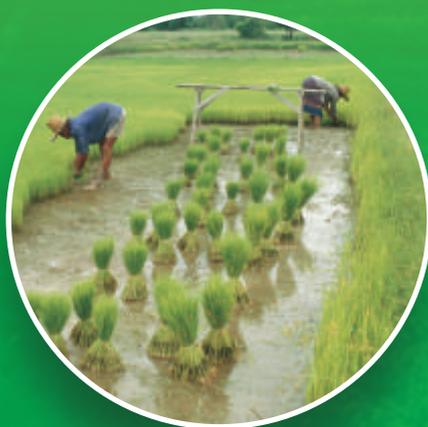
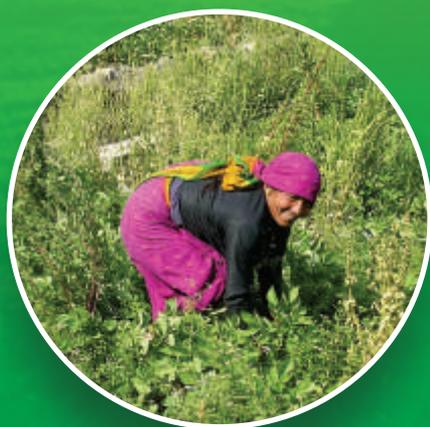




Annual Report 2014-15



**DEPARTMENT OF AGRICULTURE & COOPERATION
MINISTRY OF AGRICULTURE, GOVERNMENT OF INDIA
KRISHI BHAVAN, NEW DELHI-110001**



Annual Report 2014-15

DEPARTMENT OF AGRICULTURE AND COOPERATION

Ministry of Agriculture

Government of India

Krishi Bhawan, New Delhi-110 001

March, 2015

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Overview

1.1 As per the land use statistics 2011-12, the total geographical area of the country is 328.7 million hectares, of which 140.8 million hectares is the reported net sown area and 195.2 million hectares is the gross cropped area with a cropping intensity of 138.7%. The net irrigated area is 65.3 million hectares.

Agriculture GDP

1.2 The Agriculture and Allied Sector contributed approximately 13.9% of India's GDP (at constant 2004-05 prices) during 2013-14. Gross Domestic Product (GDP) of Agriculture and Allied Sector and its share in total GDP of the country during the last 3 years including the current year, at 2004-05 prices is as follows:

Share of Agriculture & Allied Sector in Total GDP

(Rs. In Crore)

Items	Year			
	2010-11	2011-12	2012-13	2013-14
GDP of Agriculture and Allied Sector	717814	753832	764510	800548
Per cent to total GDP	14.6	14.4	13.9	13.9

Source: Central Statistics Office, Ministry of Statistics and Programme Implementation, Govt. of India.

1.3 There has been a continuous decline in the share of Agriculture and Allied Sector in the GDP from 14.6 % in 2010-11 to 13.9 % in 2013-14 at 2004-05 prices. Falling share of Agriculture and Allied Sectors in GDP is

an expected outcome in a fast growing and structurally changing economy. Growth (over the previous year) in the total GDP and that in the GDP of Agriculture and Allied Sector at 2004-05 prices is given below:

(in percentage)

Period	Total GDP	Agriculture & Allied Sector GDP
2007-08	9.3	5.8
2008-09	6.7	0.1
2009-10	8.6	0.8
2010-11	8.9	8.6
2011-12	6.7	5.0
2012-13	4.5	1.4
2013-14	4.7	4.7

Source: Central Statistics Office.

Rainfall 2014-15

1.4 In the year 2014, the cumulative monsoon rainfall (1st June to 30th September,

2014) for the country as a whole was 88% of its long period average (LPA). Seasonal rainfall was 79% of its LPA over Northwest

India, 90% of its LPA over Central India, 93% of its LPA over South Peninsula and 88% of LPA over East and North-East India. Monthly rainfall was 57% of LPA in June, 90% of LPA in July - August and 108% of LPA in September. Out of 641 meteorological districts for which data are available, 335(52%) of meteorological districts received excess / normal rainfall and the remaining 306(48%) received deficient/scanty rainfall during the season.

Production Scenario 2013-14

1.5 As per 4th Advance Estimates for 2013-14, total production of rice in the country is estimated at 106.54 million tonnes which is a new record, higher by 1.30 million tonnes than the production of rice during 2012-13. Production of wheat estimated at record level of 95.91 million tonnes is also higher than production of 93.51 million tonnes during 2012-13. The production of Coarse Cereals is estimated at 43.05 million tonnes which is also higher than the production of Coarse Cereals during 2012-13.

1.6 Total food grains production during 2013-14 estimated at 264.77 million tonnes is also a record. It is higher by 7.64 million tonnes than the production of 257.13 million tonnes of foodgrains achieved during 2012-13. Total production of pulses and oilseeds estimated at record levels of 19.27 million tonnes and 32.88 million tonnes respectively are higher by 0.93 million tonnes and 1.94 million tonnes than their production levels during 2012-13.

1.7 Production of sugarcane during 2013-14 estimated at 350.02 million tonnes is higher by 8.82 million tonnes than its production of 341.20 million tonnes during 2012-13. Production of cotton estimated at 36.59 million bales (of 170 kg each) is also a new record and higher by 2.37 million bales than its production of 34.22 million bales during 2012-13. Production of jute & mesta estimated at 11.58 million bales (of 180 kg each) is higher by 0.65 million bales than its production of 10.93 million bales during 2012-13.

Area, production and yield of major Crops

Crops	Area (Lakh hectare)			Production (Million Tonnes)			Yield (kg/hectare)		
	2011-12	2012-13	2013-14*	2011-12	2012-13	2013-14*	2011-12	2012-13	2013-14*
Rice	440.06	427.54	439.49	105.30	105.24	106.54	2393	2462	2424
Wheat	298.65	300.03	311.88	94.88	93.51	95.91	3177	3117	3075
Coarse cereals	264.22	247.62	256.73	42.01	40.04	43.05	1590	1617	1677
Pulses	244.62	232.57	252.27	17.09	18.34	19.27	699	789	764
Foodgrains	1247.55	1207.76	1260.37	259.29	257.13	264.77	2078	2129	2101
Oilseeds	263.08	264.84	285.25	29.80	30.94	32.88	1133	1168	1153
Sugarcane	50.38	49.99	50.12	361.04	341.20	350.02	71668	68254	69839
Cotton@	121.78	119.77	117.27	35.20	34.22	36.59	491	486	532
Jute & Mesta#	9.05	8.63	8.51	11.40	10.93	11.58	2268	2281	2449

* 4th advance estimates @ Production in million bales of 170 kg each.

Production in million bales 180 Kg. each.

Production Scenario during Kharif 2014-15

1.8 A comparative position of production of Food grains, Oilseeds, Sugarcane and

Cotton during kharif 2014-15 vis-à-vis kharif 2013-14 is given below:

Kharif production in 2013-14 and 2014-15

(Million Tonnes)

Crop	2013-14 (4th Advance estimate)	2014-15 (1st Advance estimate)	Absolute difference	Percentage Increase/decrease
Foodgrains	129.24	120.27	-8.97	-6.94
Oilseeds	22.41	19.66	-2.75	-12.27
Sugarcane	350.02	342.79	-7.23	-2.07
Cotton@	36.59	34.62	-1.97	-5.38

@ Production in million bales of 170 kg each.

Source: Directorate of Economics & Statistics, Department of Agriculture & Cooperation

1.9 As per 1st advance estimates for 2014-15, production of Kharif Rice, estimated at 88.02 million tonnes though lower by 3.67 million tonnes as compared to last year's production, is higher than the five year average production of 86.68 million tonnes. The estimated production of Coarse Cereals is lower by 4.48 million tonnes than its production during last year. The estimated

production of Kharif Pulses is also lower by 0.82 million tonnes than their production of 6.02 million tonnes during the last year

Kharif Sowing

1.10 A comparative position of crop-wise area coverage during Kharif 2014 vis-à-vis Kharif 2013 is given below:

Crop wise area sown production and yield during Kharif 2014 vis-à-vis Kharif- 2013 (Lakh Hectares)

Crop	Area Sown (Kharif)		Increase/decrease over last year (+/-)
	2014	2013	
Major cereals crops			
Paddy/Rice	380.00	376.41	3.59
Coarse cereals	182.34	196.05	-13.71
Pulses	102.34	109.08	-6.74
Total foodgrains	664.68	681.54	-16.86
Oilseeds	178.49	194.91	-16.42
Other crops			
Cotton	126.55	114.37	12.18
Sugarcane	48.74	50.32	-1.58
Jute	8.15	8.34	-0.19

Capital Formation in Agriculture and Allied Sector

1.11 Gross Capital Formation (GCF) in Agriculture and Allied Sector is estimated separately for public, private and the

household sectors. Items included in the estimates of GCF are; improvement of land and Irrigation works, laying of new orchards and plantations, purchase of agricultural machinery and implements,

agriculture construction works, additions to livestock, fishing boats and nets, etc. GCF in Agriculture and Allied Sector relative

to GDP in this sector has been showing a steady increasing trend from 14.9 per cent in 2006-07 to 21.2 per cent in 2012-13.

Gross Capital Formation (GCF) in Agriculture and Allied Sector relative to Gross Domestic Product (GDP) at 2004-05 prices

(Rs in Crore)

Year	GCF in Agriculture	GDP	GCF as % of GDP
1	2	3	4
2006-07	92057	619190	14.9
2007-08	105741	655080	16.1
2008-09	127127	655689	19.4
2009-10	133162	660987	20.1
2010-11	132734	717814	18.5
2011-12	157172	753832	20.8
2012-13	162084	764510	21.2

Source: Central Statistics Office

National Policy for Farmers, 2007(NPF)

1.12 Government of India approved the National Policy for Farmers in 2007. The Policy provisions, inter alia, include asset reforms in respect of land, water, livestock, fisheries, and bio-resources; support services and inputs like application of frontier technologies; agricultural bio-security systems; supply of good quality seeds and disease-free planting material, improving soil fertility and health, and integrated pest management systems; support services for women like crèches, child care centres, nutrition, health and training; timely, adequate, and easy reach of institutional credit at reasonable interest rates, and farmer-friendly insurance instruments; use of Information and Communication Technology (ICT) and setting up of farmers' schools to revitalize agricultural extension; effective implementation of MSP across the country, development of agricultural market infrastructure, and rural non-farm employment initiatives for farm households; integrated approach for rural energy, etc.

1.13 Many of the provisions of the NPF are being operationalised through various schemes and programmes which are being implemented by different Central Government Departments and Ministries. For the operationalisation of the remaining provisions of the Policy, an Action plan has been finalized and circulated to the Ministries and Department concerned, as well as to all States and UTs for necessary follow up action. An inter-ministerial committee constituted for the purpose also monitor the progress of the Plan of Action for the operationalisation of the NPF.

Restructuring of the Mission/Schemes during the 12th Five Year Plan

1.14 In order to keep up the momentum gained during the 11th Plan and achieve the targeted growth rate of 4% during the 12th Five Year Plan as also to ensure focused approach and to avoid overlap, all the schemes of the Department has been re-structured into five Missions viz. National Food Security Mission (NFSM), Mission for

Integrated Development of Horticulture (MIDH), National Mission on Oil Seeds and Oil Palm (NMOOP), National Mission for Sustainable Agriculture (NMSA) and National Mission on Agricultural Extension & Technology (NMAET); four Central Sector Schemes viz. National Crop Insurance Programme (NCIP), Integrated Scheme on Agri-Census & Statistics (ISAC&S), Integrated Scheme of Agriculture Marketing (ISAM) and Integrated Scheme of Agriculture Cooperation (ISAC); and one State Plan Scheme viz. Rashtriya Krishi Vikas Yojana (RKVY). Details of the Missions/ Schemes proposed during the 12th Plan are given in the succeeding chapters.

Recent Initiatives/ Policy decisions

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

- (a) **Soil Health Card Scheme** - The Scheme has been approved for issue of Soil Health Cards to every farmers of the country during the remaining three years of 12th Five Year Plan (2014-15 to 2016-17). Total outlay of Rs. 568.54 crore has been approved for the scheme. State-wise allocation has also been made for establishing 100 mobile soil testing laboratories in 2014-15.
- (b) **Pradhan Mantri Krishi Sinchai Yojana** - The Scheme is being formulated with a view to take irrigation water to each and every agricultural field in the country.
- (c) **Price Stabilization fund for Cereals and Vegetables** - Government has established a Price Stabilisation Fund of Rs.500 crore in order to reduce price volatility in perishable agricultural commodities (onions, potatoes & tomatoes etc.). With the setting up of this Price Stabilisation Fund, farmers will be able to get fair price for their produce while consumer would be able to purchase the same at affordable prices.
- (d) **National Agri-tech Infrastructure:** An Agri-Tech infrastructure fund has been proposed to create a common e-marketing platform for agri-commodities in the Agriculture Produce Marketing Committees (APMCs) in the State, as a first step towards creation of a national market. A committee has been set up under the Chairmanship of Prof. Ashok Gulati to suggest a roadmap for the implementation of the model Act / report of State Marketing Ministers.

1.16 Government is in the process of developing an Insurance product which could ensure farmers against both yield loss and price fluctuations.

1.17 It was decided in June, 2014 to double the flow of agriculture credit in three years with reference to base year 2003-04. Against the credit flow of Rs. 86981 crore in 2003-04, agriculture credit target of Rs.8 lakh crore has been set for 2014-15. Against this, the achievement upto December, 2014 is Rs. 5,45,744 crore.

1.18 Concessional crop loan @ 7% interest is available to the farmers upto the limit of Rs. 3 lakhs. Further, 3% interest subvention is admissible to farmers who repay their loan in time. In order to discourage distress sale of crops by farmers, the benefit of interest subvention has been made available to small and marginal farmers having Kisan Credit Card for a further period of upto six months

(post-harvest) on the same rate as available to crop loan against negotiable warehouse receipts.

1.19 A project titled “Paramparagat Krishi Vikas Yojana (PKVY) has been formulated to promote Organic farming. The objective is to promote eco-friendly concept of cultivation reducing the dependency on agro-chemicals

and fertilizers and to optimally utilize the locally available natural resources for input production.

1.20 Since September, 2014, NABARD has started making available long term loan on concessional rates in agriculture and related fields. Initial allotment of Rs.5000 crore has already been made for this purpose.



CHAPTER 2

Functions And Organizational Structure

2.1 Structure: The Department of Agriculture and Cooperation (DAC) is one of the three constituent Departments of the Ministry of Agriculture, the other two being Department of Animal Husbandry, Dairying & Fisheries (DAHD&F) and Department of Agricultural Research and Education (DARE). This Department is headed by Agriculture Minister and is assisted by two Ministers of State. The Secretary (Agriculture & Cooperation) is the administrative head of the Department. The Secretary is assisted by one Special Secretary, one Principal Adviser and four Additional Secretaries including one Financial Adviser, Agriculture Commissioner, 11 Joint Secretaries including Mission Director (MIDH) and Mission Director (NMSA), Horticulture Commissioner, Horticulture Advisor, Marketing Advisor and two Deputy Director Generals. In addition, Chairman of Commission for Agriculture Costs and Prices (CACP) advises Department on pricing policies for selected agricultural crops.

2.2 The DAC is organized into 27 divisions (**Annexure-2.1**) and has five attached offices and twenty-one subordinate offices (**Annexure-2.2**) which are spread across the country for coordination with State Level Agencies (SLAs) and implementation of Central Sector Schemes in their respective fields. Further, one Public Sector Undertaking, nine autonomous bodies, ten national-level cooperative organizations and one authority (**Annexure-2.3**) are functioning under administrative control of the Department.

2.3 Administrative Improvements: An Administrative Vigilance Unit functions in the Department under a Joint Secretary, designated as Chief Vigilance Officer (CVO), to ensure a transparent, clean and corruption-free work-environment through surveillance, preventive and punitive measures. The complaints/ allegations received in the unit are reviewed through meetings, reports/returns etc. and necessary follow-up action is taken. Further, identification of sensitive posts in DAC is also undertaken as per guidelines of Central Vigilance Commission (CVC) to enable periodical rotation of staff posted on those posts, by Competent Authority. Vigilance Awareness Week is celebrated as per CVC's instructions. This year it was observed from 27.10.2014 to 01.11.2014 and the observance of week commenced with administering of pledge by Secretary (A&C) to all officers and staff of DAC.

2.4 A Public Grievance Cell is fully functional in the Department of Agriculture & Cooperation under the Joint Secretary (Administration) who not only acts as Grievance Officer of the Department but also nominated as Nodal Officer for monitoring the redressal of public grievances received in the Department at Headquarters. One Director has been nominated as Staff Grievance Officer to deal with grievances of the employees working in the Department of Agriculture & Cooperation for this purpose. During 2013-14, the DAC (proper) has been found to have improved significantly in reducing the pendency of online public grievances. This fact had also

been appreciated by the then Hon'ble MOS (Personnel, Public Grievances & Pensions). Secretary (Pension & PG) also congratulated this Department on the sensitivity shown towards the pensioners which was reflected in the extremely low pendency of pension related grievances.

2.5 A SEVOTTAM Compliant "Citizens'/ Clients' Charter" has been prepared as per latest instructions/guidelines issued by Cabinet Secretariat and Department of Administrative Reforms and Public Grievances. The Citizen's Charter is also available on the website of Department (www.agricoop.nic.in).

2.6 Implementation of the Right to Information Act, 2005: During the year 2014-15 (as on 31-12-2014), 468 physical applications, 1662 online applications and 45 appeals seeking information under the Right to information Act, 2005 were received in RTI Cell/ Information Facilitation Counter (IFC) and replies were sent to applicants in time.

2.7 Information and Facilitation Counter: This counter provides information in respect of Department of Agriculture & Cooperation and D/o Animal Husbandry Dairying & Fisheries under the Ministry of Agriculture. During the year 2014-15, visitors from various NGOs as well as from general public visited the counter to obtain information. Numerous telephonic calls were also received in RTI Cell/IFC from general public to obtain information pertaining to DAC and D/o AHD&F of Ministry of Agriculture.

2.8 Progressive use of Hindi: The Department has an Official Language Implementation Committee (OLIC), chaired by Joint Secretary (Administration), to monitor the implementation of the Official

Language Policy of the Union and the progressive use of Hindi in official work of the Department. During the year under review, quarterly meetings of Official Language Implementation Committee were held regularly.

2.9 The Hindi Division continued to review the position of the progressive use of Hindi in the Department and subordinate offices regularly, through quarterly progress reports and inspections. Besides, officers of the Hindi Division also participated in the meetings of the Official Language Implementation Committee of Attached and Subordinate offices, Corporations, etc., and extended necessary guidance to them in the implementation of Official Language Act and Rules. In addition to this, two offices under the control of this Department, wherein 80 per cent of the officers and employees have acquired working knowledge of Hindi, were notified in the Gazette of India under Rule 10 (4) of the Official Language Rules, 1976. Every year, the Department nominates Lower Division Clerks and Stenographers for training in Hindi Shorthand and Typing, under the Hindi Teaching Scheme of the Department of Official Language.

2.10 With a view to create awareness regarding the use of Hindi in the official work of the Department, a Hindi Fortnight was held from the 1-15 September 2014. On this occasion, the Hon'ble Minister for Agriculture issued an appeal to all officers and staff of the Department of Agriculture and Cooperation to do more of their official work in Hindi. During the Hindi Fortnight, various Hindi competitions, such as essay writing, noting and drafting, translation and vocabulary, poetry recitation, debate and dictation were organized, and a large number of officers and employees participated in these competitions. Cash awards and

certificates of appreciation were given to the winners of these competitions. The Second Sub-Committee of the Committee of Parliament on Official Language conducted inspection of one office of the Department of Agriculture and Cooperation during the year.

2.11 Reservation for Scheduled Castes/ Scheduled Tribes /Other Backward Castes: Department of Agriculture and Cooperation continued its endeavour for strict implementation of the orders issued by the Government of India from time to time, regarding reservation in services for SCs, STs, OBCs, minorities, ex-servicemen and physically disabled persons.

2.12 Prevention of Harassment of Women Employees: A complaints committee regarding prevention of sexual harassment of women at their work place was reconstituted by the Department. This committee is chaired by a senior lady officer of the Department. The committee is represented by 5 members, which comprises of 4 women members, (one of them belongs to an NGO) and one male member of the Department. Three meetings

of the Committee were held during the year. No complaint alleging harassment was received from any women employees in the Department during this period.

2.13 Results Framework Document (RFD): Since the introduction of the concept of RFD in the year 2009, the Department of Agriculture & Cooperation has been preparing the RFDs every year and placing them on its website for greater transparency and public scrutiny. The RFD of the Department for the year 2013-14, as approved by the Cabinet Secretariat, is at **Annexure-2.4**.

2.14 The performance of the Department against the targets set to fulfil its objectives has been very impressive over the years as evidenced from the following composite scores awarded by High Powered Committee (HPC) headed by the Cabinet Secretary:

Year	Score
2009-10	98.3 %
2010-11	99.1 %
2011-12	97.0 %
2012-13	91.8 %



CHAPTER 3

Directorate of Economics & Statistics (DES)

3.1 The Directorate of Economics and Statistics, an attached office of DAC, is guided by the vision of enriching economic and statistical data and analytical inputs required by the Department of Agriculture & Cooperation for providing better agricultural economic development policy. Its mission is to provide important statistics on area, production and yield of principal crops, Minimum Support Prices, and implement schemes related to improvement of agricultural statistics, and carrying out agro-economic research. The main objectives of the Directorate are generation and dissemination of agricultural statistics and research and analysis. The Directorate provides inputs to DAC, CACP and also places a large volume of data and information in the public domain for use of all stakeholders.

Major Programmes/Activities

3.2 Agricultural Statistics Division: The DES releases four advance estimates and final estimates of area, production and yield in respect of major food grains, oilseeds, sugarcane and fibres. This is based on the information received from State Agricultural Statistics Authorities (SASAs) which have been designated the nodal agencies responsible for the collection/ compilation of Agriculture Statistics in the States. In addition to the inputs received from SASAs, the division also coordinates with the MNCFCC, SAC, IEG, etc. to arrive at estimates. The first advance estimates are released in the month of September. Second advance estimates are released in the month of February. By this time, the assessment

for first advance estimates of rabi crops are also available. The third advance estimates are released in April when the State Governments are ready with better assessment of production for both Kharif and Rabi crops. The fourth advance estimates are released in July. By this time, most of the Rabi crops are harvested and SASAs are in a position to supply the estimates of both Kharif and Rabi seasons based on reasonable number of Crop Cutting Experiments. The final estimates which are released in the month of February of the following year. The Fourth Advance Estimates for 2013-14 were released on 14.08.2014 and First Advance Estimates for 2014-15 were released on 19/09/2014 (**Annexure 3.1**).

3.2.1 The Agricultural Statistics Division organized a National Workshop on Improvement of Agricultural Statistics on 30.09.2014. Officers from the State Department of Agriculture, Revenue, Economics and Statistics, Horticulture, Agricultural Marketing and Central Ministries/Organizations participated in the Workshop. The Workshop deliberated on the ways and means to improve the collection, compilation, dissemination and use of agricultural statistics and the changes required in the light of changing characteristics of agriculture with a focus on improving quality, timeliness and reliability. States also shared the initiatives they have taken.

In addition to this, the Directorate coordinates with international bodies such as the FAO on global efforts to improve agricultural statistics, which is the Agricultural Market

Information System (AMIS) initiative of the G20 members of agriculture. It is also responsible for providing necessary data to the CSO so that the country may meet its international obligations related to standards of data dissemination and contributes information on market prices of agricultural commodities that contributes to the construction of monthly WPI of the country.

3.2.2 Food Economics and Commercial Crops Divisions: The Government's price policy for major agricultural commodities seeks to ensure remunerative prices to the growers for their produce with a view to encouraging higher investment and production and to safeguard the interest of consumers by making available supplies at reasonable prices. The price policy also seeks to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy. Towards this end, the Government announces Minimum Support Prices (MSPs) for major agricultural commodities in each season and organizes purchase operations through public and cooperative agencies. The designated central nodal agencies intervene in the market for undertaking procurement operations with the objective that the market prices do not fall below the MSPs fixed by the Government.

Commission for Agricultural Costs and Prices' (CACP), set up with a view to evolve a balanced and integrated price structure, recommends MSPs of 23 crops. These include seven cereal crops (paddy, wheat, jowar, bajra, maize, ragi and barley), five pulse crops (gram, tur, moong, urad and lentil), seven oilseeds (groundnut, sunflower seed, soybean, rapeseed-mustard, safflower, nigerseed and seasmum), copra (dried coconut), cotton, jute and Fair and Remunerative Price (FRP) of Sugarcane.

While recommending MSPs/FRP, CACP is called upon to ensure that the production patterns are broadly in line with the overall needs (demand) of the economy. CACP submits its recommendations to the government in the form of Price Policy Reports every year, separately for five groups of commodities namely Kharif crops, Rabi crops, Sugarcane, Raw Jute and Copra. While recommending MSPs, CACP holds consultations with different Stake holders including State Governments and farmers representatives.

The Government decides on the support price for various agricultural commodities taking into account the recommendations of the Commission for Agricultural Costs & Prices (CACP) an expert body, views of the State Governments and concerned Ministries/Departments as well as such other relevant factors which are considered important for fixation of support prices.

The Government has fixed the Minimum Support Prices for Kharif and Rabi crops of 2014-15 Season. While Food Economics Division examines the Kharif and Rabi price policy reports of CACP, Commercial Crops Division examines the reports concerning copra and Jute. A statement showing MSP declared for the last few years is at **Annexure 3.2**.

3.2.3 Special Data Dissemination Standards (SDDS) Division: The Division generates quarterly estimates of agricultural production for use in the compilation of quarterly National Accounts by the Central Statistics Office. This activity was undertaken in order to meet the obligations concerning supply of data to the International Monetary Fund. In the absence of direct data, quarterly production is estimated by using the estimates of Kharif and Rabi seasons

in conjunction with the crop calendar. The Division is also involved in collection and compilation of data relating to nine-fold classification of land, irrigated area (source-wise and crop-wise) and total area under crops for States and UTs. The compiled data is brought out in the Directorate's publications titled viz. 'Land Use Statistics', and 'Agricultural Statistics at a Glance'. The compiled data on Land Use Statistics (District wise and State-wise) from 1998-99 to 2011-12 are available on the website, <http://lus.dacnet.nic.in>. Similarly, district wise data on Area, Production and Yield (APY) from 1998-99 to 2011-12 are also available on the website, <http://apy.dacnet.nic.in>.

3.2.4 Market Intelligence & Price Analysis Division

Wholesale Prices: The Division provides necessary market intelligence to the DAC. Wholesale prices of 154 selected agricultural commodities are compiled on a weekly basis from approximately 700 market centres spread all over the country. Of these, weekly wholesale prices of 80 agricultural commodities from 153 market centres spread all over the country are provided to Office of the Economic Adviser, Ministry of Commerce & Industry for construction of monthly Wholesale Prices Index (WPI).

Monthly wholesale prices of certain agricultural commodities and animal husbandry products at selected market centres in India and also international prices of selected agricultural prices are published in monthly journal, viz. Agricultural Situation in India.

A publication "Agricultural Prices in India" is prepared which contains statistics on wholesale prices and retail prices of selected agricultural commodities.

Farm Harvest Prices: The Division also collects and compiles data on farm harvest prices of 30 major crops from 30 States/Union Territories. These are obtained from State Agriculture Departments/Directorate of Economics & Statistics/Directorate of Land Records, etc of respective States. Publication "Farm Harvest prices of Principal Crops in India" is prepared in the Division.

Retail Prices: Retail prices of 88 essential commodities viz; 45 food items (once a week) and 43 non-food items (once a month) are also collected. These are taken from 87 market centres spread all over the country and compiled in the Division.

Agricultural Market Information System (AMIS): In June 2011, G 20 Ministers of Agriculture, while recognizing the importance of timely, accurate and transparent information in addressing food price volatility launched AMIS, a collaborative food information initiative. AMIS is aimed at improving agricultural market information, analysis and forecasts at both national and international levels. At present, information on four crops i.e. wheat, rice, maize and soybean is disseminated through AMIS. The Division prepares balance sheets, incorporating data on production, consumption, stocks, export and import, etc. Directorate of Economics and Statistics (DES) is the focal point for providing the data on regular intervals to Food and Agriculture Organization (FAO).

3.2.5 Agricultural Wages Division: Statistics relating to daily wages paid to different categories of agricultural and skilled rural labour at selected centres are collected and compiled by Directorate of Economics & Statistics. These are published in "Agricultural Wages in India", an annual

publication and also in the monthly journal, viz. Agricultural Situation in India.

3.2.6 International Agriculture Compilation and Publication Division: This Division is concerned with providing data to FAO and carries out compilation and manuscript-preparation works related to the publications and they are available on the website at www.agricoop.nic.in & <http://eands.dacnet.nic.in>. The following publications have been brought out:

- Agricultural Statistics at a Glance, 2013 published on 17.02.2014
- Agricultural Situation in India, latest publication in February, 2014
- Land Use Statistics, published on 29.08.2014
- Agricultural Prices in India, published in June, 2014
- District wise Area and Production of Principal Crops in India- available on website only.
- Farm Harvest Prices of Principal crops in India, published in April, 2014

3.2.7 Coordination: The Coordination Division's main work is to coordinate with the Department of Agriculture & Cooperation and Directorate of Economics & Statistics in matters relating to various issues. Its main activities include DAC level Coordination for preparing Economic Survey Chapter on Agriculture & Food Management, preparation of material for Economic Editors' Conference, routine matters wherein several Divisions of DES and those of DAC are involved, preparation of material for Five Year Plan, Annual Plan and Annual Report, providing information on release and utilization of funds under plan schemes, providing information on Parliament Questions and preparation of

material for Results Framework Document (RFD).

3.3 Plan Scheme: The DES implemented the Plan Scheme "Integrated Scheme on Agriculture Census, Economics & Statistics". This scheme comprises seven components, of which two components, namely, Agriculture Census and Situation Assessment Survey of farmers pertain to Agriculture Census Division of DAC. The remaining five components are being implemented by the Directorate of Economics & Statistics. The details of the five components are as follows:

3.3.1 Comprehensive Scheme for studying the Cost of Cultivation of principal crops in India: The Cost of Cultivation of Principal Crops in India is being implemented since 1970-71 as a Central Sector Plan Scheme. The main objectives of the scheme are to collect and compile field data on cost of cultivation and production in respect of Principal crops and to estimate Crop-wise and State-wise costs of cultivation and production.

The scheme is implemented through 16 Agricultural/Central Universities/Colleges and the estimates of cost of cultivation/production are worked out in respect of these crops and are transmitted it to the CACP so as to enable them to recommend the Minimum Support Prices to the Govt. of India. The data generated under this scheme is also being used by various Central Ministries and State Governments in their policy formulations as also by the researchers both at the domestic and international levels.

The cost estimates generated under the scheme are also used for policy formulations by the Central/State Governments. Agricultural/Central Universities, Government/Non-Government Research Organizations, individual researchers etc.,

are also using the data for research purpose subject to the permission of the DES, Ministry of Agriculture.

The scheme is implemented in 20 States namely Andhra Pradesh, Assam, Bihar, Chattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Telengana, Uttar Pradesh, Uttarakhand and West Bengal. The studies in the states, except newly created States of Chhattisgarh, Jharkhand, Telengana and Uttarakhand are undertaken by the Agricultural Universities/colleges located in their respective States. As far as the four newly created States are concerned, their parent institutions undertake these studies.

During the block period 2011-14, the scheme covered 27 principal crops i.e. paddy, wheat, jowar, bajra, maize, ragi, barley, moong, urad, arhar, gram, lentil, peas, groundnut, rapeseed and mustard, nigerseed, soyabean, sunflower, sesamum, cotton, jute, sugarcane, onion, potato, black-pepper, safflower and coconut.

The field data are collected on the Cost Accounting Method by 16 implementing agencies. Under the scheme, daily entries of debit/credit for the expenditure/income are made in order to assess the total cost/benefit incurred/accrued to each farmer covered under the scheme. The field data are collected by the field-men. The detailed questionnaire is filled up/updated on monthly/ annually basis after making enquiries on daily basis from 10 farm holdings which consist of 2 each from 5 different sized classes viz. up to 1 hectare, 1-2 hectares, 2-4 hectares and above 6 hectares allotted to each field-man.

During the year 2014-15, against the allocated

amount of Rs. 57.75 crore, Rs. 44.00 crore has been released till 31st January, 2015.

3.3.2 Agro-Economic Research: The Agro-Economic Research (AER) Scheme, initiated in 1954-55, is a network of 15 AER Centres/Units which conduct certain research studies in the field of Agricultural Economy on yearly basis as per needs of the Government of India. The 12 Agro-Economic Research Centres (AERCs) are located at Allahabad, Bhagalpur, Chennai, Delhi, Jabalpur, Jorhat, Ludhiana, Pune, Shimla, Vallabh Vidyanagar, Visva-Bharati and Waltair and 3 Agro-Economic Research Units are located at IEG-Delhi, ISEC-Bangalore and IIM-Ahmadabad. These AER Centres/Units are functioning under the administrative control of their respective Universities/Institutes. Agro-Economic Research Centre, Jorhat was set up in 1960 and is functioning under the administrative control of Assam agricultural university, Jorhat for conducting studies on various agricultural issues and problems of the North-Eastern States. The scheme is staff oriented and 100% funded through Grants-in-Aid by Government of India, Ministry of Agriculture.

The Department of Agriculture & Cooperation, Ministry of Agriculture has decided to provide the Grants-in-Aid to the AERCs on the present basis till the terminal year of the 12th Plan (2016-17) and thereafter the research/evaluation studies would be awarded by the Department on competitive bidding basis in which the AERCs can also compete with other institutions/organizations. Department of Agriculture & Cooperation will not bear any salary, allowance and office expenses on account of the AERCs from the financial year 2017-18. By the end of 2016-17, the Universities/Institutes would have to make arrangements for integration of the staff of AERCs within

the University/Institute set-up as per the norms applicable to other employees of the University/Institute.

On an average, about 30-35 research studies are completed annually by these Centres, which relate to various economic issues in agriculture, animal husbandry, water management, fisheries & horticulture, food processing, rural development, non-farm sector employment, etc. During 12th Five Year Plan, 69 studies have been completed upto the year 2013-14. In the current financial year 2014-15, 15 studies have been completed till October 2014.

An amount of Rs.86.12 crore has been allotted for the implementation of the AER Scheme during the 12th Five Year Plan (2012-17). For the Current Financial Year 2014-15, an allocation of Rs.22.00 crore is budgeted (including Rs.2.00crore for Northeast regions); out of which Rs.11.80 crore has been released till 31st January, 2015.

3.3.4 Planning, Management and Policy Formulation: In order to assess the impact of changes on the farm economy with focus on the state of Indian farmers, Planning and Management of Agriculture, a Central Sector Scheme, was formulated during 1998-99 with a view to organize conferences and seminars involving eminent economists, agricultural scientist, experts, etc., to conduct short term studies, engage consultancy services for preparation of new decentralized strategy for development of crops, animals, dairy, poultry, irrigation, soil and water conservation etc. and to bring out papers/reports based on the recommendations of the workshops, seminars, conferences, etc. The inputs gathered from the studies, seminars, workshops are required in connection with formulation of national agricultural policy, sub-sectoral policies, monitoring and

implementation of the programmes, etc.

For the year 2014-15, an allocation of Rs.3.25 crore was made, out of which an amount of Rs.4.25 lakh has been released.

3.3.5 Improvement of Agricultural Statistics: The basic objective of the Central Sector Scheme, Improvement of Agricultural Statistics, is to collect and improve agricultural statistics of principal agricultural crops. The Scheme has three components: i) Timely Reporting Scheme; ii) Improvement of Crop Statistics; and iii) Establishment of an Agency for Reporting of Agricultural Statistics (EARAS). From 2007-08, the scheme has been converted to Central Sector Scheme from Centrally Sponsored Scheme and is funded 100 per cent by the Central Government. The component-wise details of the scheme are as under:-

- i) **Timely Reporting of Estimates of Area and Production of Principal Crops (TRS):** The objective of this component is to obtain estimates of area of principal crops, in each season, with the breakup of area under irrigated/unirrigated and traditional/high yielding varieties of crops on the basis of random sample of 20% of villages by a specific date. The estimates are used for generating advance estimates of production of principal crops. This component is being implemented in 17 land record States and also Union Territories of Delhi and Pondicherry.
- ii) **Improvement of Crop Statistics (ICS):** The objective of this component is to improve the quality of statistics of area and production of crops through supervision and monitoring. Under this component, a sample check of area enumeration and crop cutting

experiments of 10,000 villages and approximately 30,000 experiments at harvest stage are undertaken. These samples are equally shared by the Central Agency, i.e. National Sample Survey Organization; and the State Agricultural Authorities. These checks specifically relate to (i) Enumeration of crop-wise area covered in the selected villages as recorded by the Patwari; (ii) total of the area under each crop recorded in Khasra Register of villages; and (iii) supervision of crop cutting experiments at the harvest stage. This component is being implemented in all TRS States and the Union Territory of Pondicherry. The performance of the implementation of this component also is being closely monitored through Quarterly and Seasonal progress Reports.

- iii) **Establishment of an Agency for Reporting of Agricultural Statistics (EARAS):** This component is being implemented in the permanently settled States of West Bengal, Kerala, Orissa and North Eastern States of Nagaland, Sikkim, Arunachal Pradesh and Tripura. Under this component, an agency has been established in these States for generating estimates of area and production of principal crops and land use statistics, on the basis of complete enumeration of 20% villages in each year. The performance of the implementation of the component is being closely monitored through Quarterly and Seasonal Progress Reports.

For the financial year 2014-15 under Improvement of Agricultural Statistics

Scheme against total allocation of Rs. 113.00 crore (BE), Rs 103.00 crore have been released till 31st January, 2015.

3.4 Activities undertaken for Welfare of Women and North-Eastern States: The scheme is in operation in the North-Eastern States of Arunachal Pradesh, Assam, Nagaland, Sikkim and Tripura. For the financial year 2014-15 under the Scheme Rs.2.67 crore have been released to NES by October end 2014.

3.5 Forecasting Agricultural Output using Space Agro Meteorology and Land Based Observations (FASAL): The scheme aims at:

- Central level monitoring of crop, weather, supply of inputs, pests/diseases and related aspects, through the mechanism of Crop and Weather Watch Group in the Department of Agriculture & Cooperation.
- Coordinating the activities of Plan Scheme for Forecasting Agricultural output using Space, Agro-meteorology and Land based Observations (FASAL).
- Coordinating the activities of the project on Development and Application Extended Range Forecast System for Climate Risk Management in Agriculture.
- In the current financial year 2014-15, out of Budget Estimates (BE) of Rs. 10.00 crore under the subhead 'Professional Services', an amount of Rs. 6.02 crore has been released to different agencies so far; including the installments to NRSC, SAC, Ahmedabad, IMD, Delhi and IEG, New Delhi till 31st January, 2015.

National Food Security Mission (NFSM)

4.1 **National Food Security Mission** was launched in 2007-08 to increase the production of rice, wheat and pulses by 10, 8 and 2 million tonnes, respectively by the end of 11th Plan through area expansion and productivity enhancement; restoring soil fertility and productivity; creating employment opportunities; and enhancing farm level economy. The Mission is being continued during 12th Five Year Plan with new target of additional production of 25 million tonnes of food grains comprising of 10 million tonnes rice, 8 million tonnes of wheat, 4 million tonnes of pulses and 3 million tonnes of coarse cereals by the end of 12th Plan and promotion of commercial crops like cotton, jute & sugarcane.

4.2 The basic strategy of the Mission is to promote and extend improved technologies, i.e., seed, micronutrients, soil amendments, integrated pest management,

farm machinery and implements, irrigation devices resource conservation along with capacity building of farmers. The major interventions/activities covered under NFSM include cluster demonstrations of rice, wheat, pulses and coarse cereals, distribution of improved varieties/hybrid seeds, need based plant and soil management, resource conservation techniques /energy management, efficient water/application tools, cropping system based trainings and local initiatives; award for best performing districts etc.

4.3 During 12th Plan, in 2014-15, NFSM is being implemented in 623 districts of 28 States; NFSM-Rice in 206 districts of 25 States viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya,





Mizoram, Nagaland, Odisha, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and West Bengal; NFSM-Wheat in 126 districts of 11 States viz., Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh and Uttarakhand; NFSM- Pulses in 622 districts of 27 States viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and West Bengal; NFSM-Coarse cereals in 264 districts of 28 States. Additional Area coverage of Pulses during Rabi/Summer in 15 States viz. Andhra Pradesh, Assam, Bihar, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.

Monitoring & Evaluation

4.4 Monitoring & Evaluation at National level: A three-tier monitoring mechanism was inbuilt in NFSM at National, State and District levels. At National level General Council (GC) under the chairmanship of Union Agriculture Minister was constituted to oversee the implementation of NFSM

and take policy decisions for mid-term corrections. National Food Security Mission Executive Committee (NFSMEC) under the chairmanship of Secretary (A&C) periodically reviewed the State Action Plan and the progress of the programme of each State. National Level Monitoring Teams (NLMTs) reconstituted for monitoring the National Food Security Mission (NFSM) activities in respect of NFSM States. Each team consists of experts in the field of rice, wheat, pulses and coarse cereals as per requirement, and the respective Directors of the Directorates of Crop Development of Ministry of Agriculture as Coordinator. Altogether, there are eight (8) National Level Monitoring Teams (NLMTs).

4.5 At State level, the monitoring is undertaken by State Food Security Mission Executive Committee (SFSMEC) under the Chairmanship of Chief Secretary. At District level, the monitoring is undertaken by District Food Security Mission Executive Committee (DFSMEC) under the chairmanship of District Collector.

4.6 The Mid-Term Evaluation of NFSM was conducted by an independent agency to assess the impact of the programme in increasing the productivity of rice, wheat, pulses and enhancement of farm income. The finding of the Mid-Term Evaluation revealed that NFSM has helped to widen the food basket of the country with significant contribution coming from the NFSM districts. Significant outputs were recorded under NFSM since inception of the programme in 2007-08. The Mission accomplished the target of additional production of 20 million tonnes within 4 years of its implementation.

4.7 The final evaluation of NFSM was assigned to independent agency to assess the impact of technological interventions of the

programme in increasing the productivity of rice, wheat and pulses, etc.

Initiatives under 12th Plan

4.8 From the year 2012-13, six North Eastern States, viz, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Sikkim were included under NFSM-Rice and Hill States, viz, Himachal Pradesh and Uttarakhand under NFSM-Rice & Wheat and Jammu & Kashmir under NFSM-Wheat.

