.24	77
7	Guar	28.08	27.00	6.58	10.80	64

Major Initiative/Innovations

Project Golden Rays 2009

7.14 The productivity in tribal districts where maize is staple food is very low. To popularize Hybrid Seed and increase the productivity and income per unit land, the department of Agriculture on a PPP mode launched a programme with Monsanto India Ltd. as a partner in the project Golden

Rays 2009. The project was run under the banner of Directorate of Agriculture (DOA). Under the project Monsanto supplied Hybrid Prabal and Hi-shall to the farmers in Udaipur and Banswara District. 99 MT Hybrid Seed was distributed to 18872 farmers in the two districts during Kharif Season. Despite low rains the productivity from these hybrid was reported to be very high ranging from 32 to 35 QT per ha. in the crop cutting under taken on random basis as per report of Collector, Banswara which was almost two time higher then the average yield of 17-18 QT per ha. The increase in yield in Udaipur district has also been reported to be from 50 to 100 % over prevalent hybrid by Joint Director (Ext.) Udaipur Division.

7.15 Encouraged by the good response of the programme in Kharif this programme was further extended in Rabi Season as Rabi Maize programme wherein 56 MT of Hybrid Supreme Seed was distributed to the tribal cultivators in Banswara District. This programme has helped in increasing productivity of maize and also bringing about grater awareness on the use of improved hybrid in the two districts and particularly among tribal farmers of three Panchayat Samities, thereby improving the socio economic conditions of the farmers in spite of adverse weather condition this year.

7.16 As Golden Rays 2009 programme has demonstrate signified increase in productivity and looking to the success story in Banswara district it is proposed to expend this programme in Kharif 2010 to cover approximately 35% of the corn growing areas in the tribal sub-plan districts of Banswara, Dungarpur, Udaipur, Pratapgarh and Sirohi to improve the socio-economic conditions of the tribal farmers in these districts. The arrangement of hybrid seed shall be made through ISOPOM and RKVY. 3500 MT of Deklab Hybrid Corn Seed would be arranged through Monsanto.

Increasing SRR for BPL and tribal cultivators in 5 tribal districts

7.17 The BPL and tribal cultivators are constrained with funds for adoption of improve technology. Improved seed alone increases productivity by 15 to 20%. Keeping this in view, the Department of Agriculture has taken up a project through RKVY funds of Rs. 374 lac to increase SRR of wheat, barley and gram in Rabi 2009-10 on the fields of BPL and tribal cultivators in the TSP areas of Banswara, Dungarpur, Partapgarh, Udaipur and Sirohi districts. Under the programme 700 qt. Wheat, 4875 qt. Gram and 1525 qt. Barle seed of improved variety has been provided to enable sowing in 0.2 ha. to each cultivator. In all nearly 75000 cultivators have been provided the good quality certified seed in current Rabi Season.

DROUGHT MITIGATION EFFORTS

7.18 2009-10 was one of the most drought affected year which severely affected crop production in Kharif crops resulting in acute shortage of

fodder for the large cattle population in the State. Hence, Department of Agriculture took up special programme to mitigate drought and help small and marginal farmers and other general farmer whose farm economy has been adversely affected due to low and irregular rainfall pattern in the State during Kharif 2009 season. Some special programme taken through RKVY funds are as under:

- Massive fodder cultivation in rabi and zaid where irrigation facility available- 10 lac minikits to be provided free of cost to farmers with expected coverage 1.00 lac ha area under fodder crops.
- Construction of 1000 diggis, 2000 farm pond and 1200 water harvesting structure envisaged on subsidy from RKVY funds.
- Promotion of gypsum use as nutrient for pulses & oilseeds by keeping uniform price of gypsum throughout the state.
- Special camps were organized to provide vaccination, mineral mixture & de-worming medicines for animals- relevance for Rajasthan as livestock support livelihoods to farmers particularly in Western Rajasthan.
- Bajra & Ground nut seed production in State itself as seed availability from Andhra Pradesh and Gujarat not assured due to drought situation in those States also.

IEC activities undertaken:-

- Special telecast on drought related topics for 810 minutes in 37 slots through Doordarshan.
- Similarly, there was broad-cast from All India Radio on drought related topics for 1350 minutes in 45 slots in which drought management strategies were discussed and advisories provided by scientists / experts.
- 95 lac pamphlets/folders etc distributed among cultivators in Krishi Abhiyan Camps.
- Drought management strategies provided through in-house news letter Kheti Ri Batae
- 95 press releases/advertisement and publication of popular articles in newspaper.

7.19 Physical Progress of major initiatives/programmes taken through various CSS Schemes and State Plan during 2009-10 and Physical and Financial progress is given below upto November, 2009.

S.N.	Activities	Unit	Physical		Financial (Rs. in lac)	
			Targets	Ach.	Prov.	Exp.**
1	Pipe line	KM	4000	3449	800.00	690.93
2	Diggi	NO.	1000	998	1500.00	207.58
3	Farm Pond	NO.	2000	900	600.00	140.00

S.N.	Activities	Unit	Physical		Financial (Rs. in lac)	
			Targets	Ach.	Prov.	Exp.**
4	Water Tank	NO.	1200	451	420.00	23.70
5	Agriculture Implements	NO.	51990	37357	1533.75	610.03
6	Plan Protection Equipments	NO.	18880	12603	234.90	110.45
7	Gypsum Distribution*	MT	81000	63729	760.00	462.91
8	Crop Demonstrations	NO.	33313	29896	683.96	429.03
9	Crop Minikit Distribution	NO.	827422	742372	0.00	0.00
10	I.P.M. Demonstrations	NO.	400	228	39.36	9.03
11	I.P.M Trainings	NO.	1090	852	107.48	24.53
12	Farmers' Exposure Visits	NO.	140	65	140.00	60.19
13	Farmers'(1&2) days Trainings	NO.	20207	11210	164.85	80.52
14	Soil health cards	NO.	350000	195400	0.00	0.00
15	Soil samples	NO.		250000	0.00	0.00
16	Fodder Minikits Distribution	NO.	910000	901995	2500.00	2500.00

*Gypsum Distribution does not cover NFSM Scheme which is 100% funded by GOI and does not have any State Share.

**Expenditure reported are actual. Expenditure is much more as physical activity already undertaken in field and bills are under process.