4.9 **Interventions during 2013-14:** Recommended agronomic practices have been encouraged through Cluster demonstrations/Frontline demonstrations/A3P demonstrations in 16.39 lakh ha area. Nearly, 33.64 lakh quintals of high yielding varieties/hybrid rice, wheat & pulses have been distributed. 24.74 lakh ha area has been treated with soil ameliorants (Micronutrients/Gypsum/ Lime) and 5.18

lakh ha area has been approved with bio-fertilizers to restore soil fertility. 19.99 lakh ha area has been covered under Integrated Pest Management (IPM). Nearly 7.55 lakh numbers of improved farm machineries including pumpset & sprinkler have been distributed. 283.24 lakh meter water carrying pipes have been distributed. About 15,419 number of cropping system based trainings were conducted for capacity building of farmers.

4.10 A programme on Additional Area coverage of Pulses during Rabi/Summer 2014-15 has been launched with an allocation of Rs.224.42 crore to increase production of Rabi/summer pulses through area expansion of Rabi Pigeonpea, Gram, Pea and Lentil during Rabi and Green Gram and Black Gram during summer. The additional allocations for implementation of the above said programme was made to the States of



Andhra Pradesh, Assam, Bihar, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.

4.11 Revamped NFSM from 2014-15: Government approved the continuation of NFSM programme in the 12th Plan with approved outlay of Rs.12,350 crore with addition of coarse cereals and commercial crops.

4.12 Cropping system based implementation of package of practices in compact blocks in cluster approach in low productivity areas of States would be undertaken. Special emphasis will be given on specialized projects such as reclamation of problematic soils, development of water-logged areas and mitigation of adverse effect of climate change for high productivity areas, value chain integration of small producers, assistance to custom hiring centres, marketing support for pulses and millets.

4.13 Govt. approved crop development programme on cotton, jute and sugarcane for enhancing production & productivity of these crops under National Food Security Mission (NFSM) - Commercial Crops (CC) w.e.f. 2014-15. The Mini Mission-II of Technology Mission Cotton (TMC) & Mini Mission-II to Jute Technology Mission (JTM) have been subsumed under NFSM (CC) w.e.f. 2014-15. As per the administrative approval, the States have been asked to extend 30% of funds to the Women farmers & beneficiaries. Increase in Production & Productivity would be possible through use of proper crop rotation, multiple cropping systems, intercropping etc. Under the NFSM-CC, an allocation of Rs 2700 lakh, has been made during 2014-15 which includes Rs.1200 lakh for Cotton, Rs.700 lakh for Jute and Rs.800 lakh for Sugarcane. As on 19th December,

2014, an amount of Rs. 1730.80 lakh has been released to States/ICAR Institutions, SAUs and Central Agencies for implementation of programme activities.

4.14 Outcome of NFSM since inception: The focused and target oriented implementation of mission initiatives has resulted in bumper production of wheat, rice and pulses in the country. During 2012-13, the productions of rice, wheat and pulses have been achieved at the level of 105.24 million tonnes, 93.51 million tonnes and 18.34 million tonnes respectively. As per 4th Advance Estimates during 2013-14, the production of wheat increased from 75.81 million tonnes in 2006-07 (pre-NFSM year) to 95.91 million tonnes, i.e. an increase





of 20.00 million tonnes. Similarly, the total production of rice increased from 93.36 million tonnes in 2006-07 to 106.54 million tonnes in 2013-14 i.e. an increase of nearly 13.00 million tonnes. The total production of Pulses also increased from 14.20 million tonnes during 2006-07 to 19.27 million tonnes during 2013-14 with an increase of 5 million tonnes.

4.15 Bringing Green Revolution to Eastern India (BGREI), a sub scheme of Rashtriya Krishi Vikas Yojana was initiated in 2010-11 to address the constraints limiting the productivity of “**rice based cropping systems**” in eastern India comprising seven (7) States namely; Assam, Bihar, Chhattisgarh, Jharkhand, Odisha, Eastern Uttar Pradesh and West Bengal. An amount of Rs. 400 crores each was allocated for the programme during 2010-11 & 2011-12 and an amount of Rs. 1000 crores each during 2012-13 to 2014-15. The programme is being implemented in 121 identified districts which are not covered under National

Food Security Mission Rice and Wheat after modification of NFSM Programme from 2014-15.

4.16 Under this programme, interventions like: (i) block demonstrations of rice and wheat in cluster mode; (ii) asset building activities such as construction of shallow tube, Dug well / Bore well, promotion of farm implements like seed drill, pumpset, cono-weeder, drum seeder and other need based farm implementation for cultivation of rice as per NFSM-Rice; (iii) need based site specific activities and (iv) Marketing support are also included.

4.17 During 2013-14, demonstrations on rice were conducted in 7.40 lakh ha area under upland, shallow water, medium water and deep water conditions using high yielding varieties, hybrid rice, System of Rice Intensification (SRI) technology. Similarly, 0.63 lakh ha was covered under wheat demonstration. Under asset building component, 36,759 Shallow Tube Wells were

supported besides distribution of 0.75 lakh pumpsets, 5084 agriculture implements and 731 paddy transplanter. For site-specific activities, 1.20 lakh ha demonstration on line sowing, 38,013 ha demonstration on SRI Technology, supply of 28,571 plant protection sprayer, 81,200 meter conveyance pipe, 6,666 power weeder, construction of 1239 farm cum fish pond in submergence low land, 413 community threshing floor, etc. under Marketing support construction of 2806 pucca threshing floor.

4.18 Crop Diversification Programme in Original Green Revolution States: The Crop Diversification Programme is being implemented as a sub scheme of Rashtriya Krishi Vikas Yojana in Punjab, Haryana and Western Uttar Pradesh with financial allocation of Rs.500 crore since 2013-14 to diversify cropping pattern from water guzzling paddy to pulses, oilseeds, maize and agro forestry with the objective of tackling the problem of declining of soil fertility and depleting water table in these States. It is continued during 2014-15 also with financial allocation of Rs.250 crore. Cluster demonstrations of alternate crops, farm mechanization & value addition, site-specific activities and awareness campaigns/training programmes are the major interventions of the programme. The scheme is in operation in 22 districts of Punjab, 10 districts of Haryana and 18 districts of Western Uttar Pradesh during

2014-15 and Annual Action Plan of Rs.428.74 crore has been approved.

4.19 The scheme has encouraged farmers to adopt alternate crops in place of paddy. Under CDP cluster demonstration on alternate crops like maize, guar, basmati rice, cotton and agro forestry were conducted in 1,09,702 ha area. In Punjab, major achievements was for distribution of farm machinery/equipments like 4263 rotavator, 48 maize harvesting combine, 36 happy seeder, 10 pneumatic maize planter, 756 laser land leveler, 2179 Seed drill/Zero till drill/ Spatial zero till drill DSR drill cum planter, 13,168 knap spray pumps, 2407 power operated spray pumps, 1691 battery operated sprayers, 161 tractor operated sprayers besides setting up of 4 community maize dryer during 2013-14. For site specific activities, 72,600 soil samples were analyzed besides distribution of Daincha seed for 40,799 ha area supported, 1079 ha underground pipeline system. In Haryana, 1383 power sprayers, 1316 tractor operated spray pumps, 7 maize harvesting combine were supplied besides setting up of one agro-processing unit for maize. For site-specific activities, 4,136 of rotavator, 480 laser land leveler, 2000 underground pipeline were given to the farmers. Under awareness activities 20 district, 200 block and 500 village level training programmes were organized during 2013-14.

CHAPTER 5

Mission for Integrated Development of Horticulture(MIDH)

5.1 During 12th Five Year Plan, with effect from 2014-15, Department of Agriculture & Cooperation launched Mission for Integrated Development of Horticulture (MIDH) by subsuming various Missions/Schemes on horticulture viz. (i) National Horticulture Mission (NHM), (ii) Horticulture Mission for North East and Himalayan States (HMNEH), (iii) National Bamboo Mission (NBM), (iv) National Horticulture Board (NHB), (v) Coconut Development Board (CDB), and (vi) Central Institute of Horticulture (CIH), Nagaland.

5.2 The budget allocation for MIDH during 2014-15 is Rs.2263.00 crore which has been reduced to Rs. 2000.00 crore at RE stage. The details of financial progress made under sub-Missions/Schemes of MIDH is indicated in the succeeding paragraphs.

National Horticulture Mission (NHM)

5.3 This Centrally Sponsored Scheme launched in the year 2005-06, aims at the holistic development of horticulture sector by ensuring forward and backward linkage through a cluster approach with the active participation of all stake

holders. All States and four Union Territories of Andaman & Nicobar Islands, Lakshadweep, Puducherry and Dadra & Nagar Haveli are covered under NHM whereas the states in the North Eastern and Himalayan region are covered under the Horticulture Mission for North East and Himalayan States (HMNEH). 384 districts in 18 States and 4 Union Territories are covered under NHM. Sixteen National Level Agencies (NLAs) have also been included for providing support for developmental efforts which require inputs at the National level.

5.4 Supply of quality planting material through establishment of nurseries and tissue culture units production and productivity improvement programmes through area expansion and rejuvenation, technology promotion, technology dissemination, human resource development, creation of infrastructure for post harvest management and marketing in consonance with the comparative advantages of each State/region and their diverse agro-climatic conditions were major programmes implemented during 2013-14. The details of physical progress achieved so far are given below:

Progress under NHM

S. No.	Components	Unit	Progress during 2014-15 (as of Nov. 2014)
1	Nursery	No.	7
2	Area Expansion	Ha.	73185
3	Rejuvenation of old & senile orchards	Ha.	13469
4	Organic Farming	Ha.	500
5	Integrated Pest/Nutrient Management	Ha.	35389
6	Pack house	No.	471
7	Cold Storage	No.	38
8	Primary/mobile processing units	No.	240
9	Market	No.	8
i	Wholesale	No.	1
ii	Rural	No.	7

5.5 Financial progress: From 2005-06 to 2013-14 an amount of Rs.9223.17 crore was released for implementation of the scheme, out of which an expenditure of Rs.8559.16 crore was reported. During 2014-15, as on 31st December, 2014, funds to the tune of Rs.652.02 crore have been released to NHM implementing States and NLAs against BE of Rs.1647.00 crore and RE of Rs. 1209.00 crore.

Horticulture Mission for North East and Himalayan States (HMNEH)

5.6 This Centrally Sponsored Scheme is being implemented since 2001-02 in all the eight North Eastern States and three Himalayan States namely Jammu and Kashmir, Himachal Pradesh and Uttarakhand with 100% central assistance.

5.7 Physical Progress: An area of 9539 ha. has been covered under various horticulture crops and 3114 ha. of old and senile plantation rejuvenated besides an area of 86.2 ha. has been brought under protected cultivation, 2804 ha. under IPM. Apart from this, 777 community water harvesting structures have been created and 3750 number of farmers have been trained under various horticulture activities.

5.8 Financial Progress: During the current financial year, funds to the tune of Rs. 251.17 crore have been released to HMNEH implementing States against BE of Rs. 459.00 crore and RE of Rs. 350.00 crore

National Bamboo Mission (NBM)

5.9 This scheme is being implemented in 27 States in the country since 2006-07. The Mission envisages promoting holistic growth of bamboo sector by adopting area- based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing. Under the Mission, steps

have been taken to increase the availability of quality planting material by supporting the setting up of new nurseries/tissue culture units and strengthening of existing ones. To address forward integration, the Mission is taking steps to strengthen marketing of bamboo products, especially those of handicrafts items. As of December, 2014, funds amounting to Rs. 70.48 crore have been released to NBM implementing States against BE of Rs. 100.00 crore and RE of Rs. 80.00 crore.

Coconut Development Board (CDB)

5.10 The Coconut Development Board was established by an Act of Parliament in 1979 and came into existence on 12.1.1981. The Board is implementing various programmes for the development of coconut sector which





includes action plan like production and distribution of planting material, expansion of area under coconut and integrated farming in coconut holdings for productivity improvement and a technology mission on coconut. During the current financial year, funds to the tune of Rs.80.25 crore have been released to CDB for coconut development in the country against BE of Rs. 107.00 crore and RE of Rs. 105.00 crore.

National Horticulture Board (NHB)

5.11 The Board was established in 1984 as an autonomous registered society under the Department, with its headquarters in Gurgaon and 35 field offices located all over the country. Its main objectives are the creation of production hubs for commercial horticulture development, post harvest infrastructure and cold chain facilities, promotion of new technologies, introduction

and promotion of new crops, and promotion of growers' associations. Funds amounting to Rs. 136.44 crore have been released to NHB against BE of Rs. 190.00 crore and RE of Rs. 250.00 crore. The three major components of the National Horticulture Board are as follows:

- **Development of Commercial Horticulture through Production and Post-Harvest Management:** - Under the scheme, back ended capital investment subsidy @ not exceeding 20% of the total project cost with a maximum limit of Rs.30.00 lakh per project is provided to those projects which are found technically and financially viable for high-tech commercial horticulture, creation of post harvest infrastructure facilities, marketing and primary processing for horticulture crops. For the North-Eastern/Tribal/Hilly Areas,

maximum limit of subsidy is Rs.37.50 lakh per project. This scheme is credit linked and is being implemented throughout the country.

- **Investment Subsidy for Construction/ Expansion/ Modernization of Cold Storages and Storages for Horticulture Produce:-** Under the scheme, the Board provides back-ended capital investment subsidy to the eligible organizations for creation/ modernization/ expansion of cold storage/CA storage @ 35% of the project cost. For NE Regions, the subsidy is @50% of the project cost for storage capacity of 5000 to 10,000MT per project. The scheme is demand driven.
- **Technology Development and Transfer for Horticulture Produce:-** Under this scheme the Board is providing financial assistance to update farmers about

latest advancements in the field of hi-tech horticulture including organizing seminars/symposia/agriculture fairs/exhibitions and sponsoring farmers for inter state visits by State Govt.

Central Institute of Horticulture (CIH), Nagaland

5.12 Recognizing the importance for providing institutional support to the development of horticulture in the "North-Eastern Region", the Government of India approved in January, 2006, a Central Sector Scheme for setting up of Central Institute of Horticulture in Nagaland with the following objectives:

- Capacity building by training of trainers, extension officers, farmers, entrepreneurs, processors and exporters;
- Demonstration of improved



technologies such as use of improved varieties/hybrids, adoption of INM/IPM practices, Hi-tech farming, precision farming, protected cultivation, post harvest technologies, etc.;

- Follow on extension support in the field of horticulture;
- Promotion of organic cultivation of horticultural crops;
- Establishing convergence and synergy among programmes in the field of horticultural research and development; and

- Monitoring of Centrally Sponsored programmes in the area of horticulture.

5.13 Financial Progress: During the current financial year, funds to the tune of Rs. 4.08 crore have been released to CIH, Nagaland against BE of Rs. 8.00 crore and RE of Rs. 6.00 crore.

5.14 The comparative details of area, production and productivity of various horticulture crops during 2013-14 with reference to 2004-05 i.e. pre and post NHM scenario are given below:

Pre and Post NHM Scenario: Area, Production and Productivity

(Area in 000'ha, Production in 000' MT, Productivity : MT/ha)

Crop	Area			Production			Productivity		
	2004-05	2013-14	Annual Growth Rate%	2004-05	2013-14	Annual Growth Rate%	2004-05	2013-14	% diff.
Fruits	5049	7216	4.77	50867	88977	8.32	10.07	12.33	22.44
Vegetables	6744	9396	4.36	101246	162897	6.77	14.99	17.34	15.68
Flowers									
Loose	118	255	12.9	659	2297	27.62	5.65	6.87	23.56
Cut*					543			2.25	
Spices**	3150	3163	0.04	4001	5908	5.30	1.36	1.86	36.76
Medicinal & Aromatic Plants	131	493	30.7	159	895	51.43	1.18	1.81	53.39
Plantations	3147	3675	1.86	9835	16301	2.64	4.22	4.44	5.21
Others	106			172	77				
Total	18445	24198	3.46	166939	277352	6.38	8.32	11.46	37.74

5.15 The wide and varied nature of horticulture sector covering fruits, vegetables, root and tuber crops, flowers, aromatic and medicinal crops, spices and plantation crops facilitates better returns per unit of area besides opportunities for diversification in agriculture.

5.16 Horticulture crops cover an area of about 24.2 million ha (m. ha) at present by registering increase of about 31.5% as compared to 18.4 m ha in 2004-05. However, with a production of about 277.4 million MT, horticulture production has witnessed an increase of about 66.2% during the

period 2004-05 to 2013-14. The significant feature is that there has been improvement of productivity of horticulture crops, which increased by about 26.4% during this

period. Area, production and productivity of horticulture crops during past 9 years are given below:

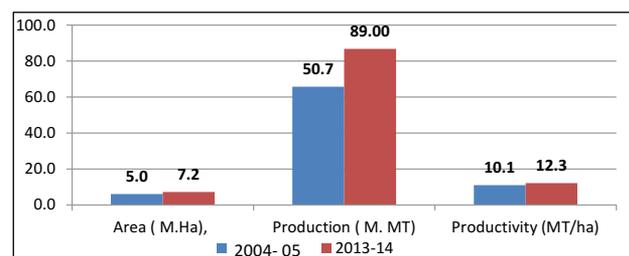
Area, production and productivity of horticulture crops

(Area in m.Ha, Prod. in m. MT, Pnty. MT/ha)

Year	Area	Production	Productivity
2004-05	18.4	166.9	9.1
2005-06	18.7	182.8	9.8
2006-07	19.4	191.8	9.9
2007-08	20.2	211.0	10.4
2008-09	20.5	214.4	10.5
2009-10	20.8	223.2	10.7
2010-11	21.8	240.4	11.0
2011-12	23.2	257.3	11.1
2012-13	23.7	268.8	11.3
2013-14	24.2	277.4	11.5

5.17 The area under fruit crops during 2013-14 was 7.2 m. ha with a total production of 89.00 m. MT. During the period, production of fruits increased by about 75.5% while the area increased by about 40%. Comparative details of area, production and productivity of fruit crops are given below:

Area, Production and Productivity of Fruits

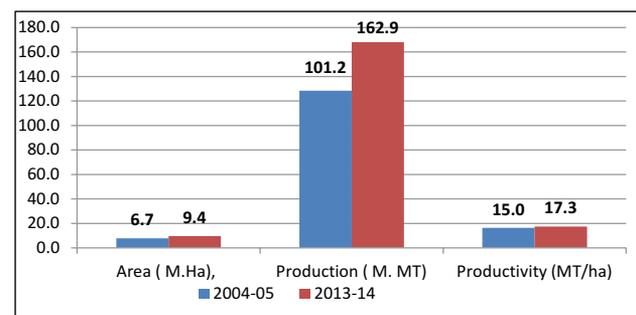


5.18 India maintained its leadership in the production of fruits like mango, banana, sapota, papaya, pomegranate and aonla. At the global level, India is the second largest producer of fruits.

5.19 Vegetables occupy an area of 9.4 million ha during 2013-14 with a total production of 162.9 million tonnes with

average productivity of 17.3 tonnes/ha. In fact vegetables constitute about 60% of horticulture production. During the period (2004-05 to 2013-14), area and production of vegetables increased by 40% and 61% respectively, The comparative details are given below:

Area, Production and Productivity of Vegetables



5.20 India is a leader in production of vegetables like peas and okra. Besides, India occupies the second position in production of brinjal, cabbage, cauliflower and onion and third in potato and tomato in the world. Vegetables such as potato, tomato, okra and

cucurbits are produced abundantly in the country. Globally, India is the second largest producer of vegetables.

5.21 Interventions in horticulture in the country, have led to increase per capita availability of fruits from 133 gm/person/day in 2004-05 to 190 gms/person/day in 2013. Similarly, per capita availability of vegetables has increased from 264gm/person/day in 2004-05 to 349 gm/person/day in 2013.

5.22 India is steadily making advancements in production of flowers, particularly cut flowers, which have a high potential for exports. Floriculture during 2013-14 covered an area of 0.25 million ha with a production of 2.3 m. MT including 0.54 m. MT of cut flowers.

5.23 India is the largest producer, consumer and exporter of spices and spice products, the total production of spices during 2013-14 was 5.9m. MT from an area of 3.16 m. MT.



CHAPTER 6

National Mission on Oilseeds and Oil Palm (NMOOP)

6.1 Vegetable Oil constitutes an important part of our daily diet being source of energy, essential fatty acids and amino acids. Domestic consumption of edible oils has increased substantially over the years and has touched the level of 19.82 million tonnes in 2012-13 (Nov-Oct) and is likely to increase further with enhancement in income and population against the domestic availability of 10.06 million tonnes. Considering the importance of oilseeds, various oilseeds development schemes have been funded by the Government for encouraging cultivation of oilseeds including Oil Palm.

6.2 The Centrally Sponsored Scheme of Integrated Scheme of Oilseeds, Oil Palm and Maize (ISOPOM), which was launched in 2004-05 and remained under implementation till March, 2014. Oil Palm Area Expansion (OPAE) programme, a sub-scheme of RKVY implemented during 2011-12 to 2013-14 have made significant contribution in increasing the oilseeds production and area expansion under oil palm. Implementations of these schemes have given fillip in augmenting the availability of vegetable oil in the country.

Oilseeds Scenario

6.3 The diverse agro-ecological conditions in the country are favorable for growing nine annual oilseeds which include 7 edible oilseeds viz. groundnut, rapeseed-mustard, soybean, sunflower, sesamum, safflower and Niger and two non-edible oilseeds, castor and linseed.

6.4 Oilseeds are raised mostly under rainfed conditions and important for the livelihood of small and marginal farmers in arid and semi arid areas of the country. The production of oilseeds has increased from 24.35 million tonnes in 2004-05 to 32.88 million tonnes in 2013-14. The highest production of oilseeds has been achieved during 2013-14. The oilseeds yield which was 885 kg. per hectare in 2004-05 increased to 1153 kg per hectare (as per 4th Advance Estimates).

6.5 The production fluctuates due to weather aberrations and low moisture availability at the time of sowing. The Area, Production and Yield of oilseeds during last three years are as under:-

(Area in m.Ha, Prod. In m. MT, Pnty. MT/ha)

Year	Kharif			Rabi			Total		
	Area	Production	Yield	Area	Production	Yield	Area	Production	Yield
2012-13	18.32	20.79	1135	8.16	10.15	1244	26.48	30.94	11.68
2013-14*	19.95	22.41	1123	8.57	10.47	1221	28.52	32.88	1153
2014-15**	17.67	19.66	1113						

*As per 4th Advance Estimates/

**As per 1st Advance Estimates (only Kharif)

6.6 The schemes of ISOPOM, Tree Borne Oilseeds (TBOs) and Oil Palm Area Expansion (OPAE) programme have been restructured into National Mission on Oil Seeds and Oil Palm (NMOOP) during 12th Plan and launched during 2014-15.

Objectives of NMOOP

6.7 National Mission on Oilseeds and

Oil Palm (NMOOP) envisages increase in production of vegetable oils sourced from oilseeds, oil palm and TBOs from 7.06 million tonnes (average of 2007-08 to 2011-12) to 9.51 million tonnes by the end of Twelfth Plan (2016-17). The Mission is proposed to be implemented through three Mini Missions with specific target as detailed below:

Mini Mission (MM)	Target of 12th Plan
MM I on Oilseeds	Achieve production of 35.51 million tonnes and productivity of 1328 kg/ha of oilseeds from the present average production & productivity of 28.93 million tonnes and 1081 kg/ha during the 11th Plan period respectively.
MM II on Oil Palm	Bring additional 1.25 lakh hectare area under oil palm cultivation through area expansion approach in the States including utilization of wastelands with increase in productivity of fresh fruit bunches (FFBs) from 4927 kg per ha to 15000 kg per ha.
MM III on TBOs	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.

Strategy for NMOOP

6.8 The strategy to implement the proposed Mission will include increasing Seed Replacement Ratio (SRR) with focus on Varietal Replacement; increasing irrigation coverage under oilseeds from 26% to 36%; diversification of area from low yielding cereals crops to oilseeds crops; inter-cropping of oilseeds with cereals/pulses/sugarcane; use of fallow land after paddy/potato cultivation; expansion of cultivation of Oil Palm & TBOs in watersheds and wastelands; increasing availability of quality planting materials of Oil Palm & TBOs; enhancing procurement of oilseeds and collection & processing of TBOs. Inter-cropping during gestation period of oil palm and TBOs would provide economic return to the farmers when there is no production. The scheme would be implemented in a mission mode through active involvement of all the stakeholders. Fund flow would be monitored to ensure that benefit of the

Mission reaches the targeted beneficiaries in time to achieve the targeted results.

6.9 Mission wise States covered under NMOOP are given below:

- (i) **Mini Mission - I on Oilseed:** Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, West Bengal, Jammu & Kashmir, Jharkhand.
- (ii) **Mini Mission- II on Oil Palm:** Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Maharashtra, Karnataka, Kerala, Odisha, Tamil Nadu, Bihar, and West Bengal.
- (iii) **Mini Mission-III on TBOs:** Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh,

Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal.

6.10 All the North Eastern States namely Assam, Arunachal Pradesh, Manipur, Meghalaya Mizoram Nagaland Sikkim, and Tripura have been included under all the three Mini Missions of NMOOP.

6.11 Mission wise allocation of funds to the States during 2014-15 is given below:

Mission	Amount (in crores)
Mini Mission-I	448.7
Mini Mission-II	77.62
Mini Mission-III	9.32
TOTAL	535.64

Mini Mission-I (Oilseeds)

6.12 State-wise Area, Production and Productivity of Oilseeds during 2008-09 to 2013-14 is at **Annexure 6.1**. The scheme is being implemented through State Department of Agriculture. The expenditure on subsidies is mostly shared on 75:25 sharing basis between Central and State Government. Central Seed producing agencies and ICAR Institutions are provided 100% assistance for seed production and organization of Front Line Demonstrations (FLDs).

6.13 Under this Mission, financial assistance is being provided for Seed Components (production & distribution of certified seeds & minikits, variety specific targeted seed production); Inputs (Plant Protection Equipments/eco friendly light-trap, Bio-pesticides, Distribution of micronutrients, bio-fertilizers, improved farm implements, pipes, sprinklers, seed storage bins, seed treatment drums) and Transfer of Technology (Block

demonstrations, Frontline demonstrations, farmers and extension workers training etc.).

Mini Mission-II (Oil Palm)

6.14 Interventions of MM-II are being shared in the ratio of 75:25 between the Central and the State Governments. In case of R&D 100% support is being provided to Directorate of Oil Palm Research (DOPR), Pedavegi, Andhra Pradesh.

6.15 Under Mini Mission-II (MM-II) of NMOOP, financial support is being provided to the farmers @ 85% cost of the planting material and @ 50% cost of the other components like maintenance cost of new plantations for three years, installation of drip-irrigation system, diesel/electric pump-sets, bore-well/water harvesting structures/ponds, inputs for inter-cropping in oil palm, construction of vermi-compost units and purchase of machinery & tools etc.

6.16 The State-wise area coverage under oil palm through implementation of oil palm development programme upto 2013-14 is given below:

(in ha.)

State	Coverage of Area
Andhra Pardesh	150784
Karnataka	38391
Tamil Nadu	28238
Gujarat	4415
Kerala	5740
Orissa	16225
Mizoram	19971
Others (Maharashtra, Chattisgarh, Goa, Tripura & others)	4943
TOTAL	268707

6.17 The year-wise production of Fresh Fruit Bunches (FFBs) and Crude Palm Oil (CPO) for the last five years are given below:

Year	Production (in MT)	
	FFBs	CPO
2009-10	396551.03	66353.08
2010-11	444385.32	73532.15
2011-12	646428.40	110541.84
2012-13	854036.19	138567.85
2013-14 (Prov.)	995211.66	171354.49

Mini Mission-III (TREE BORNE OILSEEDS) (TBOs)

6.18 The strategy to implement Mini Mission-III will include expansion of cultivation of TBOs in watersheds and

wastelands, increasing availability of quality planting materials of TBOs enhancing collection & processing of TBOs, and inter cropping during gestation period, etc. An action Plan has been approved for TRIFED for promotion of seed collection of TBOs and facilitating marketing of collected TBOs.

6.19 In addition to the action plan of the States, support to the tune of Rs.1.63 crore is being provided to 26 R&D centres in 13 States for ongoing projects of NOVOD Board for 2014-15. The focus of these R&D projects is on development of genotypes with high oil content and higher seed yield of TBOs.



CHAPTER 7

National Mission for Sustainable Agriculture (NMSA)

7.1 National Mission for Sustainable Agriculture (NMSA) is one of the eight Missions outlined under National Action Plan on Climate Change (NAPCC). The Mission aims at promoting sustainable agriculture through seventeen deliverables focusing on ten key dimensions of Indian Agriculture. During 12th Five Year Plan, these measures have been embedded and mainstreamed into Missions/Programmes/Schemes of Department of Agriculture & Cooperation (DAC) through a process of restructuring and convergence. NMSA as a programmatic intervention made operational from the year 2014-15 aims at making agriculture more productive, sustainable, and remunerative and climate resilient by promoting location specific integrated/composite farming systems; soil and moisture conservation measures; comprehensive soil health management; efficient water management practices and mainstreaming rainfed technologies.

Components of NMSA

7.2 Rainfed Area Development (RAD): The major strategy in implementing RAD is promoting integrated farming system covering crops, livestock & fishery, plantation and pasture based composite farming for enhancing livelihood opportunities, ensuring food security and minimizing risks from crop failure through supplementary/residual production systems.

7.3 On Farm Water Management (OFWM): It focuses primarily on enhancing water use efficiency by promoting efficient on-farm water management technologies

and equipment. This will not only focus on application efficiency but, in conjunction with RAD component, for effective harvesting & management of rainwater. Assistance is being given for adopting water conservation technologies, efficient delivery and distribution systems etc.

7.4 Soil Health Management (SHM): SHM is aimed at promoting location as well as crop specific sustainable soil health management including residue management, organic farming practices by way of creating and linking soil fertility maps with macro-micro nutrient management, appropriate land use based on land type.

7.5 Climate Change and Sustainable Agriculture Monitoring, Modeling & Networking (CCSAMMN): CCSAMMN supports dissemination of climate change related information and knowledge by way of piloting climate change adaptation/mitigation research/model projects in the domain of climate smart sustainable management practices.

Rainfed Area Development (RAD):

7.6 Integrated Farming System (IFS) is being promoted under RAD in which activities like horticulture, livestock, fishery, agroforestry, value addition are to be taken up along with crops/cropping system. During 2014-15, RAD is being implemented in 26 States of the Country covering 1.30 lakh ha of IFS activities comprising 10317 ha of livestock based farming system, 20454 ha of dairy based farming system, 5600 ha of fishery based farming system, 29778 ha

of horticulture based farming system, 3708 ha of agro-forestry based farming system, 4839 ha of silvi-pasture based farming system & 57715 ha of cropping system with peripheral plantations. Rs.210.43 crore has been released as first installment to the

implementing states till 31st October 2014.

7.7 Details of Rainfed Area Development (RAD) programmes being executed in North-Eastern States during 2014-15 are given below:

Schemes/ Programmes	Physical target (Area in ha)	Achievement (Area in ha)	Budget Allocation (Rs. In lakh)	Amount Utilization (Rs. In lakh)
Rainfed Area Development (RAD)	8500	3500	3910.00	941.00

On Farm Water Management (Micro irrigation):

7.8 Centrally Sponsored Scheme on National Mission on Micro Irrigation (NMMI) has been implementing since the year 2010. From 1st April, 2014, NMMI is subsumed under the National Mission on Sustainable Agriculture (NMSA) and is now implemented as "On Farm Water Management" (OFWM) component. The focus of OFWM is primarily on enhancing water use efficiency by promoting appropriate technological interventions like drip & sprinkler irrigation technologies, efficient water application and distribution system, secondary storage and drainage development.

7.9 **Progress:** An outlay of Rs.1121.00 crore has been earmarked for the year 2014-15, out of which, funds to the tune of Rs. 715.37 crore has been released to the States. So far, an area of 1.67 lakh ha (approx.) has been covered under Micro Irrigation as on 13th Nov, 2014.

7.10 New Initiatives:

- Initiated process to develop a portal for managing OFWM programme at the National level with the help of Gujarat Green Revolution Company Ltd

(GGRC). This programme would help in ensuring efficacy and transparency in implementation process and effective monitoring of the Mission programme.

- Development of software for designing site specific micro irrigation system taking into consideration agro-climatic parameters of the area through Precision Farming Development Centre (PFDC) at Indian Agricultural Research Institute (IARI) is underway.
- Assessment of potential under micro irrigation in the country through Mahalanobis National Crop Forecast Centre (MNCFC) is being done by using real time crop area data.
- Associated in Nation-wide launch of programme on solar powered pumps through Ministry of New and Renewable Energy (MNRE) and its integration with micro irrigation.

Soil Health Management (SHM)

7.11 Soil Health Management (SHM) is one of the most important interventions under National Mission for Sustainable Agriculture (NMSA). SHM aims at promoting Integrated Nutrient Management (INM) through judicious use of chemical

fertilizers including secondary and micro nutrients in conjunction with organic manures and bio-fertilizers for improving soil health and its productivity; strengthening of soil and fertilizer testing facilities to provide soil test based recommendations to farmers for improving soil fertility; ensuring quality control requirements of fertilizers, bio-fertilizers and organic fertilizers under Fertilizer Control Order, 1985; upgradation of skill and knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations; promoting organic farming practices etc.

7.12 The components under Soil Health include trainings for fertilizer dealers, foreign nationals, fertilizer inspectors and fertilizer laboratory staff, setting up of new static Soil Testing Laboratories (STLs), setting up of new Mobile STLs, strengthening of existing STLs, setting up of new Fertilizer Quality Control Laboratory (FQCL), strengthening of FQCL apart from trainings and demonstrations on balanced use of fertilizers.

7.13 The components under organic farming include trainings for certification course on organic farming, refresher courses for analysts, field functionaries, trainers training, publishing of News Letters on organic farming and bio-fertilizers, setting up of fruit/vegetable/agro waste compost production units, setting up of bio-fertilizer production units, setting up of bio-fertilizer & Organic Fertilizer Quality Control Laboratories, promotion of organic inputs, training on organic farming, etc.

7.14 Under the scheme, 5 Soil Testing Laboratories (STLs), 9 Mobile STLs, 1 Fertilizer Quality Control Lab (FQCL), 3 Strengthening of FQCLs, 224 Portable Soil Testing Kits, 358 Training and

demonstrations, 1 Liquid Carrier based Bio-fertilizer production unit, 4 Bio-fertilizer and Organic Fertilizer Quality Control Labs, 30,000 Ha. Organic Input/Green manuring, 25,700 ha distribution of Micronutrients have been approved during 2014-15 under SHM component.

New Initiatives

7.15 A new scheme "Soil Health Card" has been approved for implementation during the remaining period of 12th Plan to provide 14 crore Soil Health Cards to the farmers in the country. Soil Health Card will provide information to farmers on soil nutrient status of their soil and recommendation on appropriate dosage of nutrient to be applied for improving soil health and its fertility. Soil health card will be issued every 3 years for all land holdings in the country so as to promote balanced and integrated use of plant nutrients.

7.16 Apart from this, an additional amount of Rs.56 crore to set up 100 mobile soil testing laboratories across the country has been approved during 2014-15 to resolve the issue of Soil Health Card (SHC) to all farmers to promote soil test based use of plant nutrient.

7.17 A dedicated website National Mission for Sustainable Agriculture (NMSA) has been operationalized (<http://nmsa.dac.gov.in/>) to keep all information of the scheme in the public domain for access of all stakeholders.

Other Programmes

7.18 **Indo German Bilateral Cooperation (GIZ):** Effective information exchange is a prerequisite to promptly respond to the needs of the farmers' request for authentic information which the present agricultural information exchange system

cannot deliver. Although a number of Agricultural Knowledge and Information Networks (AKINs) exist, there is lack of effectiveness of interventions at farm level i.e. transfer of climate resilient technologies, lack of availability of effective, timely/dynamic/authentic and farmer-friendly sustainable agricultural information for all the stakeholders. With this background, under Indo-German Bilateral Cooperation a technical project on Climate Change Knowledge Network in Indian Agriculture (CCKNIA) was launched in September, 2013 in three states of Maharashtra, Jharkhand and Odisha. CCKNIA aims to promote inter-active dialogues among different stakeholders to establish and enhance linkages between climate change and sustainable development in agriculture. During the first year of project a baseline survey was conducted and survey showed clearly, that the selection of technology for information dissemination has to be "Simple" as the usage of technology is limited/constrained at villages and literacy rates are low, awareness about existing technologies for accessing agriculture relevant information is very limited even the farmers are in strong need of information on how to adapt to the impacts of climate change. Apart from this study SWOT analyses were conducted in the three States and at national level, in order to identify key stakeholders to be addressed as primary players within the knowledge network.

7.19 National Agroforestry Policy, 2014: National Agroforestry Policy, 2014 has been formulated with the objective to bring coordination, convergence and synergy between various elements of agroforestry scattered in various existing Missions, programmes and schemes of the Government. The policy will provide a platform to stimulate the growth of

agroforestry in India. It will encourage farmers for agroforestry as an integral component of farming system which will lead to meet the ever increasing demand of timber, food, fuel, fodder, fertilizer, fiber, and other agroforestry products; conserving the natural resources and forest; protecting the environment & providing environmental security; and increasing the forest / tree cover.

7.20 A major role for agroforestry is emerging in the domain of environmental services. Agroforestry is known to have the potential to mitigate the climate change effects through microclimate moderation and natural resources conservation in the short run and through carbon sequestration in the long run. Agroforestry species are known to sequester as much carbon in below ground biomass as the primary forests, and far greater than the crop and grass systems. An inter Ministerial Committee having representation for all the relevant Department/Ministries has been constituted to oversee the implementation of the Policy. It has been decided to take up plantation of trees on farm bunds in all the developmental programmes of Deptt. of Agriculture and Cooperation, Government of India to take this policy forward.

Natural Resource Management

7.21 As per available estimates of Indian Council of Agricultural Research (ICAR-2010), out of total geographical area of 328.7 million hectare (m.ha), about 120.4 m.ha(37%) is affected by various kind of land degradation. This includes water and wind erosion (94.9 m.ha), water logging (0.9 m.ha), soil alkalinity/sodicity (3.7 m.ha), soil acidity (17.9 m.ha), soil salinity (2.7 m.ha) and mining and industrial waste (0.3 m.ha). Frequent droughts, floods and climatic variabilities also impact soil fertility and

cause land degradation, thereby, affecting foodgrain production across the country.

7.22 Natural Resource Management (NRM) Division is implementing Central Sector Schemes namely, Soil and Land Use Survey of India (SLUSI) and Soil Conservation Training Centre, Damodar Valley Corporation, Hazaribagh. The major mandate of NRM Division are as under:-

- Technical input on soil & water conservation interventions for prevention of soil erosion & land degradation under various programmes/schemes of DAC;
- Formulation of strategies, policies and programmes to address issues of degraded land, appropriate measures to combat adverse impact of such degradation on agricultural production;
- Reclamation & development of problem lands affected by alkalinity, salinity and acidity;
- Conducting various types of soil survey to provide scientific database on soil and land uses for planning & implementation of various land based interventions;
- Development of training and capacity of officials working in various States for soil and water conservation & management.

7.23 **Schemes/Programmes:** The details of the Schemes and Externally Aided Programmes being implemented by NRM Division are given in the succeeding paragraphs.

(A) **Accelerated Fodder Development Programme (AFDP):** Pursuant to announcement in Union Budget for

2011-12, a special scheme "Accelerated Fodder Development Programme (AFDP)" was launched during 2011-12 as a sub-scheme of RKVY and the scheme has been extended to 6 States in the year 2013-14 with release of Rs.80 crores. Additional Fodder Development Programme (AFDP) has been approved in event of drought effected districts/blocks in fiscal year 2014-15 for fodder production.

AFDP envisages accelerating production of fodder through promotion of integrated technologies and processes for enhancing the availability of fodder throughout the year. It will also help in mitigating shortage of fodder caused due to natural calamities like droughts and floods. During 2013-14, 1,163 clusters (each of 250-500 ha) were taken up under the programme and about 14.65 lakh ha area has been brought under various dual purpose/ fodder crops. During 2014-15 States have formulated the project proposed for seeking financial assistance and an amount of Rs. 14.81 crore, comprising Rs. 2.56 crore for Haryana, Rs. 2.16 crore for Uttar Pradesh, Rs. 3.84 for Karnataka and Rs. 6.25 crore to Maharashtra have been released for implementation of interventions of AFDP.

(B) **Watershed Development Fund (WDF):** The Union Government has established a Watershed Development Fund WDF during 2000 with a corpus of Rs.200 crore which includes Rs.100 crore by DAC and Rs.100 crore by National Bank for Agriculture and Rural Development (NABARD) as matching contribution. The total corpus and its management is vested with NABARD. Objective of WDF is

to promote participatory watershed development involving Watershed Community, State Government Departments, Banks and NGOs. Presently, WDF scheme is being implemented in Gujarat, Maharashtra, Uttar Pradesh, Uttarakhand, Karnataka, Tamil Nadu, Rajasthan, Chhattisgarh, Odisha, Jharkhand, Madhya Pradesh, Himachal Pradesh and West Bengal. During 2006, after announcement of Prime Minister's Rehabilitation Package in 31 distressed districts in States of Andhra Pradesh, Karnataka, Kerala and Maharashtra, it was decided to implement participatory watershed development programme in all these distressed districts through WDF. As per information reported by the NABARD, Mumbai, an amount of Rs. 156.44 crore (till March, 2014), had been released for the development of 538 Watershed projects under non distressed districts of 16 States. In case of Prime Minister's Rehabilitation Package, an amount of Rs.719.925 crore (up to March, 2014) had also been released to develop 777 Watershed projects under distressed districts of 4 States.

- (C) **Development of Model Watersheds through ICRISAT, Hyderabad & CSWCRTI, Dehradun:** To address bio-physical and socio-economic dimensions of specific agro climatic conditions and to develop suitable technologies for maximizing development process under watershed programmes, 18 Model Watershed Projects covering different agro ecological regions of the country have been assigned to Central Soil & Water Conservation Research and Training Institute (CSWCRTI), Dehradun (9 projects) and International Crop

Research Institute for Semi Arid Tropics (ICRISAT), Hyderabad (9 projects). These watersheds would serve as model for replicating successful technologies through NWDPR and other National/State watershed projects. Rs.3.97 crore and Rs.8.25 crore have so far been released to CSWCRTI and ICRISAT respectively.

(D) **Central Sector Schemes:**

- 1) Central Sector Scheme of Soil and Land Use Survey of India (SLUSI): SLUSI was established in 1958 for providing scientific input on soil and land use survey to policy makers, planners and implementing agencies for various agriculture developmental programmes. The headquarter of SLUSI is located at Indian Agricultural Research Institute (IARI) Campus, New Delhi and it has seven regional centers at Noida, Kolkata, Bengaluru, Nagpur, Hyderabad, Ahmedabad and Ranchi. In 1992, SLUSI had established a Remote Sensing Center (RSC) for leveraging application of advanced technologies in soil survey programme.

SLUSI had been undertaking various kind of soil surveys including Rapid Reconnaissance Survey (RRS) of the inter-State catchments and demarcate/priorities the area into sub-watersheds/watersheds depending upon sediment yield/runoff potential. The watersheds priorities by SLUSI were adopted for treatment under Centrally Sponsored Programme of Soil Conservation in the catchment of River Valley Project and Flood Prone Rivers (RVP & FPR) through Macro Management of Agriculture (MMA) Scheme up to 31st March, 2013. After discontinuation of this programme and in view of

launching of National Mission for Sustainable Agriculture (NMSA) during 12th Five Year Plan, SLUSI revisited its mandate with special reference to Soil Health Management activity. The revised mandate of SULSI includes:

- Conducting Detailed Soil Survey (DSS) by using real time Remote Sensing data to generate detailed scientific database on soil and land use characteristics for planning and implementation of various programmes of Soil and Water Conservation and Soil Health Management (SHM);
- Creation of Technical Support Group (TSG) for providing support to National Mission for Sustainable Agriculture (NMSA);
- Establishment of an advanced national level Nodal Soil Analytical Laboratory (NSAL) at Noida Centre for Macro/ Micro nutrient analysis and for monitoring and quality checking of soil analysis;
- Monitoring and evaluation of various developmental projects under NMSA and other National Missions established under of National Action Plan for Climate Change (NAPCC);
- Development of MIS (Management Information System) for knowledge networking and monitoring;
- Conducting training for capacity building of officers of state governments involved in different developmental programmes viz. agriculture, horticulture, soil conservations and rural development;
- Preparation of state wise platform free Microwatershed on 1:50 K scale; and,
- Implementation of collaborative project with Central/State Government Departments and also with Research Institutions/ Universities for research / other academic activities.

7.24 Progress of SLUSI:

Consultancy Project: Desertification Mapping of Utrakhand and Punjab States in collaboration with Space Application Centre, Ahmedabad on 1:500000 has been completed. SLUSI has also taken up Soil Resource Mapping of Wayanad, Kannur, Kottayam and Thrissur districts of Kerala State with collaboration of Kerala State Land Use Board (KSLUB).

- **Development of Digital Micro-watershed Atlas:** Digital version of Micro-watershed Atlas provides platform for the planners in designing location specific development plans for various agricultural and rural development programmes in the country. This also helps in prevention of overlapping of planning and implementation of developmental activities by various agencies by adoption of web based transparent monitoring system. Micro-watershed Atlas of Chattisgarh, Goa, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Puducherry, Punjab, Sikkim, Tamil Nadu, Tripura and Utrakhand States have been prepared and uploaded on web site and same for other completed States namely Andhra Pradesh, Andaman & Nicobar, Bihar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Himachal Pradesh, Jharkhand, Maharashtra,

Mizoram, Nagaland, Rajasthan and West Bengal is about to be uploaded. The digital spatial databases in respect of Micro-watershed Atlas of Arunachal Pradesh, Jammu & Kashmir, Meghalaya, Manipur, Odisha and Uttar Pradesh have also been created.

- **Soil Survey:** During 2013-14, RRS of 1.43 lakh ha, DSS of 4.98 lakh ha & SRM of 117.65 lakh ha have been completed up-to March, 2014 and During 2014-15, DSS of 31.46 lakh ha have been completed up to January, 2015.
- 2) **Central Sector Scheme of Soil Conservation Training Centre-DVC, Hazaribagh:** This Central Sector Scheme was created under Non-Plan for conducting training and capacity building including short orientation courses for soil conservation including climate change adaptation and mitigation in agriculture and allied sectors which are essential for strengthening capabilities of field functionaries. During 2014-15, an amount of Rs.45 lakh have been released for conducting nine training courses in different areas of soil & water conservation and climate change adaptation. Under this scheme, five training courses have been conducted in which 83 numbers of trainee participated up to January, 2015.

(E) Externally Aided Projects

A. World Bank assisted Integrated Watershed Management Projects:

Three World Bank assisted Integrated Watershed Management Projects in the states of Himachal Pradesh, Assam and Rajasthan are being implemented. DAC is involved in supervision, coordination and

monitoring of these projects. World Bank provides assistance for these projects directly to the State Governments. The details of the projects are given below:

1. Himachal Pradesh Mid-Himalayan Watershed Development Project:

The Himachal Pradesh Mid-Himalayan Watershed Development Project (Credit No. 4,133) became operational in February, 2006 and it will end in March, 2015. This project aims at preventing degradation and protection of bio-diversity, improving accessibility to rural areas and productivity of livestock etc. and envisages institutional strengthening, watershed development and management, enhancing livelihood opportunities, project management and coordination. The cost of this project is about Rs. 510.00 crore and area to be covered includes 602 Gram Panchayats in 10 districts, namely, Sirmour, Solan, Bilaspur, Shimla, Kullu, Mandi, Hamirpur, Kangra, Chamba and Una. At present work is in progress in all selected Gram Panchayats and a total of Rs.415.085 crore has been spent upto January, 2015.

2. Assam Agricultural Competitiveness Project:

The Assam Agricultural Competitiveness Project (Credit No. 4013) was launched in February, 2005 and will close in March, 2015. The project aims at increasing productivity and market access of targeted farmers and community groups to stimulate growth in Assam's agricultural economy. The cost of this project is Rs.1,022 crore covering 23 districts for infrastructure development, such as rural roads, agricultural services & market chain development and minor irrigation. As on June, 2014, an amount of Rs.943.85 crore has been incurred towards installation of Shallow Tube Wells (STW),

Lift Pump Sets, supply of Power Tillers & Tractors, laying Rural roads and Drainage treatment. Phase II of this programme is under consideration.

3. Rajasthan Agricultural Competitiveness Project:

Rajasthan Agricultural Competitiveness Project (Credit No 5085) became operational in April 2013 and will close in March 2020. The objective of the project is to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan, each marked by different agro-ecological, climatic, water resource and social conditions. The total project cost is Rs. 832.5 crore. Total 20 clusters are targeted to be developed in selected locations. So far 6 clusters viz. Mokhampura in Jaipur, Ladnu in Nagaur and Bansur in Alwar, Pisangan in Ajmer, Gudha in Bundi and Z-minor in Sri Ganganagar, have been selected. By the end of March 2014, Rs.6.08 crores has been incurred for preparatory works.

B) Sodic Land Reclamation & Development Project with World Bank Assistance: Project proposal on "Uttar Pradesh Land Reclamation and Development Project" at an estimated cost of Rs.2,000 crore for reclamation and development of 3.10 lakh ha area was proposed for seeking financial assistance from World Bank. Technical and Financial agreement was signed in June, 2009 for development of 1.35 lakh ha of degraded land comprising 1.30 lakh ha of Sodic lands and 5,000 ha of Ravine lands at an estimated cost of Rs.1,224

crore in 6 years. During 2014-15, an area of 0.28 lakh hectare of Sodic land and 0.02 lakh ha. of Ravine area have been developed up to January, 2015.

C) Crop Diversification in Himachal Pradesh with Japan International Cooperation Agency (JICA):

Project for implementation of various interventions for Crop Diversification in Himachal Pradesh with JICA assistance at an estimated cost of Rs.321 crore for 7 years was signed on 1st October, 2010. After detailed deliberations and visit of experts to identified districts of Himachal Pradesh, Overseas Development Assistance (ODA) agreement was signed on 17th February, 2011 and agreed interventions are being undertaken in 5 selected districts namely; Kangra, Hamirpur, Bilaspur, Mandi and Una. During 2013-14, different DPRs have been sanctioned for undertaking activities as per agreement under the project and an amount of Rs.39.22 crore has been utilized. During 2014-15, an amount of Rs. 18.0 crore has been utilized for various approved interventions.

7.25 National Policy for Management of Crop Residue (NPMCR): Harvesting of various crops generate large volume of residues both on and off farm. A large portion of crop residue is burnt 'on farm' in order to clear the field for sowing of next crop, as, time interval between harvesting of kharif crops and sowing of rabi crops is very short. Burning of crop residues not only causes air pollution, but also damages soil structure, soil bacteria and available nutrients into the soil, besides creating human health problems.

Keeping there in view, Department of Agriculture & Cooperation formulated a 'National Policy for Management of Crop Residue (NPMCR)' and circulated to all states for implementation. The 'NPMCR' comprises:

- a. Promotion of technologies for optimum utilization and in-situ management of crop residues to prevent loss of invaluable soil nutrients, minerals and improvement of general soil health;
- b. Promotion of diversified uses of crop residue for various purposes viz. power generation, packing material for fruits, vegetables and glassware, utilization for paper/board/panel industry, biogas generation/composting and mushroom cultivation in PPP mode;
- c. Capacity building of various stakeholders including farmers and extension functionaries under crop development programmes and organization of field level demonstrations on management of crop residues in all programmes/schemes;
- d. Promotion of adaptive research for management of crop residues and development of machineries for effective utilization of crop residues;
- e. Formulation and implementation of suitable law/ order/ rules by states for curbing the practice of crop residue burning.

As a follow up action a one day workshop on "Agriculture Stubble Burning-issues and Policies" was organized in collaboration of MOEF&CC at Chandigarh for Northern States where problems are more predominant.

Integrated Nutrient Management

7.26 Assessment of Fertilizers: To ensure adequate availability of fertilizers, Department of Agriculture & Cooperation conducts Zonal Conferences with States for every Kharif and Rabi season in order to assess the requirement of fertilisers in all the States. After consultation with States, Department of Fertilisers and Lead Fertiliser suppliers etc., the total requirement for each State is assessed for the season. The States prepare month-wise requirement and the same is sent to Department of Fertilisers. A monthly supply plan based on the month-wise requirement is made by Department of Fertilisers for all States. This supply movement is jointly monitored by Department of Agriculture & Cooperation and Department of Fertilisers along with the States through weekly video-conference.

- (a) **Kharif 2014 Season:** Requirement of major fertilizers viz., Urea, DAP, MOP, Complexes and SSP for Kharif 2014 season was assessed at 152.80 Lakh Metric Tonnes (LMT), 48.07 LMT, 14.85 LMT, 49.60 LMT and 34.93 LMT respectively.
- (b) **Rabi 2014-15 Season:** Requirement of major fertilizers viz., Urea, DAP, MOP, Complexes and SSP for Rabi 2014-15 season was assessed at 164.33 Lakh Metric Tonnes (LMT), 47.86 LMT, 15.41 LMT, 50.22 LMT and 35.08 LMT respectively.

7.27 Consumption of Chemical Fertilizers: Consumption of major chemical fertilizers along with N, P, K nutrients since 2001-02 is given below:

(lakh tonnes)

Year	Urea	DAP	MOP	Complex	Nitrogen (N)	Phosphate (P)	Potash (K)	Total (N+P+K)
2001-02	199.17	61.81	19.93	49.63	113.10	43.82	16.67	173.60
2002-03	184.93	54.73	19.12	48.10	104.74	40.19	16.01	160.94
2003-04	197.67	56.24	18.41	47.57	110.77	41.24	15.98	167.99
2004-05	206.65	62.56	24.06	55.08	117.13	46.24	20.61	183.98
2005-06	222.97	67.64	27.31	66.94	127.23	52.04	24.13	203.40
2006-07	243.37	73.81	25.86	67.99	137.73	55.43	23.35	216.51
2007-08	259.63	74.97	28.80	65.70	144.19	55.15	26.36	225.70
2008-09	266.49	92.31	40.78	68.05	150.90	65.06	33.13	249.09
2009-10	266.74	104.92	46.34	80.25	155.80	72.74	36.32	264.86
2010-11	281.12	108.70	39.31	97.64	165.58	80.50	35.14	281.22
2011-12	295.65	101.91	30.29	103.95	173.00	79.14	25.75	277.90
2012-13	300.02	91.54	22.11	75.27	168.21	66.53	20.62	255.36
2013-14	306.00	73.57	22.80	72.63	167.50	56.33	20.99	244.82

7.28 Fertilizer Control Order (FCO), 1985:

In order to make available large variety of fertilizers to the farmers as per their requirement, fertilizers are notified under FCO. At present, 13 straight nitrogenous fertilizers, 8 straight phosphatic fertilizers, 5 straight potassic fertilizers, 2 sulphur fertilizers, 19 NPK complex fertilizers and 16 NP complex fertilizers, 29 customized fertilizers, 14 fortified fertilizers, 17 water soluble fertilizers and 16 micronutrients are notified under FCO. To encourage use of organic and bio-fertilizers, bio-fertilizers namely; Rhizobium, Azotobacter, Azospirillum, Phosphate Solubilizing Bacteria, Potash mobilizing Bacteria (KMB), Zinc Solubilizing Bacteria (ZnSB), Mycorrhizae, Acetobacter and Consortia of bio-fertilisers have been incorporated in FCO, 1985. Generalized specifications of organic manures and other organic fertilizers, namely, City compost, Vermi compost and Phosphate Rich Organic Manure (PROM) have been included in

FCO, 1985. Composition of Castor de-oiled cake has also been specified in FCO, 1985.

7.29 Quality Control of Fertilizers: To ensure availability of fertilizers of standard quality to farmers, Fertilizer was declared as an Essential Commodity and Fertilizer Control Order, 1985 was promulgated under section 3 of Essential Commodities Act, 1955 to regulate trade, price, quality and distribution of fertilizers in India. Responsibility of enforcement of this Order has primarily been entrusted to State Governments and Central Government provides training facilities and technical guidance to States and supplements their efforts through random inspection of manufacturing units and their distribution network. Presently, there are 78 laboratories in the country including 4 Central Government Laboratories. Analytical capacity and number of samples analyzed and found Non Standard during last 5 years is shown in Table below:

Year	No. of Labs.	Annual Analytical Capacity	No. of samples Analyzed	% Non Standard Samples
2009-10	74	1,30,635	1,18,312	5.2
2010-11	74	1,27,930	1,21,868	5.1
2011-12	74	1,30,450	1,31,970	4.9
2012-13	75	1,42,621	1,33,872	5.1
2013-14	78	1,52,470	1,38,961	5.4

7.30 Balanced Use of Fertilisers:

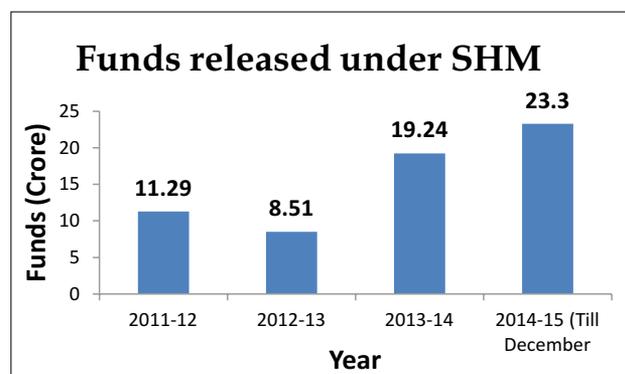
Department of Agriculture and Cooperation is promoting soil test based balanced & judicious use of chemical fertilisers, bio-fertilisers and locally available organic manures, like Farm Yard Manure (FYM), vermi-compost and green manure to maintain soil health and its productivity. In order to promote balanced fertiliser application, Government is providing grant for setting up / strengthening of soil testing laboratories, trainings and demonstrations on balanced use of fertilisers and promotion of micro-nutrients across various Plan periods. At present, there are 1206 Soil Testing Laboratories with analysing capacity of 1.28 crore samples per annum.

7.31 Soil Health Management (SHM):

Department of Agriculture and Cooperation is implementing Soil Health Management component under National Mission for Sustainable Agriculture. The financial assistance on various components as below is provided under SHM:

- Creation of district-wise digital soil fertility maps
- Distribution of portable soil testing kits to field functionaries
- Promotion and distribution of micronutrients
- Setting up of new Fertiliser Quality Control laboratories (FQCL) and strengthening of existing state Fertiliser Quality Control laboratories

7.32 Funds amounting to Rs 23.30 crore have been released till December under Soil Health Management component. Comparison of funds released during the current year (till December) with that of previous years is shown below.

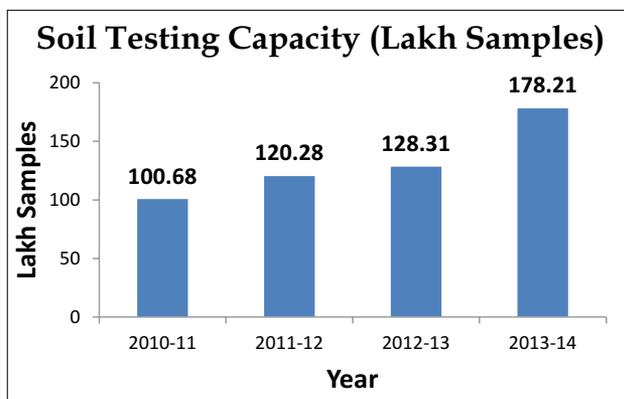


7.33 **Soil Health Card Scheme:** Soil Health Card Scheme has been recently approved for implementation during 12th Plan period. The Scheme will provide farmers with information on soil analysis and recommendation on appropriate dosage of nutrients to be applied for cultivation

of various crops. Soil analysis will be done in accordance with uniform sampling techniques and procedure to provide information to the farmers. Soil Health Card will be issued at 3 years intervals in respect of all the 14 crore land holdings in the country.

7.34 Mobile Soil testing Laboratories: During budget speech 2014-15, Hon'ble Finance Minister has approved for setting up of 100 Mobile Soil Testing Laboratories with an outlay of Rs.56 crore. Funds amounting to Rs. 23.68 crore have been released to 12 different states till December, 2014 for setting up of mobile soil testing laboratories.

7.35 Comparison of All-India Soil Testing capacity in previous years is given below:



7.36 INM & Organic Farming: Department of Agriculture and Cooperation is implementing INM & Organic Farming component under National Mission for Sustainable Agriculture. The financial assistance on various components as below is provided under the said component:

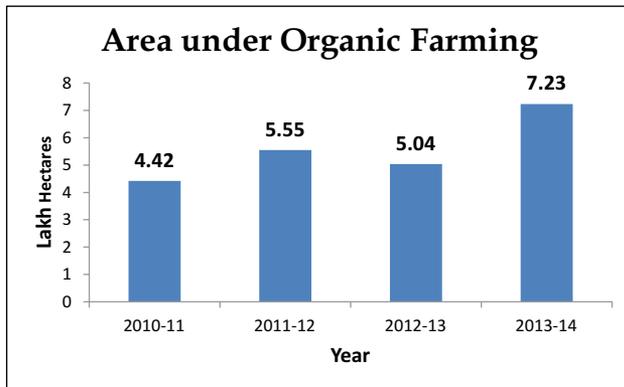
- Setting up of mechanized Fruit/Vegetable market waste/Agro waste compost production units.
- Setting up of State of art liquid/carrier

based bio-fertiliser/ bio-pesticide production units.

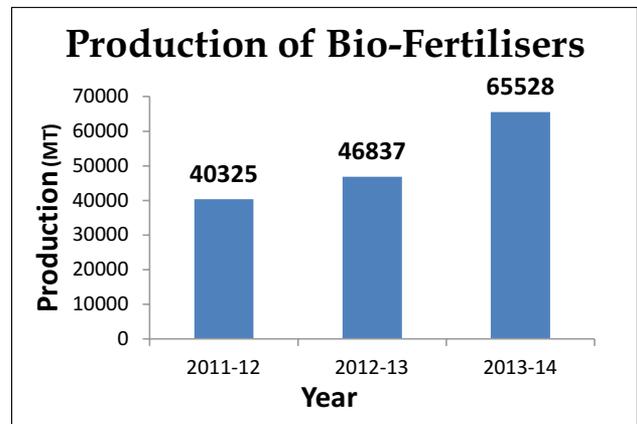
- Setting up of Bio-fertiliser and Organic fertiliser testing laboratory or strengthening of existing laboratory under FCO.
- Promotion of Organic Inputs on farmers fields.
- Adoption of organic farming through cluster approach under Participatory Guarantee System (PGS) certification.
- Support to PGS system for on-line data management and residue analysis.
- Organic Village adoption for manure management and biological nitrogen harvesting.
- Training and demonstration on Organic farming.
- Support to research for development of organic package of practices specific to State and cropping system.
- Setting up of separate Organic Agriculture Research and Teaching Institute (against specific proposal).

7.37 In order to promote PGS certified organic Farming in a cluster approach, NMSA components namely, a) Adoption of organic farming through cluster approach under PGS, b) Support to PGS system for online Data management and residue analysis, c) Training and demonstration on organic farming, d) Organic village adoption for manure management and Biological Nitrogen harvesting have been coordinated as a cluster based programme called Paramparagat Krishi Vikas Yojana (PKVY).

7.38 Comparison of All-India Area under Organic Farming in previous years is given below



7.39 Comparison of All-India production of Bio-fertilisers in previous years is given below



CHAPTER 8

National Mission on Agricultural Extension & Technology (NMAET)

8.1 National Mission on Agricultural Extension & Technology consists of four sub-missions viz (i) Sub Mission on Agriculture Extension (SMAE); (ii) Sub Mission on Seed and Planting Material (SMSP); (iii) Sub Mission on Agricultural Mechanization (SMAM) and (iv) Sub Mission on Plant Protection and Plant Quarantine (SMPP). Various interventions/activities undertaken through these sub-missions are given below.

Sub Mission on Agricultural Extension

8.2 The 11th Plan Extension Schemes have been subsumed within the Sub Mission on Agricultural Extension (SAME) under the National Mission on Agricultural Extension and Technology (NMAET) being implemented during the 12th Plan with an objective to restructure and strengthen the agricultural extension machinery with a judicious mix of extensive physical outreach of personnel, enhancement in quality through domain experts & regular capacity building, interactive methods of information dissemination, Public Private Partnership, pervasive & innovative use of Information & Communication Technology (ICT)/Mass Media, Federation of groups and convergence of extension related efforts under various schemes and programmes of Government of India and the State Governments. The SMAE aims to appropriately strengthen, expand and upscale existing Extension & Information Technology (IT) Schemes.

8.3 The ongoing Extension Schemes include the Central Sector and Centrally

Sponsored Schemes being implemented by the Extension Division/Directorate of Extension. Even in the case of Central Sector Schemes which have been subsumed within the Mission, a greater role has been envisaged for the States through their active involvement in planning, implementation and monitoring. The details of these schemes are given below:

Support to State Extension Programmes for Extension Reforms Scheme (ATMA Scheme)

8.4 The erstwhile Scheme 'Support to State Extension Programmes for Extension Reforms (ATMA)' implemented since 2005 has now been included as a component of the Sub-Mission on Agriculture Extension (SMAE) under NMAET with some cost revisions and additional components. It is now under implementation in 640 districts of 29 states & 3 UTs of the country. The scheme promotes decentralized farmer-driven and farmer accountable extension system through an institutional arrangement for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at district level. Under the scheme grants-in-aid is released to States with an objective to support State Governments efforts of revitalization of the extension system and making available the latest agricultural technologies in different thematic areas to increase agricultural production through extension activities viz. Farmers Training, Demonstrations, Exposure Visits, Kisan Mela, Mobilization of Farmers Groups and

Setting up of Farm Schools. Through these activities, latest agriculture technologies are disseminated to farmers of the country.

8.5 In order to promote key reforms under the scheme, ATMA Cafeteria 2014 continues to support activities in line with the following policy parameters:

- **Multi-agency extension strategies:** Minimum 10% of allocation on recurring activities at district level is to be used through non-governmental sector viz. NGOs, Farmers' Organization (FOs), Panchayati Raj Institutions (PRIs), para-extension workers, agri-preneurs, input suppliers, corporate sector, etc.
- **Farming system approach:** The activities specified in the cafeteria are broad enough to promote extension delivery consistent with farming systems approach and extension needs emerging through Strategic Research and Extension Plan (SREP).
- **Farmer centric extension services:** The cafeteria provides for group-based extension and it has necessary allocation for activities related to organizing and supporting farmer groups. In order to supplement these efforts, a provision for rewards and incentives to the best organized farmer groups has also been provided.
- **Convergence:** The SREP and SEWP would also be mechanisms for ensuring convergence of all activities for extension. At present, resources for extension activities are being provided under different schemes of Centre/ State Governments. It is mandated that the SEWP, submitted by the State Governments for funding under the scheme shall explicitly specify the activities to be supported from within

the resources of other ongoing schemes as well as from this scheme.

- **Mainstreaming gender concerns:** It is mandated that minimum 30% of resources on programmes and activities are utilized for women farmers. Similarly, 30% of resources meant for extension workers are to be utilized for women extension functionaries.

8.6 The 'important features' of the 'Cafeteria of Activities' supported under Modified ATMA Scheme are as follows:

- Support for specialists and functionaries at State, District and Block Level.
- Innovative support through a 'Farmer Friend' at Village Level @ 1 Farmer Friend per two villages.
- Farmers Advisory Committees at State, District and Block levels.
- Farm Schools in the field of outstanding farmers being promoted at Block/Gram Panchayat level by integrating the Progressive farmers into Agricultural Extension System (AES) (3-5 Farm Schools/ block).
- Farmer-to-farmer extension support at the village level to be promoted through Farmers' Group.
- Funding window provided at both State and District levels for implementing innovative extension activities not specifically covered under the Programme.
- Farmers' Awards instituted at Block, District and State levels.
- Community Radio Stations (CRS) to be set up by KVKs being promoted under the Programme.
- For Non-Governmental implementing agencies, States have been given the

flexibility of having State Extension Work Plans prepared and approved at the State level. At least 10 per cent of outlay of the Programme is to be utilized through involvement of non-governmental sector. Non-governmental implementing agencies (excluding the corporate sector) are also eligible for service charge up to a maximum of 10 percent of the cost of the extension activities implemented through them. Apart from other NGOs financial assistance is also available for implementation of extension activities through agri-preneurs.

- Re-designating the Subject Matter Specialists (SMSs) as Assistant Technology Managers (ATMs).
- Increasing number of ATMs from existing two to average three ATMs per Block.
- Public extension functionaries are being made more effective through trainings and exposure visits. (MANAGE, Hyderabad offering PG Diploma in Agriculture Extension Management for public extension functionaries which is fully funded under the ATMA Programme).
- Use of interactive and innovative methods of information dissemination like pico-projectors, low cost films, hand held devices, mobile based service, etc.
- Putting Display Boards in prominent places in the villages.

8.7 Implementation Status

- Total 640 ATMAs have been constituted in 29 States and 3 UTs.
- Institutional arrangements viz. Inter Departmental Working Group

(IDWG) in 29 States and 3 UTs; ATMA Core Committees - Governing Board (GB) & ATMA Managing Committee in 630 Districts; Block Technology Team (BTT) in 5618 Blocks and Block Farmer Advisory Committees (BFACs) reconstituted in 5544 Blocks; District FACs have been constituted in 465 districts and State Level FACs in 18 States.

- SEWP of 31 States/UTs have been prepared and approved based on District Agriculture Action Plans of 639 ATMA districts. As against the B.E. of Rs.475.00 crores, an amount of Rs.314.20 crores has been released to the States up to 31st December, 2014 for implementation of the Scheme and total release since the inception of the scheme in 2005-06 to 31st December, 2014 has been to the tune of Rs.2562.56 crore.
- Physical performance of the Scheme since its inception in 2005-06 (April 2005 to 31st December, 2014) is as below:
 - Over 32962827 farmers including 7951697 farm women (24.12%) have participated in farmer oriented activities like exposure visits, trainings, demonstrations & kisan melas.
 - Over 171206 Commodity based Farmer Interest Group (CIGs)/ FIGs have so far been mobilized under the scheme.
 - Over 82418 Farm Schools have been organized on the fields of outstanding farmers.
 - Third Party M&E reports have been received from eighteen States. It is under process in remaining States.

- Progress of implementation during current financial year (up to 31st December, 2014):
 - Over 2237997 farmers including 480094 farm women (21.65%) have participated in farmer oriented activities like exposure visits, trainings, demonstrations & kisan melas.
 - 10328 CIGs/ FIGs organized.
 - 6423 Farm Schools organized.
 - 15078 specialists & functionaries have been reported as deployed under ATMA

Mass Media Support to Agricultural Extension

8.8 This Scheme focusses on the use of Doordarshan and All India Radio (AIR) infrastructure for providing information and knowledge to the farming community in agriculture and allied sector. 180 Narrow casting Centres, 18 Regional Centres and 1 National Centre of Doordarshan telecast agricultural programmes in the name of Krishi Darshan for 30 minutes, five to six days a week. Programmes of Regional Kendras and some Narrowcasting Centres (NCs) are being repeated the next day on respective Regional Satellite Channel. Similarly, 96 Rural FM Radio Stations of All India Radio are being utilized to broadcast 30 minutes of programme for farmers 6 days a week under Kisanvani Programme.

8.9 In order to increase the content of the programmes, the telecast timings of 25 out of 27 Narrowcasting Kendras (except Maharashtra and Jammu & Kashmir), which are telecasting both Regional and Narrowcasting programmes at the same time, have been staggered to provide 1 ½ hours instead of 1 hour of 'Krishi Darshan'

Programme. This has benefitted farmers located in the coverage area of 125 High Power / Low power (HPT/LPT) Kendras.

8.10 For telecasting success stories, innovations and for popularization change-setting technology and farming practices through the Saturday slot of Doordarshan's National Channel, DAC is producing films, which would consciously project inter-alia positive aspects in agriculture in India. During the period 8 films covering 16 success stories of farmers have been produced.

8.11 **The Free Commercial Time (FCT)** available under Krishi Darshan and Kisanvani programmes is being utilized for dissemination of Advisories on Rabi/Kharif crops, KCC, Kisan Credit Card, Package of Practices available to the farmers under various schemes of DAC, MSP, Contingency Plans developed by State Governments and emergent issues like Drought, Flood etc.

8.12 The **'Focused Advertisement Campaign'** which cuts across all the Divisions of the Ministry was launched on 5th July, 2010 to create awareness about the assistance available under various schemes of the Department of Agriculture & Cooperation through telecast of Video and Audio Spots through 96 F.M. Stations of AIR under 'Kisanvani' programme and the National, 18 Regional & 180 High Power/ Low Power (HTPs/LTPs) of Doordarshan during 'Krishi Darshan' programme and also through National and Regional News and during entertainment programmes, films, etc. The spots were also telecast through Private Channels operating at national & regional Level. With due consideration of the life style of the farmers, all the channels have been requested to telecast the spots before 9.30.p.m. A new format of mass media i.e. Digital Cinema Advertisement

has been introduced from 2011-2012 under the Focused Advertisement Campaign. Video spots are being projected during all the 4 shows of cinema halls through Digital Cinema Network empanelled with DAVP and as per its approved rates.

8.13 Community Radio Stations (CRS) would make a major contribution to agricultural extension by utilizing reach of radio transmitter and disseminating contents from agriculture and allied areas, produced locally and having relevance for a specific community. In order to give further boost to CRS the guidelines for funding of private institutions for CRS under Scheme "Support to State Extension Programmes for Extension Reforms" have been revised. As on date, 8 CRSs are operational in KVKs and NGOs under this scheme and broadcasting agriculture programmes. A total number of 58 CRSs throughout India are broadcasting agriculture programme.

Establishment of the Agri-Clinics and Agri-Business Centres (ACABC)

8.14 The ACABC scheme is under implementation since 2002. The scheme aims at creating gainful self-employment opportunities to unemployed agricultural graduates, agricultural diploma holders, and intermediate in agriculture apart from science graduates with post-graduation in agriculture related courses for supporting agriculture development and supplementing the efforts of public extension.

8.15 MANAGE is the implementing agency for training component under the scheme through a network of identified Nodal Training Institutes (NTIs) in various States. NABARD is implementing subsidy component under the scheme on the behalf of Government of India and is monitoring

credit support to Agri-Clinics through Commercial Banks.

8.16 The credit linked back-ended subsidy @ 36% of the Total Financial Outlay (TFO) capital cost of the project funded through bank loan is available under the scheme. This subsidy is 44% in respect of candidates belonging to SC/ST, Women and all categories of candidates from North-Eastern and Hill States.

8.17 So far, 41734 candidates have been trained and 16674 agri-ventures have been established in the country during the period of implementation of the scheme (since inception till December, 2014). During the year 2014-15, 4614 candidates have been trained and 1361 agri-ventures have been established till December, 2014.

8.18 The ACABC scheme has been revised during 2010-11 with changes in relevant operational aspects, aiming to provide better services to farmers, improvements in the quality of training and simplify the process of subsidy disbursement. Provision of extension service to farmers by these agri-preneurs has been made a mandatory component of the scheme. Details of the scheme may be seen at www.agriclinics.net.

Pre-seasonal DAC-ICAR Interfaces

8.19 Pre-seasonal DAC-ICAR Interfaces (Subject Matter Group Meetings between ICAR and Subject Matter Divisions of DAC) are organized to evolve joint strategies on the emerging issues of agriculture and allied sector. The recommended action by these group meetings are further discussed during an interface meeting with active participation of officers from DAC, ICAR and Department of Animal Husbandry Dairying and Fisheries (AHD&F). The Pre-Rabi DAC-ICAR Interface was organized

during September, 2014 and the group recommendations of the said interface were shared with senior officer of State Agriculture Department during National Conference on Agriculture for Rabi Campaign held during September, 2014. The interface for Pre-Kharif 2015 is scheduled for 1st week of February, 2015.

Kisan Call Centers (KCC)

8.20 The KCC Scheme was launched on 21st January 2004 to provide answer to farmers' queries on agriculture and allied sectors through toll free telephone lines. A country wide common eleven digit number '1800-800-1551' has been allocated for KCC. The replies to the queries of the farming community are being given in 22 local languages. KCCs operate from 14 locations in the country covering all the States and UTs. Calls are attended from 6.00 am to 10.00 pm on all 7 days of a week. Since inception of the scheme till 31st December, 2014 over 186.00 lakh calls have been registered in the KCCs. During the current year around 36.04 lakh calls have been received upto 31st December, 2014. In order to make farmers aware of this facility, audio and video spots on Kisan Call Centres have been broadcasts/telecast through All India Radio, Doordarshan and private television channels. A Kisan Knowledge Management system (KKMS) has been created at the backend to capture details of the farmers calling KCCs provide correct, consistent and quick replies to the queries of farmers is being developed and by the putting therein validated information on agriculture and allied sectors. Modified call Escalation Matrix has also been circulated.

8.21 The Kisan Call Centre scheme has been recently restructured and strengthened, with a good number of unique features viz. provision of IPPBX, 100% call recording; call barging; voice mail service; customized

IVRS; call conferencing through the experts; playing state specific advisories during call wait time and SMS to caller farmers giving a gist of answers given by the KCC Agent now known as Farm Tele Advisor. The farmer calling KCC can also register for receiving SMSs from experts on the subject area and their providing and also for receiving regular updates on mandi price of selected mandis and crops.

HRD Support

8.22 DAC has strengthened a network of training institutions in the country by supporting the National Institute of Agricultural Extension Management (MANAGE) at Hyderabad; four Regional Extension Education Institutes (EEIs) at the regional level and the State Agricultural Management & Extension Training Institutes (SAMETIs) at the State level.

8.23 **MANAGE** is providing training support to senior and middle level functionaries of the State Governments. It is also providing necessary support to the states in implementation of Extension Reforms (ATMA) scheme. Against 208 training courses planned for 2014-15, 101 training courses with 1848 participants have been organized by MANAGE up to December, 2014. Against the budget estimate of Rs.910.00 lakh, an amount of Rs.682.50 lakh has been released till December, 2014.

8.24 The implementation of self-financing professional courses viz. two-year Post Graduate Programme in Agri-Business Management, one-year 'Post Graduate Diploma in Agricultural Extension Management' in distance learning mode and one year Diploma in Agricultural Extension Services for Input Dealers (DAESI) by MANAGE (organised on weekends/weekly

holidays) are being continued during the year 2014-15.

8.25 Extension Education Institutes (EEIs): Four Extension Education Institutes namely, Nilokeri (Haryana), Rajendranagar, Hyderabad (Telangana), Anand (Gujarat), Jorhat (Assam) are functioning at the Regional Level. The objectives of EEIs are to improve the skills and professional competence of middle level Extension field functionaries of Agriculture and allied departments of the State Governments in the areas of (a) Extension Education; (b) Extension Methodology; (c) Information and Communication Technology; (d) Training Methodology; (e) Communication; (f) Extension Reforms Scheme; (g) Market led Extension; etc.

8.26 During 2014-15, a total of 198 training programmes have been approved by the Directorate of Extension, consisting of 108 On-Campus and 90 Off-Campus trainings. Against this, 134 training programmes with 2899 participants (80 on campus and 54 off campus) have already been conducted (till December, 2014). Against the budget grant of Rs. 1505.00 lakh an amount of Rs. 715.00 lakh has been released to the EEIs till December, 2014.

8.27 Model Training Courses (MTCs): Model Training Courses of eight days duration on thrust areas of Agriculture, Horticulture, Animal Husbandry, Fisheries Extension are supported by the Directorate of Extension (DOE) with the objective of improving the professional competence and upgrading the knowledge and developing technical skills of Subject Matter Specialists/ Extension workers of Agriculture and allied departments of the State Governments.

During the current, financial year 60 Model Training Courses have been planned, out of which 48 training courses have been organized till December, 2014. Against the budget grant of Rs. 150.00 lakh an amount of Rs. 138.77 lakh has been released till December, 2014.

8.28 National Gender Resource Centre in Agriculture (NGRCA) has been set up as a unit of Directorate of Extension (DOE) of the DAC under the Scheme of Extension Support to Central Institutes/DOE. NGRCA reflects the national commitment of empowerment of women through 'strategy of mainstreaming and agenda setting'. The Centre acts as a focal point for the convergence of gender related activities and issues in agriculture and allied sectors within and outside DAC; addressing gender dimension to agriculture policies and programmes; rendering advocacy/ advisory services to the States /UTs to internalize gender specific interventions for bringing the farm women in the mainstream of agriculture development.

8.29 The following Macro/ Micro level and Action Research Studies have been initiated by the Centre.

- Study on "Adoption of Gender Friendly Tools by Women Farmers and its impact on their lives" for which bids was invited from various agencies which fulfilled the criteria. Shortly, the agency will be shortlisted based on provisions of approved RFP and study will be conducted.
- Prepared TOR for study on 'Schemes for Improving Women Farmers Access to Extension Services and Gender Mainstreaming in Agriculture' and has been approved by the DAC.

8.30 Being a Nodal Agency for women in agriculture in DAC, Ministry of Agriculture, the Centre is actively involved in the revision of guidelines of various Beneficiary oriented scheme/ programmes of DAC to ensure allocation of resources and flow of benefits to the woman farmers in proportion to their participation in agricultural activities.

Monitoring and Evaluation:

8.31 Support to State Extension Programme for Extension Reforms launched has a provision of third party monitoring at State level in May 2005 and draft model TORs for commissioning third party Monitoring & Evaluation of this Scheme were prepared by DAC in consultation with the States and circulated to all the States organising third party M&E Studies of the scheme. 18 States namely Andhra Pradesh, A&N Islands, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamilnadu, Uttar Pradesh, Uttrakhand, West Bengal, Arunachal Pradesh, Mizoram, Nagaland and Chhattisgarh have submitted their study reports. The other States are in the process of commissioning the study. The Extension Division has also conducted the centralized evaluation of the scheme through an independent agency, Agriculture Finance Corporation (AFC). Important suggestions and issues for further improvements in ATMA schemes have already been dully addressed in the modified ATMA guidelines.

Exhibitions

8.32 Agricultural exhibitions/Fairs are an effective means of reaching to a large number of farmers. DAC participates in India International Trade Fair (IITF) at Pragati Maidan, New Delhi by setting up

an Agriculture Pavillion during the event, 6 Adhoc exhibitions/fairs at different places in the country being organized by Government and private sector agencies and 1 international exhibition/fair for creating export potential for agricultural products and services at the international level. DAC also supports 5 Regional Agricultural Fairs in the 5 regions viz. North, South, East, West and North East which are organized by State Agricultural Universities/ICAR Institute. In pursuance of the objectives of participation in different exhibitions/fairs, DAC has participated in following events during the current year:

- 7th vibrant Gujarat 2015 Summit at Gandhi Nagar Gujarat from 8-13th January, 2015.
- AGRI INTEX 2014 at Coimbatore District Industries Association (CODISSA), Tamil Nadu from 18-21st July, 2014.
- SMIRITI MAHATSOV at Mathura, Uttar Pradesh from 22-22nd September, 2014.
- Agriculture Pavilion in IITF 2014 at Pragati Maidan from 14-27th November, 2014.
- Regional Agriculture Fair at Umiam, Meghalaya from 8-10th November, 2014.

Programmes of North-Eastern States

8.33 The status of implementation of Schemes in the North Eastern Region is as follows:

a. Support to State Extension Programme for Extension Reforms

S. No	Name of the State	No. of ATMA Registered	Districts covered under Extension Reforms (ATMA) Scheme
1.	Arunachal Pradesh	17	East Siang, Lower Dibang Valley, Lohit, Lower subansiri, Papumpare, Tirap, West Kameng, Along, Anini, Anjaw, Changlang, Daporijo, KurungKumey, Seppa, Twanag, Yingkiona and Longding.
2.	Assam	14	Kokrajhar, Bongaigaon, Golpara, Karimganj, Cachar, NC Hills Darrang, Lakhimpur, Sivsagar, Golaghat, Tinsukia, Morigaon, Chirang, Udalguri.
3.	Manipur	9	Imphal (E), Imphal (W), Thoubal, Senapati, Bishnupur, Churachandrapur, Chandel, Ukhrul & Tamenglonga
4.	Mizoram	8	Aizawl, Champhai, Kolasib, Lunglei, Serchhip, Mamit, Lawngtlai & Saiha.
5.	Meghalaya	11	East Khasi Hills, West Khasi Hills, South West Khasi Hills, Ri-Bhio, East Jaintia Hills, West Jaintia Hills, East Garo Hills, West Garo Hills, North Garo Hills, South Garo Hills and South Garo Hills.
6.	Nagaland	11	Dimapur, Kohima & Mokokchung, Tuensang, Mon, Phek, Zunheboto, Wokha, Longleng, Kiphire, Peren.
7.	Sikkim	4	South Distt., East Distt, North Distt., West District
8.	Tripura	8	North Tripura, South Tripura, West Tripura, Gomati, Sepahijala, Unakoti, Khowai & Dhalai.