Kharif and Rabi Abhiyan

7.20 The Department of Agriculture had launched Kharif campaign to popularize best practices among the cultivators at Gram Panchayat Level from 20th May to 15th June with the view of convergence of agriculture services at the door steps of the farmers. Nearly 6 lac farmers covering 9189 Gram Panchayats participated in these camps. During this period 2.40 lac seed minikits were distributed to the women farmers along with taking of 62000 soil samples, distribution of 43000 soil health cards and preparation of 70000 applications for availing benefits of farm implements/PP equipments/piped conveyance system etc. 4.98 lac booklets and 12.11 lac pamphlets were distributed among the farmers.

7.21 Similar camps were also organized in Rabi Season from 15th Sept. to 15th Oct, 2009 with special focus on drought combating. The camps were organized in 9189 Gram Panchayats covering 41375 villages. Nearly 11.53 lac farmers participated in these camps. To meet green fodder requirement nearly 9.00 lac minikit (fodder-6.97 and 2.85 lac minikits on other crops) were distributed in these camps. To take care of cattle health-1.30 lac packets mineral mixture and de-worming medicines were also distributed. Special efforts were made to cover left out farmers for credit requirement by providing Kisan Credit Cards. 42060 credit cards were prepared during this campaign. 1.13 lac samples were taken and 60000 soil health cards distributed. 51285 applications were process for individual farmers benefits scheme. From this year, holding such camps

prior to Kharif and Rabi Season have been made mandatory or have been Institutionalized and shall be held every year hence forth

ANNUAL PLAN 2010-11

7.22 A sum of Rs. 12000.00 lac (excluding Work Plan provision of Rs.200.00 lac) has been kept for Annual Plan 2010-11, of which Rs.11182.00 lac as committed provisions and Rs. 818.00 lac for new items. The flow towards capital outlay is Rs. 695.65 lac., The flow towards TSP and SCP is likely to be 12.38% and 16.53% (including wok plan) respectively on the basis of proposed programmes for the Annual Plan 2010-11. The summarized table of Annual Plan 2010-11 is as under:

(Rs. In Lac)

	Committed	New	Total
Revenue	11064.35	240.00	11304.35
Capital	117.65	578.00	695.65
Total	11182.00	818.00	12000.00

DETAILS OF THE PROGRAMMES PROPOSED

A-REVENUE EXPENDITURE

DIRECTION AND ADMINISTRATION

7.23 A sum of Rs.50.11 lac is proposed for the year 2010-11 for committed items. Provisions for salary, O.E., contractual services and Rajya Kisan Aayog are proposed.

SEED SECTOR:

7.24 Seed is an important component in agriculture development. Provision of Rs. 50.00 lac has been kept for the year 2010-11. Sub-component wise detail is given below:

7.25 Buffer Stock of Certified Seed by RSSC:-Rajasthan State Seed Corporation is committed to provide good quality certified seeds to farming community. Timely availability of good quality seeds in required quantity plays a vital role in increasing production and productivity. Particularly in Kharif crops, if good quality certified seeds of required varieties are made available in time, seeds alone can increase production significantly under existing agronomic practices.

7.26 RSSC is planning to distribute maximum possible certified seed of Kharif Crops, but risk of unsold seed being carried over to next season is to be accounted for in achieving this objective. This risk is further aggravated due to wide gap in the prices of Kharif crop seeds and grains, in case unsold seed is sold as grain. The scheme will support availability of additional Kharif seeds e.g. groundnut, til, arhar, urd, moth, cowpea,

and guar in the State by RSSC by covering their additional risk. A provision of Rs. 10.00 lac has been kept for 2010-11.

7.27 Strengthening/operating cost for seed testing laboratories/ hybridity test lab/DNA finger printing lab:- To ensure quality seed distribution, it is necessary to test the seed samples, therefore, operating cost for seed testing labs / hybridity test lab / DNA finger printing lab is required. These labs also require some lab articles to strengthen and make them operational. An amount of Rs.20.00 lac has been kept for the year 2010-11.

7.28 Establishment of Seed Processing Plants in Private Sector: - The SRR of most of the crops grown in Rajasthan is dismally low despite two times increase in availability of improved seed in last two years. The main reason of low SRR is non-availability of good quality seeds, particularly in pulses, (less than 5%) seed spices vegetables. Realizing the need for increased seed production with a view to enhance SRR and in particularly high volume low value crops, private sector involvement is required for boosting seed production. To make greater availability of seeds, a scheme was formulated as CHOKHO BEEJ YOJNA for Promoting Involvement of Private Sector in seed multiplication; it is proposed to be continued during 2010-11. For which Rs. 20.00 lac is proposed for the 2010-11 under aforesaid scheme.

MANURES & FERTILIZERS:

7.29 A provision of Rs.332.20 lac is proposed under this sector for the year 2010-11. Out of this, Rs.92.20 lac is kept for committed items and Rs.240.01 lac is proposed for new items. Sub component wise details are given below:

Strengthening & operating cost for Fertilizer Quality Control Laboratories, Soil Testing Labs, Pesticides Residue, and Pesticides Testing & Phytosanitary Laboratories

7.30 Rs.40.20 lac has been kept in Annual Plan 2010-11 for strengthening & operational cost for Fertilizer Quality Control Lab and Soil Testing Labs along with pesticide residue testing and Phytosanitary laboratories.

State Share for new establishment of 2 fertilizer testing labs under CSS – NPSMF

7.31 In order to promote balance use of fertilizer through providing soil analysis report to the farmers and acquiring quality of fertilizer, GOI has launched a scheme of National Project of Management of Soil Health & Fertility (NPMSHF). The scheme will facilitate and promote integrated nutrient management through judicious use of fertilizer and strengthening of soil testing facilities to provide soil test base recommendation to farmer to improving soil fertility and economic return of farmer. Two fertilizer testing labs have been approved by GOI. As per

guideline of this project, GOI will provide Rs.50.00 lac for establishing one fertilizer testing laboratory in Rajasthan. Hence for two FTL Rs.1.00 crore will be provided.

State Share for establishment of 14 new Soil Testing Laboratories in PPP Mode under CSS– NPMSHF

7.32 In order to promote balance use of fertilizer through providing soil analysis report to the farmers and acquiring quality of fertilizer, GOI has launched a scheme of National Project of Management of Soil Health & Fertility (NPMSHF). This scheme will facilitate and promote integrated nutrient management through judicious use of fertilizer and strengthening of soil testing facilities to provide soil test base recommendation to farmers to improving soil fertility and economic return of farmer. Under this scheme 10 static soil testing labs and 4 mobile soil testing labs have been approved by GOI.

i. **Static Soil Testing Labs:** - GOI will provide 50% of the cost to not exceeding to Rs.30.00 lac for each lab.

ii. **New Mobile Soil Testing Labs. :** - In addition to above static soil testing labs, 4 mobile soil testing labs also have been approved by GOI. For each MSTL GOI will provide Rs.30.00 lac. In this way, under NPMHSF for laboratories Rs.240.00 lac is proposed as State Matching Share.