During the current year 2014-15, Budget Estimate of Rs.44.50 crore was earmarked for North Eastern States for implementing the scheme. Out of which, an amount of Rs.24.60 crore has been released to Arunachal Pradesh (Rs.4.94 Crore), Mizoram (Rs.1.68 Crore), Nagaland (Rs.3.97 Crore), Assam (7.49 crore), Tripura (Rs.0.94 Crore) Sikkim

(Rs.1.19 Crore), Manipur (Rs. 2.67 Crore) till September, 2014.

b. Mass Media Support to Agricultural Extension:

List of Narrowcasting and FM Kisanvani Stations in the North Eastern Region is given below:

Sl.	Name of the State	Name of Narrowcasting Station	Name of the FM Kisan Vani Station
1	Arunachal Pradesh	-	Itanagar
2	Assam	Tinsukhia, Margheretia, Jorhat, Sonari, Nazira, Dibrugarh	Jorhat, Dhubri, Hafflong, Nowgong
3	Manipur	Imphal, Churachandpur, Ukhrul	--
4	Meghalaya	Shillong, Nongstoin, Jowai, Cherrapunjee	Jowai
5	Mizoram	Aizwal, Lawangtlal, Lunglei	Lunglei
6	Nagaland	Gangtok	Mokokchung
7	Tripura	Agartala, Kailasahr, Tellamura, Amarpur, Jolaibari	Kailasahr, Belonia

These stations are producing/ broadcasting 30 minutes agricultural programmes, 5/6 days a week.

c. **Kisan Call Centers (KCCs):** The KCC located at Guwahati caters to the needs of the North Eastern Region. Queries are replied in different languages depending upon the area from where the query is received. Since the beginning of scheme, the calls registered from various states of North-Eastern Region are, Arunachal Pradesh (4664), Assam (157081), Manipur (27261), Meghalaya (13818), Mizoram (7693), Nagaland (2398), Sikkim (7239) and Tripura (28365). The calls registered from these states during current year up to 31st December, 2014 are Arunachal Pradesh (367), Assam (31405), Manipur (1355), Meghalaya (584), Mizoram (233), Nagaland (236), Sikkim (1874) & Tripura (3203).

d. **Extension Education Institute (EEI):** EEI set up at Jorhat (Assam) in 1987 has been providing training support at the regional level to the middle level functionaries of in 8 States of North Eastern Region and West Bengal. During the year 2014-15 (till December, 2014) 19 courses have been organized and 588 officers trained. An amount Rs. 115.00 lakhs has been released to EEI Jorhat till December, 2014 as against the budget estimate of Rs. 200.00 lakh.

Use of Information Technology

8.34 The National Policy for Farmers, 2007 lays emphasis on the use of information technology for achieving rapid development of agriculture in India. The thrust of the Information and Communication Technology (ICT) initiatives is on e-Governance, i.e., to make improved services accessible to farmers and other allied groups/stakeholders, using ICT as the facilitator media. For success of e-Governance, it is necessary that adequate hardware, software and training support is provided at various levels.

National e-Governance Plan in Agriculture (NeGP-A)

8.35 The Government is implementing a Centrally Sponsored Scheme "National e-Governance Plan in Agriculture (NeGP-A)" in the entire country with a total project cost of Rs.885.79 crore. The project envisages deployment of hardware and roll out of services down to the Block level. This centrally sponsored Mission Mode Project (MMP) scheme is being implemented in seven States, viz, Assam, Himachal Pradesh, Karnataka, Jharkhand, Kerala, Madhya Pradesh and Maharashtra from the last phase of the 11th plan (2010-11) it has now been approved for implementation in the remaining States and UTs during the current Plan period commencing from 2014-15 onward.

8.36 The Scheme aims to achieve rapid development of agriculture in India through the use of ICT for ensuring timely access to agriculture related information for the farmers of the country. The current IT initiatives/schemes under implementation by DAC which are aimed at providing information to the farmers on various activities in the agriculture value chain will be integrated so that farmers would be able to make proper and timely use of the available information. Such information is intended to be provided to farmers through multiple delivery channels such as Internet, Government Offices, Touch Screen Kiosks, Krishi Vigyan Kendras, Kisan Call Centres, Agri-Clinics, Common Service Centers, Mobile Phones (Broadcast, IVRS, interactive messaging using unstructured Supplementary Service Data and Voice Recognition).

8.37 Twelve clusters of services have been identified for implementation. A few of these

software applications are already functional and the work on other software applications is being carried out by NIC. The services include Information on Pesticides, Fertilizers and Seeds; Soil Health; Information on crops, farm machinery, training and Good Agricultural Practices (GAPs); Weather advisories; Information on prices, arrivals, procurement points, and providing interaction platform; Electronic certification for exports and import; Information on marketing infrastructure; Monitoring implementation / evaluation of schemes and programmes; Information on fishery inputs; Information on irrigation infrastructure; Drought Relief and Management; Livestock Management.

8.38 As part of the NeGP-A, selection of the Implementing Agency for supply of hardware and Software systems at the designated locations in the seven States have been completed. A Central Project Monitoring Unit (CPMU) with one Principal Consultant and two Consultants are already in place working on the planned activities of NeGP-A and a Software Development Centre at Pusa, New Delhi is also functional. Hardware and Software systems have already been supplied to the seven States to different locations upto the Block level and other related activities viz, site preparation, hiring of manpower, setting up of State PMU etc are also being carried out by the States.

8.39 The Department has also floated the RFP for selecting Agency/Vendor for the supply, delivery, installation, commissioning, testing and networking of the hardware and software to be supplied in the remaining 22 States and Union Territories.

8.40 **Farmers' Portal:** This Portal is functional in beta version and is accessible

by the general public at URL www.Farmer.gov.in. This Portal aims to serve as One Stop Shop for all the farmers for assessing information on various agricultural related activities. Besides giving links to appropriate pages of the 80 portals already developed so far, the Farmers' Portal will link the location of the farmer (from his Block) with National Agricultural Research Project (NARP) Zone to which he/she belongs to. Relevant information pertaining to crops grown in the region, Package of Practices, common pests, Minimum Support Price, Commodity Arrivals, Dealer network for seeds, fertilizers & pesticides, machinery and tools, agro-meteorological advisories etc are also available to the farmers free of cost. Some of the G2 C services which are already operational are: Pesticide Registration, Seed Variety Database, Dealer network information for seeds, fertilizers and machinery, Display of Package of Practices, Storage Information, Plant Quarantine Information System.

8.41 **mKisan Portal:** mKisan Portal subsumes all mobile based initiatives in the field of Agriculture & allied sectors. It brings together SMS (both Push and Pull), Interactive Voice Response System, Unstructured Supplementary Services of Data or USSD (which is essentially Interactive SMS and can facilitate data entry and query on Web Portals without internet), Mobile Apps and Services. Officers, Scientists and Experts from all over the country are using this Portal for disseminating information (giving topical & seasonal advisories and providing services through SMSs to farmers in their local languages) on various agricultural activities to registered farmers, Till date, more than 371 crore SMSs have been sent to farmers by all agencies/organisation/departments in agriculture and allied sectors

down to Block level throughout the country since its inception in July,2013.

8.42 Kisan Call Centre (KCC): Kisan Call Centres have been functioning since 21st January, 2004 and working in 14 different locations covering almost all the States of the country, with the basic aim to provide information to the farming community through toll free telephone numbers (1800 180 1551) on all 7 days a week from 6.00 A.M. to 10.00 P.M. in their local dialect. At present Call Center Agents, now re-designated as Farm Tele Advisors (FTAs) engaged in KCCs are answering farmers' queries mostly in local dialects. The Kisan Call Centres have become very popular as indicated by the fact that till December,2014, more than 1.86 crore calls have been received. Recently, KCCs have been revamped and restructured by consolidation and appointing a new Service Provider for KCC to set up state of the art KCCs at 14 identified locations.

The restructured and re-vamped KCCs are now more professional with the following technological innovations:

- Voice/Media Gateways (IPPBX based decentralized system);
- Dedicated MPLS leased line network with dedicated bandwidth;
- Call barging; 100% call recording and call reply.
- SMS to caller farmers providing a gist of advisories given to them on phone;
- Voice mail system for recording farmer's queries during idle time of KCC or during call lines busy, with provision for call back to the caller;
- Soft phones in every personal computer with caller ID facility;
- Playing location specific seasonal

advisories when the call lines are busy;

- Facility of video conferencing at each KCC for interaction of KCC agents with the Divisional/Zonal Level Officers of the State Agriculture and allied departments as well as on- line monitoring of the working of KCCs.

8.43 Strengthening/ Promoting Agricultural Information System: To promote e-Governance in Agriculture at the Centre and to provide support to States/ UTs for the same, DAC is implementing this Central Sector Scheme. The component-wise details of the activities undertaken are given below:

- i. **Strengthening of IT Apparatus in Department of Agriculture and Co-operation Headquarters:** Computer peripherals and consumables have been supplied to officers and sections (upto Dealing Hand level) of DAC Headquarters as per the norms laid down by the Norms Committee on a functional and need basis.
- ii. **IT Apparatus in the Field Offices and Directorates of DAC:** Under the DACNET Project, the Directorates/ field units have already been provided with basic infrastructure which has helped in achieving e-readiness. Training to officers of these Units/ Offices on need basis has also been imparted. It has been decided that respective Directorates/Field Offices would meet the expenditure from out of their budget. However, the residual expenditure on networking, software development and training will be met from this component of the scheme.
- iii. **Development of Agricultural Informatics and Communication:** The objective of this component is to

build a reservoir of all data related to agriculture and development of web-based applications. Department of Agriculture & Cooperation (DAC) has developed 80 portals, applications and websites (primarily in collaboration with the National Informatics Centre) covering both the headquarters and its field offices/directorates. The important portals include SEEDNET, DACNET, AGMARKNET (prices and arrivals in Mandis), RKVY (Rashtriya Krishi Vikas Yojana), ATMA, NHM (National Horticulture Mission), INTRADAC, NFSM (National Food Security Mission) and APY (Acreage, Productivity and Yield). DAC is getting online data entry done right from at least the District level, so as to expedite generation of requisite queries and reports in an efficient manner. A number of portals such as digitization of Soil Mapping Data, Seed Net Portal, Data-warehousing, RFS and Watershed Development are under various stages of development. The Official website of the Department: www.agricoop.nic.in is also being revamped, re-designed and updated so as to meet the GIGW guidelines/parameters.

- iv. **Strengthening of IT Apparatus in Agriculture and Cooperation in the States and Union Territories (AGRISNET):** The objective of AGRISNET is to provide improved services to the farming community through use of ICT. Under the AGRISNET Scheme, proposals are considered on submission of functional requirement of the concerned State/UT Governments on the basis of specific project proposals submitted by the State/UT Governments, and after consideration of the project proposal by the Approval-cum -

Monitoring Committee (headed by the Additional Secretary and with the recommendations of the Committee, funds are released to the State Government concerned for provisioning of software and hardware systems including networking, data digitization, manpower training to ensure computerization upto Block level. 26 States have so far availed of funds released by the Government under AGRISNET.

Activities in the North Eastern Region

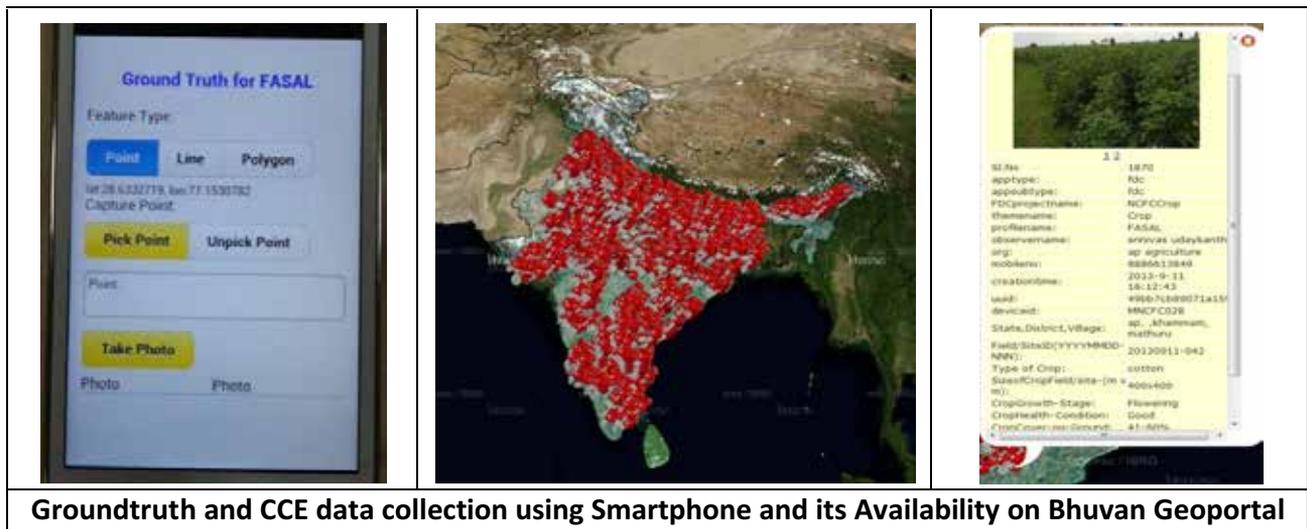
8.44 IT apparatus at the Field Offices and Directorates of DAC (DACNET), located in the North-Eastern region have been covered under the IT initiatives of the Ministry. Under National e Governance Plan in Agriculture (NeGP-A), the State of Assam has been selected as one of the States for implementing the Scheme in Phase-II. Financial assistance for effecting computerization upto the Block level have been under AGRISNET have been extended to various North Eastern states as per their project proposals.

8.45 **Mahalanobis National Crop Forecast Centre (MNCFC):** MNCFC is an attached office of the Department of Agriculture & Cooperation established to use space and geospatial technology developed by Indian Space Research Organisation for agricultural applications. MNCFC carries out two major operational national level programmes called FASAL (Forecasting Agricultural output using Space, Agrometeorology and Land based observations) and NADAMS (National Agricultural Drought Assessment and Monitoring System).

8.46 Under FASAL programme multi-date optical and microwave data were used to provide multiple pre-harvest crop production forecasts at national/state/

district level for 8 crops, i.e. Rice (K&R), Wheat, Rapeseed & Mustard, Potato, Jute, Sugarcane, Cotton and Sorghum (Rabi). All total 18 forecasts were issued in 2014. This activity was carried out in collaboration with 19 state agricultural departments, 14 state remote sensing centres and Space

Applications Centre. District level forecasts were also issued from the Kharif season of 2014-15. Crop cutting experiments (CCEs) were carried out for rice crop in villages selected based on remote sensing data to improve the yield estimates.



Groundtruth and CCE data collection using Smartphone and its Availability on Bhuvan Geoportal

8.47 Under NADAMS programme, fortnightly/monthly drought assessments were generated at district level for 14 major agricultural states of India (out of which 5 states at sub-district level) using multiple satellite, meteorological and agricultural data. This activity was carried out jointly with National Remote Sensing Centre. Satellite based Remote sensing data was also used for generating periodic crop emergence scenario and crop alert districts in Rabi season of 2013-14.

8.48 A new programme for horticultural assessment and development was launched in September, 2014. The programme, called CHAMAN (Coordinated Horticulture Assessment and Management using geoinformatics), envisages use of remote sensing for area and production assessment of 7 horticultural crops (Mango, Banana, Citrus, Potato, Onion, Tomato and Chilli)

in major growing districts and horticultural developmental plan using geospatial technology.

8.49 Under Crop Insurance scheme, a pilot study was initiated in 14 districts of 7 states to explore the role of remote sensing technology for better yield assessment. Smartphone based GPS was used to supervise the selected CCEs.

8.50 Two week training programme on "Basics of Remote Sensing & GIS and Applications in Agriculture" was organised by MNCFC for 8 officials of the Republic of Fiji, during 16 - 27 June 2014. MNCFC also conducted 1 national level workshop and participated in Krishi Vasant Fair, Nagpur and India International Trade Fair, Delhi. Scientists of MNCFC participated in many national/international technical events including ISPRS Mid-Term Symposium at Hyderabad.

Sub Mission on Seed and Planting Material (SMSP)

8.51 Central Sector Scheme “Development and Strengthening of Infrastructure Facilities for the Production and Distribution of Quality Seeds” was under implementation on all India basis since 2005-06. The scheme is now subsumed into the new “Sub Mission on Seed and Planting Material (SMSP)” under the new centrally Sponsored Scheme “National Mission on Agricultural Extension and Technology (NMAET)”. The Mission is intended to develop and strengthen the existing infrastructure for production and distribution of certified / quality seeds with a focused, time bound and integrated agenda to improve the availability of quality seeds for the farmers and to encourage the development of new varieties of plants. This scheme is continuing the existing components of the scheme with additional new components as under :

1.	Strengthening for Seed Quality Control
2.	Strengthening of Grow Out Test(GOT) Facilities
3.	Support to Seed Certification Agencies
4.	Seed Treatment
5.	Promotion of Seed Export
6.	Support for R & D, contract Research and Acquisition of New Varietal Products.
7.	Strengthening of Seed Farms
8.	Seed Village
9.	Certified seed production through seed villages
10.	Seed Processing Plant
11.	Seed Storage
12.	Transport Subsidy on movement of seeds to North Eastern States etc.
13.	Assistance for maintenance of Breeder Seed
14.	National Seed Reserve
15.	Application of Bio-technology in Agriculture



CHAMAN Project Launching Workshop

16.	Public Private Partnership in Seed Sector
17.	Assistance for Boosting Seed Production in Private Sector
18.	Support to Sub-Mission Director and Survey / Studies
19.	PPV&FRA – Protection of Plant Varieties and Farmers’ Rights Authority

8.52 Seeds are the basic and critical input for agricultural production. The Indian Seeds programme recognizes three generations of seeds, namely, breeder, foundation and certified seeds. The details of production of breeder and foundation seeds as well as production of certified seeds from 2005-06 to 2013-14 and anticipated for 2014-15 are given below:

Production of breeder, foundation and certified/quality seeds

YEAR	Production/Availability of Seed (Metric Tonnes)		
	Breeder Seed (Production)	Foundation Seed	Certified / Quality seed
2005-06	6823	74800	1405000
2006-07	7382	79654	1481800
2007-08	9196	85254	1943100
2008-09	9441	96274	2503500
2009-10	10683	114638	2797200

2010-11	11921	180640	3213592
2011-12	12338	222681	3536200
2012-13	11020	161700	3285800
2013-14	8229	174307	3473130*
2014-15*	9849	157616	3517664

* Indent

8.53 Strengthening of Seeds Quality Control Organizations (State Seed Certification Agencies and State Seed Testing Laboratories): The responsibility of seed law enforcement is vested with the State Governments. Seed inspectors notified under the relevant provisions of the Seeds Act, 1966 and the Seeds (Control) Order, 1983, inspect the premises of seed distribution agencies to draw samples for testing. Appropriate action is taken against sellers of sub-standard seeds as per the provisions of the Seeds Act/Rules and Orders. These inspectors are also authorized to stop the sale of sub-standard seeds and to seize their stocks. Seed Inspectors have also been provided with powers of enforcement under the Environment (Protection) Act, 1986 to regulate the quality of genetically modified (GM) Crops.

8.54 Policy on Export/Import of Seeds and Planting Materials: The export/ import of seeds have increased with rationalization and simplification of the export/import regime. This has benefited Indian farmers, the seed industry and entrepreneurs. 61 cases were recommended for issue of export and 134 cases were recommended for import during the year 2013-14.

8.55 Implementation of Protection of Plant Varieties and Farmers' Rights: Legislation for Protection of Plant Varieties and Farmers Rights' was enacted in year 2001. The legislation provides for the establishment of an effective system for

protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. The Central Sector Scheme for the Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA) provides necessary back-up support for implementation of this legislation. The major achievements in this regard are given below:

- **Distinctiveness, Uniformity and Stability (DUS) test guidelines of 9 new Crops/Species have been published in the Gazette of India:** Tea (*Camellia sinensis*, *C. assamica* & *C. assamica* spp *lasiocalyx.*), Orchid (*Oncidium* Sw.), Acid lime (*Citrus aurantifolia* Swingle), Mandarin (*Cirtus reticulate* Blanco), Orange (*Citrus sinensis* (L.) Osbeck), Bougainvillea (*Bougainvillea* Comm. Ex. Juss), and Banana (*Musa* spp.). Further DUS test Guidelines for four crop species namely Canna (*Canna* L.); Gladiolus (*Gladiolus* Melo L.); Musk melon (*Cucumis melo* L.); Watermelon (*Citrullus lanatus* (Thunb.) Mansf.) have been approved by the Authority.
- DUS test guidelines of 26 New Crops/Species are under various stages of development. DUS Test guidelines of 5 crop species (Jasmine, China aster, Custard apple, Papaya and Tuberose) have been finalized and submitted by



the PI of Project for further necessary action.

- The Authority has organised 275 programs for training, awareness and capacity building as per the provisions of the PPV&FR Act, 2001 including Farmers Rights, Breeders Rights, Researchers Right involving different stakeholders.
- During the year, about 2500 applications have been received for registration for grant of protection by the Authority under the PPV&FR Act and 800 registration certificates have been issued.
- 107 DUS test centres are being supported by the Authority which are located in various institutions of ICAR, ICFRE, CSIR, other reputed research organizations and State Agriculture Universities.
- Databases on Indian Information System as per DUS Guidelines (IINDUS) and Notified and Released Varieties of India (NORV) already developed by the Authority are being regularly updated and being used by the PPV&FR Authority.
- National Gene Bank for conserving seeds of registered varieties has been established at Delhi and four field gene banks have also been established at Dapoli, Ranchi, Solan and Jodhpur especially for maintaining referral samples of perennial asexually/vegetatively propagated crops.
- Authority regularly updates its website in English and Hindi (<http://www.plantauthority.gov.in>). Provision for online filling of application for registration and Authority portal has also been initiated.

8.56 National Seed Research and Training Centre (NSRTC) At Varanasi, Uttar Pradesh:

NSRTC has been functioning since October, 2005 and has been notified as Central Seed Testing and Referral Laboratory (CSTL) with effect from 01.04.2007. The mandate of NSRTC is to have a separate National Seed Quality Control Laboratory to maintain uniformity in Seed Testing and to assure supply of quality seeds at National Level. It also acts as Referral Laboratory under Court of Law for seed related issues. It is a premiere Institute for capacity building in relation to maintaining Seed Quality assurance by offering HRD activities round the year. The CSTL working under ambit of NSRTC is also a member Laboratory of International Seed Testing Association (ISTA), since 2007. As per National programme to maintain uniformity in seed testing, NSRTC has analysed approximately 19,000 nos. of seed sample during 2013-14 under 5% re-testing programme. Besides, a number of 106 Court Referred Seed Samples have also been analysed in the CSTL as and when received from the respective Court.

8.57 The Details of the seed sample received and analyzed during last seven years are given as under:

Sl. No.	Year	Total Nos. of Seed Samples received and analyzed	Court Seed Samples received and analyzed
1	2007-08	7235	82
2	2008-09	12,262	33
3	2009-10	11865	61
4	2010-11	13859	66
5	2011-12	15978	66
6	2012-13	17808	89
7	2013-14	18,951	106
Total (Nos.)		97,958	503

8.58 During 2013-14, NSRTC has organized 16 In campus/Off campus National Level Training programmes on various seed related issues for the benefits of various stakeholders of Public and Private Sector. In addition NSRTC has also organized National Seed Congress at Lucknow, Uttar Pradesh.

8.59 **Use of Bt. Cotton Hybrid Seeds:** Bt. Cotton is the only transgenic crop approved in the country for commercial cultivation. The Genetic Engineering Approval Committee (GEAC) of the Ministry of Environment and Forests is the nodal agency for grant of permission for environmental release of Bt. Cotton hybrids under the Environment Protection Act, 1986 in the country. At present, about 1128 Bt. Cotton hybrid seeds are available for cultivation in the country. These Bt. Cotton hybrids are grown in nine States i.e., Gujarat, Madhya Pradesh, Maharashtra (Central zone), Andhra Pradesh, Karnataka, Tamil Nadu, Haryana, Punjab and Rajasthan. The area under Bt. Cotton has increased from 29073 ha in Kharif 2002 to 110.00 lakh ha. in 2013-14 (93% of total cotton area).

8.60 **National Seed Reserve:** The Establishment & Maintenance of Seed Bank Programme has been re-structured as "National Seed Reserve" for implementation during the remaining period of 12th Plan w.e.f. 2014-15 – 2016-17. The basic objectives of the scheme are to meet the requirement of seeds of short and medium duration crops during natural calamities and unforeseen conditions. The National Seed Reserve (NSR) programme is implemented by about 22 implementing agencies in the country namely NSC, State Seeds Corporations and State Department of Agriculture Tamil Nadu, Himachal Pradesh and Jammu & Kashmir.

8.61 Under the programme one time financial assistance for procurement of seeds called Revolving fund and cost of material handling equipment is provided to the implementing agency. Assistance is also provided for maintenance of certified and foundation seeds of identified crops, construction of seed godown, establishment of seed processing plant, Cost of Material handling equipment, Cost of service out sourced and computerization & networking facilities, besides price differential cost for left over stock of seeds as per norms of the scheme.

The targets and quantity of certified and foundation seeds maintained under seed bank and amount released to the participating agencies during 2013-14 are as under:-

(Rs. in lakhs)

Year	Targets of Physical quantity in lakh quintals	Physical Achievement in lakh quintals	Amount released to implementing agencies
2013-14	3.47	2.37	657.90

Seed Village Programme

8.62 This component has been initiated to upgrade the quality of farmer saved seeds which is about 60-65% of the total seeds used for crop production programme. The financial/technical assistance provided under this Programme are given below :

- 50% assistance for the seeds for cereal crops and 60% for oilseeds, pulses, fodder and green manure crops is provided for distribution of foundation/certified seeds required for one acre area per farmer.
- Farmers' Trainings:** Financial assistance of Rs.15000 per group (50-150 farmers each group) is provided for

farmers training on seed production and post harvest seed technology.

(c) **Seed treating/dressing drums :** Financial assistance for treating seeds produced in the Seed Village is available @ 3500 per seed treating drum of 20Kg capacity and Rs. 5000 per drum of 40Kg capacity.

(d) **Seed Storage bins:** To encourage farmers to develop storage capacity of appropriate quality, financial assistance will be given to farmers for purchasing Seed Storage bins. The rate of assistance is as under.

@33% for SC/ST farmers for 10 qtls. capacity upto maximum of Rs.1500

@33% for SC/ST farmers for 20 qtls. capacity upto maximum of Rs.3000

@25% for General farmers for 10 qtls. capacity upto maximum of Rs.1000

@25% for General farmers for 20 qtls. capacity upto maximum of Rs.2000

Assistance for purchase of only one seed bin for each identified farmer is available in the seed village programme. The implementing agency may also distribute smaller sized seed bins as per demand of farmer and financial assistance is reduced accordingly.

8.63 The year-wise physical progress of the programme is as under:

Year	Number of Seed Village Organized	Quantity of Seed Produced (In Lakh Quintals)
2006-07	10,778	22.961
2007-08	18,121	40.070
2008-09	35,212	58.009
2009-10	69,127	79.564

2010-11	1,01,067	161.553
2011-12	89,244	199.28
2012-13	78,943	116.708
2013-14	68101	144.48
2014-15	16226*	67.75*

* The progress from most implementing agencies is yet to be received after crop harvest.

8.64 **Certified/Quality Seed Production:-** Certified/Quality seed production has increased from 140.51 lakh quintals during 2005-06 to 347.31 lakh quintals during 2013-14. The same is expected to be 351.77 lakh quintals during 2014-15.

8.65 **Boosting Seed Production In Private Sector:-** Under this component, Credit linked back ended subsidy @40% of the capital cost of the project in general areas and 50% in case of hilly and scheduled areas subject to an upper limit of Rs 150 lakhs per project is funded. Two percent (2%) of the total fund utilized under the component will be allowed as administrative charges to the Nodal agency. So far, 475 such projects have been sanctioned for the small entrepreneurs in 16 States with 101.10 lakh quintals seed processing capacity and storage capacity of 35.09 lakh quintals.

8.66 The Department of Agriculture & Cooperation had two Central Public Sector Undertakings namely National Seeds Corporation (NSC) and the State Farms Corporation of India (SFCI). Vide Order dated 30.04.2014 of the Ministry of Corporate Affairs, the amalgamation of SFCI with NSC has taken place w.e.f 01.04.2014. The performance of both the Corporations for the previous year 2013-14 is given below.

8.67 **National Seed Corporation:** During 2013-14, NSC earned profit After tax (PAT)

of Rs 54.07 crores as compared to Rs. 44.30 crores during 2012-13 and declared dividend Rs.4.12 crore @ 20% on prorata basis on the paid up capital of the corporation. A quality of 14.28 lakh quintals of seeds has been procured during the financial year 2013-14. NSC is undertaking seed production of more than 600 varieties/hybrids/ lines including parental lines of about 60 crops consisting of cereals, millets, oilseeds, pulses, fodder, fibers, green manure, potato and wide range of vegetables crops. NSC is scheduled 'B' Central Public Sector Enterprise (CPSE) and also enjoys "Mini Ratna" (Category-I) status.

8.68 State Farms Corporation of India Limited: SFCI has achieved turnover of Rs. 523.35 crores as against previous years Revenue of Rs. 485.55 Crores with an increase by 7.78%. The profits After Tax (PAT) was Rs.41.84 Crores. The Corporation has also declared a dividend of Rs. 2.36 Crores @7.5% of the paid up equity share capital. The earnings per share (EPS) is Rs. 1329 as against Rs. 1352 compared to the previous year. SFCI also opened a Mini Farm at Nalhati in West Bengal to produce quality Foundation seeds for supply to State Government and for its own Certified seed Production Programme in West Bengal State.

8.69 Programme being implemented In the North-Eastern States: Details of the programmes being implemented in the NE region is at Annexure 8.1.

Modifications in New Policy on Seed Development:

8.70 The National Seed Policy, 2002 provides that all imports of seeds and planting materials, etc. will be allowed freely subject to EXIM Policy Guidelines

and the requirements of the Plants, Fruits and Seeds (Regulation of import into India) Order, 1989 as amended from time to time. Import of parental lines of newly developed varieties will also be encouraged. The Policy also provides that seed and planting materials imported for sale into the country will have to meet minimum seed standards of seed health, germination, genetic and physical purity as prescribed. All importers will make available a small sample of the imported seed to the Gene Bank maintained by National Bureau of Plant Genetic Resources (NBPGR).

8.71 In order to harmonize New Policy on Seed Development, 1988 with the National Seed Policy, 2002, the following modifications have been made in the New Policy on Seed Development, 1988:

- Seeds of wheat and paddy – In order to provide to the Indian farmer the best planting material available in the world to increase productivity, the import of seeds of wheat and paddy may also be allowed as per provisions of the Plant Quarantine Order, 2003 as amended from time to time for a period not exceeding two years by companies, which have technical/ financial collaboration agreement for production of seeds with companies abroad, provided the foreign supplier agrees to supply parent line seeds/ nucleus or breeder seeds/technology to the Indian company within a period of two years from the date of import of the first commercial consignment after its import has been recommended by DAC. For trial and evaluation of the variety sought to be imported by eligible importers, 16 kg. seed in case of wheat and 5 kg. in case of paddy will be

given to ICAR or farms accredited by ICAR for sowing. After receipt of the satisfactory results of trial/evaluation, an eligible importer may apply for the bulk import of such seeds to the DAC.

- Similar procedure of trial/evaluation has been recommended for import of the seeds of coarse cereals, pulses and oil seeds.

Implementation of OECD Seed Schemes in India

8.72 The objective of the Organisation for Economic Co-operation and Development (OECD) Seed Scheme is to encourage use of seeds of consistently high quality in participating countries. The scheme authorizes the use of labels and certificates for seed produced and processed for international trade according to OECD guidelines. India's participation in OECD Seed Scheme aims to enhance its seed export capabilities and probabilities.

8.73 The Department of Agriculture and Cooperation has become a member of OECD Seed Scheme from 23rd October, 2008 and 109 varieties in 20 crops have been entered in OECD list of varieties. Awareness workshops and hands-on-training and gearing up State Seed Certification Agencies for registration of OECD listed varieties have also been taken up for implementation of OECD Varietal Certification in India. In addition, Handbook on OECD varietal certification in India has been prepared which will be published shortly. Further, Rajasthan State Seed Certification Agency has undertaken the Pre-Basic Seed certification of wheat c. v. Raj 3765 in 1 ha and produced 16 qtl of pre-

basic seeds under OECD Seed Scheme.

Sub Mission on Agricultural Mechanization (SMAM)

8.74 Agriculture Mechanization is an essential input to modern agriculture to increase the productivity and for making judicious use of other inputs like seeds, fertilizers, chemicals & pesticides and natural resources like water, soil nutrients etc. besides reducing the human drudgery and cost of cultivation. Agriculture Mechanization also helps in improving safety and comfort of the agricultural worker, improvements in the quality and value addition of the farm produce and also enabling the farmers to take second and subsequent crops making Indian agriculture more attractive and profitable. It also helps the Indian farming to become commercial instead of subsistence. There is a linear relationship between availability of farm power and farm yield. Therefore, there is a need to increase the availability of farm power from 1.73 kW per ha to 2.0 kW per ha by the end of 12th FY Plan to cope up with increasing demand of food grains.

8.75 As per the Agriculture Census 2010-11, the average size of all land holding is 1.15 ha which was 1.23 ha in the last Agriculture Census of 2005-06. About 85 % of the total land holdings are in small and marginal size groups which need special efforts for its mechanization. As per the Input Survey 2006-08, the estimated number of small and marginal operational farm holdings using tractor and improved power operated agricultural machineries are is given below:

Estimated number of small and marginal operational farm holdings using tractor and improved power operated agricultural machineries

Machinery & equipment	Tractor	Rotavator	Sprinkler/ Drip irrigation Sets	Combine harvesters	Sprayer and Duster	Diesel Pump set	Elect. Pump set
Estimated numbers of agricultural machineries used in ,000. units	24,446	246	753 (Sprinkler) 251 (Drip)	246(Self Propelled) 612 (Trailed type)	4444	9787	8288

Source: Input survey 2006-08

8.76 Subsequently, recognizing the need to mechanize the marginal and small farmers, and for inclusive growth of Farm mechanization Sector in the country a Sub Mission on Agriculture Mechanization (SMAM) was launched in the year 2014-15 with the following objectives:

- Increasing the reach of farm mechanization to small and marginal farmers and to the regions where availability of farm power is low;
- Promoting 'Custom Hiring Centres' to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership;
- Creating hubs for hi-tech & high value farm equipments;
- Creating awareness among stakeholders through demonstration and capacity building activities;
- Ensuring performance testing and certification at designated testing centers located all over the country.



Financial assistance in SMAM under its various components:

8.77 The financial assistance as cost subsidy to the tune of 25-40% is being provided for the individual ownership of the farm machinery which is also applicable for farm machinery component under RKVY, NFSM, NHM & NMOOP schemes for different categories of Machinery & Equipment. The financial assistance @40% is provided for establishment of farm machinery banks to provide the custom hiring services for the benefits of small and marginal farmers. To promote the mechanization in selected village with low level of farm mechanization, financial assistance @80% of the project cost for farm machinery banks is given to the group of minimum 8 farmers. Hiring assistance for various farm operations



carried out through the farm machinery banks set up under financial assistance is also provided @ 50% of the cost of operation/ha limited to Rs. 2000 per ha. to farmers. The financial assistance @Rs.4000/ha is provided for demonstrations in the villages identified with low productivity of cereals, pulses & oil seeds in other Missions. Department is also promoting Farm Mechanization in North Eastern States.

8.78 As a result of different programmes implemented by the Government of India over the years and equal participation from Private Sector, the farm mechanization has been increasing steadily over the years. This is evident from the sale of tractors and power tillers, taken as indicator of the adoption of the mechanized means of farming, during the last five years is given below:

Year wise sale of tractors and power tillers

Year	Tractors Sale (Nos.)	Power Tillers Sale (Nos.)
2004-05	2,47,531	17,481
2005-06	2,96,080	22,303
2006-07	3,52,835	24,791
2007-08	3,46,501	26,135
2008-09	3,42,836	35,294
2009-10	3,93,836	38,794
2010-11	5,45,109	55,100
2011-12	5,35,210	60,000
2012-13	5,90,672	47,000
2013-14	6,96,828	56,000
2014-15 (upto Nov, 2014)	4,74,538	35,000

Average farm power availability for the cultivated areas of the country has been increased from 0.48 kW/ha in 1975-76 to 1.73 kW/ha in 2011-12.

Training of Farmers & Technicians

8.79 The Farm Machinery Training & Testing Institutes (FMTTIs) located at Budni (Madhya Pradesh), Hissar (Haryana), Garladinne (Andhra Pradesh), and Biswanath Chariali (Assam), are imparting training to different categories of beneficiaries like farmers, technicians, under graduate engineers, entrepreneurs and the foreign nationals nominated under international exchange treaty on selection, operation, maintenance, energy conservation and management of agricultural equipments. These Institutes are conducting testing and performance evaluation of various agricultural implements and machines. During the year 2013-14, 6671 persons were trained till 31st March, 2014 against the annual target of 6000 in different courses. It is proposed to increase the training target during 12th five year plan under Sub Mission on Agricultural Mechanization. To supplement the efforts of the FMTTIs, outsourcing of the training through the SAUs, Agricultural Engineering colleges, polytechnics, etc. has already been approved. The identified institutions are reimbursed Rs 4000 per trainee per week, which also includes a stipend of Rs 500 per trainee per week and to and fro travel expenses by normal mode of transport. During the year 2014-15 total 4856 trainees have been trained till 31st December, 2014 against the annual target of 6000 in different courses.

Testing and Evaluation of Farm Machinery & Equipment

8.80 The Institute at Budni is authorized to conduct commercial tests on tractors and other agricultural machines as per relevant BIS test codes besides conducting the testing of tractors and power tillers under CMV Rules 1989. CFMTTI is also National designated authority for testing of tractors

as per OECD codes. The institute at Hissar conducts commercial tests on self-propelled combine harvesters, irrigation pumps, plant protection equipment, agricultural implements and other machines as per relevant BIS codes and authorized to issue the certificate under CMVR 1989 in respect of the combined harvesters. The Institute at Garladinne is authorized to test power-tillers and also conduct tests on various agricultural implements /equipment components. This Institute is also developed as a institute to promote and strengthen the mechanization in rain-fed and dry land farming systems. The institute at Biswanath Chariali (Assam) tests bullock-drawn implements, manually operated equipment, tractor drawn implements, self propelled machines and small hand tools. The four FMTTIs altogether have tested 223 machines of various categories, including tractors, power-tillers, combine harvesters, and other machinery and equipments, till 31st March, 2014 against the target of 165 for the year 2013-14. During 2014-15, total 199 farm machines have been tested till 31st December, 2014 against the target of 165 machineries.

8.81 To cope up with the ever increasing demand of testing of agricultural machines and equipments, DAC has designated 29 testing centers at State Agricultural Universities (SAUs), ICAR Institutions and State Agricultural Departments as Authorized Testing Centers to test selected type of agricultural machinery and equipments under different categories of farm machinery. Relevant information has been made available on the departmental website <http://farmech.gov.in> for wider publicity among the users/manufacturers and other stake holders. Central Institute of Agricultural Engineering (CIAE), Bhopal and Punjab Agricultural University

(PAU), Ludhiana have been designated as authorized testing centers in addition to FMTTI, Hisar and Budni to test tractor mounted combine harvesters.

8.82 A workshop was held on 9.9.2014 where the heads of the designated testing centers have participated to discuss issues related to strengthening of testing centers in terms of infrastructure and man power and transfer of testing fee to testing centers for meeting the recurring expenses etc and other related issues to testing procedure, functioning and documentations.

Demonstration of Newly Developed Agricultural/Horticultural Equipment

8.83 To support and encourage the Agriculture mechanization at field level and to bring the awareness of new technologies among the farmers, demonstrations of newly developed agricultural equipment including

Post harvesting, horticultural equipment have been included under component 1 & 2 of the SMAM scheme. Under these components, 100% financial assistance as Center Sector Scheme is provided @Rs 4000 per ha up to 100 ha per season for the field demonstration of farm machinery and post harvesting technology/equipments on farmer's field. During the year 2013-14, 25833 numbers of demonstrations have been conducted by the State governments against the physical target of 4000 no. of demonstrations.

8.84 The component 2 of SMAM "Demonstration, Training and Distribution of Post Harvest Technology and Management (PHTM)". The objective of this component is to develop and improve the technical know-how and management of post harvest technologies for its proper and effective utilization. Total 5080 beneficiaries



were trained during 2013-14 at the identified training centers of the State Governments as given below:

- **Custom Hiring Centres:** To promote the mechanization of small and marginal farm holdings and farm holding in difficult area with low level of mechanization, the efforts has been made to concentrate on establishment of farm Machinery Bank & Hi tech, high productive farm machinery hubs for custom hiring services. Under the components 4,5 & 6 of the SMAM total Rs 71.29 crores as cost subsidy, has already been released to States in the first instalment to establish 839 Farm machinery Banks for providing the custom hiring services in the country till November 2014.
- **Farm Mechanization Programmes under various schemes of Agriculture:** Financial Assistance in the form of subsidy at the rate of 25-40 percent under RKVY, NFSM & NHM, NMOOP is applicable as per guidelines of SMAM to the farmers for individual ownership of agricultural equipment including hand tools, bullock-drawn/ power-driven implements, planting, reaping, harvesting and threshing equipment, tractors, power-tillers and other specialized agricultural machines
- **Activities in the North-Eastern States:** A FMTTI has been established at Biswanath Chariali in the Sonitpur district of Assam, to cater to the needs of human resource development in the field of agricultural mechanization and also to assess the quality and performance characteristics of different agricultural implements and machines in the region. During 2013-14 total 828 trainees were trained at this institute against the target of 800 and tested 28

nos. of agricultural implements and machinery against the annual target of 18. To support the agricultural Mechanization in North Eastern States where the Mechanization level is very low, the cost subsidy Is provided @ 100% limited to Rs. 1.25 lakhs/beneficiary for procurement of various agricultural machinery and equipments for individual ownership and @95% limited to Rs. 10 lakhs for individual ownership of farm machinery for the establishment of Farm Machinery Banks with a minimum of 8-10 farmers respectively. During the year 2014-15, cost subsidy of Rs. 9.35 crores has already been released in the first installment to NE States under the different components of SMAM. The details of various programmes initiated in the North-Eastern states during the years 2013-14 & 2014-15 are indicated at **Annexure 8.1 & Annexure 8.2 respectively.**

8.85 Gender Friendly Equipment for Women: Under the component 1 of SMAM, Agricultural Mechanization through Training, Testing, and Demonstration, a total 798 women were trained during 2013-14 till 31st March, 2014. During the current Financial Year 2014-15, (till Dec. 2014) 769 women farmers have been trained at FMTTIs. A list of about 30 identified gender-friendly tools and equipment developed by the Research and Development Organization for use in different farm operations has already been sent to all states and UTs. for popularizing them. State governments have been directed to earmark 30 per cent of total funds allocated under SMAM for women beneficiaries (**Annexure-8.3**).

8.86 State Agro Industries Corporations: The Government of India had advised the

State Governments in the year 1964, to set up State Agro Industries Corporations (SAICs) in the public sector to act as catalysts in providing access to industrial inputs to farmers, for their use in agriculture. Thus, 17 SAICs were set up in the joint sector with equity participation of the Government of India and the respective State Governments of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal during 1965 to 1970. Many of the State Governments have increased their equity participation as a result of which the Government of India, at present, is a minority shareholder. SAICs have since expanded their basic functions by commencing manufacture and marketing of agricultural inputs, implements, machines, after-sales-service, promotion and development of agro-based units/industries. The Government of India is implementing a policy of disinvestment of its shares in SAICs with a view to give greater decision making power to the State governments by allowing transfer of its shares to state governments.

Sub Mission on Plant Protection and Plant Quarantine (SMPP): The objective of the Sub-Mission is to prevent crop loss through sustainable agriculture and protection of the India's bio-security. The Sub-Mission has 4 important components viz. Strengthening and Modernization of Pest Management Approach (SMPMA), Strengthening and Modernization of Plant Quarantine Facilities (SMPQF), Monitoring of Pesticide Residues at National Level (MPRNL) and the National Institute of Plant Health Management (NIPHM).

8.87 Strengthening and Modernization of Plant Quarantine Facilities (SMPQF): The

objective of Plant Quarantine primarily is to prevent introduction of exotic pests, diseases and weeds through import of agricultural commodities or plant material into India and ensure safe exports of such commodities to other countries. The funds under SMPQ is utilized in supporting staff, infrastructure, capacity building and laboratory analysis associated with quarantine and phytosanitary responsibilities. The Plant Quarantine (Regulation of Import into India) Order, 2003 notified under provisions of Destructive Insects and Pests Act, 1914 provides the regulatory framework for imports of Plants and Plant Products. Post entry quarantine inspection is carried out, where needed, in imports of seeds and planting material for propagation. Phytosanitary Certificates (PSC) are issued for exports as per International Plant Protection Convention (IPPC), 1951 under the Food and Agricultural Organization (FAO). There are 57 Plant Quarantine Stations (PQSs) at various international airports, seaports and land customs stations across the country which take care of phytosanitary certification of our agri-exports, as well as quarantine inspections of imports. These PQSs function under the control and supervision of Directorate of Plant Protection, Quarantine & Storage (DPPQ&S), Faridabad. Technical dossier for Pest Risk Assessment (PRA) of our potential exportable agri-commodities are prepared under this scheme to gain market access in foreign markets. Similarly, market access proposals of our international trading partners are also appraised on technical grounds.

8.88 PQSs at Bongaon, Cochin, Kandla, Vishakhapatnam, Trivendram, Mangalore, Hyderabad, Bangalore, Kakinada and Tuticorin are ISO 9001:2000 certified, in addition to the 5 PQSs at Amritsar, Chennai,

Kolkata, Mumbai and New Delhi. Molecular diagnostics facilities are available at Chennai Kolkata, Mumbai and New Delhi Station.

8.89 During 2014-15 (up to December, 2014), PRAs for import of 19 commodities were completed and technical information for PRA for 14 exportable commodities have been shared with other countries. 33,297 import permits have been issued for seeds and plant material and screening of 126.95 lakhs metric tons of imported agricultural commodities was undertaken. Phytosanitary inspection for export of 284.63 lakh metric tons of plant and Plant materials was conducted and 2,55,009 Phytosanitary Certificates (PSCs) issued. As on 31.12.2014, 471 pest control agencies have been accredited for undertaking fumigation with methyl bromide including 50 new agencies. 294 agencies have been accredited for Forced Hot Air Treatment (FHAT) for wood and wood packing material which includes 28 new agencies. The web based Plant Quarantine Information System (PQIS) is now providing plant quarantine services in issuance of import permits, PSCs and release orders to importers and exporters.

8.90 Strengthening and Modernisation of Pest Management Approach: The Government is committed to popularizing Integrated Pest Management (IPM) under a Central Sector Scheme "Strengthening and Modernization of Pest Management Approach in India". The scheme seeks to promote cultural, mechanical, biological methods of pest control and recommends use of chemical pesticides as a measure of last resort. The Central Government has established 31 Central IPM Centres in 28 States/UT. The mandate of these Centres is to conduct pest/disease monitoring, production and release of bio-control agents/ bio-pesticides, conservation of bio-control

agents and Human Resource Development in IPM approach. Training is imparted to Agriculture/Horticulture Extension Officers and farmers at grass roots level through Season Long Training Programmes, Human Resource Development Programmes and Farmers Field Schools (FFSs). The FFS provides practical training to farmers on the principles of IPM: survey and surveillance for pests and friendly insects, use of locally available bio-control agents, cultural, physical, mechanical methods of pest control, use of bio-pesticides, effects of pesticides on natural enemies of pests and safe and judicious use of pesticides. These schools are conducted separately for the Kharif and Rabi seasons, each FFS lasting 14 weeks. During 2014-15 (upto December, 2014), 404 FFSs were conducted by CIPMCs in which 10,920 farmers were trained.

8.91 A Pest Diagnostic units is proposed to be set up at CIPMC Faridabad to help farmers in diagnosis of pest/ diseases & training to farmers in diagnosis. 47 IPM Package of Practices have been updated and revised to introduce the latest in IPM technology for the benefit of all stakeholders. The CIPMCs conduct pest/disease monitoring, conservation, production and release of bio-control agents. Pest and disease survey was conducted over 6.25 lakh hectares. A total of 15.32 crore bio-control agents were mass produced in laboratories and released against targeted insect-pests in various crops. Augmentation and conservation was taken up in 601.59 thousands hectares (upto December, 2014).

8.92 Seed treatment Campaign: Seed treatment is the use and application of chemical and biological agents on seeds to control primary soil and seed borne infestation of insects and diseases. Seed treatment campaign is being taken up

every year since 1997 by the Department of Agriculture and Cooperation (DAC) during Kharif and Rabi seasons in active collaboration with State Departments of Agriculture.

8.93 Grow safe food campaign: Pesticides are critical inputs in agriculture in that they protect crops from depredations from pests and diseases. However, pesticides are toxic substances and are likely to leave behind traces in crops which may be in excess of the Maximum Residues Limits, if applied in an indiscriminate and unapproved manner. Pesticides are therefore subjected to rigorous evaluation at the time of registration and specific conditions for application are clearly spelt out. If the methodology for pesticide application on crops is followed in toto in accordance with the instructions on labels and leaflets of pesticide containers the likelihood of discovery of pesticide residue in crops above the safe limit become virtually nonexistent.

8.94 In recent times, reports are being received from some parts of the country regarding indiscriminate use of pesticides in disregard of approved methods of application. As a consequence, residues are being discovered, particularly in crops like fruits, vegetables, spices etc which are sometimes in breach of the safety limit. Such residues can have a deleterious effect on human health and is therefore, a cause for public concern. The Department of Agriculture & Cooperation has been working in tandem with State Governments, pesticide manufacturers and farmers to create an all round awareness on the need to grow safe food. Pesticide residue levels are being monitored on an all India basis and State Governments are being apprised whenever instances of pesticide over-use come to light. Advisories are being sent to pesticides dealers to build awareness on

the importance of instructions on pesticide labels and leaflets for production of safe food and other agricultural produce. Dealers are being exhorted to disseminate this vital message among their farmer customers.

8.95 A 'Grow Safe Food' campaign has been initiated to carry the message of safe and judicious use of pesticides to farmers and other stakeholders. A simple message on the five essential principles of judicious pesticides use - application of pesticides on the right crop, against pests for which the pesticide has been approved, at the right time, in approved doses, and as per approved method of application - is sought to be conveyed through hoardings, banners etc. in regional languages in Gram Panchayats and rural areas. A logo has been developed to signify the importance of the endeavour.

8.96 Implementation of Insecticides Act, 1968: The insecticides Act, 1968 regulates import, manufacture, sale, transportation, distribution and use of insecticides with a view to prevent risks to humans and/or animals. Registration Committee, constituted under Section 5 of the Act, registers pesticides under Section 9 of the Act after verifying efficacy and safety of the product. 16,055 registrations have been granted during 2014-15 (up to December, 2014). In order to bring about greater transparency and efficiency in the process of registration of pesticides and on-line registration of insecticides has been partially operationalized. The system enables on-line filing of applications for registration in all categories and generation of Certificates of Registration in some categories only at present. Label/leaflets of pesticide containers have been revised to facilitate farmers in the safe use of pesticide.

8.97 Central Insecticide Laboratory (CIL): The quality of pesticides is monitored

by Central and State Insecticide Inspectors who draw samples of insecticides from pesticide dealers for analysis in 68 State pesticide testing laboratories (SPTLs) spread across 23 States and one union territory. For the States which do not have facilities for testing pesticides, Regional Pesticides Testing Laboratories (RPTLs) have been set up by Central Government at Chandigarh and Kanpur. In case of dispute, samples are referred to Central Insecticides Laboratory (CIL), Faridabad. For quality assurance in pesticide analysis, the CIL has obtained accreditation from National Accreditation Board for testing and calibration laboratories (NABL) for biological and chemical testing as per ISO/IEC17025:2005. The RPTLs have also obtained NABL accreditation for chemical testing. Keeping in view the growth in consumption of bio-pesticides and need to regulate their quality, assistance for setting up bio-pesticides testing facilities is being provided to states. Eight labs have been notified for testing bio-pesticides to function at par with CIL for bio pesticides testing. NIPHM has been notified in 2013 for the same purpose. Funds are funded to state governments for setting up/ strengthening pesticide testing labs.

8.98 Creation of necessary infrastructure is under process at National Pesticide Reference Repository (NPRR) and National Pesticide Investigational Laboratory (NPIL). NPRR will store and supply reference standards, etc necessary for analysis of pesticide samples while NPIL will help detect presence of chemical pesticides in microbial bio-pesticide products. This laboratory will also house a technical audit division for pesticide testing laboratories. NPRR and NPIL is expected to bring about a qualitative change in standards of quality testing of pesticides.

8.99 **Locust Control and Research:** The scheme is being implemented through an Organisation known as Locust Warning Organisation (LWO), which monitors locust development and its activities over an area of 2.00 lakh sq km of the Scheduled Desert Area (SDA) mainly in the States of Rajasthan and Gujarat and partly in the States of Punjab, Haryana and Jammu & Kashmir. The scheme has 10 Locust Circle Offices (LCOs) located at Bikaner, Jaisalmer, Barmer, Palanpur, Bhuj, Jalore, Phalodi, Nagaur, Suratgarh and Churu with its field Headquarters at Jodhpur and a Central Headquarter Faridabad. Besides, there is a Field Station for Investigations on Locusts (FSIL) situated at Bikaner. To strengthen the locust monitoring and forecasting, an advanced device viz. e-Locust 2 to monitor the Desert Locust activities in the fields and software RAMSES to prepare vegetation maps and collect survey data based on satellite imageries for locust forecasting has been adopted. LWO maintains its own wireless network for exchange of information between various field offices and headquarter at Faridabad. Wireless communication between Jodhpur (India) and Karachi (Pakistan) is also maintained every year during June to November for exchange of information on locust development and coordination between the two countries. Satisfactory locust control potential is being maintained in the form of ready to use pesticides, plant protection equipments, wireless sets, Global positioning system (GPS) and trained technical and mechanical staff. Presently the total staff strength of Locust Control and Research Scheme at various levels is 254 (Central H.Q 5, Field H.Q. Jodhpur 44, Field Circle Offices 178 and FSIL Bikaner 27).

8.100 **National Desert Locust Situation and Control Campaign:** India continued to

remain free from any species of gregarious desert locusts during the year 2014-15. However, Solitary desert locusts were observed at many places at a density ranging from 2-10 numbers per hectare in the districts of Sriganganagar, Bikaner, Jaisalmer and Suratgarh in State of Rajasthan. During the year upto December, 2014, five Indo-Pak Border Meetings were held between locust officials of both the countries. A close liaison was maintained throughout the year with FAO and other agencies / organizations through exchange of Bulletins / information. So far, 18 numbers of Locust Situation Bulletins have been issued. 141 lakh ha. area in SDA was scanned during the locust surveys and monitoring (target 150 lakh ha).

8.101 The Pesticide Management Bill 2008, which is intended to replace Insecticides Act, 1968 to provide for a more effective

regulatory framework for introduction and use of pesticides in the country was introduced in the Parliament (Rajya Sabha) on 21.10.2008. The Parliament Standing Committee on Agriculture laid its report on the Bill in Parliament on 18.02.2009. The recommendations of the Standing Committee have been examined and taking into account these recommendations, the Official Amendments to the Pesticides Management Bill have been introduced in Rajya Sabha for consideration and approval.

8.102 **Monitoring of Pesticide Residue at the National Level:** This Scheme was launched in 2005 as a central sector scheme to collect, collate and analyze data and information on a centralized basis, on prevalence of pesticide residues in agriculture products at farm-gate and market yards. Samples of agricultural commodities and food commodities including animal produce



are drawn and analyzed in 21 participating laboratories of the Central Government and State Agricultural Universities. The pesticide residue data generated is shared with concerned State Governments for corrective action for judicious and proper use of pesticides on Crops with an integrated pest management approach.

8.103 Capacity Building in Plant Protection: National Institute of Plant Health Management (NIPHM) is a training institute for plant health under Ministry of Agriculture. NIPHM has entered into MOUs with select institutions and started new courses, including training courses for officers of DPPQ&S. During 2014-15 construction of new Hostel building has been completed. During 2014-15 (upto December, 2014), 97 regular courses were conducted at NIPHM wherein 1791 trainees from various States and organizations were trained.

8.104 National Agricultural Bio-security System: In view of threat perception to bio-security of country on account of increasing international trade, emergence of transboundary diseases of plants and animals (such as Ug-99 wheat stem rust and avian influenza), introduction of genetically modified organisms, climate change and bioterrorism, Ministry of Agriculture has prepared a proposal for putting in place a National Agricultural Bio-security System (NABS). The proposal is based on recommendation of National Commission on Farmers headed by Prof. M.S. Swaminathan and National Policy on Farmers 2007. The proposal envisages creation of an autonomous National Agricultural Bio-security Authority (NABA) for which an Agricultural Bio-security Bill has been finalized. The bill had been examined by Parliamentary Standing Committee but it lapsed with the dissolution of Lok Sabha. It is proposed to re-introduce the Bill.



CHAPTER 9

National Crop Insurance Programme (NCIP)

9.1 Keeping in view the risks involved in Agriculture and to insure the farming community against various risks, Ministry of Agriculture introduced a crop insurance scheme in 1985 and thereafter brought improvements in the erstwhile scheme(s) from time to time based on the experience gained and views of the stakeholders, states, farming community etc. To enlarge the coverage in terms of farmers, crops and risks, National Agricultural Insurance Scheme (NAIS) was started w.e.f 1999. To make the crop insurance schemes more farmers friendly, a re-structured Central Sector Scheme namely “National Crop Insurance Programme (NCIP)” has been approved by merging the erstwhile Pilot schemes of Modified National Agricultural Insurance Scheme (MNAIS), Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS) with some improvements for full fledged implementation from Rabi 2013-14 season throughout the country. NAIS was to be discontinued after implementation of NCIP from Rabi 2013-14 season. However, on the representations from States, it has been continued during 2013-14 and 2014-15.

9.2 The Scheme is optional for the State Governments and they can notify crops and areas according to provisions of the schemes. The Components under the Scheme are being implemented on “Area Approach Method” where yield of notified areas under MNAIS and Weather data of notified Reference Automatic Weather Stations (AWSs) under WBCIS are taken as one unit for assessment/payment of claims

for widespread calamities. However, claims are also being paid on the basis of losses at individual farms due to localized calamities like hailstorm and landslides under MNAIS and WBCIS (as add on/index-plus coverage). The penetration/coverage of these schemes in terms of number of farmers has reached about 30% of the total No. of land holdings in the country.

9.3 The coverage of farmers under NCIP by terminal year of 12th Plan (i.e. 2016-17) has been projected to be at 50% with help of the improvements / changes made in NCIP component schemes of MNAIS, WBCIS & CPIS. Salient features are listed below:-

- Implementation is made compulsory for loanee farmers.
- Two indemnity levels of 80% & 90% would be available instead of three i.e. 70%, 80% & 90% under MNAIS.
- Under WBCIS, provision for add-on/index plus products for horticultural crops for compensating losses due to perils of hailstorm, cloudburst etc
- For successful implementation of WBCIS, 5000 AWS will be set-up in the country through the model of Private Public Participation (PPP).
- Pilots for use of modern technology like Remote Sensing Technology (RST)/ Satellite imageries to supplement the yield assessment through CCEs.
- Insurance eligibility condition of having at least 10 healthy palms by farmer has been reduced to 5 palms under CPIS

- Increased Sum Insured under CPIS
- Loss intimation time has been increased from 7 days to 15 days under CPIS.

9.4 The total funds released by Government of India (GOI) under various schemes for crop insurance till December, 2014 are as under:-

Plan / Year	NAIS (since Rabi 1999-00)	WBCIS (since Kharif 2007)	MNAIS (since Rabi 2010-11)	CPIS (since 2009-10)	Total (Rs. In crore)
IXth Plan (1997-02)	811.49	-	-	-	811.49
Xth Plan (2002-07)	2626.84	-	-	-	2626.84
XIth Plan (2007-12)	5851.88	1370.37	87.15	1.95	7311.35
12THth Plan (2012-17)					
2012-13	700.00	655.00	194.18	0.50	1549.68
2013-14	1600.00	700.00	251.02	0.50	2551.52
2014-15*	1386.16	383.27	584.69		2354.12
Total	12976.37	3108.64	1116.87	2.95	17204.98

*as on 31.12.2014

9.5 During the last thirty crop seasons (i.e. from Rabi 1999-2000 to Kharif 2014), 3074 lakh farmers were covered over an area of 4413 lakh hectares insuring a sum amounting to Rs. 494373 crore. Total premium of Rs. 23933 crore were collected against the claims of Rs. 41990 crore benefiting 969 lakh farmers.

National Agricultural Insurance Scheme (NAIS)

9.6 With a view to provide financial support to farmers in the event of loss / failure of any of the notified crop in the notified areas as a result of natural calamities (flood, drought etc.), pests and diseases, NAIS was introduced in the country from Rabi 1999-2000 season in place of erstwhile Comprehensive Crop Insurance Scheme (CCIS). NAIS was to be discontinued after implementation of NICP from Rabi 2013-14 season. However, on the representations from States, it has been continued during 2013-14 and 2014-15. The scheme is available to all the farmers (loanee and non-loanee) irrespective of their size of holding. Loanee farmers are covered on compulsory basis in a notified area for notified crops whereas for

non-loanee farmers, scheme was voluntary.

9.7 The Scheme covers all the food crops (cereals, millets and pulses), oilseeds and annual commercial/horticultural crops, in respect of which past yield data is available for adequate number of years. The administered premium rates are charged which range from 1.5% to 3.5% of sum insured for food and oilseed crops for normal sum insured and indemnity level. In the case of commercial/horticultural crops, higher sum insured & indemnity than the normal, actuarial rates are charged. Under the scheme, 10% subsidy in premium is available to small & marginal farmers.

9.8 Financial liability towards claims over and above 100% of premium collected in case of Food Crops & Oilseeds, Bank Service charges and 20% of Administrative & Office expenses are to be borne by the Government and are shared on 50:50 basis by the Central Government and the State Governments. All claims in case of annual horticultural/commercial crops and higher sum insured & indemnity than the normal

under food & oilseed crops are paid by the implementing agency.

9.9 The scheme is optional for States/UTs. The scheme is implemented by 25 States and 2 Union Territories in one or more seasons. The scheme is demand driven. However, the progress of the scheme can be

measured in terms of farmers/area covered, sum insured, premium collected, claims paid and farmers benefited. State-wise details of farmers covered, area covered, sum insured and insurance charges under NAIS since inception of the scheme i.e. from Rabi 1999-2000 to Rabi 2013-14 (as on 31/12/14) are given as under :-

NATIONAL AGRICULTURAL INSURANCE SCHEME (NAIS)							
NAIS - Business Statistics from Rabi 1999-2000 to Rabi 2013-14 i.e. for 29 Seasons - State Wise							
S. No.	State	No. of Farmers Covered	Area Insured (In Hec.)	Rs. (In Lakhs)			No. of Farmers Benefitted
				Sum Insured	Premium	Claims	
1	Andhra Pradesh	29952383	45583156.24	6218135.59	176816.12	464362.15	6737689
2	Assam	393804	289364.06	79973.74	2235.29	1558.60	65486
3	Bihar	6036983	7377698.18	1190402.43	30383.31	217243.54	2431008
4	Chhattisgarh	10425148	20991137.47	1151142.58	29444.12	39856.62	1706288
5	Goa	8211	13440.13	318.12	5.65	2.36	702
6	Gujarat	14331156	32774553.85	4146843.82	164193.87	646516.71	4945768
7	Haryana	635778	769038.32	83496.10	2413.98	4336.40	129424
8	Himachal Pradesh	313547	243772.71	51885.70	1102.04	1783.17	108160
9	Jharkhand	6276742	3767771.49	340152.78	8435.01	52182.13	2182887
10	Karnataka	13149945	20872419.69	1641809.99	48397.85	194842.94	5223118
11	Kerala	461282	414742.69	87179.13	1881.85	2868.11	85315
12	Madhya Pradesh	31361654	76405387.08	5544248.38	158281.34	423432.02	6459171
13	Maharashtra	34499406	29903931.59	2280207.31	102766.66	290354.32	10791895
14	Manipur	24659	34172.71	8585.33	213.06	771.37	18946
15	Meghalaya	33219	33934.31	6218.48	284.10	52.17	2762
16	Mizoram	121	133.79	23.24	0.58	11.23	119
17	Odisha	15798182	15728011.28	2292733.62	57311.47	183024.31	3046907
18	Rajasthan	15058674	31379980.35	1620309.00	45754.35	262165.99	5200566
19	Sikkim	1894	1323.95	254.03	3.80	1.28	86
20	Tamilnadu	6079399	7924305.37	1670161.10	43359.28	233933.30	2623905
21	Tripura	19466	12642.42	2907.57	81.00	58.31	3432
22	Uttar Pradesh	23426012	31070385.59	3353782.49	68482.01	116937.52	4517617
23	Uttarakhand	399156	372508.94	87097.93	1978.13	4188.31	119370
24	West Bengal	12363618	6223122.48	1417997.54	59547.04	96689.26	2741888
25	A & N Islands	3718	5769.00	1666.29	43.65	19.75	944
26	Puducherry	39595	55818.60	10096.95	193.96	313.75	7197
27	Jammu & Kashmir	49065	68994.99	10902.23	213.80	123.20	4292
Grand Total		221142817	332317517.27	33298531.48	1003823.31	3237628.82	59154942

Budget provision of Rs. 1520.37 crore has been kept for GOI liability under NAIS during 2014-15 against which Rs. 1386.16 crore has already been released to implementing insurance company i.e. Agriculture Insurance Company (AIC) of India till 31.12.2014.

Modified National Agricultural Insurance Scheme (MNAIS)

9.10 With a view to make the scheme simpler & farmer friendly, a Joint Group was constituted in 2004 under the Chairmanship of Additional Secretary in the Department of Agriculture & Cooperation to study the improvements required in the then existing crop insurance schemes. Based on the recommendations of the Joint Group and views/comments of various stakeholders, a pilot proposal on MNAIS was approved by Government of India for implementation on pilot basis in 50 districts from Rabi 2010-11 season. After evaluation of impact of Pilot, the scheme is being implemented as a full-fledged component of NCIP from Rabi 2013-14.

9.11 The major improved provisions/features of MNAIS over NAIS are as under:-

- Reduction in unit area of Insurance to village/village panchayat,
- Actuarial premium rates for insuring

crops and hence claims liability is on Insurance Company.

- Private insurance companies have also been involved for implementation to provide competitive service to the farmers.
- Higher subsidy in premium ranging upto 75% to all farmers,
- More proficient basis for calculation of threshold yield (average yield of last 7 years excluding upto two years of declared natural calamity)
- Higher minimum indemnity level of 70% instead of 60% in NAIS,
- Indemnity amount for prevented sowing/planting risks and for post harvest losses due to cyclones.
- On account payment upto 25% of likely claims as advance for providing immediate relief to farmers during adverse season,
- An individual assessment of claims in case of specified localized calamity viz. hailstorm, landslide,
- Uniform seasonality norms for both loanee & non loanee farmers,

9.12 State-wise cumulative details of coverage till Rabi 2014-15 (as on 31/12/14) under the scheme are given in the table below:

Rs. in Lakh

Sl. No.	State / UT	No. of Farmers Insured	Area Insured (Ha)	Sum Insured	Gross Premium	Claims	No. of Farmers benefitted
1	Andhra Pradesh	1178029	1250285.4	518903.212	44942.42	73973.73	523854
2	Assam	20062	16445.688	6534.03919	249.65824	115.3442	2211
3	Bihar	932484	1064373.7	214004.545	42118.429	15562.14	62122
4	Chhattisgarh	18	31.76	4.764	0.217125	0	0
5	Gujarat	432	590.66	261.22427	28.23437	0	0
6	Haryana	259514	446285.56	184609.525	6192.4618	4840.484	44259

7	Jharkhand	82142	89027.563	18187.446	1722.1573	56.61251	2114
8	Karnataka	627114	1039629.6	164678.96	18964.575	9023.441	138746
9	Madhya Pradesh	218418	360202.74	51111.1621	1991.3408	288.3415	5080
10	Maharashtra	51964	49621.11	7621.06045	1361.9885	0	0
11	Mizoram	512	488	99.328	6.4845	9.436071	512
12	Odisha	425024	280279.82	103217.305	3510.1333	14834.12	147708
13	Rajasthan	3738947	3609641.8	365275.707	35296.072	12833.92	400200
14	Tamil Nadu	404995	441408.63	97127.5826	12045.032	9350.692	109080
15	Uttar Pradesh	976565	960636.76	342269.501	11640.555	22194.04	255260
16	Uttarakhand	77286	59826.545	17626.3747	603.16861	342.3207	11667
17	West Bengal	868052	294533.31	243275.926	37124.292	7362.245	91446
	Total	9864623	9966220.3	2341539.46	217797.22	170786.9	1794259

9.13 A provision of Rs. 808.02 crore has been kept towards GOI liability under MNAIS during 2014-15, against which Rs. 584.69 crore has already been released as on 31.12.2014.

Weather Based Crop Insurance Scheme (WBCIS)

9.14 With the objective to bring more farmers under crop insurance fold and to overcome the shortcoming regarding delay in settlement of claims etc. under NAIS, a pilot WBCIS was announced in the Union Budget for 2007-08 and was approved for implementation in 20 States on pilot basis. WBCIS is implemented as a full-fledged component scheme of NCIP from Rabi 2013-14 season. WBCIS intends to provide insurance protection to the farmers against adverse weather incidence, such as deficient and excess rainfall, high or low temperature, humidity etc. which are deemed to impact adversely the crop production. Under WBCIS, actuarial rates of premium are being charged. However, to make the

scheme affordable to the farmers subsidy upto 50% of the premium is provided by the Government which is shared by Centre and State concerned on 50:50 basis. Actuarial rates of premium are capped at 10% during Kharif and 8% during Rabi for food crops & oilseeds. For annual commercial/horticultural crops, cap of 12% on actuarial rates of premium is applicable. Both loanee & non-loanee farmers are covered under WBCIS irrespective of their size of holding. Like NAIS, the loanee farmers are covered on compulsory basis in a notified area for notified crops whereas for non-loanee farmers scheme is voluntary. Further, to provide competitive service to the farmers, private insurance companies have been involved for implementation besides the Agriculture Insurance Company of India (AIC) Ltd.

9.15 State-wise cumulative details of coverage till Rabi 2013-14 (as on 31/12/14) under the scheme are given in the table below:

	Scheme	WEATHER BASED CROP INSURANCE SCHEME (WBCIS)					
	Company	ALL COMPANIES COMBINED					
From Kharif 2007 to Rabi 2013-14 - State Wise							
Rs. in Lakh							
Sl. No.	State / UT	No. of Farmers Insured	Area Insured (Ha)	Sum Insured	Gross Premium	Claims	No. of Farmers benefitted
1	Andhra Pradesh	2789628	4509638.594	1136477.67	113336.4	87502.98	2016440
2	Assam	859	296.0698	200.09539	20.05253	6.917171	68
2	Bihar	11039526	11413353.75	2660436.08	227554.3	152819.5	7679325
3	Chhattisgarh	312875	557947.7098	108184.124	8635.475	9230.572	185522
4	Gujarat	497661	413126.4	22394.745	2239.477	857.3528	170576
5	Haryana	359343	601956.6842	189823.697	16764.47	6178.176	201135
6	Himachal Pradesh	152419	1016063.59	64990.1713	7485.462	4776.635	66723
7	Jharkhand	362907	344627.6092	66320.7679	5818.656	4413.825	313476
8	Karnataka	819520	1036405.672	137472.033	14960.21	11870	631623
9	Kerala	98584	70868.04482	21404.997	2208.875	1455.805	59034
10	Madhya Pradesh	964190	1676806.177	363946.543	32685.66	18140.49	804398
11	Maharashtra	643217	734610.1693	254898.929	31662.19	27187.28	476129
12	Odisha	315755	456503.668	117798.568	5656.268	3210.353	215814
13	Punjab	67	338.2	47.576	4.793926	0.67415	50
14	Rajasthan	32886047	45049023.28	3897854.51	357568.4	230408	18042120
15	Tamil Nadu	131558	178622.6961	31801.9226	3040.745	1742.522	57848
16	Uttar Pradesh	533852	368593.5053	124969.937	11625.25	5875.651	322346
17	Uttarakhand	88961	191620.9513	28958.9602	3475.095	4399.763	51840
18	West Bengal	105294	116493.4455	18311.0081	1779.563	1402.739	61480
TOTAL		52102263	68736896.22	9246292.33	846521.3	571479.1	31355947

9.16 A budget provision of Rs. 493.61 crore has been kept towards Government of India liability under WBCIS during 2014-15, against which Rs.383.27 crore has already been released as on 31.12.2014.

Coconut Palm Insurance Scheme (CPIS)

9.17 This Department is implementing Coconut Palm Insurance Scheme (CPIS) on pilot basis from the year 2009-10 onwards in the selected areas of Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu and West Bengal. Now, the CPIS is being implemented as a full fledged component scheme of NCIP from Rabi 2013-14 season in all coconut growing States. The

scheme is being administered by Coconut Development Board. Insurance coverage is being extended to the total loss of the individual palm in the age group of 4 to 60 years for dwarf & hybrid; and 7-60 years for tall variety, leading to either death of palm or the palm becoming useless due to various natural and other perils. The farmer should have at least 05 healthy nut bearing Palms in the age group of 4 to 60 years in contiguous area/plot and should have been enrolled by State Agriculture/Horticulture Department or Coconut Development Board (CDB) or any other such agency under rehabilitation/development/expansion scheme. The Sum Insured is based on the average input cost of the plantation and the age of the specific

plant. The Sum Insured varied from Rs. 900 per palm in the age group of 4-15 years to Rs. 1725 per palm in the age group of 16-60 years. The premium rate per palm ranged from Rs. 9.00 in the age group of 4 to 15 years to Rs. 14.00 in the age group of 16 to 60 years and it varied on sum insured per year, considering the age of specific palm. 50% of premium is contributed by Government of India; 25% by the concerned State Govt. and the remaining

25% by the farmer. The Insurance Company i.e. Agriculture Insurance Company of India (AIC) is implementing the scheme and responsible for making payment of all claims. The pilot CPIS is administered and implemented by the Coconut Development Board (CDB).

9.18 The details of coverage under CPIS as on 31/12/2014 are as under:-

(Rs. In lakh)

Sr. No.	State	No. of farmers	No. of Palms	Sum Insured	Premium	Claims	Farmers benefitted
1	Andhra Pradesh	517	55295	558.47	2.97	0.00	0
2	Goa	240	59643	692.50	3.66	1.63	14
3	Karnataka	702	96357	1066.49	6.08	3.22	72
4	Kerala	52063	2081126	22469.28	118.40	256.88	5799
5	Odisha	666	20683	338.30	2.58	0	0
6	Maharashtra	12417	954161	11870.13	79.40	10.14	224
7	Tamil Nadu	3606	726205	6059.71	40.94	30.71	201
8	West Bengal	692	28558	328.42	1.64	0.00	0
	Total	70903	4022028	43383.3	255.67	302.58	6310

A provision of Rs. 1 crore has been kept towards GOI liabilities under CPIS during 2014-15.



CHAPTER 10

Integrated Scheme on Agriculture Census & Statistics

10.1 Recognizing the importance and predominance of Agriculture Sector in the Indian economy, collection and maintenance of Agricultural statistics assumes special importance, particularly, in respect of statistics relating to the agricultural holdings. Agriculture Census in India, as a part of the system of collection of agricultural statistics is conducted quinquennially, since 1970-71. As it is the ultimate unit for taking agriculture-related decisions, operational holding has been taken as statistical unit at micro-level for data collection. The reference period for Agriculture Census is the Agricultural year (July- June).

10.2 Agriculture Census is implemented in three distinct Phases for collecting and deriving quantitative information on important aspects of operational holdings in the country. Periodic Agriculture Census is the main source of information on number, area and other basic characteristics of operational holdings such as land use, cropping pattern, irrigation status, tenancy particulars, pattern of input use etc. This information is tabulated by different size groups of holdings viz., Marginal (below 1.00 ha.), Small (1.00-2.00 ha.), Semi-Medium (2.00-4.00 ha.), Medium (4.00-10.00 ha.) and Large (10.00 ha. and above) and Social Groups including Scheduled Castes/Scheduled Tribes, which are needed for development planning, socio-economic policy formulation and establishment of national priorities. The results of Agriculture Census are published in the form of reports and are placed on the website of the Department at <http://agcensus.nic.in> for public use.

10.3 Agriculture Census in India is organized following broad guidelines of decennial World Census of Agriculture evolved by Food and Agriculture Organization (FAO) of United Nations. India is a participant of the World Agriculture Census Programme. So far, eight Agriculture Censuses have been conducted and compilation and processing of data of the 9th Agriculture Census with reference year 2010-11 is at advanced stage. Preparatory activities for the 10th Agriculture Census with reference year 2015-16 is also going on.

10.4 Agriculture Census Scheme, now a component of the Integrated Scheme on Agriculture Census, Economics and Statistics, was converted from a Centrally-Sponsored Scheme to a Central Sector Plan Scheme in 2007-08. Accordingly, 100 per cent financial assistance is provided to States/ UTs for payment of salaries, office expenses, honoraria, tabulation and printing of schedules, etc.

Agriculture Census 2010-11

10.5 All India Report on number and area of operational holdings in the country based on Phase-I results of Agriculture Census 2010-11 has been published and is placed on the website of the Department. The results of the Phase-II of Agriculture Census 2010-11 (Provisional) have also been released and hosted on the website. Key results (Provisional) of Phase-II of the Agriculture Census 2010-11 are given below:

- As per Agriculture Census 2010-11, the Gross Cropped Area was estimated at 193.52 million hectare.

- The cropping intensity as per Agriculture Census 2010-11 works out to 1.37 against 1.32 in Agriculture Census 2005-06.
- During 2010-11, 45.74 percent of the net area sown was irrigated.
- As per Agriculture Census 2010-11, 48 percent of the total net irrigated area is accounted by small and marginal holdings, 44 percent by Semi-medium & medium holdings and 8 percent by large holdings.
- Among the various sources, tube-wells emerged as main source of irrigation in 2010-11 followed by canals.
- As per Agriculture Census 2010-11, for 96.74 per cent of operational holdings, entire operated area was located within the village of residence as against 95.64 per cent reported during 2005-06.
- For Phase-III of Agriculture Census

2010-11 (Input Survey 2011-12), processing of data is presently going on.

10.6 Agriculture Census Division is also coordinating the Situation Assessment Survey (SAS) of Agricultural Households, 2013 which is a comprehensive socio-economic study covering farming practices, possession of productive assets, awareness and access to modern technology, resource availability, indebtedness etc. of farmers in the country. The study has been conducted by National Sample Survey Office (NSSO), Ministry of Statistics & Programme Implementation. Funds for the survey were provided by Department of Agriculture & Cooperation. The data collection for the survey has been completed and the key indicators of situation of Agricultural households in India have been released in Decembers, 2014.

CHAPTER 11

Integrated Scheme on Agriculture Marketing (ISAM)

11.1 The Government has been playing an important role in developing Agriculture Marketing system in the country. The Marketing Division of Department of Agriculture and cooperation (DAC) is concerned with policy and programme implementation for Agricultural Marketing. For the remaining period of 12th Plan, the ongoing Central Sector Schemes implemented by the Division were integrated into a new scheme viz. the Integrated Scheme for Agricultural Marketing (ISAM) w.e.f. 01.04.2014. The ISAM has five sub schemes namely (i) Agricultural Marketing Infrastructure (AMI) {the erstwhile schemes of Grameen Bhandaran Yojana (GBY) and the Scheme for Development/Strengthening of Agricultural Marketing Infrastructure, Grading and Standardisation (AMIGS) have been subsumed into AMI sub scheme}, (ii) Marketing Research and Information Network (MRIN), (iii) Strengthening of Agmark Grading Facilities (SAGF) (iv) Agri-business Development (ABD) through Venture Capital Assistance (VCA) and Project Development Facility (PDF) and (v) Ch. Charan Singh National Institute of Agricultural Marketing (NIAM), Jaipur. The first three sub schemes are implemented by Directorate of Marketing & Inspection (DMI), the fourth sub scheme by Small Farmers Agri-Business Consortium (SFAC), New Delhi and fifth sub scheme by NIAM, Jaipur.

11.2 Directorate of Marketing and Inspection (DMI): The Directorate, set up in the year 1935 as an attached office of the Ministry of Agriculture, is responsible

for integrated development of marketing of agricultural and allied produce in the country with a view to safeguard the interests primarily of the producer-sellers as well as of the consumers. It maintains a close liaison between the Central and the State Governments in implementation of agricultural marketing policies in the country.

The Directorate is headed by the Agricultural Marketing Adviser to the Government of India (AMA). It has its Head Office at Faridabad (Haryana), Branch Head Office at Nagpur (Maharashtra), 11 Regional Offices located at Delhi, Kolkata Mumbai, Bhopal, Chennai, Kochi, Hyderabad, Guwahati, Lucknow, Jaipur and Chandigarh, 26 Sub offices spread all over the country, the Central Agmark laboratory at Nagpur and 11 Regional Agmark Laboratories (RALs) at Delhi, Kolkata, Mumbai, Rajkot, Bhopal, Chennai, Kochi, Guntur, Kanpur, Jaipur and Amritsar.

11.3 Major functions of DMI:

- To guide States/UTs on reforms in their Agricultural Marketing Regulations and for development and management of agricultural produce markets.
- Implementation of sub schemes of Integrated Scheme for Agricultural Marketing (ISAM) viz. (i) Agricultural Marketing Infrastructure (AMI) (The schemes of Grameen Bhandaran Yojana (GBY) implemented since 01.04.2001 and Scheme for Development/ Strengthening of Agricultural Marketing Infrastructure,

Grading and Standardization (AMIGS) implemented from 20.10.2004 have been subsumed into Agricultural Marketing Infrastructure (AMI) sub scheme of ISAM w.e.f. 01.04.2014). (ii) Marketing Research and Information Network (MRIN); (iii) Strengthening of Agmark Grading Facilities (SAGF).

- Promotion of Standardization and Grading of agricultural and allied produce under the Agricultural produce (Grading & Marking) Act, 1937 as amended in 1986.
- Marketing Extension including the AGMARKNET portal.
- Training of Personnel in Agricultural Marketing.

11.4 Agriculture Marketing Reforms:

Agriculture Sector needs competitive and well-functioning markets which provide alternative choices to the farmers to sell their produce. In order to remove restrictive and monopolistic practices, reduce the intermediaries in supply chain and enhance private sector investment in development of post harvest marketing infrastructure to reduce wastages and thereby strengthen supply side and to benefit farmers through access to global markets, reforms in agricultural markets have to be an ongoing process. Accordingly, the Ministry of Agriculture formulated a Model APMC Act in consultation with States/UTs, and circulated the same during 2003 and its Rules in 2007 for adoption by the States/UTs.

Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Odisha, Rajasthan, Sikkim, Tripura, Telangana and Uttrakhand have amended their marketing regulations to provide for setting up of private markets,

direct marketing and contract farming. Bihar has repealed its Marketing Act since September, 2006 while Kerala, Manipur, Andaman & Nicobar Islands, Dadra and Nagar Haveli, Daman Diu and Lakshdweep do not have Marketing Acts. Uttar Pradesh, Meghalaya, J&K and Pondicherry have not yet amended their Marketing Regulations. West Bengal has partially amended its Marketing Act. Further, so far, only nine States have notified the amended Rules to implement the amended provisions of their Marketing Acts while Mizoram has partially amended the Rules.

The Department of Agriculture and Cooperation issued advisories on agri-marketing reforms to States to deregulate the trade transactions of fruits and vegetables. Some of the State Governments have issued notification exempting market fees on fruits and vegetables. Madhya Pradesh issued notification on 27.1.2012 exempting market fee on fruits and vegetables (except Banana) on trade transactions outside the market yard. Nagaland has exempted the market fee on fruits and vegetables on 6.8.2013. Karnataka has exempted market fee on Fruits and Vegetables on 4.1.2014 and has imposed service charges. Assam has delisted Fruits and Vegetables from the schedule of the Act on 13.1.2014. Himachal Pradesh has exempted market fees on fruits and vegetables (except apple) on 14.1.2014. Meghalaya has omitted the fruits and Vegetables except potato from the schedule of the Act on 15.1.2014. Haryana has exempted market fee on Fruits and Vegetables on 7.2.2014. The NCT of Delhi by notification dated 2.9.2014, ceased the regulation in respect of fruits and vegetables outside the market yard of APMC, MNI, Azadpur, APMC, Keshopur, APMC, Sahadara.

To take the reform agenda forward, a National Workshop on Agriculture Marketing Reforms and Promotion of E-marketing was held on 26.08.2014 at New Delhi. Subsequently, this department also issued advisories on market reforms on 03.09.2014. Further, Government of India has set up a Group of Experts (GoE) on 07.01.2015 to study the reports of the Committee of State Ministers In-charge of Agricultural Marketing and suggest action plan to implement marketing reforms.