Dissemination of village level package of practices (POP)

7.33 In past, Department of Agriculture has conducted intensive soil fertility management through soil testing, soil fertility mapping, preparation of soil health cards and now sufficient information is available for promoting application of nutrients on basis of soil test results. The facilities micro nutrient testing (Zinc, Iron, copper and manganese) have been created in almost all district labs. The department now has following facilities:-

- Soil fertility mapping and Management
- Soil health cards are now available in all villages.
- Fertilizer recommendations can be made on soil test results which are available for cluster of villages.
- The soil fertility survey is now available for 237 blocks

7.34 On basis of data generated, a Geo reference data base Soil fertility GIS maps have been prepared and linked on DOIT GIS "Vikas Darpan" Website.

7.35 Earlier POP was prepared at agro climatic zone level covering 3-4 districts and the recommendations were same for the entire zone. As fertility status of soil changes due to use of high analysis fertiliser, intensive cropping etc. From block to block hence there is essential to keep proper watch on amount of mining of nutrients besides promoting

balance application of nutrients. For regular monitoring of soil fertility fluctuation GPS based fertility survey has its importance, as the data generated can directly be linked with GIS map. Department of Agriculture now proposes to popularize package of practices on village basis as information is now available for providing information for individual household/farmer. This will help in sites specific recommendations as per the existing soil health condition and shall also help in reducing cost of cultivation through actual based need of nutrient management. For this Rs.50.00 lac is proposed for GPS instrument, fertility survey and preparation of soil fertility map of Panchayat Samitiwise etc. This intervention in long term will increase the sustainability of the agriculture system of the area.

Popularizing use Of Bio-Fertilizers

7.36 A sum of Rs. Rs. 2.00 lac has been kept for testing of Bio-fertilizers manufactured by other agencies at state level Rhyzobia Laboratory, at Durgapura, Jaipur.

PLANT PROTECTION

Eradication of Pests & Diseases in Endemic & Non Endemic Areas

7.37 Pests & diseases infestation occurs in the form of katra, white grub, Tobacco Caterpillar, Semi looper etc. Previously a large amount of funds were provided by the Govt. of India for the eradication of different Pests & Diseases in the field crops. Now the Govt. of India has been advocating IPM technology for the management of Insects/Pests disease. Accordingly, the department is extending the technology among farming community. Though, this activity has been covered under Work Plan but due to cap on subsidy under Work Plan a differential subsidy of 25% is proposed to be given from State Plan budget. Therefore, a sum of Rs. 30.00 lac has been kept for 2010-11 as committed item for eradication of Pests/Diseases in Endemic/Non endemic areas by use of PP chemicals.

COMMERCIAL CROPS:-

7.38 Incentive Cotton Development Programme (ICDP), Integrated Scheme of Oilseed & Pulses Oilpalm & Maize (ISOPOM) and Agriculture Technology Management Agency (ATMA) are Centrally Sponsored Schemes. For state matching share following provision is made:-

(Rs. in lac)

S. No.	Name of Scheme	Eleventh Plan Outlay	Provision for 2010-11
1	ICDP (Cotton)	1000.00	43.74
2	ISOPOM	9200.00	1500.00
3	ATMA	250.00	100.00
	Total	10450.00	1643.74

EXTENSION & TRAINING:-

7.39 A total provision of Rs.1017.30 lac as committed item has been kept under this sector for the year 2010-11, Sub component wise details are given below:

Training of Staff & Education

7.40 For the year 2010-11, a provision of Rs.70.00 lac has been kept for staff training in inter and intra state for developing communication skill, and dissemination of technology, adoption process and capacity building of extension / research functionaries for effective extension and need based transfer of technology. Funds would also be utilized for organized Workshops / Seminars / Symposium on specific subject related to Agriculture Department and State Agriculture University.

Demonstration on Organic Farming and Vermiculture

7.41 A sum of Rs.15.30 lac proposed as committed item for above purpose.

FFS based organic farming demonstration

7.42 Organic Farming is becoming increasingly popular and global demand for organic product is growing rapidly. It also helps in sustainable Agriculture, is environmental and takes into account the health concern of the consumers. Research is being carried out by SAU's on development of organic package of practices for different crops under different Agro-climatic conditions since 2006-07 and both SAU,s will now provide interim POP to the department. Hence, to popularize organic farming practices among the cultivators it is proposed to lay out demonstration on the cultivators field under the supervision of scientists of SAUs and officers of ATCs, for which assistance will be 50 % of the cost of inputs i.e. organic matter (compost and vermi compost) cost of seed, bio-fertilizers, bio agents, neem based pesticides etc or maximum Rs. 1000/- whichever is less for 0.4 ha per season. On the sides of such demonstration, Farmers Field School (FFS) would also be organized. The demonstration would be laid out on the same site for the minimum period of three years to assess the impact of organic farming practices. There will be 850 demonstration (Kharif and Rabi) of 0.4 ha each. Rs. 15.30 lac as committed is kept for organic farming demonstrations.

Promotion of Organic Farming by providing incentive to Registered Organic Growers

7.43 For the promotion of organic farming in the State, incentive will be provided to the registered organic farmers for different crops. The incentive of Rs. 8000/- will be provided to each registered farmer on the basis of evaluation report / documentation approved by certifying agency. This Incentive may also include fee of registration & certification. Hence, the total amount of Rs. 40.00 lac as committed item is proposed.

Agriculture Information – Agriculture Technology Dissemination through Mass Media and Printing of Farmers Friendly Literature

7.44 A sum of Rs. 175.00 lac as committed item has been kept towards advertisement, documentation and Publicity of Agriculture Information & Agriculture Technology through Exhibitions (State / National Level Exhibitions / Expos), Use of Electronic and Print Media i.e. Doordarshan (Navankur), AIR (Kheti Ri Bantan) sponsored programmes, information dissemination through News Papers etc. and agriculture information activities at Panchayat Samittee, District, Division and State level, during Annual Plan 2010-11. Apart from these, CDs of Agriculture films, pamphlets, small booklets of agriculture technology, printed material of agriculture technology, AV Aids, Krishi Calendars and Video Films of Latest technology will be made available to field offices and ATC so that they may disseminate agriculture knowledge to farming community of the State. Repair and Maintenance of existing Audio Visual Equipments, printing machines, printer-cum-Fax and photocopiers machines will be undertaken which are being used for dissemination of technology and extension activities at Headquarter and Field Offices.