11.5 Agricultural Marketing Infrastructure (AMI) Sub Scheme - The erstwhile schemes of Grameen Bhandaran Yojana (GBY) and the scheme for Development/ Strengthening of Agricultural Marketing Infrastructure, Grading and Standardisation (AMIGS) have been subsumed into AMI sub scheme. Under the AMI sub scheme there are two components (i) storage infrastructure component (ii) component of marketing infrastructure other than storage. The objectives of the AMI sub schemes are (i) to develop agricultural marketing infrastructure for effectively managing marketable surplus of agriculture including horticulture and of allied sectors including dairy, poultry, fishery, livestock and minor forest produce; (ii) to promote innovative and latest technologies in agricultural marketing infrastructure; (iii) to promote competitive alternative agricultural marketing infrastructure by encouraging private and cooperative sector investments; (iv) to promote direct marketing to enhance farmers' income; (v) to promote creation of scientific storage capacity for storing farm produce, processed farm produce and agricultural inputs etc. to reduce post-harvest and handling losses; (vi) to provide infrastructure facilities for grading, standardization and quality certification of agricultural produce ; (vii) to

promote Integrated Value Chains (confined up to primary processing stage only) to provide vertical integration of farmers with primary processors; (viii) to create general awareness and provide training to farmers and other stakeholders on various aspects of agricultural marketing including grading, standardization and quality certification.

Assistance under the AMI sub-scheme is linked to progress of agri marketing reforms in the States/UTs. As such, State Agency projects of only those States/UTs that have undertaken reforms in their respective APMC Acts to allow/permit (i) setting up of agricultural markets in private and cooperative sectors; (ii) allow direct marketing; and (iii) contract farming will be eligible for assistance under the sub-scheme for creation of marketing infrastructure other than storage. However, notwithstanding the reform status, state agencies in all States/UTs will be eligible to avail assistance for storage infrastructure projects.

Projects promoted by private entrepreneurs other than state agencies will however be eligible to avail assistance under the sub scheme irrespective of the reforms undertaken by the State Govts. /UTs in their respective APMC Acts.

The storage infrastructure and other marketing infrastructure projects can be taken up by individuals, Group of farmers/ growers, Registered Farmer Producer Organisation (FPOs), partnership/ Proprietary firms, Companies, Corporations, Non Government Organization (NGOs), Self Help Group (SHGs), Co-operatives, Cooperative Marketing Federations, Autonomous Bodies of the Government, Local Bodies (excluding municipal corporation for storage infrastructure projects), Panchayats, State Agencies

including State Govt. Department and autonomous organisations/State owned corporations such as Agricultural Produce Marketing Committees and Marketing Boards, State Warehousing Corporations, State Civil Supplies Corporations, etc. Assistance for renovation of rural godowns is however, restricted to cooperatives only.

Under the storage infrastructure component of AMI sub scheme for the projects in special category areas of North Eastern States, Sikkim, UTs of Andaman & Nicobar and Lakshadweep Islands & Hilly areas, subsidy @33.33% with a subsidy ceiling of Rs. 1333.2 per tonne with a maximum subsidy ceiling of Rs. 400 Lakhs is extended. For the projects of Registered FPOs, Panchayats, Women, SC & ST, in other areas, subsidy @33.33% with a subsidy ceiling of Rs. 1166.55 per tonne up to 1000 MT and Rs. 1000 per tonne for more than 1000 MT, with a maximum subsidy ceiling of Rs. 300 Lakhs is extended. For all other categories of beneficiaries in other areas, subsidy @25% with a subsidy ceiling of Rs. 875 per tonne up to 1000 MT and Rs. 750 per tonne for more than 1000 MT, with a maximum subsidy ceiling of Rs. 225 Lakhs is extended.

Since inspection of the GBY from 01.04.2001 and up to 31.12.2014, a total number of 35,143 godowns having a capacity of 552 lakh MT have been sanctioned and subsidy of Rs. 1,703 crore has been released. The target for sanctioning of storage capacity in the 12TH plan is 230.00 lakh MT and against this the achievement up to December, 2014 is 235.00 lakh MT.

In respect of agri marketing infrastructure other than storage, for projects in special category areas of North Eastern States, Sikkim, Uttrakhand, Himachal Pradesh, Jammu & Kashmir, Andaman & Nicobar

and Lakshadweep Islands, Hilly and tribal areas, subsidy @ 33.33% with a subsidy ceiling of Rs. 500 lakhs is extended. For the projects of Registered FPOs, Panchayats, Women, SC & ST beneficiaries and their cooperatives, in other areas, subsidy @33.33% with a maximum subsidy ceiling of Rs. 500 lakhs is extended. For all other categories of beneficiaries in other areas, subsidy @ 25% with a maximum subsidy ceiling of Rs. 400 Lakhs is extended.

Since inception of AMIGS from 20.10.2004 upto 31.12.2014 a total of 11,524 projects have been sanctioned and subsidy of Rs. 1193.00 crores has been released. The target for sanctioning of agri marketing infrastructure (other than storage) in the 12th plan is 4000 projects and the achievement against this target up to December, 2014 is 4033.

11.6 Strengthening of Agmark Grading Facilities (SAGF) Sub Scheme: The Agricultural Produce (Grading and Marking) Act, 1937 provides for grading and marking of agricultural and other produce. The Act empowers Central Government to make Rules for (a) fixing grade designation to indicate quality of any scheduled article (b) defining quality indicated by every grade designation and (c) specifying grade designation mark to represent particular grade designation. Standard notified as per provisions of the Act are popularly called Agmark standards. These standards differentiate between quality and 2-3 grades are prescribed for each commodity. Grades help farmers /traders to get prices for their agricultural commodities as per the quality produced by them and consumers get the desired quality.

As on date, 105 Grading and Marking Rules covering 213 commodities, have been notified under the provisions of AP (G&M)

Act, 1937. These include fruit and vegetables, cereals, pulses, oil seeds, vegetable oils, ghee, spices, honey etc. Grading and marking of agricultural commodities is voluntary as per provisions of the Act.

The Central Agmark Laboratory at Nagpur and Regional Agmark Laboratories at Mumbai, Chennai, Kochi, Delhi, Jaipur and Kanpur have been accredited with the National Accreditation Board for Testing and Calibration Laboratories (NABL) as per the International Standard ISO 17025. The accreditation of Regional Agmark Laboratory at Kolkata is in progress.

SAGF scheme supports the programme by meeting expenditure incurred by 11 Regional Agmark Laboratories (RAL) and the Central Agmark Laboratory on purchase of equipment, chemicals, glassware and apparatus, Annual Maintenance Contract (AMC) of the equipments as well as renovation and repair works in the Agmark Laboratories/ Regional and Sub offices.

11.7 Marketing Research and Information Network (MRIN) Sub Scheme: This scheme was launched as Central Sector Scheme in March, 2000 with objective to collect and disseminate information on price, arrival and other market related data for the benefit of farmers and other market stakeholders. DMI implements the scheme in collaboration with Agricultural Marketing Boards/Directorates, APMCs and NIC. Wholesale prices and arrivals information in respect of more than 300 commodities and 2000 varieties are being disseminated through the AGMARKNET portal on daily basis. 3241 wholesale markets have been linked to the portal (<http://agmarknet.nic.in>) and more than 2200 markets have been reporting the data. In addition to price, several other market related information

like accepted standards/grades, labelling, sanitary and phyto-sanitary requirement, physical infrastructure of storage and warehousing, marketing laws, fees payable etc. are being provided.

The price and arrival information is being disseminated in 11 languages. New innovations have been introduced for dissemination of market data through SMS by NOKIA, IFFCO Kisan Sanchar Ltd. etc. at grass root level. An arrangement has also been made for display of arrival and price data through price Ticker Boards set up by the Forward Markets Commission (FMC) at different wholesale markets. The portal also has linkages with various organizations concerned with agricultural marketing. Besides spot price, the portal also provides access to future price, MSP and international commodity price, e-directory of markets, CODEX Standards etc. During the 2014-15 replacement of computers at 280 markets has been undertaken under the Scheme.

11.8 Marketing extension: Quality control programme under Agmark as well as different Plan schemes of the Directorate are given wide publicity through mass media. The information is disseminated through documents, video spots, printed literature, exhibition, conferences, seminars and workshops. The Directorate conducts celebrations for observing National Consumer day on 24th December and World Consumer Day on 15th March by the Field Offices, participates in India International Trade Fair (IITF) from 14-27 November, at Pragati Maidan, New Delhi, AAHAR, the International Food & Hospitality Fair at New Delhi from 10-14 March. The Directorate organises National Agmark Exhibition every year in important cities.

11.9 Training of Personnel in Agriculture Marketing: The Directorate conducts a

number of training programmes related to agricultural marketing for the benefit of in service personnel of State Agricultural Marketing Board/Directorates, APMCs, Cooperatives, etc. of various State Governments/Union Territories. So far, 13004 Agricultural Marketing personnel have been trained since inception till 31.03.2014 under these training programmes. During the current year from 1st April, 2014 to December, 2014 a total of 82 personnel have been trained.

11.10 Small Farmers' Agribusiness Consortium (SFAC): SFAC was set up as a registered society in January, 1994. Currently, the members of SFAC include Reserve Bank of India (RBI), State Bank of India (SBI), Industrial Development Bank of India (IDBI), Export-Import Bank of India (EXIM), Oriental Bank of Commerce, National Bank for Agriculture and Rural Development (NABARD), Canara Bank, National Agricultural Cooperative Marketing Federation of India Limited (NAFED) etc. The mission of the Society is to support innovative ideas for generating income and employment in rural

areas by promoting private investment in agri-business projects.

SFAC is implementing the Central Sector Scheme for Agri-Business Development in association with 38 Commercial Banks as on date for providing (i) Venture Capital to agribusiness projects, and (ii) assistance to farmers / products groups for preparing bankable Detailed Project Reports (DPR). Since the inception of the Scheme, DAC released an amount of Rs. 351.26 crore till 31.12.2014, against which the expenditure of Rs. 318.39 crore had been incurred. SFAC has also assisted 975 agribusiness projects and released Venture Capital Assistance of Rs.303.14 crores generating private and institutional investment of Rs.3808.84 crore, which will provide an assured market to 1.25 lakh farmers for their produce and create direct employment for 58,501 persons. During 2014-15, SFAC has so far achieved the physical target of 125 projects against an annual target of 200.

The Venture Capital Assistance Scheme has been extensively revised during 2014-15 w.e.f. 24.01.2014 to introduce new and



liberalized norms for the 12th Plan. The most significant change is reduction in the qualifying threshold for projects, bringing it down from Rs.50.00 Lakh to Rs.15.00 Lakhs (Rs.10.00 Lakhs for NER and backward regions). This will make the scheme more accessible to entrepreneurs, Farmer Producer Organizations, Cooperatives, SHG federations etc. in Central and Eastern Indian States, where the penetration of the VCA Scheme has been less than satisfactory so far.

SFAC is also taking up the implementation of the Equity Grant and Credit Guarantee Fund Scheme for Farmer Producer Companies which was approved by the Expenditure Finance Committee (EFC) during 2013-14. This scheme will enable registered Farmer Producer Companies to access equity grant to double member equity upto a maximum limit of Rs.10.00 lakhs. The scheme also provides a credit guarantee to financial institutions which extend loans to producer companies without collateral upto Rs.1.00 crore. An outlay of Rs.150.00 crores has been sanctioned during 2013-14 for the Scheme. This is likely to benefit hundreds of newly formed producer companies across the country to increase their equity capital and leverage institutional borrowing from banks. During the Financial Year 2014-15, SFAC has so far sanctioned 7 projects amounting to Rs. 42.60 lakh under Equity Grant Fund.

11.11 Chaudhary Charan Singh National Institute of Agricultural Marketing (CCSNIAM): CCS-NIAM was set up by the Government of India in August 1988 to offer specialized Training, Research, Education and Consultancy in the field of Agricultural Marketing to cater to the needs of agricultural marketing personnel in India as well as from South East Asian Countries. The details of activities undertaken by NIAM during 2014-15 are as follows:

- NIAM conducts training programmes in the field of agricultural marketing and allied areas for senior and middle level officers from various line Departments of State Governments, Cooperatives, Marketing Boards and Agribusiness Entrepreneurs. Besides core training programme, NIAM organizes Farmer Awareness Programmes and skill upgradation programmes to give exposure to the Indian farmers. Buyer Seller Meets organized on various commodities like Organic Produce, Aonla, Flower, Seed Spices and Sericulture at different locations to provide an interactive platform to both buyers and sellers regarding effective marketing practices to augment their potential.
- NIAM entered into a Limited Scope Cooperation Agreement (LSCA) with USAID for organizing three training programmes at CCSNIAM Campus. Each programme is of three months duration for 30 participants (10 each from Malawi, Kenya and Liberia). The first such programme in NIAM was conducted from July 22, 2013 to October 19, 2013, second programme from February 10, 2014 to May 10, 2014 and third programme focusing on Agricultural Marketing Management, from September 15 to December 16, 2014. Under this programme the participants learnt various aspects of Agricultural Marketing and were given exposure to agricultural markets, processing units, co-operatives, warehouses, NGO etc to understand the policies and its implementation.
- **Consultancy assignments** were undertaken on (i) Accreditation of Warehouses across the country (ii) Consultancy assignment on benefits

of accreditation of warehouses (iii) Capacity Building of Officers of APMC / Krishi Upaj Mandi Samiti on Future Trading and Agricultural Commodities (iv) Capacity Building of Officers on accreditation of Warehouse (v) Capacity Building of State and Central Government Officers on Futures Trading and Agricultural Commodities, (vi) Farmer Awareness Programs were undertaken on Future Trading and Agricultural Commodities (vii) Awareness Programme on Price Display (viii) Farmers Awareness Programme on role of Warehousing Development and Regulatory Authority (WDRA) and negotiability of warehouse receipt (ix) Training Programmes were undertaken on New Dimension in Agriculture Marketing.

- **Research Studies** were undertaken on (i) Impact of Accreditation on Negotiability of Warehouse Receipt (ii) Information needs of User Grower of Arid India (iii) An analysis of Factors Responsible for Slow Growth of NWR Finance.
- **Post Graduate Diploma in Agribusiness Management (PGDABM):** NIAM also offers two year PGDABM which has been accorded All India Council for Technical Education (AICTE) approval. NIAM has been rated among top sectoral business schools in the country. The program combines the best of MBA with unique skills required for a career in Agribusiness. The admission for 60 seats of the program is done through a national level examination. The curriculum consists of 38 core courses and over 4 electives comprising 118 credits and covers agribusiness courses like agri-input marketing, farm production

management, extension management & rural marketing and core management subjects like marketing management, financial management and strategic management etc. The programme incorporates case-studies, Industry interaction and lectures by visiting faculty from premier management institutes of the country and summer programme in leading agri-business companies. Since inception, the final placement were of the course has been 100%.

New Central Schemes launched in 2014-15:

11.13 National Agri Tech Infrastructure Fund (ATIF): In pursuance of the Budget announcement 2014, a Central Sector Scheme on Promotion of National Agricultural Market through Agri-Tech Infrastructure Fund (ATIF) for Rs.200 crores has been launched and is to be implemented during 2014-15 to 2016-17. In brief, it is proposed to utilise the ATIF for migrating towards a National Market through implementation of a common platform across all States and its further customization/configuration to take care of the variations in different states.

11.14. Price Stabilisation Fund (PSF): This department has launched the Price Stabilisation Fund (PSF) as a Central Sector Scheme, with a corpus of Rs.500 crores, to advance interest free loans to States and Central/State agencies to support their working capital and other expenses on procurement, storage and distribution operations for perishable agri-horticultural commodities. The intervention is expected to regulate price volatility of agricultural and horticultural commodities both when there is price rise or vice-versa through procurement of farm produce, maintenance of buffer stocks and regulated release into the market.

CHAPTER 12

Integrated Scheme on Agriculture Cooperation (ISAC)

Amendment to the Constitution in respect of Cooperatives

12.1 To ensure the democratic, autonomous and professional functioning of cooperatives, it was decided to initiate a proposal for amendment to the Constitution for the purpose. Accordingly, the Constitution Amendment Bill was introduced in 14th Lok Sabha. However, the same could not be discussed for passing. The Bill lapsed upon dissolution of the 14th Lok Sabha. Thereafter, the Constitution (One Hundred and Eleventh Amendment) Bill, 2009 was introduced in Lok Sabha on 20.11.2009. The Bill was passed in Lok Sabha on 21.12.2011 and in Rajya Sabha on 28.12.2011 as "The Constitution (Ninety Seventh Amendment) Act, 2011" and Hon'ble President of India gave her assent to the aforesaid Act on 12.01.2012. The Act came into force w.e.f. 15.02.2012 vide Gazette Notification dated 08.02.2012.

12.2 The object of the Constitution (Ninety Seventh Amendment) Act, 2011 is to ensure that the cooperative societies in the country function in a democratic, professional, autonomous and economically sound manner. The amendment in the Constitution, inter alia, seeks to empower the Parliament in respect of multi-State Cooperative Societies and the State Legislatures in case of other cooperative societies to make appropriate law, laying down the following matters:

- Right to form cooperative societies as a Fundamental Right by insertion of the words "cooperative societies" in sub clause (c) of clause (1) of Article 19.
- Provisions for incorporation, regulation and winding up of co-operative societies based on the principles of democratic member control, member-economic participation and autonomous functioning.
- Insertion of Article 43B in part IV of the Constitution as Directive Principle of State Policy for Voluntary formation of cooperative societies.
- Specifying the maximum number of director of a co-operative society to be not exceeding twenty-one members.
- Providing for a fixed term of five years from the date of election in respect of the elected members of the board and its office bearers; and an authority or body for the conduct of elections to a cooperative society.
- Providing for a maximum time limit of six months during which a board of directors of co-operative society could be kept under supersession or suspension.
- Providing for independent professional audit.
- Providing for right of information to the members of the co-operative societies.
- Empowering the State Governments to obtain periodic reports of activities and accounts of co-operative societies.
- Providing the reservation of one seat for the Scheduled Castes or the Scheduled Tribes and two seats for women on the board of every cooperative society,

which have individuals as members from such categories.

- Providing for offences relating to co-operative societies and penalties in respect of such offences.

12.3 Amending the State Cooperative Societies Acts in tune with the provisions of the above amendments in the Constitution will not only ensure autonomous and democratic functioning of the cooperatives, but also ensure accountability of management to the members & other stakeholders and also enhance public faith in these institutions. The Constitutional amendment provides for a maximum period of one year from the date of its commencement to amend the state laws relating to cooperative societies, if required, to make them consistent with the provisions of the amendment. So far 15 States, viz. Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Mizoram, Odisha, Rajasthan, Tripura, Uttar Pradesh and West Bengal have amended their State Cooperative Societies Acts in consonance with the constitution (97th Amendment) Act, 2011 through the legislative process; while two States viz. Maharashtra and Tamil Nadu have done so by issuing ordinances. However, in the meantime certain provisions of the Constitution (97th Amendment) Act, 2011 have been struck down by the Hon'ble High Court of Gujarat at Ahmedabad vide order dated 22.4.2013 in WP(PIL) No.166 of 2012. The union of India has filed SLP No. 25266-25267 on 12.7.2013 before the Hon'ble Supreme Court against the aforesaid order.

Assistance for Cooperative Education & Training

12.4 The Government of India has been implementing a Central Sector Scheme for Cooperative Education and training through

the National Cooperative Union of India (NCUI) and National Council for cooperative Training (NCCT) since the 3rd Five Year Plan as a continuing scheme. From the 12th Five Year plan, the scheme of "Cooperative Education and training" and "Assistance to NCDC for development of Cooperatives" has been merged into a single scheme namely "Central Sector Integrated Scheme on Agricultural Cooperation". As per the new scheme 50% of the expenditure will be given as grant in aid to NCUI by Government of India for implementing the special scheme of intensification of Cooperative Education in cooperative developed states/under developed areas of developed states and for approved activities and rest NCUI shall meet from their Cooperative Education Fund. Government of India through NCUI also grants 50% assistance to Junior Cooperative Training Centers which are run by the State Cooperative Unions/State Governments. At present, NCUI is running 43 Cooperative field education projects spread over 22 States/UTs. During the year 2013-14 an amount of Rs. 231.94 Lakhs was released as grants-in-aid to NCUI including Rs. 108.69 lakhs for NE regions. NCUI organized 55039 events and imparted education to 1231778 persons during the year 2013-14.

12.5 The Cooperative training programmes are being conducted by the National Council for Cooperative Training (NCCT) through its 5 Regional Institutes of Cooperative Management, 14 Institutes of Cooperative Management located in different States and Vaikunth Mehta National Institute of Cooperative Management, Pune. NCCT which had been receiving 100% grants-in-aid till the 12th Plan is to meet its requirement from the interest income of corpus fund (the fund which was created during the 10th plan by equal contribution of Rs. 100 crores

by GOI and cooperative movement) and the Government shall meet the gap in the resources as per the budget estimates for the concerned year. An amount of Rs. 600 lakhs was released to NCCT for VAMNICOM component.

12.6 NE Region: The Government of India is implementing a special scheme for intensification of cooperative education in cooperatively under-developed States including the north-eastern region through NCUI. NCUI has established 8 field projects namely Aizawl (Mizoram), Thobal & Imphal (Manipur), Mangalwaria (Sikkim), Shillong (Meghalaya), Kohima (Nagaland), Morigaon and Jorhat (Assam) in the North Eastern region.

12.7 Women Development: Besides the above, stress is given to women development activities with the overall objective of bringing women in the cooperative fold from grass root levels by informal approach and to revitalize and develop women participation in group activities and to improve the socio-economic conditions of women of selected blocks. The Cooperative Education programme for women is being implemented through the State Cooperative Unions in the States of Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Himachal Pradesh, Karnataka, M.P, Mizoram, Odisha, Rajasthan, Tamil Nadu, UP and West Bengal. During the year 2013-14, a total of 16944 women were imparted education under various educational activities. The Cooperative Education programmes for women is being implemented through the State Cooperative Unions in the states of Arunachal Pradesh, Assam, Bihar etc. NCUI is now running 4 exclusive women development projects located at Shimoga (Karnataka), Aska Behrampur (Odisha), Imphal (Manipur) and Bhopal (MP) under

the Special Scheme of Intensification of Cooperative Education in the cooperatively under-developed states. Besides, each field project has got a special women development component. Under this, women are organized into self-help groups which help them to develop thrift habits. Women are also given training to undertake income-generating activities with the help of their own resources or by borrowing from cooperatives. The projects personnel help them in marketing their produce in the local market and by organizing fair/exhibitions.

Helping farmers in getting remunerative price for their produce through Central agencies

12.8 The Department of Agriculture & Cooperation is implementing Price Support Scheme (PSS) for procurement of oilseeds and pulses through NAFED and SFAC at Minimum Support Price (MSP) declared by the Government. The Department is also implementing Market Intervention Scheme (MIS) for horticultural and agricultural commodities generally perishable in nature and not covered under Price Support Scheme, thus, helping the farmers in getting remunerative price for their produce.

Price Support Scheme (PSS)

12.9 The Department of Agriculture & Cooperation implements the PSS for procurement of oil seeds and pulses through National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) and Small Farmers' Agri-Business Consortium (SFAC) which are Central nodal agencies, at the Minimum Support Price (MSP) declared by the government. NAFED is the central nodal agency for procurement of cotton also under PSS. Central agencies undertake procurement of oil seeds, pulses and cotton under the PSS as and when prices fall below the MSP. Procurement under PSS

is continued till prices stabilize at or above the MSP. Losses, if any incurred by central agency in undertaking PSS operations are reimbursed by the central government. Profit, if any, earned in undertaking PSS operations is credited to the central government.

12.10 Achievement under Price Support Scheme (PSS): During the season 2013-14, the prices of various oilseeds and pulses ruled below respective MSP fixed for the relevant marketing season. During this season, NAFED procured agricultural commodities as per the details given below:-

S. No.	Commodity	State	Quantity (in MTs)	Ex-godown value (in Rs. lakhs)
1.	Mustard Seed (Rabi 2014)	Rajasthan	1728.04	527.05
2.	Groundnut Pods (Rabi 2014)	Odisha	6407.60	2491.92
3.	Sunflower Seed (Rabi 2014)	Odisha	338.75	125.34
		Haryana	3814.37	1411.31
		Total	4153.12	1536.65
4.	Urad (Kharif 2013-14)	Maharashtra	3029.60	1302.72
		Uttar Pradesh	1946.77	837.11
		Total	4976.37	2139.83
5.	Toor (Kharif 2013-14)	Maharashtra	24722.00	10630.46
		Andhra Pradesh	21679.76	9322.29
		Total	46401.76	19952.75
6.	Gram (Rabi 2014)	Karnataka	14098.60	4370.56
		Maharashtra	31027.40	9618.49
		Andhra Pradesh	45764.75	14187.07
		Gujarat	3730.56	1156.47
		Rajasthan	179478.20	55638.23
		Madhya Pradesh	37748.55	11702.05
		Uttar Pradesh	2378.95	737.47
		Total	314227.01	97410.34

Market Intervention Scheme (MIS)

12.11 The Department of Agriculture & Cooperation implements the MIS for procurement of horticultural commodities which are perishable in nature and are not covered under the PSS. The objective of intervention is to protect the growers of these commodities from making distress sale in the event of a bumper crop during the peak arrival period when the prices tend to fall below economic levels and cost

of production. The condition is that there should be either at least a 10 percent increase in production or a 10 percent decrease in the ruling market prices over the previous normal year. The Scheme is implemented at the request of a state / UT government which is ready to bear 50 percent of the loss (25 percent in case of North-Eastern States), if any, incurred on its implementation. The extent of total amount of loss to be shared on a 50:50 basis between the central government

and the State government is restricted to 25 percent of the total procurement value which includes cost of the commodity procured plus permitted overhead expenses. Under the Scheme, in accordance with MIS guidelines, a pre-determined quantity at the fixed Market Intervention Price (MIP) is procured by the agencies designated by

the state government for a fixed period or till the prices are stabilized above the MIP whichever is earlier. The area of operation is restricted to the concerned state only. The details of MIS implemented during the year 2013-14 and 2014-15 as on 30.10.2014 are as below:

S. No.	Year	Commodity	MIP (Rs. Per MTs.)	State	Sanctioned Qty. (in MTs.)
1.	2013-14 01.08.2013 to 21.10.2013	C-grade Apple	6,500/-	Himachal Pradesh	27,000
2.	2013-14 01.08.2013 to 31.08.2013	Pineapple	8,500/-	Nagaland	12,675
3.	2013-14 20.02.2014 to 20.03.2014	Potato	3,750/-	Uttar Pradesh	1,00,000
4.	2014-15 01.05.2014 to 16.06.2014	Chilli	4200/-	Mizoram	2,850
5.	2014-15 15.08.2014 to 15.10.2014	'C' Grade Apple	6,500/-	Himachal Pradesh	27,000
6.	2014-15 25.11.2014 to 25.12.2014	Ginger	9,050/-	Nagaland	32,000

National Cooperative Development Corporation (NCDC):

- i. Assistance to NCDC Programmes for Development of Cooperatives: The Department of Agriculture & Cooperation is implementing cooperative development programmes through National Cooperative Development Corporation (NCDC). The Central Sector Integrated Scheme on Agricultural Cooperation (CSISAC), for the remaining period of the 12th Five Year Plan (2013-2017) was approved and commenced its implementations during the year 2014-15. The CSISAC is the result of merger of two erstwhile schemes of 11th Five Year Plan i.e. Restructured Central Sector Scheme for Assistance to National Cooperative Development Corporation (NCDC) Programmes for Development of

Cooperatives and Central Sector Scheme for Cooperative Education & Training. The programmes/schemes being implemented through NCDC are (i) assistance to cooperative marketing, processing, storage, consumer, cooperatives, weaker section programmes of cooperatives, computerization of Primary Agricultural Cooperative Credit Societies, District Central Cooperative Banks, State Cooperative Banks and Technical & Promotional (T&P) Cell for strengthening Management of State Cooperative Federations (ii) Assistance for cotton development including ginning and pressing and establishment of new and modernization/ expansion/ rehabilitation of existing cooperative spinning mills; and (iii) Integrated Cooperative Development Projects in selected districts. Under this scheme,

subsidy is provided by Government of India and the loan is arranged by NCDC through its own sources.

NCDC is a non-equity based development financing institution created exclusively for the cooperative sector with the objective of planning and promoting programmes for production, processing, marketing, storage, export and import of agricultural produce, food stuff and certain notified commodities and services on cooperative principles. With amendment of NCDC Act in 2002, scope of activities of the Corporation has been widened to cover livestock, cottage and village industries, handicrafts, rural crafts and certain notified services besides enabling NCDC to lend directly to cooperative societies on furnishing security to the satisfaction of the Corporation. With notification of additional services like tourism, hospitality, transport, electricity & power, rural housing, healthcare, hospitals and education cooperatives, the scope of NCDC funding has been further broadened. The Central Government has prescribed an overall ceiling of twenty five percent (25%) of annual budget of NCDC for financing all activities under notified services so that focus of NCDC continues on financing of cooperatives in agriculture & allied sector. The rates of interest on NCDC loans ranged between 10.50% and 12.75% during the year. In 2014-15, an assistance of Rs.3684.71 crore has been disbursed (as on 31.12.2014) by the NCDC against approved outlay of Rs.4, 800.00 crore.

ii. **Cooperative Spinning Mills:** In order to improve economic condition

of the cotton growers as well as handloom & power loom weavers and to consolidate the gains achieved so far, the Department, through NCDC, continued to provide financial assistance to the spinning mills & ginning and pressing units in the cooperative sector. Assistance is provided for establishment of new cooperative spinning mills; modernisation/expansion of existing spinning mills, establishment of modern ginning and pressing units, modernisation/expansion of existing units etc. Term loans are met out of funds of the Corporation and subsidy is provided by DAC under this scheme. During the year 2014-15, NCDC released Rs.30.89 crore (as on 31.12.2014) for this component.

iii. **Cooperative Storage and Cold Storage:** The Department of Agriculture and Cooperation (DAC), through NCDC, has been making systematic and sustained efforts to assist cooperatives in creating additional storage capacity aimed at facilitating expanded operations of cooperative marketing of agriculture produce, distribution of inputs and sale of consumer articles. Storage capacity assisted by NCDC stood at 159.96 lakh MT as on 31.03.2014. During the year 2014-15, financial assistance of Rs.42.60 crore (Rs.30.70 crore loan and Rs.11.90 crore subsidy) has been released and of Rs.5.29 crore (Rs.3.89 crore loan and Rs.1.40 crore subsidy) has been sanctioned for the storage programme under the scheme as on 31.12.2014.

NCDC provides financial assistance to the extent of 95% of the block cost to the State Governments for setting

up/ modernization/ expansion/ rehabilitation of cold storages by cooperatives. In the case of direct funding assistance to the extent of 90% is provided. NCDC has also dovetailed its cold storage programme with National Horticulture Board (NHB). In such case quantum of assistance provided by NCDC is reduced by the subsidy available under the Capital Investment Scheme (CIS) of NHB. The scheme provides enhanced back-ended subsidy @ 35% of the project cost for general category and 50% in case of NE, hilly and scheduled areas for storage capacity above 5,000 MT to 10,000 MT at normative cost ranging from Rs.9,500 to Rs.6,800 per MT for different categories of cold storage units as per standards indicated in the Operational Guidelines of Mission for Integrated Development of Horticulture (MIDH). For cold storages having capacity of less than 5,000 MT, the normative cost would be Rs.8,000/ Rs.10,000 per MT for different categories of cold storage units. Such proposals are to be routed through State Horticulture Mission (SHM) and on their recommendation be considered by National Horticulture Mission (NHM) under MIDH. During the financial year 2014-15, assistance of Rs.3.00 crore has been sanctioned to one cold storage project at Mahua Cooperative Cold Storage, Bihar and Rs.3.30 crore has been released to such projects including spillover assistance.

- iv. **Integrated Cooperative Development projects:** NCDC continued to implement Integrated Cooperative Developments Projects (ICDP) scheme in selected districts. During the year 2014-15 (as on 31.12.2014), eleven(11) projects in the States of Jammu &

Kashmir (two), Bihar (five), Tamil Nadu (three) and Kerala (one) with project cost of Rs.677.78 crore have been sanctioned involving NCDC's share of assistance of Rs. 654.96 crore (Rs.531.11 crore as loan and Rs.123.85 crore as subsidy). During the same period, NCDC has released loan assistance of Rs.132.37 crore and subsidy of Rs.30.64 crore totaling to Rs.163.01 crore for ICD projects. The subsidy of Rs.30.64 crore includes Rs.11.73 crore towards expenditure on Project Implementation Team.

- v. **Cooperatives in under developed States:** The process of economic development in the country brought to light certain regional disparities and imbalances in some parts due to inherent factors like topography, agro-climatic conditions and poor infrastructure. During formulation of the 5th Five year Plan, limitation of this approach came to force and as consequence, the concept of cooperatively under-developed States was evolved to ensure balanced regional development. The categorization of States for funding by NCDC was reviewed by the Planning Commission in November, 2004. Accordingly, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh and Goa were also placed under the category of cooperatively under developed states. Similarly Jharkhand, Bihar and Jammu & Kashmir were classified as cooperatively least developed States, in addition to the existing States. Now ten States and two UTs have been categorized as cooperatively under-developed and 11 States as least-developed. During the year 2014-15 (as on 27.10.2014), financial assistance of Rs.1135.18 crore & Rs.193.56 crore has

been sanctioned and released by NCDC to cooperatives in cooperatively least-developed/ under-developed states/ UTs respectively.

- vi. **Development of Women Cooperatives:** NCDC encourages women cooperatives to avail assistance under its various schemes. A large number of women members are engaged & involved in cooperatives dealing with fruits & vegetables, sugarcane processing, consumer stores, handloom, power loom, spinning and services activities etc. Cumulatively, as on 31.03.2014, NCDC had sanctioned and released financial assistance of Rs. 189.67 crore and Rs. 89.88 crore respectively for the development of cooperative societies exclusively promoted by women. This included activities related to Food grain Processing, Plantation Crops, Oilseed Processing, Fisheries, Dairy & Livestock, Spinning Mills, Handloom & Power loom Weaving, Integrated Cooperative Development Projects etc. Out of the 1157 projects / units sanctioned in 2013-14, it is estimated that 5.65 lakh women members are

enrolled, out of which 4418 members are on the Board of Directors. It is estimated that the projects would provide/sustain employment for 1.60 lakh women. The outlay approved for implementing the scheme of Assistance to NCDC Programmes for Development of Cooperatives during the year 2014-15 is Rs.90.00 Crores, out of which Rs.66.00 crores has been released to NCDC as on 31.12.2014.

- vii. **Assistance to Multi State Cooperative Societies (MSCS):** The basic objective of this component is to strengthen the base of the multi-state cooperative societies by providing grants restricted to 90% of the expenditure for the activities such as Promotional, technical and consultancy services / research studies; improvement of infrastructural facilities / office building, premises, conferences / workshops / seminars / trainings, encouraging them to undertake the commercial / economic activities as a measure of their self-reliance and sustained growth and skill development. For the year 2014-15 an outlay of Rs.1.00 crores has been provided for the scheme.



CHAPTER 13

Rashtriya Krishi Vikas Yojana (RKVY)

13.1 **Background:** National Development Council (NDC), in its meeting held on 29th May, 2007 resolved that a special Additional Central Assistance (ACA) Scheme be introduced to incentivize States to draw up comprehensive agriculture development plans, taking into account agro-climatic conditions, natural resources and technology for ensuring more inclusive and integrated development of agriculture and allied sectors. Accordingly, Department of Agriculture & Cooperation (DAC), Ministry of Agriculture, in consultation with the Planning Commission, launched Rashtriya Krishi Vikas Yojana (RKVY) in 2007-2008.

13.2 During 11th Plan, Rs. 22,408.77 crore was released to States & Union Territories (UTs) of which Rs.22,318.44 crore was utilized in implementing projects relating to crop development, horticulture, agricultural mechanization, natural resource management, marketing & post-harvest management, animal husbandry, dairy development, fisheries, extension, etc. During 12th Five Year Plan, an outlay of Rs. 63,246 crore has been earmarked for implementing RKVY, out of which an amount of Rs.15,452.51 crore has been released for implementation of the scheme during 2012-13 & 2013-14 (the first two years of the 12th plan). The allocation for the scheme during 2014-15 is Rs.9,954 crore.

13.3 Based on feedback received from States, experiences garnered during implementation in 11th Plan and inputs provided by Stakeholders; Operational Guidelines of RKVY have been revised

for implementation from 2014-15 not only enhance efficiency and efficacy of the programme but also its inclusiveness during 12th Plan period. The revised Operational Guidelines of the scheme mandated that at least 35% of Normal RKVY allocation should be utilized by the states for implementing Infrastructure and Assets development projects.

13.4 **Objectives:** The main objectives of RKVY Scheme are as under:

- To incentivize the States so as to increase public investment in Agriculture and allied sectors.
- To provide flexibility and autonomy to States in the process of planning and executing Agriculture and allied sector schemes.
- To ensure the preparation of agriculture plans for the districts and the States based on agro-climatic conditions, availability of technology and natural resources.
- To ensure 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.

13.4 Implementation Strategy: RKVY accords flexibility and autonomy to States in planning and executing projects related to agriculture and allied sectors. States are empowered to formulate strategies for development of the agriculture and allied sectors in a holistic way taking into account their agro-climatic conditions so as to effectively address their local needs and priorities, rather than continuing with business as usual mode of “one size fits all” formula. Projects under RKVY cover the entire gamut of activities in the agriculture and allied sectors supplementing ongoing Centrally Sponsored/State Plan Schemes and projects in these sectors. RKVY also emphasizes on convergence through District Agriculture Plans (DAPs) and State Agriculture Plan (SAP) for eliminating overlap of resources & efforts for optimal utilization of funds available through various schemes.

13.5 Besides, planning and execution of projects, RKVY provides complete flexibility and autonomy to States to customize interventions as per local requirements. For a vast country like India with diverse soil & agro-climatic conditions, varying technological capabilities and agronomic practices, RKVY framework has enabled States to plan and chart their own developmental trajectory. At national level, it enables the country to achieve the target of 4% annual growth in agriculture and allied sectors.

13.6 Over the years, RKVY has also facilitated in addressing national priorities, without affecting the autonomy and flexibility of States, through special sub-schemes e.g., Bringing Green Revolution to Eastern India (BGREI), Vegetable Initiative in Urban Clusters (VIUC), Saffron Mission, Vidarbha Intensive Irrigation

Development Programme (VIIDP), Crop Diversification Project, National Mission for Protein Supplements (NMPS) are being implemented as sub-schemes of RKVY during 2014-15.

13.7 Outcome: One of the basic objectives of RKVY is to incentivize investments in agriculture and allied sectors by linking State wise allocation of RKVY funds to the increased share of State Plan Expenditure in agriculture and allied sectors. This has helped in stepping up allocation to agriculture and allied sectors as a percentage of total State Plan Expenditure from 4.88% (Rs 8,770 crore) in 2006-07 to 6.82% (Rs 29,413 crore) in 2011-12 (RE) and 7.05% (Rs. 38,083 crore) during 2012-13(RE). Leveraging higher investments, States have been able to enhance production and productivity of crops and animal husbandry sector. During 11th Plan, States have taken up 5,749 projects across the entire spectrum of agriculture & allied sectors e.g., crop development, horticulture, agricultural mechanization, marketing & post-harvest management, animal husbandry, dairy development, fisheries, extension, etc. Concerted efforts by Centre and States has helped Agriculture and allied sector to achieve an annual growth rate of 4.1% (at 2004-05 prices) during the 11th Plan against 2.46% per annum during 10th Plan period.

13.8 Allocation of Funds to States: RKVY is administered by the Union Ministry of Agriculture. Funds under this scheme are provided to the States as 100% grant by the Central Government.

13.9 Eligibility Criteria for Access to RKVY funds: Following two eligibility conditions are stipulated for States to become and remain eligible for receiving assistance under RKVY:

- The base line share of Agriculture and allied sectors in its total State Plan (excluding RKVY funds) expenditure is at least maintained; and
- District Agriculture Plans (DAP) and State Agriculture Plans (SAP) have been formulated.

13.10 Criteria for Allocation of Funds to States: Allocation of RKVY fund to each of the eligible States from 2014-15 is based on the six parameters as per formula given below:-

Sl. No.	Criteria/Parameter	Weightage
1.	Percentage share of net un irrigated area in a state to the net un irrigated area of all eligible States.	15%
2.	Last three (3) years average area under oil seeds and pulses	5%
3.	State's highest GSDP for agriculture and allied sectors for the past five years.	30%
4.	Increase in expenditure in Agriculture and allied sectors in the previous year over the year prior to that year. (For example, previous year for allocating State's share for 2014-15 would be the year 2012-13 and the year prior to that would be 2011-12).	30%
5.	Increase in Plan and non-plan expenditure made by the States from the State Budgets on Animal Husbandry, Fisheries, Agricultural Research & Education in the previous years over the year prior to that year.	10%
6.	Inverse of Yield gap between state average yield and potential yields as indicated in the frontline demonstration data	10%

13.11 Streams of Funding in RKVY: RKVY funds would be provided to the States as 100% grant by the Central Government in following streams.

- RKVY (Production Growth) with 35% of annual outlay,
- RKVY (Infrastructure and Assets) with 35% of annual outlay;
- RKVY (Special Schemes) with 20% of annual outlay; and
- RKVY (Flexi Fund) with 10% of annual outlay (States can undertake either Production Growth or Infrastructure & Assets projects with this allocation depending upon State specific needs/priorities).

The requirement of minimum allocation of funds to production growth stream has been waived off to boost creation of Infrastructure & Assets. Thus, the States are able to allocate

their entire RKVY Normal allocation to Infrastructure & Assets Stream.

13.12 State Level Sanctioning Committee (SLSC): State Level Sanctioning Committees (SLSCs) have been constituted under the Chairmanship of Chief Secretary with Secretary (Agriculture) of the concerned State/UT as Member Secretary along with other members from allied departments & State Agriculture Universities, Department of Agriculture & Cooperation (GOI), Department of Animal Husbandry, Dairying & Fisheries (GOI), and Planning Commission (GOI). SLSC appraises and approves the projects under RKVY. State Agriculture Department is the nodal Department for implementation of the scheme.

13.13 District and State Agricultural Plans: The RKVY guidelines recognize the need for convergence and integration of the various programmes implemented at

district / State level through Comprehensive District Agriculture Plan (C-DAPs) and State Agriculture Plan (SAP). Several States/UTs have already prepared comprehensive district and State Agricultural Plan for 11th Plan which should be revised and updated appropriately for implementing RKVY during 12th Plan keeping in view modification proposed for the plan period and emerging needs of the State. SAPs will invariably have to indicate resources that can flow from the State to the districts.

Each district is required to formulate a C-DAP taking into account resources available from other ongoing Central or State Plan schemes such as Backward Region Grant Fund (BRGF), Swaranjayanti Gram Swarozgar Yojana (SGSY), National Rural Employment Guarantee Scheme (NREGS) and Bharat Nirman, various tied and united grant from the Central and State Finance Commissions etc.