Computerization and Related Communication Exp

7.45 Agriculture Department is a key department of the State Government and is concerned with the very important task of improving the productivity of the farm sector. Department is working towards to increase efficiency and transparency through IT infrastructure to provide convenient services to farmers, agriculture learner & research holders, companies and department employees. A sum of Rs. 20.00 lac as committed item has been kept for 2010-11.

Agriculture Extension Services

7.46 A provision of Rs. 697.00 lac for annual Plan 2010-11 has been kept for various on going following field extension activities:

- **Incentive to Girls:-** In Rajasthan literacy among women is only 44.34% and in rural areas it is a dismal 37.74% .Farming is the main source of subsistence in rural areas of the state. Involvement of women in agriculture ranges up to more than 70% in different parts of the Sate. In Rajasthan, more than 70% of the agricultural operations are performed by farm women. As an effort to have **Gender Responsive Budgeting in Agriculture**, girls would be encouraged by providing incentives to them for taking agriculture subject at Sr. Secondary and College level. A sum of Rs 205.00 lac as committed item has been kept for the year 2010-11. It is proposed to provide incentive to women taking agriculture subject at Sr. Secondary @ Rs 3000 per year, for graduation level Rs 5000 for post graduation and Ph.D. level @ Rs. 10000.

- **Rent for Kisan Sewa Kendra:** - Presently there are 4373 KSKs in the State, which are rendering services to farmers. But all of them do not have buildings facility of their own. However, some KSK buildings have been constructed in a phased manner. Still majority of KSKs are being run in public buildings due to non-availability of own building; hence, the proposal to provide nominal rent @ Rs. 150/- per month per KSK till all the KSK buildings are constructed. A sum of Rs. 32 lac has been kept for the year 2010-11.
- **Inter & Intra State Exposure Visit of Farmers:-** The gap between technology evolved and adopted is widening day by day. Direct intervention between farmers & research scientist, is however limited in existing system. The village level extension workers whose function is to work as an intermediary between the farmer and research scientists provides the cutting edge between the farmers and research extension linkage. It is proposed to introduce and institutionalize system of providing direct interface between farmers and scientists on problems and constraints faced in agriculture and communicating relevant technological advances to the farming community. The regular system of farmer scientist interaction provides a forum on the spot identification of problems & therefore for suggesting remedial measures the farmers of particular region will be sent to specific locations where any technology is popular among the farmers and also at the zonal agriculture research station. During their visits they will be trained intensively through interaction session and field visit to demonstration site. For Inter & Intra a sum of Rs. 65.00 lac has been kept during 2010-11.
- **Communication & Mobility of Field Staff:** - For effective implementation of agriculture development activities and to facilitate better mobility of field functionaries for effective monitoring, a provision of Rs. 75.00 lac has been kept for the year 2010-11.
- **Women Empowerment:-** As an effort to have **Gender Responsive Budgeting in Agriculture**, a project on technological empowerment of women in agriculture is proposed to be undertaken as joint programme of state Government and SAUs. Under the project, women farmers will be trained in agriculture technology to become Vikas Vahini for technology dissemination. For this, A sum of Rs. 20.00 lac has been kept for the year 2010-11.
- **Organization of Camps (Krishi Yojanaen Aapke Dwar) :-**For better delivery of extension services and for providing incentives under various schemes to farmers in quick way and to ensure transparency in delivery of services, the Department of Agriculture is implementing "Krishi Yojanaen Aapke Dwar". During the year 2010-11, camps at Gram Panchayat level will be organized in rabi season and some special orientation and review camps will also be organized at Division

and State level. For this, a sum of Rs. 150.00 lac has been kept for the year 2010-11.

- **Kisan Mahotsav (Krishi Gyan Avam Aadan Shivr):-** A provision of Rs.150.00 is proposed for the year 2010-11 for Kisan Mahotsav. The campaign is organized in pre Kharif season for better delivery of extension services and for providing incentives under various schemes to farmers in quick way and to ensure transparency in delivery of services besides creating awareness among farmers for water conservation and efficient use of water.

CROP INSURANCE

7.47 State Government is implementing the Crop Insurance under NAIS since Kharif, 2003 in the State. A provision of Rs. 4000.00 lac is proposed for the year 2010-11 of which Rs 3940.00 lac for payment of bank service charges on deposited premium, premium subsidy for small and marginal farmers as committed item and Rs. 60.00 lac is kept for administrative & operating cost, incentive to the farmers & staff for crop cutting experiments.

DISTRIBUTION OF PP EQUIPMENTS

7.48 For providing support to farmers for popularization of improved & energy efficient farm machinery & Plant protection equipments , a sum of Rs.20.00 lac is proposed as "differential subsidy of 25%" for the year 2010-11 as committed item.

OTHER EXPENDITURE

7.49 A provision of Rs.2050.00 lac is proposed for the year 2010-11. Sub component wise details are given below:

- **Water Management:** Water Management is a crucial issue not only in well irrigated areas but is 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 effecting the timely release of water in IGNP areas of Ganganagar, Bikaner and Hanumangarh district. Construction of Diggies (Water Storage Tank) in canal 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, the farmer can provide irrigation as per need of the crop resulting in efficient use of water. Drips and Sprinklers can also be installed on these diggies for water saving and also increasing area under cultivation. Besides crops, horticultural crops / orchards can also be taken up with diggi cum sprinkler / drip modal.

Looking to the importance and success of such interventions, it is proposed to construct diggies and popularize as same in IGNP canal command areas with the subsidy of Rs. 1.50 lac per diggi of 8-10 lac lt.

capacity. The program can also be dove-tail with other CSS Schemes or NREGA Program for providing larger coverage to all category of farmers. A sum of Rs. 15 crores is provided for such interventions.

- **Land Stock Improvement- Reclamation of Saline and Alkali Soil:-** At present, 25% subsidy is being provided to all farmers for reclamation of saline and alkali soils under Work Plan. The programme has been affected adversely due to cap on subsidy (25%) under Work Plan which was 50% earlier. For distribution to meet the deferential subsidy of 25% and for advance stocking of gypsum, a sum of Rs 40.00 lac are proposed for 2010-11.
- **Innovative Programme. :-** Rs. 510.00 lac for 2010-11 is kept for Innovative programmes and contractual research to meet the requirement of research and extension for specific farming situation, Core budget to permit taking up of any new schemes or programmes which are not covered under any of the on going schemes. Out of Rs. 510.00 lac :
 - Rs.50.00 Lac is proposed for innovative activities under core budget,
 - **Minikit Distribution** - As an effort to have Gender Responsive Budgeting in Agriculture, minikits are distributed only to women farmers, accordingly an amount of Rs. 400.00 Lac is proposed for minikit distribution for the year 2010 -11 it includes fodder minikits also.
 - Rs. 30.00 Lac for enhanced seed production infrastructure and development and hi-tech demonstration on Government farms and Rs. 30.00 lac are proposed for development of organic farming package of practices as well as support to RSSOPCA.

CROP COMPENSATION FUND

7.50 For this purpose, a sum of Rs. 2111.00 lac has been kept for annual plan 2010-11 for payment of GOR share in claims under NAIS.

STATE FARMERS COMMISSION

7.51 A token provision of Rs. 0.01 lac has been kept for the year 2010-11 for the functioning of State Farmers Commission.

B. CAPITAL EXPENDITURE

7.52 Total provision of Rs. 695.65 lac for 2010-11 has been kept under this sector. Sub component wise details are given below:

Civil Woks through Department / RSAMB

7.53 During the year 2010-11, A provision of Rs. 117.64 lac has been kept for various ongoing civil works i.e. construction of Kisan Sewa Kendras, General repairs and maintenance of AAO/Agri. Supervisor residence quarters and Rs.447.98 lac for new civil works to be undertaken through RSAMB. Details are given at Annex.I.

Fertilizer Quality Control Lab/ Pesticide Testing Lab/ Pesticide Residue Testing Lab/Soil Testing Lab

7.54 A provision of Rs. 130.00 lac has been kept as new item during 2010-11 for necessary Building, instrument / equipments & accessories for Labs.

1.	Establishment / Strengthening at Pesticides Residue Testing Labs and Pesticides Testing Lab and Soil Testing Labs.	10.00
2.	Establishment / Strengthening of Fertilizer Testing Labs and Soil Testing Labs:- State Share for two new Fertilizer Testing laboratories (FTL) to be established in Kota and Ganganagar with support of GOI under CSS – NPMSHF State Share for 10 new Soil Testing Laboratories (STL) to be established with support of GOI under CSS – NPMSHF	20.00 100.00
	Grand Total	130.00

MATCHING SHARE FOR WORK PLAN

7.55 For “Macro Management of Agriculture” Work Plan a sum of Rs 200.00 lac is proposed as State Matching Share for Centrally Sponsored scheme “Macro Management of Agriculture” Work Plan during 2010-11.

Details of New Items

S.No.	Items	Amount (Rs. In lac)
A	Revenue Expenditure	
1.	State Share for - 2 Fertilizer Testing Labs 1 Static Soil Labs 4 Mobile Soil Testing Labs	240.00
B.	Capital Expenditure	
1.	Civil Works through department / RSAMB	447.98
2.	Establishment / Strengthening at Pesticides Residue Testing Labs, Pesticides Testing Lab, Soil Testing Labs and Fertilizer Testing Labs	30.00
3.	State Share for - 2 Fertilizer Testing Labs 1 Static Soil Labs 4 Mobile Soil Testing Labs	100.00
	Total Capital Expenditure	577.98
	Grand Total	817.98

Rashtriya Krishi Vikas Yojana (RKVY / NADP)

7.56 Concerned by the slow growth in the Agriculture and allied sectors, the National Development Council (NDC), in its meeting held on 29th May, 2007 resolved that a special Additional Central Assistance Scheme Rashtriya Krishi Vikas Yojana (RKVY) be launched. 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. The NDC reaffirmed its commitment to achieve 4 percent annual growth in the agricultural sector

during the XI Plan. RKVY is to incentives 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 more fully.

Objectives -

- (i) To incentives the states so as to increase public investment in Agriculture & allied sectors.
- (ii) To provide flexibility and autonomy to states in the process of planning & executing Agriculture & allied sector schemes.
- (iii) To ensure the preparation of agriculture plans for the districts and the states based on agro-climatic conditions, availability of technology and natural resources.
- (iv) To ensure that the local needs / crops / priorities are better reflected in the agricultural plans of the states.
- (v) To achieve the goal of reducing the yield gaps in important crops, through focused interventions.
- (vi) To maximize returns to the farmers in Agriculture and allied sectors.
- (vii) 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.

Assistance under RKVY is available in two categories:

Stream-I - For new interventions proposed by the Districts on project basis.

Stream-II - For meeting the additional requirements of the Districts for ongoing approved activities.

State Priority under RKVY 2007-09

(Rs. in lac)

S.No.	Sector	Sanctioned
1	Minor Irrigation	7188.00
2	Horticulture	6699.25
3	Dairy Development	4162.00
4	Crop Husbandry	3875.13
5	Animal Husbandry	1409.87
6	Research	2326.62
7	Cooperative	2351.84
8	Fisheries	540.00

Future Strategy and Intervention as identified by state:

- Productivity increase in bajra, maize, moong, groundnut, moth, soyabean

- Increase in SRR
- Efficient use of water in canal command areas-1000 diggies constructed for Drip/Sprinkler irrigation
- Integrated Nutrient Management
- Distribution of soil health cards (3.5 lac/year)
- Promoting water harvesting – 2000 farm ponds
- Enlarging extension services
- Extensive farm mechanization
- 33% and more SRR for other crops
- Strengthening of seed infrastructure
- Natural Resource Management – Pasture development, availability of Gypsum at uniform rate
- Crop improvement through varietals replacement, supplementing ISOPOM, Research Support to SAUs
- PHM infrastructure and marketing facilities – Cold storage through RSAMB in PPP mode

Progress:

7.57 Year-wise financial progress under RKVY is as under:

(Rs. in crores)

Year	Provision	Funds released by GOI	Expenditure
2007-08	68.88	55.76	NIL
2008-09	233.76	289.52 including Rs. 55.76 crore revalidate amount of 2007-08	175.74
2009-10	186.12*	299.86 including revalidated unspent amount of Rs. 113.74 crore of 2008-09	176.97 **crore up to Nov. 09

*An amount of Rs. 69.79 crore has been released by GOI on 17-12-09 and yet to be credited in state account web site. Rs. 6.68 crore is un allotted amount is in SIAM account as balance out of total available funds in 2009-10.