C-DAPs reflect the financial requirements and the sources of financing the agriculture development plans in a more holistic manner by including animal husbandry and fishery, minor irrigation projects, rural development works, agricultural marketing schemes and schemes for water harvesting and conservation taking into account natural resources and technological possibilities in each district. The DAPs are thereafter integrated to formulate the State Agriculture Plans (SAPs).

13.14 State Agriculture Infrastructure Development Programme (SAIDP): Revised Operational Guidelines of RKVY also mandated that each State to prepare SAIDP in similar manner to that of DAPs and SAPs for identifying shelf of projects for RKVY (Infrastructure & Assets) stream. SAIDP should ideally be consolidation of

requirement of infrastructure identified in DAPs and SAP.

13.15 Status of Preparation of District Agriculture Plans: Preparation of the District Agriculture Plans (DAPs) and the State Agriculture Plan (SAP) is the cornerstone of the strategy of implementation of RKVY. An amount of Rs.54.30 crore was released to the States @ Rs.10 lakh per district for preparation of DAPs under RKVY. Most of the State Governments had prepared the DAPs (602 districts out of 615 districts in the country). 25 States have completed SAPs till date. Status of SAPs/DAPs is at **Annexure-13.1**. The States have been requested to revise DAPs, SAP & prepare SAIDP under new revised guidelines.

13.16 Projects undertaken by States under RKVY: RKVY is designed to focus funds allocation and States' attention to selection of strategy and projects which will best help to generate growth in agriculture and allied sectors. State Governments, keeping in view their priorities, have approved project proposals for implementation under RKVY in wide ranging sectors which include crops, horticulture, organic farming, agriculture/farm mechanization, micro/minor irrigation, watershed development, agriculture marketing and storage, seed farms and soil/fertilizer testing laboratories, animal husbandry, dairy development, fisheries, extension and research, etc. critical infrastructure such as State Seed farms, Soil and Fertilizer testing laboratories, starved over the years due to paucity of funds, got a much needed dose of assistance under RKVY across the States. Aggregate sector-wise cost of projects approved by States during 11th Plan (i.e, 2007-08 to 2011-12) & from 2012-13 to 2014-15 of 12th Plan is given in Annexure-13.2. While, growth in agriculture and allied sector in States cannot be attributed

entirely to RKVY projects as there are many other programmes and policies contributing for it, RKVY has emerged as a principal instrument of development of agriculture and allied sector in States and has indeed accelerated revival of agriculture.

13.17 Sub-Schemes launched under RKVY: RKVY has enabled launching of new schemes/programmes keeping States' flexibility and authority intact. Since 2010-11 several sub-schemes have been introduced under RKVY with focused objectives. Following six special Programme/schemes are being implemented as sub-schemes of RKVY with a total allocation of Rs.1,975 crore for 2014-15.

- **Bringing Green Revolution to Eastern Region (BGREI):** Initiated in 2010-11, BGREI has been targeting productivity improvement in the rice based cropping system of Assam, West Bengal, Odisha, Bihar, Jharkhand, Eastern Uttar Pradesh and Chhattisgarh. Allocation for this scheme in 2010-11 & 2011-12 was Rs. 400 crore each, which has been enhanced to Rs. 1,000 crore during 2012-13, 2013-14 & 2014-15.
- **Vegetable Initiative for Urban Clusters (VIUC):** Launched in 2011-12, VIUC aims at meeting growing demand for vegetables by increasing productivity and improving market linkage. In addition, VIUC envisages establishing an efficient supply chain to provide quality vegetables at competitive prices. The allocation for this programme during 2014-15 is Rs.175 crore.
- **National Mission for Protein Supplements (NMPS):** National Mission for Protein Supplements was launched with an allocation of Rs.300 crore during 2011-12 to promote animal

based protein production through livestock development, dairy farming, piggery, goat rearing and fisheries in selected blocks. The allocation for this programme for 2014-15 is Rs.300 crore.

- **Saffron Mission:** The Scheme was initiated in 2010-11 for revival of Saffron cultivation in Jammu & Kashmir. Allocation for the scheme was Rs. 39.44 crore in 2010-11 and Rs. 50 crore each in 2011-12 & 2012-13. The allocation for this programme has been enhanced to Rs. 100 crore during 2013-14 & 2014-15.
- **Vidarbha Intensive Irrigation Development Programme (VIIDP):** The Scheme was initiated in 2012-13 with an allocation of Rs. 300 crore to bring in more farming areas in Vidarbha region under protective irrigation. The allocation for this programme for 2014-15 is Rs.150 crore.
- **Crop Diversification Programme (CDP) in Original Green Revolution States:** Pursuant to announcement in Union Budget (2013-14), this scheme has been launched in 2013-14 with an allocation of Rs. 500 crore to promote technological innovation and encourage farmers to choose crop alternatives in original green revolution states of Punjab, Haryana and Uttar Pradesh. The allocation for this programme for 2014-15 is Rs.250 crore.

13.18 Monitoring of RKVY: A web-based Management Information System for RKVY (RKVY Database and Management Information System (RDMIS)) has been established to collect and disseminate relevant information and data related to each RKVY project and also to monitor progress and completion details of these projects

over their life cycle. States are entrusted responsibilities' to enter data on approval & implementation of projects under RKVY online in the RKVY website (<http://www.rkvy.nic.in>). RDMIS has been able to provide current and authenticated data on outputs, outcomes and growth impact of projects taken up under RKVY.

13.19 Flagship/Innovative Schemes: States have also taken up several flagship and innovative projects under RKVY, which reflect best practices, innovative approaches and achievements under RKVY. An illustrative list of these projects is at **Annexure-13.3**.

13.20 States have been reasonably prompt in approving projects & incurring expenditure under RKVY. Status of year-wise funds released to the States & their expenditure & utilization status as on 31.12.2014 is given below:

Year	RE	Fund released	Expenditure Reported
2007-08	1263.00	1246.89	1246.79
2008-09	2891.70	2886.80	2880.89
2009-10	3707.07	3760.93	3756.53
2010-11	6722.00	6720.06	6719.02
2011-12	7810.87	7794.09	7716.02
2012-13	8400.00	8400.00	8353.30
2013-14	7089.00	7052.51	6544.70
2014-15	9954.00 (BE)	7851.64	2350.16

13.21 State-wise status of funds released for the years up to 2014-15 and expenditure/ UC status as on **31.12.2014** is given in **Annexure-13.4**.

13.22 Conclusion: RKVY is a transformational jump in evolution of agricultural development schemes from variegated schematic approach followed so far through diverse but strait-jacketed schemes to a completely new approach in agriculture planning by allowing the States to plan their strategy and design appropriate schemes to implement that strategy with complete flexibility in scheme designs and autonomy in its implementation. RKVY has imparted definite momentum to the agriculture sector. Regular activities starved of resources, promising strategies languishing for lack of support, and limited opportunities for experimentation and innovation, have found a new hope in RKVY. States are allocating more funds to agriculture to take up schemes of agriculture development. This is reflected in additional plan allocation to agriculture sector. There is a sense of hope and optimism. Agriculture, which had slid back stage, is making a comeback. One timely policy instrument through RKVY has accelerated revival of agriculture and put it on growth path.

CHAPTER 14

Drought Management

14.1 Department of Agriculture & Cooperation (DAC) is mandated to coordinate relief measures necessitated by drought, hailstorm, pest attack, frost/cold wave. Spatial distribution and quantum of rainfall during South-West Monsoon (June-September) mainly determines the incidence of drought in the country, as South West Monsoon accounts for more than 70% of annual rainfall. Department of Agriculture & Cooperation closely monitors progress of South-West Monsoon in the country, in close coordination with India Meteorological Department (IMD) and keeps a watch over scanty/deficient rainfall conditions.

14.2. The Department has reviewed and updated the Crisis Management Plan (CMP) for Drought 2014 (National) during the current year. The Plan defines roles and responsibilities of various agencies involved in crisis management including media management during drought. CMP, 2014 (National) was circulated to State/UT Governments for preparing their own CMPs.

14.3. State Governments initiate necessary relief measures in the wake of natural calamities including drought from State Disaster Response Fund (SDRF) which is readily available with them. Contribution to SDRF is made by Central and State Governments in the ratio of 3:1 for general category States (18 out of 29 namely, Andhra Pradesh, Telangana, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab

Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal) and in the ratio of 9:1 for special category States (11 out of 29 i.e. 8 North East States namely, Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Tripura, Sikkim and 3 hilly States of Himachal Pradesh, Jammu & Kashmir and Uttarakhand). Government of India supplements the efforts of the State Governments by providing requisite financial and logistic support in the wake of calamities. Additional financial assistance, over and above SDRF, is also provided from National Disaster Response Fund (NDRF) for natural calamities of severe nature as per established procedure and extant norms. Allocation under SDRF has been made on the basis of recommendations of the 13th Finance Commission for a period of 5 years from 2010-11 to 2014-15.

14.4. During the year 2014-15, as per information available till 15th January, 2015, Haryana, Uttar Pradesh, Karnataka & Maharashtra had declared drought in all 21, 44, 9, 22 districts separately. Memoranda seeking central financial assistance from NDRF had been received from the aforementioned States. Inter-Ministerial Central Teams (IMCTs) were constituted to visit the affected areas of the States to assess the loss/damages to crops and recommend appropriate central financial assistance from NDRF.

14.5. Central Research Institute for Dryland Agriculture (CRIDA), Indian Council of Agricultural Research (ICAR) has developed detailed District-wise contingency plans to

provide a broad advisory to farmers at the district level, prescribing alternate strategies in the event of climate variability, by factoring in crops/livestock/aquaculture practices/pattern, soil characteristics, infrastructural facilities, etc. These plans are developed based on certain simulated models for different weather conditions like occurrence of drought, flood, cyclones, frost/cold wave etc. CRIDA has prepared Contingency Plans for 576 districts, till 31.10.2014.

14.6 Government announced certain measures to help farmers deal with challenges posed by delayed posed by delayed and aberrant monsoon 2014 and in the wake of shortfall in sowing of major crops

during Kharif, 2014 such as implementation of Diesel Subsidy Scheme for protective irrigation of crops; enhancement of ceiling on seed subsidy to partially compensate farmers for additional expenditure incurred in resowing and / or purchasing appropriate varieties of seeds; implement of Additional Fodder Development Programme (AFDP) in rain deficit districts as sub-scheme of Rashtriya Krishi Vikas Yojana (RKVY) for ensuring availability of fodder and implementation of appropriate drought mitigating interventions for perennial horticulture crops under Mission for Integrated Development of Horticulture (MIDH) of DAC.



International Cooperation

15.1 Department of Agriculture & Cooperation is the Nodal contact point in Government of India for Food & Agriculture Organization (FAO) and World Food Programme (WFP) of the United Nations. Bilateral Agreement, Memorandum of Understanding (MoU), Protocols and Work Plans with the countries of strategic interest are signed and implemented for furthering cooperation in the field of Agriculture & Allied sectors in coordination with the Ministry of External Affairs and other concerned Ministries and Departments.

Multilateral Cooperation

15.2 **Food & Agriculture Organization (FAO):** India is a founder member of the FAO and has been taking part in all its activities. India makes payment of the annual membership contribution to FAO, and has paid the contribution to FAO for the year 2014. India has been availing services from the FAO from time to time in the form of training, consultancy services, equipments and material in the field of agriculture and allied sectors under its technical cooperation programme (TCP). The details of the major projects which are currently under implementation with FAO assistance are as under:

15.2.1 **Incorporating International Best Practices in the Preparation of Agricultural Outlook and situation Analysis Reports for India: Phase-II:** The project with a total budget of US \$ 919,437 was started in July 2012 and is scheduled to completed in December, 2014.

15.2.2 **Support for piloting intergrated smallholder livestock rearing interventions in two states of India, and documenting and disseminating successful smallholder livestock rearing interventions under the South Asia Pro Poor Livestock Policy Programme:** The project duration is from 2013-15 with total budget of US \$ 385,000.

15.2.3 **Strengthening Agriculture Market Information System (AMIS) globally using innovative methods and digital technology:** The project is running in India, Bangladesh and Nigeria with financial assistance from Bill and Melinda Gates Foundation (BMGF) and technical assistance of FAO. The total budget for the project is US \$ 6,37,513. The project started in May, 2012 for a duration of 36 months.

15.2.4 **Support to the implementation of the Strategy for Fisheries Management for Sustainable Livelihoods (FIMSUL) in Tamil Nadu and Puducherry:** The intermediate project commenced in November, 2013 under FAO's TCP with budget/FAO's contribution of US \$ 417,000 and is scheduled to complete in April, 2015.

15.2.5 **Enhancing Understanding and Implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture in Asia:** The project with a total budget of US\$ 435,000 aims to support 15 Asian countries including India. Project started in July, 2012 for three years duration.

World Food Programme (WFP)

15.3 The World Food Programme (WFP) was set up in 1963 jointly by the United Nations and Food & Agriculture Organization (UN/FAO). India is the member of WFP since its inception. It seeks to provide emergency feeding in places facing acute food insecurity due to natural calamities and man-made causes. Present share of Government of India for a biennium is US \$ 1.92 million towards WFP Pledge Contribution which is used by them to support WFP India Country Programme. India has made full payment to UNWFP for biennium 2013-2014. Besides, GoI makes an annual payment of Rs. 30 lakh to UNWFP 'Country Office towards their Local Operating Cost (LOC).

15.4 Annual meeting of the Country Programme Advisory Committee (CPAC) of WFP India Country Programme (CP) 2014-18 was held on 27th August, 2014 to review/monitor progress of the Country Programme.

15.5 **World Food Day:** World Food Day (WFD) was celebrated throughout the Country on 16th October, 2014 to commemorate the founding day of the FAO and to create public awareness about the plight of the hungry and malnourished people and to take concrete action to tackle and overcome the menace of hunger. This year's theme of WFD was Family Farming : "Feeding the world, caring for the earth".

15.6 **Office of Minister (Agriculture), Embassy of India, Rome:** The Government of India for the purpose of maintaining liaison and coordination with the FAO has nominated the Indian Ambassador in Rome as its permanent representative to the FAO. Keeping in view, the specialized nature and the increasing volume of interaction with

the UN agencies and their associated bodies, an agricultural wing headed by a senior officer of the rank of Joint Secretary to the Government of India with the designation of Minister (Agriculture), EOI, Rome has been set up in the Indian Embassy, Rome. The Minister (Agriculture), EOI, Rome has been designated as India's Alternate Permanent Representative (APR) to the FAO, the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD). The Minister (Agriculture), EOI, Rome represents Indian interests, particularly in the field of agriculture and allied sectors at the meeting of various UN Agencies. The Office of Minister (Agriculture), EOI, Rome is a Subordinate Office under the administrative control of this Department.

Bilateral Cooperation

15.7 **MOU/Agreements/Work Plans:** Department of Agriculture & Cooperation has signed 57 MOUs/Agreements in the field of Agriculture and its allied sectors with 52 countries. However, during the financial year 2014-15, no MOU/Agreement/Work Plan was signed by the Department of Agriculture & Cooperation.

15.8 **Joint Working Group (JWG) Meetings:** During the financial year 2014-15, following JWG meetings were held :

- 1st meeting of India-Suriname Joint Working Group (JWG) on Agriculture was held on 28th July, 2014 in New Delhi.
- 5th meeting of India-Nepal Joint Working Group (JWG) on Agriculture was held in Kathmandu on 14-15 October, 2014.
- 3rd meeting of India-Netherlands Joint Working Group (JWG) on Agriculture was held on 2nd September, 2014 in New Delhi.

15.9 INDO-US Cooperation: National Institute of Plant Health Management (NIPHM), Hyderabad has been collaborating with United States Agency for International Development (USAID) for training purposes and capacity building programmes. National Institute of Agriculture Extension Management (MANAGE), Hyderabad & National Institute of Agriculture Marketing (NIAM), Jaipur are also collaborating with USAID to provide training for national of three African Countries viz. Liberia, Kenya and Malawi under trilateral Cooperation envisaged under MoU with USA. Ten more countries are being included under India-USAID Trilateral Cooperation.

15.10 Strategic Groups: India is a member of multilateral groupings such as G-20 – a forum for global cooperation on international economic and financial issues; IBSA (India, Brazil and South Africa); BRICS (Brazil, Russia, India, China and South Africa); SAARC (South Asian Association for Regional Cooperation); ASEAN (Association of South East Asian Nations); BIMSTEC (Bay of Bengal Initiative for Multi-sectoral Economic & Technical Co-operation) etc.

Others

15.11 Cooperation with International Organizations: India is a member of many International Organizations and the Annual contributions to these International Organizations are being made from time to time as per agreed commitment/agreement. These International Organizations are as under :

- Food and Agriculture Organization of United Nations (FAO).
- World Food Programme(WFP).
- Trust Fund of FAO for Desert Locust in Eastern Region.
- Trust Fund for International Desert

Locust.

- Regional Network on Development of Agricultural Cooperatives (NEDAC).
- Organization for Economic Cooperation & Development (OECD).
- Asia and Pacific Coconut Community (APCC).
- Asia-Pacific Plant Protection Convention (APPPC).

15.12 International Seminars/Workshops/Conferences etc.: During 2014-15 (upto December, 2014), India took part in 122 International Conferences/Meetings/Seminars/Training etc. dealing with various aspects of agricultural development organized by the FAO and other International Organizations.

EXTERNAL ASSISTANCE

15.13 Externally Aided Projects: There are various Projects which are being implemented through this Department in different States of India with the help of external assistance provided by various foreign Agencies/Countries such as World Bank, International Fund for Agriculture Development (IFAD) and Asian Development Bank (ADB). Currently there are six World Bank assisted Projects, one IFAD assisted project and two ADB assisted projects being implemented through this Department.

15.14 World Bank Assisted Projects: Currently there are six ongoing World Bank assisted Projects which are being implemented through this Department. The details are as under:

- (i) **Assam Agricultural Competitiveness Project:** The Assam Agricultural Competitiveness Project became credit effective January 2005 and is scheduled

to end on 15.3.2015. The project aims at increasing the productivity and market access of targeted farmers and community groups to stimulate growth of Assam's agricultural economy. 22 districts are to be covered for infrastructure development. As per data available on CAA&A website, till November, 2013, IDA assistance amounting to XDR 96.33 million, constituting 91.74 percent of the credit amount of XDR 105.00 million had been reimbursed. Additional Financing amounting to XDR 32.60 million (*equivalent to US\$ 50 million) had become credit effective from 27th June, 2012.

(ii) **Himachal Pradesh Mid-Himalayan Watershed Development:** The Himachal Pradesh Mid Himalayan Watershed Development Project became credit effective from January, 2006 and will complete in March 2016. The project aims at prevention of degradation of high potential area, prevention and protection of high biodiversity, improving of accessibility to rural areas and productivity of livestock etc. The project envisages institutional strengthening, watershed development and management, enhancing mountain livelihood opportunities, project management and coordination. An additional financing for Himachal Pradesh Mid-Himalayan Watershed Development became credit effective from 20 November, 2012.

(iii) **Uttar Pradesh Sodic Land Reclamation Project-III:** The Uttar Pradesh Sodic Land Reclamation Project-III became credit effective from July, 2009 and is scheduled to end in December, 2015. The objective under the project will be achieved through reversal

of water-induced land degradation, enhancement of soil fertility and improved provision of agricultural support services. It aims to sustainably reverse the process of land degradation and fertility loss, thus enhancing agricultural productivity. By focusing on the reclamation of land for the poorest section of farmers, the project is expected to contribute significantly to poverty alleviation and improved food/nutrition security in the project areas.

(iv) **Maharashtra Agricultural Competiveness Project (MACO):**

The Maharashtra Agricultural Competiveness Project became credit effective from November 2010 and is scheduled to end in December, 2016. The development objective of the proposed MACP is "to increase agricultural productivity and marketable surplus as well as support competitive marketing arrangements resulting in increased farmer access to market opportunity".

(v) **Rajasthan Agricultural Competiveness Project (RACP):**

Rajasthan Agricultural competitiveness Project (RACP) became credit effective from April, 2012 and is scheduled to end in April, 2019. The development objective of RACP is "to demonstrate at scale the feasibility of a range of distinct agricultural development approaches integrating technology, organization, institution and market innovations across selected regions of Rajasthan, each marked by different agro-ecological, climatic, water resource and social conditions, capable of significantly increasing agricultural productivity and farmer incomes.

(vi) **Uttaranchal Decentralised Watershed Development Project:** Uttaranchal

Decentralised Watershed Development Project (RACP) became credit effective from 30 July, 2004 and is scheduled to end in September 30, 2021. The development objective of the Second Phase of Uttarakhand Decentralized Watershed Development Project for India is to increase the efficiency of natural resource use and productivity of rain fed agriculture by participating communities in selected micro watersheds of the state of Uttarakhand. An additional financing for Uttaranchal Decentralised Watershed Development Project became credit effective from 17 March, 2011.

15.15 International Fund for Agriculture Development (IFAD) assisted Projects:

At present there is only one IFAD assisted project viz. Convergence of Agricultural Interventions in Maharashtra's Distressed Districts Programme. The Project became credit effective from September, 2009 and will end in June 2018. Convergence of Agricultural Intervention in Maharashtra (CAIM) envisages enabling rural poor to fight poverty by developing sustaining means to overcome it, so as to increase their socio economic status, household on-farm and off-farm livelihoods, allowing household to fact production and market risks without falling back in to poverty and distress.

15.16 Asian Development Bank (ADB) assisted Projects: Agribusiness Infrastructure Development Investment Programmes in Maharashtra & Bihar States. The investment program aims to address three main constraints on agriculture growth: (i) outdated technologies and management; (ii) lack of public investment in linking infrastructure (such as roads from production areas to collection points); and (iii)

lack of private investment and management in modern marketing infrastructure (such as cold chains, controlled atmosphere storages, and automated grading).

(i) **Agribusiness Infrastructure Development Programme-1 (Bihar):**

This project became credit effective from July 2012 and will end in June 2018. The objective of the Agribusiness Infrastructure Development Investment Program is to improve physical and institutional linkages along agricultural value chains in select regions of India by catalyzing investment in, and management of, integrated value chains by private sector entities on a PPP basis. As a part of the Agribusiness Infrastructure Development Investment Programme the Project aims to establish and/or strengthen integrated value chains for horticultural high value crops in Muzaffarpur and Nalanda in the State of Bihar.

(ii) **Agribusiness Infrastructure Development Programme-2 (Maharashtra):**

The project became credit effective in January 2012 and will end in December 2015. The objective of the Investment Program is to improve physical and institutional linkages along agricultural value chains in select regions of India by catalyzing investment in, and management of, integrated value chains by the private sector on a PPP basis. As part of the Investment Program, the Project aims to expand agricultural value chains and better integrate small-scale farmers; into integrated value chains in the Nasik and Aurangabad-Amravati regions of the State.

CHAPTER 16

Agricultural Trade

India's Agriculture Trade

16.1 India has emerged as a significant agri-exporter in a few crops viz. cotton, rice, meat, oil meals, pepper and sugar. As per WTO's Trade Statistics, the share of India's agricultural exports and imports in the world agri-trade in 2013-14 were 2.69% and 1.31%, respectively.

16.2 Agricultural exports as a percentage of agricultural GDP has increased from 9.10% in 2008-09 to 14.05 % in 2013-14. During the same period, Agricultural imports as a percentage of agricultural GDP also increased from 3.94% to 5.50%.

Agricultural Exports and Imports

16.3 Export of agricultural commodities has helped producers to take advantage of wider international market which in turn has incentivized their domestic production. Crops exported in large quantities viz.

cotton, soyabean and maize have witnessed significant increase in area coverage and growth rate of production.

16.4 Agricultural exports increased from Rs. 232,000 crore in 2012-13 to Rs. 268,000 crore in financial year 2013-14 registering a growth of nearly 16%. Increase in the value of agricultural exports during 2013-14 was primarily on account of higher exports of marine products, basmati & non-basmati rice, meat & meat preparations, cotton, oil meals spices and guar gum. The share of agricultural exports in India's total exports increased from 13.08% in 2012-13 to 14.17% in 2013-14.

16.5 India's top 10 agricultural export commodities in terms of quantity and value for the year 2011-12, 2012-13, 2013-14 and 2014 (as on November 2014) are given in the table 1 below:

(Quantity in '000' tonne; Value in Rs. Crore)

S. No.	Commodity	2011-12		2012-13		2013-14		2014-15 (As on November, 2014)	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	Marine Products	972	16,585	965	18,841	999	30,617	722	24045
2	Rice -Basmati	3,178	15,450	3,460	19,409	3,757	29,300	2192	17892
3	Meat & Preparations	0	14,111	0	17,903	0	27,247	1006	20169
4	Cotton Raw including Waste	2,004	21,624	2,057	20,277	1,941	22,248	598	6507
5	Rice (Other than Basmati)	3,998	8,659	6,688	14,449	7,019	17,493	5278	13406
6	Oil Meals	7,406	11,796	6,578	16,520	6,564	17,034	2271	4420
7	Spices	936	13,220	1,009	15,365	1,029	15,981	634	10162
8	Paper/Wood Products	0	8576	0	10,385	0	12,529	0	4848
9	Guargam	707	16,524	406	21,287	602	11,734	465	6879
10	Wheat	741	1,023	6,515	10,529	5,560	9,257	2638	4462

Source: commerce.nic.in/eidb

16.6 India's agricultural imports increased from Rs. 100,000 crore in 2012-13 to Rs 105,000 crore in 2013-14 registering a growth of nearly 5%. Increase in value of agricultural imports during this period was primarily on account of imports of vegetable oils, pulses, cashew nuts, spices, sugar and cotton. Share of agricultural imports in the total imports

decreased from 4.10 % in 2012-13 to 3.87 % in 2013-14.

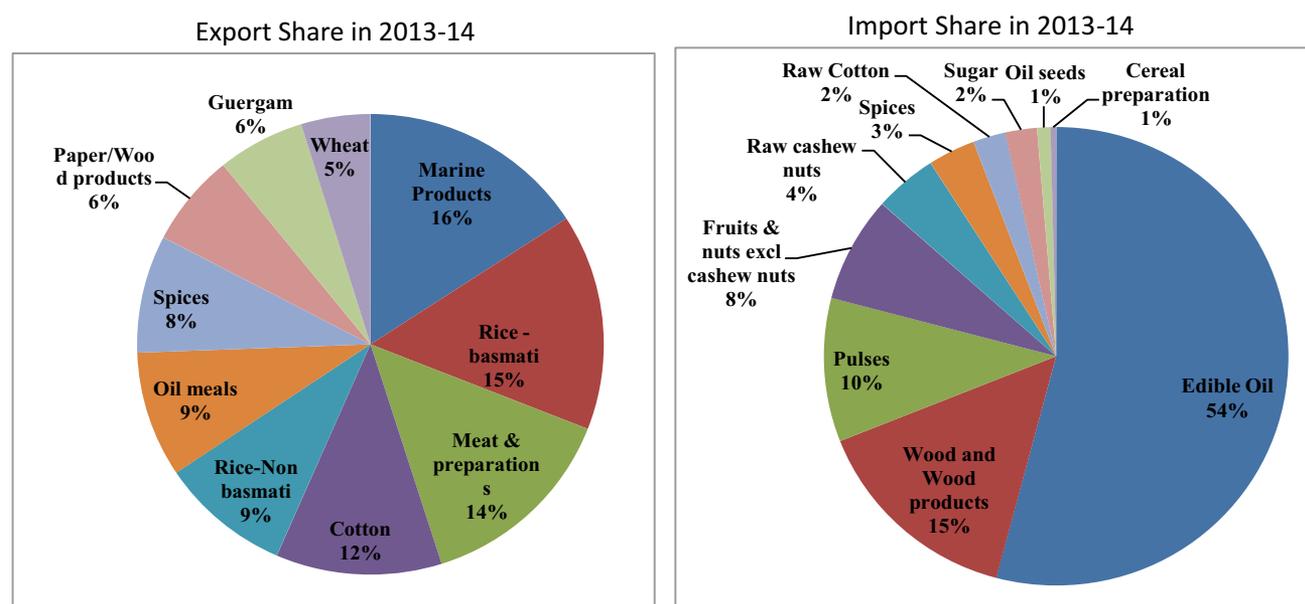
16.7 India's top 10 agriculture import commodities for the year 2011-12, 2012-13, 2013-14 and 2014-15 (as on November 2014) are given in the table 2 below:

(Quantity in 000 tonne, Value in Rs crore)

Sl. No.	Commodity	2011-12		2012-13		2013-14		2014-15 (As on Nov., 2014)	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	Vegetable Oils Fixed (Edible)	8,445	46,255	11,014	61,107	10,434	56,489	7675	40700
2	Wood And Wood Products	0	11,857	0	14,200	0	15,454	0	8453
3	Pulses	3,365	8,931	3,839	12,734	3,049	10,551	2684	9581
4	Fruits & Nuts Excl Cashew Nuts	0	4,658	0	6,298	0	7,778	571	6383
5	Raw Cashew Nuts	810	5,339	892	5,332	771	4,564	791	5325
6	Spices	129	2,191	158	2,615	148	3,431	109	2771
7	Cotton Raw: Comb./Uncomb./Waste	77	1,059	233	2,467	178	2,371	201	2604
8	Sugar	100	314	1,122	3,094	881	2,287	1149	2824
9	Oil Seeds	0	94	0	406	0	974	58	400
10	Cereal Preparation	48	317	52	346	57	404	42	337

Source: commerce.nic.in/eidb

16.8 Share of top 10 exported and imported agri-commodities during 2013-14 is as follows:



Foreign Trade Policy

16.9 India, with a large and diverse agriculture, is among the world's leading producers of rice, wheat, milk, sugarcane, fruits and vegetables. Therefore, changes in its balance sheets for key commodities will have a potentially large impact on world markets. Over the years, India has developed export competitiveness in certain specialized agriculture products viz. basmati rice, guar gum and castor.

16.10 Trade Policy has been amended from time to time on various agricultural commodities in response to domestic availability and price situation. The basic customs duty (BCD) in some agri products was reduced/ removed to encourage domestic manufacture of value added products, to generate employment, and to make exports competitive. To combat undervaluation and protect the interests of domestic farmers and industry, the BCD of some agri products like Sugar and Edible Oil was raised. The duty on sugar was increased from 15% to 25% vide Customs Notification dated 21st August, 2014 and Duty on import of crude and refined edible oils has been raised from 2.5% to 7.5% and 10% to 15%, respectively, vide custom notification dated 24.12.2014.

Foreign Direct Investment (FDI)Policy in Agriculture

16.11 Hundred percent FDI has been allowed in development and production of seeds and planting material. In addition, 100% FDI is allowed for floriculture, horticulture and cultivation of vegetables and mushrooms under controlled conditions. Also, hundred percent FDI is allowed in animal husbandry (including breeding of dogs), pisciculture, aquaculture under controlled conditions and services related to

agro and allied sectors. Similarly, hundred percent FDI is allowed in the tea sector.

16.12 From April 2000 to November, 2014, FDI inflows of Rs. 8,601.32 crores have been received in agriculture sector. The investments were made in development and production of seed and planting material, horticulture and nursery services, agriculture machinery, plant protection services, cattle breeding and livestock rearing, cold storage and warehousing.

Institutional Mechanism for in-house knowledge management

Database on Agricultural Trade

16.13 In order to create a database of India's trade flows (global export and import in value and quantity terms) for all agricultural products, the DAC has hired consultancy services of Consumer Unity & Trust Society (CUTS), Jaipur in October 2014.

16.14 The CUTS, inter alia, is required to:

- analyse database to capture broad export trends, conduct competitiveness analysis of India's agriculture products for exports and identify the tariff lines with (i) high export growth and (ii) other products having export potential.
- analyse the database to capture broad import trends, conduct an analysis of vulnerability of India's agriculture products from imports and identify the products/tariff lines with imports threat that would require duty protection on account of livelihood and food security.
- provide inputs on issues relating to agriculture in World Trade Organization (WTO), other bilateral negotiations relating to trade and any other trade related issue.

Inter-Ministerial Committee (IMC) on Agriculture Trade Issues

16.15 An Inter-Ministerial Committee (IMC) has been constituted in the DAC to discuss agriculture trade related issues and also to assess supply situation of important agriculture commodities with various stakeholders at regular interval.

16.16 The first meeting of the IMC was held on 15th December 2014 under the chairmanship of Secretary (Agriculture & Coop). The Committee emphasized on the expansion of market access to major importing countries by satisfactorily addressing Sanitary and Phytosanitary (SPS) issues and discussed the ways and means to enhance India's export potential by strengthening the existing value chain in a few agri-products.

Commodity Profile

16.17 Trade Division is regularly publishing commodity profiles of six prime agricultural products viz. Rice, Wheat, Pulses, Edible Oil, Sugar and Cotton. The profile gives a snapshot on the trends in production, export, import, price movements and explains trade policy in brief for the commodity concerned.

16.18 The commodity profiles are placed in the public domain and are updated once in each month. These profiles can be viewed by clicking 'Trade' at <http://agricoop.nic.in/divisions.html>

16.19 Chapter-wise export and import data of 380 agriculture tariff lines at six digit HS level indicating bound rate and applied rate from 2009-10 to 2014-2015 (April-Sept) is hosted on the website. (<http://agricoop.nic.in/divisions.html>)



CHAPTER 17

Agricultural Credit

17.1. The Government has taken many policy initiatives for strengthening of farm credit delivery system for providing credit at lower rates of interest to support the resource requirements of the agricultural sector. The emphasis of these policies has been on providing timely and adequate credit support to farmers with particular focus on small and marginal farmers and weaker sections of society to enable them to adopt modern technology and improved agricultural practices for increasing agricultural production and productivity. The policy essentially lays emphasis on augmenting credit flow at the ground level through credit planning, adoption of region specific strategies and rationalization of lending policies and procedures and bringing down the rate of interest on farm loan.

Policy initiatives for increasing the Flow of Credit

17.2 The Government has initiated several measures to galvanize the institutional credit system to make them more responsive to the needs of farmers. Some of the important measures initiated in this regard are as under:-

- Every year agricultural credit target is fixed by the Government and is announced in the annual budget. For the financial year 2014-15, the agriculture credit target is Rs.8,00,000 crore.
- The Government is providing interest subvention to make short-term crop loans upto Rs.3 lakh for a period of one year available to farmers at the interest rate of 7% per annum and in case of timely repayment, the same gets reduced to 4%.
- In order to discourage distress sale of crops by farmers, the benefit of interest subvention has been made available to small and marginal farmers having Kisan Credit Card for a further period of up to six months (post- harvest) on the same rate as available to crop loan against negotiable warehouse receipts
- In order to ensure that all eligible farmers are provided with hassle-free and timely credit for their agricultural operations, the Government has introduced the Kisan Credit Card Scheme, which enables them to purchase agricultural inputs such as seeds, fertilizers, pesticides, etc. and draw cash to satisfy their consumption needs.
- The KCC Scheme has since been simplified and converted into ATM enabled debit card with, inter alia, facilities of one-time documentation, built-in cost escalation in the limit, any number of drawals within the limit, etc., which eliminates the need for disbursement through camps and mitigates the vulnerability of farmers to middlemen.
- To bring small, marginal, tenant farmers, oral lessees, etc. into the fold of institutional credit, Joint Liability Groups (JLGs) have been promoted by banks. To improve the outreach among the poor and the informal sector, the SHG-Bank linkage programme was

intensified. Banks have also been advised to finance Joint Liability Groups and Tenant Farmers' Groups.

- Banks have been advised to simplify the procedure for documentation for agricultural loans.
- The standing guidelines of Reserve Bank of India (RBI) provide for rescheduling of short term crop loans upon declaration of natural calamity including drought. Such rescheduling of crop loans converts them into term loans for which normal rate of interest are applicable. Due to the deficient rainfall in some parts of the country and in order to provide relief to drought affected farmers, it has been decided that in cases where such loan are restructured due to drought, the interest subvention of 2% which is already available for short term crop loans to Public Sector Banks, Cooperative Banks and Regional Rural Banks will continue to be available for the current financial year on the full restructured amount.

17.3 Agriculture Credit Achievement: The target of doubling of the flow of agricultural credit in three years with base year as 2004-05 was achieved in two years. Agricultural credit flow has increased consistently and it reached Rs. 5,11,029 crore during 2011-12 forming 108% of the target and in 2012-13 at Rs.6,07,375 crore against target of Rs.5,75,000 crore forming 106% of the target. Against the target Rs.7,00,000 crore during 2013-14, achievement is Rs.711,621 crore. A target of Rs. 8,00,000 crore has been fixed for 2014-15 and the achievement is Rs.5,45,744.12 crore (provisional) upto December, 2014. Ground Level Agriculture Credit Flow for the last five years is annexed.

17.4 Revival Package for Short Term Cooperative Credit Structure (STCCS):

The Government implemented a package for revival of Short-term Rural Cooperative Credit Structure in the country. The Revival Package was aimed at reviving/strengthening the STCCS and make it a well-managed and vibrant medium to serve the credit needs of rural India, especially the small and marginal farmers. It sought to (a) provide financial assistance to bring the system to an acceptable level of health; (b) introduce legal and institutional reforms necessary for their democratic, self-reliant and efficient functioning; and (c) take measures to improve the quality of management.

17.5 States choosing to participate in the Revival Package were entitled for financial assistance under the package through the mechanism of a formal MOU or Exchange of Letters with the Central Government and NABARD to implement (in a phased manner & within a period of 3 Years), the legal and institutional reforms envisaged. Financial assistance for STCCS under the package was estimated at Rs.13,596 crore to make available for cleansing of Balance Sheet and increasing the capital to a specified minimum level. In order to ensure that the CCS continued on sound financial, managerial and governance norms, technical assistance was also to be provided to upgrade institutional and human resources of the CCS, computerization and building up proper internal control and accounting system. The Package sought to bring down the interference of the State Govts in the credit cooperatives and suitable amendments to the State Cooperative Societies Act and Banking Regulation Act were proposed in the package. These formed part of the important conditionalities to be complied with under the Package.

17.6 Twenty-five State Governments, viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, J&K, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Odisha, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal have signed the Memorandum of Understanding (MoU) with Government of India and NABARD for implementation of the package. This covered more than 96% of the STCCS units in the country. An amount of Rs. 9,245.28 crore was released by NABARD as GoI share for recapitalisation of 52,902 eligible PACS in seventeen States, 1510 ineligible PACS affiliated to 30 CCBs in three States and 13 CCBs in Odisha, while the State Governments concerned released Rs. 855.53 crore as their respective share. As per MoU, the period of implementation was for three years from the date of signing MoU which was extended till 30.06.2011 for all the States. The package was closed on 30.06.2011.

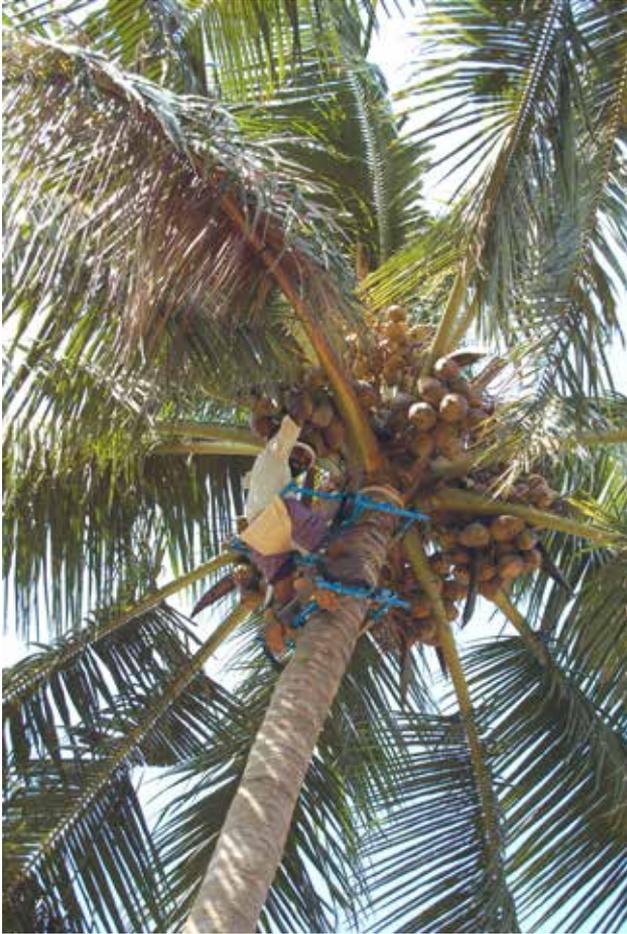
17.7 **Kisan Credit Card:** In order to ensure that all eligible farmers are provided with hassle free and timely credit for their agricultural operation, Kisan Credit Card Scheme for farmers was introduced in 1998-99 to enable the farmers to purchase agricultural inputs such as seeds, fertilisers, pesticides, etc. The Kisan Credit Card Scheme is in operation throughout the country and is implemented by Commercial Banks, Coop. Banks and RRBs. Rs. 12.00 crore KCCs have been issued and Rs. 10.35 crore KCCs are active/operational as on 31.03.2014. The scheme has facilitated in augmenting credit flow for agricultural activities. The scope of the KCC has been broad-based to include term credit and consumption needs. All farmers including small farmers, marginal

farmers, share croppers, oral lessee and tenant farmers are eligible to be covered under the Scheme. There is coverage of risk of KCC holders against accidental death or permanent disability upto a maximum of Rs.50,000 and Rs.25,000 respectively. The salient features of the KCC Scheme are:

- Flexi KCC with simple assessment prescribed for marginal farmers.
- Validity of KCC for 5 years.
- For crop loans, no separate margin need to be insisted as the margin is in-built in scale of finance.
- No withdrawal in the account to remain outstanding for more than 12 months; no need to bring the debit balance in the account to zero at any point of time.
- No processing fee up to a limit of Rs. 3.00 lakh.
- One time documentation at the time of first availment and thereafter simple declaration (about crops raised/proposed) by farmer.



- KCC cum SB account instead of farmers having two separate accounts. The credit balance in KCC cum SB account to be allowed to fetch interest at saving bank rate.
- Disbursement through various delivery channels, including ICT driven channels like ATM/ PoS/ Mobile handsets.



17.8 Rate of Interest on Agricultural Loan: Crop loans up to a principal amount of Rs.3 lakh at concessional rate of interest of 7% is provided to the farmers with 3% interest subvention as incentive to those

farmers who repay their crop loans on time. Thus, the effective rate of interest for such farmers becomes 4% per annum. The interest subvention scheme for short-term crop loans has been continued for the year 2014-15. Government has extended the scheme to crop loans borrowed from private sector scheduled commercial banks in respect of loans given within the service area of the branch concerned.