**The actual expenditure has been incurred/booked in seed sector for arranging seed in Rabi 2009-10 for supporting ISOPOM and other program as approved in SLSC or approved by Chief Secretary/PSA on file. Out of the total available funds of Rs. 299.86 crore the detail of funds transferred to concerned department till now are given below:-

(Rs. in Crores)

S.N.	Name of Deptt.	Funds Transferred Against 2007-08 and 2008-09 Project.	Funds transferred in 2009-10 for new Project sanctioned in 2009-10	Total funds transferred in 2009-10	Total Exp. Incurred /booked up to NOV., 2009
1	Agriculture including RSCC	3.63	86.88	90.51***	75.35
2	Horticulture	9.19	19.15	28.34	10.95
3	Fisheries	0.91	0.00	0.91	0.26

S.N.	Name of Deptt.	Funds Transferred Against 2007-08 and 2008-09 Project.	Funds transferred in 2009-10 for new Project sanctioned in 2009-10	Total funds transferred in 2009-10	Total Exp. Incurred /booked up to NOV., 2009
4	RCDF	11.90	0.00	11.90	11.90
5	RAU, BKN	5.00	1.95	6.95	6.95
6	MPUAT, Udaipur	8.27	0.17	8.44	8.44
7	Animal Husbandry	0.06	2.30	2.36	2.30
8	Cooperative Deptt.	5.75	21.00	26.75	21.00
9	College Education Deptt.	1.00	0.00	1.00	1.00
10	Water Resources Deptt.	33.41	0.00	33.41	33.41
11	Forest Deptt.	0.00	2.00	2.00	0.43
12	Raj .State Agri Mkt.Board.	0.00	4.20	4.20	2.13
13	Monsanto hybrid Seed co.	0.00	1.10	1.10	1.10
14	NGO/PPP	0.00	1.52	1.52	0.50
15	N.M. Sadguru Foundation	2.00	2.00	4.00	1.25
14	Total	81.12	142.27	223.39	176.97

***Includes the transfer of funds of Rs. 23.79 crores cleared by Finance Department but is yet to be released by Administrative Department.

7.58 For the year 2010-11, as per the resource indicated it is expected that state will get rupees 241.51 crore under RKVY. The department wise breakup will be decided in the SLSC meeting likely to be held in January, 2010 or to be indicated by Administrative Department.

HORTICULTURE

7.59 Rajasthan's diverse agro-climatic conditions favour growing of large number of horticultural crops like fruits, vegetables, spices, flowers and medicinal & aromatic plants through out the year. During 2007-08, about 10.24 lac ha area is reported to be under horticultural crops as per departmental estimates. This includes 0.47 lac ha under fruits, 1.46 lac ha under vegetables, 6.31 lac ha under spices and 1.94 lac ha under medicinal & aromatic crops. As far as production of these crops is concerned, it is 5.20, 15.73, 6.77 & 1.51 lac MT under fruit, vegetable, spices & medicinal and aromatic crops respectively.

7.60 To boost up production and productivity of different horticultural crops in the state and overall development of this sector, following objectives and priorities have been identified:

- Production of quality planting material
- Promotion of sprinkler and drip irrigation system
- Promotion of high value vegetable, flower and aromatic crops.
- Organic farming of fruit, vegetable and spices
- Green house cultivation

- Promotion of water harvesting structure for irrigation in rainfed area.
- Post harvest management and marketing of horticulture produce.

7.61 Area specific, economically viable and technically feasible horticulture developmental activities undertaken in the state during past 10 years have contributed to overall development of this sector. The huge existing potential has now converted into production. As a result certain belts of horticulture crops have been developed in different pockets of the State.

- Mandarin- Warm humid areas of Jhalawar
- Kinnow- Dry and cool climate of Ganganagar
- Ber- Western parts of the State
- Aonla - Central semi arid parts
- Low volume high value seed spices crop cumin in Barmer, Jalore, Pali, Jodhpur, Nagaur, Bhilwara, Ajmer, Tonk
- Coriander - Kota, Baran, Jhalawar, Bundi, Chittorgarh
- Fennel- Sirohi, Tonk
- Chilli- Jodhpur, Ajmer, Bhilwara, Tonk, S. Madhopur, Karoli
- Garlic- Jodhpur, Chittorgarh, Baran, Jhalawar, Kota
- Vegetables like onion, tomato, pea, okra, Cole crops, cucurbits etc.- Central western parts of the state
- Isabgol- Barmer, Jalore
- Mehandi- Pali
- Sonamukhi- Jodhpur, Pali
- Ashwagandha- Nagaur, Jhalawar
- Aloevera- Jaipur, Ajmer
- Aromatic grasses- Baran, Ganganagar

7.62 With a view to provide further boost this crucial sector, an outlay of Rs. 4045.02 lac has been proposed for the Annual Plan 2010-11 which includes 15% matching share of National Horticulture Mission (NHM) and 20% of Micro Irrigation Scheme (MIS). The brief description of each programme is as under:

Establishment of Fruit Orchards

7.63 In order to promote the diversification of agriculture for sustainability of the farm economy, the assistance for the establishment of new orchards would be provided @ Rs. 7500 per ha particularly for those crops which are not included in NHM. During Annual Plan (2010-11) an outlay Rs. 20.00 lac has been proposed for fruit plantation in 267 ha.

Demonstration

7.64 In order to propagate production technology of horticultural crop, demonstration would be laid out for which assistance of Rs.1500/ per beneficiary for vegetables, spices, flowers, medicinal & aromatic crops and Rs.5000/ per beneficiary for fruits demonstration. During Annual Plan (2010-11) an outlay of Rs. 50.00 lac has been proposed for laying out demonstrations.

Subsidy on Post Harvest Management Activities

7.65 Horticultural crops are perishable in nature as a result of which about 30 % losses occurs after it's harvesting due to non adoption of the post harvest practices. Therefore it is proposed to provide financial assistance @ 50% of the capital cost of project subject to maximum of Rs. 5.00 lac per unit for setting up of pack houses, including grading, sorting & waxing facilities, processing units and packing material etc. This subsidy may also be used in complementary and supplementary to assistance under NHM subject to the fulfillment of the condition of 50% subsidy in totality and the State Plan share should not exceed to Rs.5.00 lac. During the Annual Plan (2010-11) an outlay of Rs. Rs. 10.00 lac has been proposed for subsidy on PHM.

Additional Subsidy for Establishment of Green House

7.66 For growing off season vegetables seedlings and other horticultural crops under controlled atmospheric conditions of green house, 33% subsidy is provided to general farmers and 50% to small/ marginal farmers under National Horticulture Mission. This technology is not getting momentum due high cost involvement. So that, differential subsidy @ 17% for general farmers and 25% for small/ marginal farmers would be provided for green house which are to be established under NHM. During the Annual Plan (2010-11) an outlay of Rs. 135.00 lac has been proposed for differential subsidy.

Innovative schemes

7.67 Horticultural development is multi dimensional and emerging areas and new techniques need to be encouraged. Innovative scheme will be funded and implemented in the field with assistance to farmers not exceeding 75% of the cost of activity. During the Annual Plan (2010-11) an outlay of Rs. 6.00 lac has been proposed for innovative schemes.

Research & Development

7.68 To enhance the productivity level of different horticultural crops and better Post Harvest Management, the need based research work including labour and contractual manpower would be conducted on state agricultural universities and adaptive trial centers of department and other public or private institutions. Assistance would also be provided to develop protocols and production of homogeneous disease free planting

material of horticultural crops and for running / establishment of Tissue Culture Lab/ Phytosanitary Labs. During the Annual Plan (2010-11) an outlay of Rs. 10.50 lac has been proposed for Research and Development.

Setting of vermi compost units

7.69 Keeping in view the side effect of residue of chemicals and fertilizers on human health, it is required to promote the cultivation of organic produce providing assistance for production of organic input vermi compost. The assistance may be given @ Rs. 2500/- for establishing vermi compost unit at farmer's field. During the Annual Plan (2010-11) an outlay of Rs. 8.00 lac has been proposed for setting of 400 vermi compost units.

Dry land Horticulture (Water Harvesting Structure)

7.70 Collection of rainwater by diverting the flow of runoff in cemented structure and recycling it for the production of horticultural crops may be the best approach for development of horticulture in the rain fed area of the State. For the purpose, it is proposed to assist the farmers @ Rs. 30000/- or 50% of the cost of construction of cemented / polyethylene lining based water harvesting structure. During the Annual Plan (2010-11) an outlay of Rs. 7.50 lac has been proposed for construction of 25 Nos. of water harvesting structure.

Assistance on P.P. Measures

7.71 The plant protection measures for horticulture crops are very much essential. When the infestation of insect, pest and disease has become epidemic and resulted in severe loss of crop yield, the assistance may be given @ 50% cost of pesticide up to maximum of Rs. 500/- per ha with an outlay of Rs.15.00 lac for Annual Plan 2010-11.

Matching Share of National Horticulture Mission

7.72 National Horticulture Mission has been launched by GOI from the year 2005-06 with 100% assistance in X Plan. From the year 2007-08 the programmes of NHM are being funded of the ratio of 85:15.

7.73 NHM is implemented through District Horticulture Development Society under the chairmanship of District Collector. Funds are directly made available to the district level society. 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,
- Organic farming, certification of organic farming,
- Vermi compost production,
- Cold storages,
- Pack houses,
- Refrigerated vans,
- Mobile processing units,
- Infrastructure of mandies etc.

7.74 For the Annual Plan 2010-11 an outlay of Rs. 1200.00 lac has been proposed for matching share of NHM.

Matching Share of Micro Irrigation Scheme

7.75 GOI have launched micro irrigation scheme with the 50% financial assistance to the farmers. As per guideline of micro irrigation scheme, State Government will share the 20% amount of subsidy.

7.76 MIS is implemented through District Horticulture Development Society under the chairmanship of District Collector. Funds are directly made available to the district level society.

Scheme components:

- Drip Irrigation - 20000 ha
- Sprinkler Irrigation - 75000 ha
- Drip Demonstration - 25 ha

7.77 For the Annual Plan 2010-11 an outlay of Rs. 1600.00 lac has been proposed for matching share of MIS.

Additional assistance for Drip

7.78 To increase the area under efficient methods of drip irrigation, 50% subsidy is being provided under Micro Irrigation Scheme. This technology is not getting momentum due high cost involvement. Additional subsidy would be provided for drip installation in 20000 ha area. This additional subsidy would be provided @ 20% for horticultural and agricultural crops with the financial provision of Rs. 873.00 lac during 2010-11.

Subsidy for Processing Unit of Aonla, Mandarin & Isabgol

7.79 In order to reduce the post harvest losses and for fetching better market prices, establishment of processing units of Aonla, Mandarin and Isabgol would be promoted in the State. A subsidy @ 50% of capital cost limited to Rs. 1.00 crore is being provided for establishment of processing unit of Aonla, Mandarin and Isabgol. The subsidy will be admissible for only those new processing units for which term loans are taken from

bank/ financial institutions. For the Annual Plan 2010-11 an outlay of Rs. 100.00 lac has been proposed for establishment of processing units.

RAJASTHAN STATE WAREHOUSING CORPORATION

7.80 Rajasthan State Warehousing Corporation (RSWC) is a 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.

7.81 The Corporation is working with 89 centres in 31 districts of Rajasthan with total own storage capacity of 745970 MTs.

7.82 For the Annual Plan 2010-11 an outlay of Rs. 1000.00 lac has been proposed.

Watershed Development & Soil Conservation

7.83 Soil erosion is the most serious and widely prevalent threat to productive land in the State. Productive land is a source of human sustenance and security. It is a non-renewable resource which provides the essential social environment in terms of shelter, roads and other land based facilities. Soils in Rajasthan are also subject to heavy moisture loss by quick evaporation. Uncontrolled run off not only result in loss of water and good top soils, but also in loss of valuable soil nutrient. Adopting appropriate soil & water conservation measures can considerably increase fertility of soil in rainfed areas.

7.84 With the establishment of Watershed Development & Soil Conservation Department in 1991, Rajasthan has been making rapid strides in development of participative, replicable, sustainable, ecological & low cost resource management for Watershed Development & Soil conservation, Management of Common Property Resources by elected User Committees and introduction of Gopals for the live stock development. These have been Rajasthan's innovations in development of rainfed agriculture in the country. The approach adopted has interested several international agencies.

7.85 Empowerment of User Committee had been a major thrust area since 1995-96. In this approach instead of getting works executed through the Government machinery, a committee of the beneficiaries executes the developmental works. These committees are popularly known as Users Committees. The User Committee is elected in general meeting of the village community and is responsible for finding solutions of problems through interaction with Government officials. Presently there are about 15000 Users Committee functioning in the State. The department now has also operationalized bank accounts of User Committee and all payments are cleared through bearer cheques to avoid any misunderstanding.

7.86 For various schemes of Watershed Development & Soil Conservation including soil conservation through Forest Department for the Annual Plan 2010-11 an outlay of Rs. 20.18 lac has been proposed.

Soil Conservation through Forest Department

7.87 The main focus is on carrying out soil and water conservation works for erosion prone sites and also to stabilize the soil by providing necessary soil cover.

7.88 Against the provision of Rs. 310 lacs for the 11th Five Year Plan. A sum of Rs. 20.18 lacs is proposed for the year 2010-11. Scheme-wise details are as under.

Soil Conservation in Hilly & Ravenous Areas

7.89 Under this scheme, Soil and Water Conservation Works are being executed on priority in such hilly and ravenous areas which are more susceptible to soil erosion. The works, which will be taken up, are construction of check dams, contour trenches, earthen bunds (in case of ravines) and planting and sowing of soil binding species. Rs. 20.18 lac is proposed for the year 2010-11.

Corpus Funds

7.90 The Centrally Sponsored Schemes of soil conservation in the catchments of River Valleys of Chambal, Mahi, Dantiwara and Banas are being implemented with assistance from Government of India. As now the corpus fund will be totally provided by GOI, hence, no amount is proposed for 2010-11.

WORK PLAN

7.91 Government of India started a scheme of "Macro Management of Agriculture" as a part of work plan. A total of 27 Centrally Sponsored Schemes supported by ministry of Agriculture, GoI were subsumed in the work plan. Sharing of funds between GoI and State Govt. is in the ratio of 90:10. The central share comes as 80% grant and 20% loan to the State Government.

7.92 In Work Plan a provision of Rs. 950.00 lac is proposed for 2010-11 as state matching share for CSS for Macro Management of Agriculture.

7.93 The department wise break up of allocated amount is as under: -

(Rs. in lac)			
S. No.	Name of Department	Eleventh Plan Outlay	Proposed outlay 2010-11
1	Agriculture Deptt.	2350.00	200.00
2	WD & SC - NWDPRRA	3150.00	300.00
3	Forest Deptt.	1500.00	250.00
	Total	7000.00	750.00

Agriculture Marketing Board

7.94 The Rajasthan State Agriculture Marketing Board was established in June, 1974 by the State Government under Section 22A of the Rajasthan Agricultural Produce Market Act, 1961. The Board is a corporate body having perpetual succession.

7.95 The major part of the activities of the Board is devoted to construction of market yards/sub yards and market link roads. The construction programmes and their execution involves approval of site for development of new market yards, preparation and submission of projects for financial assistance, construction & development of market yards, hand over of market yards to market committees, construction, maintenance & repair of Rural Link Roads.

7.96 In addition to resources defined in the Agricultural Produce Markets Act 1961, for credit to the Marketing Development Fund, funds for construction of market yards & market link roads are available from following three sources.

- Loans from NABARD / Financial Institutions in favour of concerned market committee
- Funds earmarked by the market committees out of their income
- Loans sanctioned by the Board to meet the resource gap, in case of financially weak market committees

Details of various projects

- For the construction of link roads, Market yards and their maintenance along with deposit works of other departments a provision of Rs. 170.00 crores for the year 2009-10 is kept. Repair of 100 Km. roads and construction of 150 Km. new roads are kept as physical target.
- Upto the month of Dec. 2009, buildings worth Rs. 4386.81 lac and special repairs and new roads worth Rs. 3485.36 lac were under taken i.e. Rs. 7872.17 lac was the total expenditure for construction works upto Dec. 2009. 122.50 Km. roads were constructed and 200.58 Km. roads were repaired.
- For providing staying facilities at reasonable rates and dissemination of latest information, regarding Agricultural Marketing to the farmers, "Kisan Bhawans" were constructed at 7 divisional head quarter with an expenditure of Rs. 24.75 crores. In IInd phase Rs. 31.13 crores have been sanctioned for the construction of 26 Kisan Bhawan at district head quarters. Rs. 17.41 crores have already been incurred for the same.
- RSAMB will construct road under Missing Link Project. A project for construction of 265 roads in 67 Assembly constitutions and 10 districts namely Alwar, Baran, Kota, Bikaner, Dausa,

Hanumangarh, Jaipur, Jodhpur, Nagaur and Sriganganagar measuring 644.25 Km. and costing Rs. 100.43 crores have been sent to NABARD under RIDF XIII through State Govt. 603 Km long roads of Rs. 90.11 crores have been constructed upto Dec. 2009 and 43 Km carpeting of Rs. 5.79 crores have been completed during the year under report.

- Keeping in view the perishable nature of fruits and vegetables and exports possibilities of their produces, four pack houses were proposed to be constructed at Terminal Market, Jaipur, Chomu, Shahpura and Tonk, out of which three pack houses i.e. at Terminal Market, Jaipur, Chomu and Shahpura are already constructed and are running on contract basis. The pack house at Tonk is under construction. For construction of pack houses APEDA is giving 75% subsidy. A cold storage of 4000 M.T. capacity is under construction at Jhalawar.
- Earlier the scheme named as Kisan Jeewan Kalyan Yojna is now modified as Rajiv Gandhi Krashak Sathi Yojna 2009. In this scheme Farmers, Agriculture and Mandi Labourer were assisted by providing assistance ranging from Rs. 3000 to Rs. 50000 per person depending on type of casualty by KUMS, who suffer during farm and mandi operations. Now has been amended as Rs. 5000 to Rs. 1.00 lacs since 9 Dec. 2009. In this scheme Rs. 153.43 lacs has been paid to 479 person upto Dec. 2009.
- The State unit of small farmer Agri Business Consortium (RAJSFACO) was established on 23.4.2005 with Rajasthan State Agricultural Marketing Board as Nodal agency. A contribution amount of Rs. 25 lac. was received from central organization.
- Export of vegetables to the Gulf countries is being encouraged. From 31st May 2006 till date about 5.55 lac Kg. of vegetables have been exported during year 2009-10 upto Dec. 2009 1.47 lac Kg. vegetables have been exported.

7.97 During the Eleventh Five Year Plan, a provision of Rs. 650.00 crore has been proposed to be spent by the Board on construction of 750 kms new roads. A provision of Rs. 126.20 crores has been proposed for the Annual Plan 2010-11.

Multi State Rajasthan Agriculture Competitiveness Project

7.98 The project aims to provide alternative channels to farmers to sell their produce so as to increase rural incomes, strengthen existing infrastructure in Krishi Upaj Mandi Samities as well as for strengthening market information and market intelligence and also activation of ATMAs (a NGO) in rural areas. The project covers whole Rajasthan.

7.99 The project will be funded by World Bank. The estimated cost of the project is Rs. 434.00 crores. The project components are as follows:-

1. Expanding market infrastructure and opportunities and increasing farmer access to market opportunities.
2. Facilitating intensification and diversification of agriculture.
3. Project management, monitoring and evaluation.

7.100 World Bank has agreed to the project for a loan amount of Rs. 322 crores (74%). A provision of Rs.44.00 crores is proposed for this project in the Annual Plan 2010-11.