17.9 Benefit of Interest Subvention against Negotiable Warehouse Receipt:

At present, concessional crop loan @7% with interest rate subvention is available to farmers as pre-harvest loan. However, in case of post-harvest loan against the negotiable warehouse receipts, the farmers are granted loan at commercial rates. In order to discourage distress sale by farmers and to encourage them to store their produce in warehousing against warehouse receipts, the benefit of interest subvention is now available to small and marginal farmers having Kisan Credit Card for a further period of upto six month post harvest on the same rate as available to crop loan against negotiable warehouse receipt for keeping their produce in warehouses.

CHAPTER 18

Gender Perspective in Agriculture

18.1 Gender Mainstreaming initiatives are being promoted in the Department of Agriculture & Cooperation (DAC) Ministry of Agriculture in line with the National Agricultural Policy 2000. National Policy on Farmers 2007 has included “mainstreaming the human and gender dimensions in all farm policies and programmes as one of the major policy goals.” While the main objective of the DAC is to enhance the agricultural production and productivity, Department is also promoting mainstreaming of gender concerns in a big way by incorporating ‘pro-women initiatives’ and earmarking at least 30% of benefits and resources for women under all its major beneficiary oriented Schemes and Programmes.

18.2 A National Gender Resource Centre in Agriculture (NGRCA) has been set up in the Department which acts as a focal point to converge all gender related activities & issues in agriculture & allied sectors within and outside DAC; add gender dimension to agriculture policies & programmes and render advisory/ advocacy services to the States/ UTs to ensure that the policies and programmes in agriculture are fully engendered.

18.3 To bring gender concerns on to the centre stage in all aspects of public expenditure and policy, a Gender Budgeting Cell (GBC) has also been set up in the Department of Agriculture & Cooperation to ensure proportionate flow of the public expenditure to women farmers. Nodal officers/ Gender Coordinators in various Divisions have been sensitized about the

concept of Gender Budgeting. Formats of all major beneficiary oriented schemes of the Department have been revised to generate gender disaggregated data.

18.4 Current Initiatives by NGRCA

- Gender Sensitization Modules (GSM) developed for sensitization of extension functionaries at Senior, Middle and at cutting edge level is being condensed to half a day module so as to ensure its delivery through all ongoing programmes being organized at various Training institutes. MANAGE has accordingly been entrusted with the task of developing this ‘Capsule Module on Gender Learning’ focusing on the practical tips of Gender Budgeting and Accounting and duly roping in the recommendations and the outcome of several Action Research Studies undertaken by NGRCA as well as policy decisions of Ministry of Finance, Ministry of Women and Child Development and Ministry of Agriculture.
- Information on Gender Friendly Tools (GFT)/ equipments used in crop production, crop processing, post harvest management and other allied sectors has been collected from various institutes viz. Central Institute for Agricultural Engineering (CIAE), Bhopal, Directorate of Research for Women in Agriculture (DRWA), Bhubaneswar, Odisha, AICRP Centers on Home Science, College of Home Science and State Agricultural Universities and collated to have a

compendium carrying information on 69 tools/equipments. The compendium is under print in Hindi and English

- Gender desegregated is being maintained under all activities of Sub Mission on Agricultural Extension (SAME) of National Mission on Agricultural Extension and Technology (NMAET).
- To ensure food and nutritional security at the household level, Farm women's Food Security Groups (FSGs) @ 2/Block are in the process of being identified/constituted under ATMA. Besides providing support for small tools, seeds, planting material etc. for setting up backyard food security garden, these FSGs are to be provided support for training, publication and access to inputs as well. This support will be to the tune of @ Rs. 10,000 per group. These FSGs are to serve as "Model Food Security Hubs" through establishing kitchen garden, backyard poultry, goatry, animal husbandry & dairying, mushroom cultivation, etc. A total of 36700 groups are to be supported over the Plan period.
- The Management and Monitoring Committee for Women in Agriculture has been reconstituted to advise and facilitate NGRCA in its task of Gender Budgeting and convergence with various stakeholders within and outside DAC.
- The Gender Budgeting Cell of the Department of Agriculture & Cooperation has been reconstituted to ensure flow of funds to women farmers in proportion to their numbers. Various Schemes have been identified to ensure flow of funds to women.



- A study on “Adoption of Gender Friendly Tools by Women Farmers and its impact on their lives” is under way.
 - As a part of its networking strategies, the NGRCA is committed to initiating appropriate action on the (i) National Plan of Action on the National Policy for Empowerment of Women (NPEW) formulated by Ministry of Women & Child Development (MW&CD) related to Agriculture, (ii) Committee for Elimination of Discrimination Against Women (CEDAW) (iii) National Mission for Empowerment of Women (NMEW) - Convergence and Co-ordination of Government Programmes / Schemes for gender equality and fighting social evils; (iv) India’s Nutrition Challenges.
 - Coordination with various divisions of Ministry from time to time to collate gender disaggregated data on flow of benefits (physical as well as financial) to women farmers, SC/ST farm women under various schemes and strategies being adopted by the divisions for empowerment of women.
 - Being a Nodal agency for Women in Agriculture of DAC, Ministry of Agriculture, the following activities have been taken up:
 - Examining draft Cabinet Notes for various new schemes proposed by Ministry of Rural Development, Women and Child Development from perspective of women in agriculture.
 - Coordination with Central Institute of Agricultural Engineering (CIAE), Bhopal, Directorate of Research on Women in Agriculture (DRWA), Bhubaneshwar and State Agricultural University for documenting Gender Friendly Tools/Technology for wider circulation and collecting information on popularization and adoption among women.
 - Coordination with Ministry of Women & Child Development for inter-sectoral convergence for coordinated efforts for women’s welfare and socio economic development.
 - Facilitating Project Approval Committee for approval and Sanctioning of Project under Mahila Kisan Sashaktikaran Pariyojana (MKSP) and Special Project under Swaranjyanti Gram Swarajgar Yojana(SGSY) skill development.
 - Collecting ‘gender disaggregated data’ in respect of female cultivators/ female agricultural labourers / women engaged in agro related business or activities in the country/ farm women trained/ empowered/ benefited under various schemes & programmes of DAC from time to time for the parliament questions.
 - Preparation of separate chapter on ‘Gender Perspective in Agriculture’ for the Annual Report of DAC, Ministry of Agriculture.
 - Preparation of Gender Related Write-up for the Out Come Budget of DAC, Ministry of Agriculture.
- 18.5 Mainstreaming efforts of various Divisions of DAC:** The important mainstreaming and gender budgeting efforts within various subject matter divisions are briefly given in the succeeding paragraphs.
- (A) **Horticulture:** Under implementation of Mission for Integrated Development of

Horticulture (MIDH) programme during the 12th plan, in the form of one umbrella scheme on horticulture by subsuming other ongoing schemes on horticulture i.e. Horticulture Mission for North East & Himalayan States (HMNEH), National Bamboo Mission (NBM), Central Sector Scheme of National Horticulture Board (NHB), Coconut Development Board (CDB) and Central Institute for Horticulture (CIH), Nagaland, all categories of farmers including women beneficiaries are covered in components like floriculture, beekeeping etc. As per directives of Planning Commission, implementing agencies viz. State Horticulture Missions have been directed to ensure that at least 30% of budget allocation is earmarked for women beneficiaries/farmers. During the current financial year 2014-15 funds to the tune of Rs. 1116.44 crore have been released to the MIDH implementing States. Activities such as floriculture including protected cultivation of flowers, mushroom production and beekeeping are some of the activities which are attractive to women farmers. Besides, under training and capacity building on horticulture, women beneficiaries are extensively covered.

(B) Rashtriya Krishi Vikas Yojana (RKVY): RKVY is a Project oriented State Plan Scheme (in the shape of Additional Central Assistance as 100% grant) and States have been provided flexibility and autonomy in the process of selection, planning approval and execution of the Schemes with an aim to achieve and sustain desired annual growth in Agriculture allied sectors.

(C) Agriculture Extension: The Sub-Mission on Agricultural Extension (SAME) which encompasses both- the Centrally Sponsored and Central Sector extension outreach and ICT initiatives, under its

“Support to State Extension Programmes for Extension Reforms” (ATMA intervention) supports gender concern to a great extent. This initiative is under implementation in 640 districts of 29 States and 3 UTs. The funds under this initiative are being released to the states on the basis of State Extension Work Plan (SEWP) formulated & submitted by them. The gender specific interventions under this initiative include:

- Introduction of Women Food Security Groups (FSG) @ 2 women FSGs/block to ensure food and nutritional security for farm women and her family at the household and community level
- Inclusion of one ‘Gender Coordinator’ in every State in the team of committed extension personnel being supported under the Scheme. The role of Gender Coordinator is to ensure flow of support viz. training/ capacity building and extension support as per the specific requirements of women farmers through a strategy suited to their needs
- At least 30% scheme beneficiaries are to be women farmers/farm women;
- Minimum 30% of resources meant for programmes and activities are required to be allocated to women farmers and women extension functionaries with specific documentation of expenditure and performance for women being maintained;
- Representation of Women farmers in different decision making bodies at State, District and Block level such as State Farmers Advisory Committee (SFAC) at State Level; Agriculture Technology Management Agency(ATMA) Governing Board, ATMA Management Committee(MC) and District Farmer Advisory

Committee (DFAC) at district level and Block Farmer Advisory Committee (BFAC) at Block Level

- Preferential involvement of women as 'Farmer Friends' under the extension delivery mechanism below the block level (@1Farmer Friend/2 Villages)

Since inception of the scheme in 2005-06, total 79,19,373 farm women (24.17% of the total benefited farmers) have participated in farmer oriented activities like Exposure Visits, Training, Demonstrations & Kisan Melas including 4,47,770 women farmers benefited during 2014-15 (up to 31st December, 2014). The operational Guidelines for Modified Support to States for Extension Reforms Scheme, 2014 formulated in May, 2014 carry all provisions favouring women as indicated above.

The Central Sector Scheme "Establishment of Agri-Clinics & Agri-Business Centres (ACABC)" was implemented since April, 2002 with the aim to supplement the efforts of public extension, support agricultural development and create gainful self-employment opportunities to unemployed youths (including women) with qualification in agriculture and allied sectors. The scheme promotes involvement of agripreneurs trained (including women) under the ACABC scheme in providing advisory and extension services to the farmers in agriculture and allied areas. The agripreneurs trained under ACABC scheme are actively engaged in providing advisory and extension services to the farmers on various technologies. There is a provision of credit linked back-ended upfront composite subsidy on the bank loan availed by the trained candidates under the scheme. The subsidy is 44% in respect of women, SC/ST & all categories of the candidates from North-Eastern and Hill States and 36% in

respect of other categories. The subsidy is admissible for loans upto Rs. 20 Lakh in case of individual and Rs. 100 lakh in case of Group Projects (for ventures set up by a group of 5 trained candidates).

Since Inception of the scheme in 2002, 2883 women candidates have been trained and 801 women agri-ventures have been established. Out of these 380 women candidates have been trained and 118 agri-ventures have been established as on 3rd quarter of the year 2014-15 all over the country.

(D) **Crops:** The scheme 'National Food Security Mission (NFSM)' was launched in October 2007-08, targeting three important food grain crops viz. rice, wheat and pulses. Cabinet Committee of Economic Affairs has cleared the continuation of NFSM programme in the 12th Plan with addition of coarse cereals and commercial crops viz. cotton, jute and sugarcane. At the stage of Administrative approval, 30% of budgetary allocation is earmarked for women beneficiaries/farmers. Concerned Implementing Agencies are responsible for monitoring implementation of these components, i.e., allocation of resources for SC/ST/Women beneficiaries.

(E) **Agricultural Marketing:** In order to provide single window approach and user & investment friendly atmosphere, all the ongoing six Plan Schemes implemented during the XI Plan period have been put under one umbrella "**Integrated Scheme for Agricultural Marketing (ISAM)**". It aims to (i) promote agri-marketing through creation of marketing and agribusiness infrastructure including storage, (ii) incentivize agri-market reforms, (iii) provide market linkages to farmers, (iv) provide access to agri-market information and (v) support quality certification of

agriculture commodities. The 12th Plan outlay for ISAM is Rs.4,548.00 crore. ISAM scheme is having five components, namely: (i) Agricultural Marketing Infrastructure (AMI), the objective of this component is to create market infrastructure including Storage Infrastructure and Integrated Value Chain Projects (IVC) [the existing schemes of Grameen Bhandaran Yojana (GBY) and Development/ Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization (AMIGS) has been merged as AMI] (ii) Marketing Research and Information Network (MRIN) (iii) Strengthening of Agmark Grading Facilities (SAGF), (iv) Agri-Business Development (ABD) through Venture Capital Assistance (VCA) and Project Development Facility (PDF) and (v) Training, Research and Consultancy through Choudhary Charan Singh National Institute of Agriculture Marketing (NIAM).

Under Agricultural Marketing Infrastructure (AMI) component, Women are eligible for subsidy @ 33.33% as against 25% for others.

(F) Mission for Integrated Development of Horticulture: Mission for Integrated Development of Horticulture (MIDH) a centrally sponsored Scheme has been approved for implementing during 12th Plan w.e.f. 2014-15 for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. Mission subsumes National Horticulture Mission (NHM), Horticulture Mission for North East & Himalayan States (HMNEH), national bamboo Mission (NBM), National Horticulture Board (NHB), Coconut Development Board (CDB), and Central Institute of Horticulture (CIH), Nagaland.

All categories of farmers including women beneficiaries are covered under NHM. As per directives of Planning Commission, implementing agencies viz. State Horticulture Missions have been directed to ensure that at least 30% of budget allocation is earmarked for women beneficiaries/farmers.

(G) Mechanization and Technology: Taking into consideration of all the factors and challenges coming in the progress of Farm Mechanization, Government of India, Ministry of Agriculture, Department of Agriculture & Cooperation, Mechanization and Technology Division has formulated a Sub Mission on Agricultural Mechanization (SMAM) under the main mission i.e. National Mission on Agricultural Extension and Technology (NMAET) and is implemented w.e.f. 2014-15. The SMAM will provide a suitable platform for converging all activities for inclusive growth of agricultural mechanization by providing a 'single window' approach for implementation with a special focus on women farmers with the following provisions:

- State Governments have been advised to ensure 30% of allocation under the scheme belongs to women beneficiary and also to furnish reports separately in SMAM guidelines.
- 10% more assistance for women beneficiary to procure Agricultural Machinery, implements and equipments.
- In order to reduce the drudgery and increasing efficiency in farm operations, a number of agricultural implements and hand tools suitable for farm women have been developed by Research & Development organizations under ICAR. The list of gender friendly equipments has been sent to all States/

UTs for popularizing them through various schemes of Government.

- During the year 2014-15, 522 women farmers have been trained at FMTTIs till December, 2014.
- List of about 30 identified gender friendly tools/equipments developed by Research & Development Organization for its use in different farm operations has been sent to all States/UTs for popularizing them.

(H) **Seeds:** Sub Mission for Seeds and Planting Material (SMSM) under National Mission on Agricultural Extension & Technology (NMAET) which is being implemented w.e.f. 01.04.2014 with the view to develop/strengthen seed sector and to enhance production and multiplication of high yielding certified/ quality seeds of all agricultural crops and making it available to the farmers at affordable prices and also place an effective system for protection of plant varieties, rights of farmers and plant breeders to encourage development of new varieties of plants. Scheme is also for **Women farmers**. States/implementing agencies are requested to allocate adequate funds/give preference to women farmers. However, no special budgetary provisions for women have been made in the Sub-Mission.

(I) **Cooperation:** From the 12th Five Year plan, the scheme of "Cooperative Education and training" and "Assistance to NCDC for development of Cooperatives" has been merged into a single Scheme namely "Central Sector Integrated Scheme on Agricultural Cooperation". As per the new scheme 50% of the expenditure will be given as grant in aid to National Cooperative Union of India (NCUI) by Government of India for implementing the special scheme of intensification of Cooperative Education in cooperative developed States/under

developed areas of developed States and for approved activities and rest NCUI shall meet from their Cooperative Education Fund. NCUI has under its cognizance Junior Cooperative Training Centers which are run by its State Cooperative Unions/State Governments. At present, NCUI is running 43 projects spread over 22 States/UTs.

Under the modified Scheme, focus is being given to women development activities with the overall objective of bringing women in the cooperative fold from grass root levels by informal approach and to revitalize and develop women participation in group activities and to improve the socio-economic conditions of women of selected blocks. The Cooperative Education programme for women is being implemented through the State Cooperative Unions in the States of Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Himachal Pradesh, Karnataka, M.P, Mizoram, Odisha, Rajasthan, Tamil Nadu, UP and West Bengal. During the year 2013-14, a total of 16,944 women were imparted education under various educational activities. The Cooperative Education programmes for women are being implemented through the State Cooperative Unions in the states of Arunachal Pradesh, Assam, Bihar etc. NCUI is now running 4 exclusive women development projects located at Shimoga (Karnataka), Aska Behrampur (Odisha), Imphal (Manipur) and Bhopal (MP) under the Special Scheme of Intensification of Cooperative Education in the cooperatively under-developed states. Besides, each field project has got a special women development component. Under this, women are organized into self-help groups which help them to develop thrift habits. Women are also given training to undertake income-generating activities with the help of their own resources or by borrowing from cooperatives. The

projects personnel help them in marketing their produce in the local market and by organizing fair/exhibitions.

National Cooperative Development Corporation (NCDC) encourages women cooperatives to avail assistance under its various schemes. A large number of women members are engaged & involved in cooperatives dealing with fruits & vegetables, sugarcane processing, consumer stores, handloom, power loom, spinning and services activities etc. Cumulatively, as on 31.03.2014, NCDC had sanctioned and released financial assistance of Rs. 189.67 crore and Rs. 89.88 crore respectively for the development of cooperative societies exclusively promoted by women. This included activities related to Food grain Processing, Plantation Crops, Oilseed Processing, Fisheries, Dairy & Livestock, Spinning Mills, Handloom & Power loom Weaving, Integrated Cooperative Development Projects etc. Out of the 1,157 projects / units sanctioned in 2013-14, it is estimated that 5.65 lakh women members are enrolled, out of which 4,418 members are on the Board of Directors. It is estimated that the projects would provide/sustain employment for 1.60 lakh women.

The outlay approved for implementing the scheme of Assistance to NCDC Programmes for Development of Cooperatives during the year 2014-15 is Rs.100.00 Crore, out of which Rs.66.00 crore has been released to NCDC as on 31.10.2014.

(J) Policy: The National Policy for Farmers 2007 announced by the Government envisages the following measures aimed at women's empowerment:

- Asset reforms under land, water and livestock for an equitable share to women farmers.

- Better access to inputs and services, science and technology, implements, credit and support services like creches, child care centres, nutrition, health and training.
- Encouragement to women for participating in group activities aimed at achieving economies of scale through farming groups.
- Involvement of women in conservation and development of bio-resources.

(K) Agriculture Census: Gender based data in Agriculture Census is being collected since 1995-96 on the recommendations of Central Statistics Office, Ministry of Statistics and Programme Implementation, New Delhi. The scope of collection of gender based data has been restricted to number of operational holdings, corresponding operated area by different size classes of holdings, social groups (SC, ST and others), and types of holdings (individual, joint and institutional).

Percentage of female operational holdings as per results of various Agriculture Censuses is given in the following table.

Sr. No.	Size Group	2000-01*	2005-06*	2010-11
1	Marginal (Below 1.00 ha.)	11.84	12.60	13.63
2	Small (1.00-2.00 ha.)	10.27	11.10	12.15
3	Semi-Medium (2.00-4.00 ha.)	8.67	9.61	10.45
4	Medium (4.00-10.00 ha.)	6.863	7.77	8.49
5	Large (Above 10.00 ha.)	5.22	6.00	6.78
	All Size Groups	10.83	11.70	12.78

*Excludes Jharkhand



Increase in percentage of female operational holders during different Agriculture Censuses indicates participation of more and more women in operation and management of agricultural holdings in the country.

A brief summary of flow of benefits to women under various schemes/programmes of the DAC is given in **Annexure 18.1**.

The Way Forward: In line with the National Agricultural Policy-2000 and specific intervention by DAC in National Policy of Farmers-2007, Department of Agriculture & Cooperation (DAC), Ministry of Agriculture is making conscious efforts to mainstream gender concerns in agriculture and allied

sectors along with capacity building of women, improving their access, control and ownership over productive and other farming resources. As per the Directives of Planning Commission, from 1997-98 onwards, the States have been directed to ensure flow of funds to the tune of 30% for the benefit of women farmers under all the beneficiary oriented schemes. Efforts are also being made for the convergence of different schemes and programmes being implemented by various Ministries/ Departments for the benefit of women and strengthening the gender are budgeting and mainstreaming initiatives for the welfare of rural women.

ANNEXURE - 2.1

Functions and Organizational Structure

List of Functional Divisions in the Department of Agriculture and Cooperation

Divisions:

- | | |
|---------------------------------|-------------------------------------|
| 1. Administration | 15. Integrated Nutrients Management |
| 2. Agricultural Census | 16. International Cooperation |
| 3. Agricultural Marketing | 17. Mechanization and Technology |
| 4. Budget, Finance and Accounts | 18. Natural Resource Management |
| 5. Credit | 19. Oil Seeds |
| 6. Cooperation | 20. Plant Protection |
| 7. Crops | 21. Policy |
| 8. Drought Management | 22. Plan Coordination |
| 9. Economic Administration | 23. RKVY |
| 10. Extension | 24. Rainfed Farming System |
| 11. General Coordination | 25. Seeds |
| 12. Hindi | 26. Trade |
| 13. Horticulture | 27. Vigilance |
| 14. Information Technology | |

Functions and Organizational Structure

INVENTORY OF FIELD FORMATIONS

I. Attached Offices

1. Directorate of Economics & Statistics, Shastri Bhavan, 'B' Wing, New Delhi.
2. Commission for Agricultural Costs and Prices, Shastri Bhavan, 'F' Wing, Second Floor, New Delhi.
3. Directorate of Plant Protection, Quarantine and Storage, N.H.IV, Faridabad (Haryana).
4. Directorate of Marketing & Inspection, N.H.IV, Faridabad (Haryana).
5. Mahalanobis National Crop Forecast Centre, New Delhi.
6. Directorate of Jute Development, 234/4, Acharya Jagdish Bose Road, Nizam Palace Campus, Kolkata-700020 (West Bengal).
7. Directorate of Millets Development, Mini Secretariat Building, Room No. 710, 6th Floor, Bani Park, Jaipur (Rajasthan).
8. Directorate of Sugarcane Development, 8th Floor, Hall No.3, Kendriya Bhavan, Aliganj, Lucknow - 226024 (U.P).
9. Directorate of Rice Development, 191, Patliputra Colony, Patna-800013 (Bihar).

II. Sub-Ordinate Offices

1. Central Farm Machinery Training & Testing Institute, Budni (Madhya Pradesh).
2. Northern Region Farm Machinery Training & Testing Institute, Hissar (Haryana).
3. Southern Region Farm Machinery Training & Testing Institute, Garladinne, Distt. Anantapur (A.P).
4. North Eastern Region Farm Machinery Training & Testing Institute, Biswnath Chariali, Distt. Sonitpur (Assam).
5. Directorate of Cotton Development, 14, Ramjibhai Kamani Marg, Ballard Estate, P.B.No. 1002, Mumbai-400030 (Maharashtra).
10. Directorate of Wheat Development, CGO Building, Hapur Road Chauraha, Kamla Nehru Nagar, Ghaziabad (U.P).
11. Directorate of Extension, Krishi Vistar Bhavan, Dr. K.S. Krishna Marg, IARI Campus, Pusa, New Delhi-110 012.
12. Directorate of Oilseeds Development, Telhan Bhavan, Himayat Nagar, Hyderabad (A.P).
13. Directorate of Pulses Development, 8th Floor, Vindhyachal Bhavan, Bhopal-462004 (M.P).
14. Central Fertiliser Quality Control & Training Institute, N.H.IV, Faridabad (Haryana).
15. National Centre of Organic Farming, C.G.O. Complex, Kamla Nehru Nagar,

- Hapur Road Chungi, Ghaziabad (U.P).
16. Directorate of Cashewnut and Cocoa Development, M.G. Road, Kochi-682011 (Kerela).
 17. Directorate of Arecanut and Spices Development, Cannanore Road, Kozhikode-673005 (Kerela).
 18. Office of the Minister (Agriculture), Embassy of India, ROME (ITALY).
 19. All India Soil and Land Use Survey, IARI Campus, Pusa, New Delhi-110 012.
 20. National Seed Research & Training Centre (NSRTC) VARANASI (U.P.).
 21. Central Institute of Horticulture, Medziphema, Nagaland.

Functions and Organizational Structure

I. PUBLIC SECTOR UNDERTAKING

National Seeds Corporation, New Delhi.

II. AUTONOMOUS BODIES

1. Coconut Development Board, Kochi (Kerala).
2. National Horticulture Board, Gurgaon (Haryana).
3. National Cooperative Development Corporation, New Delhi.
4. National Oilseeds and Vegetable Oils Development Board, Gurgaon (Haryana).
5. Small Farmers' Agri Business Consortium, New Delhi.
6. National Institute for Agricultural Extension Management, Hyderabad (A.P).
7. National Institute of Agricultural Marketing, Jaipur (Rajasthan).
8. National Institute of Plant Health Management, Hyderabad (A.P.)
9. National Centre for Cold Chain Development, Nirman Bhawan, New Delhi.

III. NATIONAL LEVEL COOPERATIVE ORGANISATIONS

1. National Cooperative Union of India, New Delhi.

2. National Agricultural Cooperative Marketing Federation of India Limited, New Delhi.
3. National Federation of Cooperative Sugar Factories Ltd., New Delhi.
4. National Heavy Engineering Cooperative Ltd., Pune (Maharashtra).
5. National Federation of Urban Cooperative Banks and Credit Societies Ltd., New Delhi.
6. The All India Federation of Cooperative Spinning Mills Ltd., Mumbai (Maharashtra).
7. National Cooperative Agriculture and Rural Development Banks Federation Ltd., Mumbai (Maharashtra).
8. National Federation of State Cooperative Banks Ltd., Navi Mumbai (Maharashtra).
9. National Federation of Labour Cooperatives Ltd., New Delhi.
10. National Cooperative Tobacco Growers' Federation Ltd., Anand (Gujarat).

IV. AUTHORITY

Protection of Plant Varieties and Farmers' Rights Authority, NASC Complex, DPS Marg Opp. Todapur, Delhi-110012.

Annexure- 2.4**Results: Framework Document (RFD) 2013-14**

(Period: From April 1, 2013 – March 31, 2014)

Part - I**Section 1 : Department's Vision, Mission, Objectives, and Functions****1. Vision**

To enhance productivity and production of agricultural commodities to ensure the food, nutritional and livelihood security of the nation and also to make agriculture a sustainable and viable vocation for livelihood support by 2020.

2. Mission

To achieve 4 percent growth rate for agriculture sector during the 12th Plan, with the help of various State Governments and other Departments concerned in the Government of India by enhancing agriculture production & productivity and improving income level of all farmers by successful implementation of various new initiatives and agriculture missions/schemes such as National Food Security Mission, National Horticulture Mission, National Mission on Oil Seeds and Oil Palm, National Mission for Sustainable Agriculture, National Mission on Agricultural Extension & Technology, Integrated Scheme for Farmers Income Security, Integrated Scheme on Agriculture Marketing, etc. to thus ensure food, nutritional and livelihood security.

3. Objectives

1. Increasing Crop production and Productivity thereby ensuring food security and enhanced income level to farmers

2. Incentivizing states to enhance public investment in Agriculture & allied sectors to sustain and maintain capital formation and agriculture infrastructure
3. Diversification in Agriculture for increased income generation
4. Ensuring supply of agricultural inputs for enhanced production and productivity
5. Facilitate Plant Protection, Quarantine and Residue Management
6. Dissemination of technology / information to farmers
7. Enhancing Soil health and promotion of resource conservation technology for sustainable agriculture
8. Improving credit flow, market infrastructure, and risk mitigation
9. Maintaining Agricultural statistics to aid policy development
10. Drought Preparedness and Grant of relief under State Disaster Response Fund (SDRF) /National Disaster Response Fund (NDRF)
11. Encouraging private investment in Agriculture through PPP mode

4. Functions

1. Endeavoring to ensure adequate and timely supply of inputs and services such as agricultural credit, fertilizers,

- pesticides, seeds and implements to farmers.
2. Administering the National Agriculture Insurance Scheme (NAIS) and other Crop insurance schemes to provide relief to farmers in the event of crop failure.
3. Laying down Minimum Support Prices (MSPs) for select key agricultural commodities to ensure food security and remunerative prices for farmers.
4. Developing suitable strategies for rainfed farming through people's participation for a holistic and integrated development of potential watersheds, and promotion of a farming system approach for augmenting the income and nutritional level of farming Communities.
5. Assisting the States in the management of drought and undertaking scarcity relief measures.
6. Endeavoring to bring about the integrated development of markets for agricultural produce to safeguard the economic interests of the farming community.
7. Assisting the State Governments to improve agricultural extension services by adopting new institutional arrangements through the involvement of NGOs, farmers, organizations and agricultural universities.
8. Promoting plant protection measures and practices through dissemination of appropriate information and technology.
9. Working towards promoting measures for production of quality seeds and distribution of improved plant varieties.
10. Strengthening the cooperative movement through appropriate policy measures and also through organizations such as the National Cooperative Development Cooperation (NCDC), National Agricultural Cooperative Marketing Federation of India Limited (NAFED) and National Cooperative Union of India (NCUI).
11. Phyto - sanitary responsibilities, statutory and mandatory functions like international negotiations.

Part II

Section 2: Inter se Priorities among key objectives, success indicators and targets
Result-Framework Document (RFD) of the Department of Agriculture and Cooperation for the Year 2013-14

Col.1 Objective	Col.2 Weight	Col.3 Actions	Col.4		Col.5 Weight	Col.6					
			Success Indicator	Unit		Excellent	Very Good	Good	Fair	Poor	
1. Increasing Crop and Production to ensure food security and enhanced income level to farmers	15.50	Preparation allocations State action 2013-14	Food grain production	Approval by 31.05.2013	Date	100%	90%	80%	70%	60%	
				% of funds (R.E.) released by 31.03.2014	Percent	31.05.13	05.06.13	10.06.13	15.06.13	20.06.13	
		Release of funds States/Institutions				3.00	95	85	75	65	60
		Additional foodgrain production	Additional production of 5 Million tonnes over year (5 year moving average)	Million tonnes	5	4.8	4.6	4.4	4.2		
		Area expansion of pulses by promoting pulse cultivation in rice fallows, as well as intercrops and summer crops	Increase in area by 1.5 lakh ha. over 5 year moving average	Area	1.5	1.3	1.25	1.1	1		
2. Incentivizing states to enhance public investment in Agriculture & allied sectors	9	NFSM Impact Evaluation Studies	completion of evaluation study by independent external agency and submission of report	Date	2	30.11.13	30.12.13	31.01.14	28.02.14	31.03.14	
		Monitoring and review of BGREI programme in all 7 States	State visits twice a year	No. of visits	2	14	10	8	6		
		Incentivize states to make additional allocation in Agriculture & Allied sectors	Increase in percentage points of States' Plan expenditure in Agriculture and allied sectors as per Point No. 3 of Annexure-II of RKVY Guidelines	Percentage points	4	0.25	0.2	0.15	0.1	0.05	
		Release of Stream 1 funds	Average value of number of days for all States after receipt of SLSC meeting minutes	Number	2	30	50	55	60		

		Area expansion under sprinkler irrigation	Area covered	Lac hectares	1.5	2.55	2.29	2.04	1.78	1.53
		Monitoring and Evaluation	Number of field Visits by the Joint Inspection Teams	Number	0.5	20	18	16	14	12
4. Ensuring supply of agricultural inputs for enhanced production and productivity	8.00	Seeds								
		Distribution of certified and quality seed	Quantity of Certified and quality seed distributed	Lakh qtls.	3.00	300	270	240	210	180
		Mechanisation & Technology								
		Organize training programmes for farmers, technicians, trainers, entrepreneurs, manufacturers and officials from State Governments at FMTTIs	Number of persons trained	Number	2.50	6000	5400	4800	4200	3600
		Testing of tractors, power tillers, combine harvesters and other agricultural machines /implements for performance evaluation and quality up-gradation at FMTTIs	Number of machines tested	Number	2.50	175	165	155	145	135
5. Facilitate Plant Protection, Quarantine and Residue Management	7.50	Plant Protection								
		Conducting regular pest surveillance and monitoring to assess pest / disease situation and timely advice of IPM measures	Area covered	Lakh hectares	2.00	8.97	8.07	7.18	6.28	5.38
		Popularising IPM approach under Farmers Field School (FFS) on IPM	Number of FFSs conducted	Number	1.00	770	693	616	539	462

		Monitor pesticide residues in agricultural commodities and focus IPM efforts in identified areas	% of samples tested against target	Percent	1.00	90	81	72	63	54
		Computerization of PQ Stations	Issue of PSC/IP as % of online applications received	Percent	2.00	95	85.5	76	66.5	57
		Computerization of Central Insecticides Board and Registration Committee (CIB and RC)	Time taken for Disposal of online applications of registration of insecticides under Section 9(4), 9(3)	Number	1.50	120	135	150	165	180
6. Dissemination of technology / information to farmers	9	Extension & IT								
		Training of Farmers	Number of farmers trained through ATMA	No. of Farm Schools organised	1.25	15.0	13.5	12.0	10.5	9.0
			Farmers' training under Farm Schools(Farmer to Farmer Extension)	Number of reports	1.00	13500	12150	10800	9450	8100
		Evaluation study	Number of States where evaluation study, including quality of training, to be conducted	Number of reports	0.25	4	3	2	1	0
		Training of Extension Personnel in PGDAEM by MANAGE (one year)	Training for one year	Number of successful trainees	2.00	1585	1426	1268	1109	951
		Training of Agriculture Graduates/ setting up of agri-ventures	Training of candidates	Number of trainees	1.00	4000	3600	3200	2800	2400
			Ventures set up by the candidates	Number of Ventures setup	1.00	1530	1377	1224	1071	918
		National e-Governance Plan - Agriculture (NeGPA)	Launching of Central Agriculture Portals and State Agriculture Portals	Number of Portals	2.50	7	6	5	4	3
		National Mission on Sustainable Agriculture								

7. Enhancing Soil health and promotion of resource conservation technology for sustainable agriculture	4.00	Establishment and Strengthening of Soil Testing laboratories	Number of static/ mobile labs sanctioned and upgradation approved	Number	2.50	50	40	35	30	25
		Quality control of Organic Manure, Bio-Fertilizers and fertilizers	Number of Samples tested	Number	1.50	8500	7650	6800	5950	5100
		Credit and Insurance								
8. Improving credit flow, market infrastructure, and risk mitigation	9.00	Flow of credit for agriculture	Amount of credit flow as % of target	Percent	2.50	95	90	85	80	75
		Implementation of NAIS, MNAIS and WBCIS during 2013-14	Timely issuance of Administrative approval of schemes	Date	2.50	01.04.13	07.04.13	15.04.13	22.04.13	30.04.13
		Marketing Infrastructure								
		Construction & Renovation of Rural Godowns (Rural Godown Scheme)	Capacity created	Lakh MT	2.50	40	36	30	24	20
		Implementation of AMIGS scheme	Projects cleared	Number	1.50	400	370	340	300	250
		Dte. of Economics & Statistics								
9. Maintaining Agricultural statistics	5.00	Preparation of 3rd Advance Estimates of foodgrain production for an agricultural year	Timely Completion	Cutoff date	1.00	30.04.13	15.05.13	30.05.13	14.06.13	29.06.13
		Preparation of 4th Advance Estimates of foodgrain production for an agricultural year	Timely Completion	Cutoff date	1.00	20.07.13	05.08.13	20.08.13	04.09.13	19.09.13
		Preparation of 1st Advance Estimates of foodgrain production for an agricultural year	Timely Completion	Cutoff date	1.00	30.09.13	15.10.13	30.10.13	14.11.13	29.11.13
		Preparation of 2nd Advance Estimates for an agricultural year and Final Estimates of foodgrain production for the previous agricultural year	Timely Completion	Cutoff date	1.00	15.02.14	25.02.14	05.03.14	15.03.14	25.03.14

Administrative Reforms	6.00	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	Percentage	1.00	100	95	90	85	80
		Implement ISO 9001 as per the approved action plan	% of implementation	Percentage	2.00	100	95	90	85	80
		Implement Innovation Action Plan (IAP)	% of agreed milestones achieved	Percentage	2.00	100	95	90	85	80
		Identification of core and non-core activities of the Department as per 2 nd ARC recommendations	Timely submission	Date	1.00	01.10.13	15.10.13	30.10.13	10.11.13	20.11.13

Part II

Section 3: Trend values for Actions and Success Indicators
Results-Framework Document (RFD) of the Department of Agriculture and Cooperation for the Year 2013-14

Objective	Actions	Success Indicator	Unit	Actual Value FY11/12	Actual Value FY12/13	Target Value FY13/14	Projected Value FY14/15	Projected Value FY15/16
Food grain production								
Crop production and Productivity to ensure food security and enhanced income level to farmers	Preparation of tentative allocations & approval of State action plans for 2013-14	Approval by 31.05.2013	Date	31.05.11	31.05.12	31.05.13	31.05.14	31.05.15
	Release of funds to States/ Institutions	% of funds (R.E.) released by 31.03.2014	%	98	NA	90	90	90
	Additional foodgrain production	additional production of 5 Million tonnes over year (5 year moving average)	Million tonnes	-	12.59	5.0	5.2	5.4
	Area expansion of pulses by promoting pulse cultivation in rice fallows, as well as intercropping and summer crops	Increase in area by 1.5 lakh h.a. over 5 year moving average	Area	-	-	1.5	1.75	2.00
	NFSM Impact Evaluation Studies	completion of evaluation study by independent external agency and submission of report	Date	-	-	30.11.13	-	-
	Monitoring and review of BGREI programme in all 7 States	State visits twice a year	No. of visits	10	12	14	14	15
Rashtriya Krishi Vikas Yojana (RKVY)								
2. Incentivizing states to enhance public investment in Agriculture & allied sectors	Incentivise states to make additional allocation in Agriculture & Allied sectors	Increase in percentage points of States' Plan expenditure in Agriculture and allied sectors as per Point No.3 of Annexure -II of RKVY Guidelines	Percentage points	0.90	NA	0.25	0.25	0.25
	Release of Stream 1 funds	Average value of number of days for all States after receipt of SLSC meeting minutes	Number of days	21	NA	30	30	30
	Monitoring performance of States	Performance of States reviewed by visits to the States and through ensuring projects data entry in web based RKVY MIS by States.	Number of visits	28	NA	26	27	27

Oil Seeds/Oil Palm Component of ISOPOM		Percent							
3. Diversification in Agriculture for increased income generation	Utilisation/Release of funds allocated under ISOPOM	% of funds (R.E.) released by 31.03.2014	99						
	Enhancing production of oilseeds for increased availability of edible oils	Production of nine oil Lakh tonnes seeds	-						
	Monitoring and Evaluation of ISOPOM	Organize meetings field visits	34						
	NHM & HMNEH								
	Area expansion under horticultural crops and rejuvenation of senile gardens	Additional area covered	2.46						
	Additional production	Horticulture	-						
	Establishment of nurseries and their accreditation	Total no. of established	117						
	Sanction of projects for PHM / Market / Others	Total number nurseries Accredited	-						
		No. of projects sanctioned	567						
	Micro Irrigation								
	Micro Irrigation	area covered in lac hectares	3.40						
	Area expansion under sprinkler irrigation	area covered in lac hectares	2.95						
	Monitoring and Evaluation	Number of field Visits by the Joint Inspection Team	17						
	Seeds								
4. Ensuring supply of agricultural inputs for enhanced production and productivity	Distribution of certified and quality seed	Quantity of Certified and quality seed distributed	283.8						
	Mechanisation & Technology								
	Organize training programmes for farmers, technicians, trainers, entrepreneurs, manufacturers and officials from State Governments at FMTTIs	Number of persons trained	6422						

	Testing of tractors, power tillers, combine harvesters and other agricultural machines / implements for performance evaluation and quality up-gradation at FMITIs		Number of machines tested	Nos.	191	199	165	170	175
Plant Protection									
5. Plant Protection, Quarantine and Residue Management	Conducting regular pest surveillance and monitoring to assess pest / disease situation and timely advice of IPM measures	Area covered		Lakh hectares	7.96	NA	8.07	8.20	8.25
	Popularising IPM approach under Farmers Field School (FFS) on IPM	Number of FFS conducted		Number	716	NA	693	700	710
	Monitor pesticide residues in agricultural commodities and focus IPM efforts in identified areas	% of samples tested against target		Percentage	98.57	NA	81	82	83
	Computerization of PQ Stations	Issue of PSC/IP as % of online applications received		Percentage	100.00	NA	85.5	86.0	86.0
	Computerization of Central Insecticides Board and Registration Committee (CIB and RC)	Time taken for Disposal of online applications of registration of insecticides under Section 9(4), 9(3)		Number of days	118	NA	108	107	106
Extension & IT									
6. Dissemination of technology information to farmers	Training of Farmers	Number of farmers trained through ATMA		Number of farmers trained through ATMA	14.47	NA	15.0	16.5	18.0
		Farmers' training under Farm Schools (Farmer to Farmer Extension)		No. of Farm Schools organised	-	-	12150	13500	15000
	Training of Extension Personnel in PGDAEM by MANAGE (one year).	Training for one year		Number of successful trainees	1292	2823	1400	1500	1600
	Training of Agriculture Graduates/ setting up of agri-ventures	Training of candidates		Number of trainees	4015	4439	3600	3800	4000
		Ventures set up by the candidates		Number of Ventures setup	2139	2251	1400	1600	1800

	National e-Governance Plan - Agriculture (NeGPA)	Launching of Central Agriculture Portals and State Agriculture Portals	Number of Portals	-	6	7	8
	National Mission on Sustainable Agriculture						
7. Enhancing soil health and promotion of resource conservation technology for sustainable agriculture	Establishment and Strengthening of Soil Testing laboratories	Number of static / mobile labs sanctioned and upgradation approved	Number	42	45	45	50
	Quality control of Organic Manure, Bio-Fertilizers and fertilizers	Number of Samples tested	Number	13859	8000	8500	9000
	Credit and Insurance						
8. Improving credit flow, market infrastructure, and risk mitigation	Flow of credit for agriculture	Amount of credit flow as % of target	Percentage	107.6	90	90	90
	Implementation of NAIS, MNAIS and WBCIS during 2013-14	Timely Administrative approval of scheme	date	10.04.11	07.04.13	10.04.14	10.04.15
	Marketing Infrastructure						
	Construction & Renovation of Rural Godowns (Rural Godowns Scheme)	Capacity created	Lakh MT	16.35	36	38	40
	Implementation of AMIGS scheme	Projects cleared	Number	731	370	380	390
	Dte. of Economics & Statistics						
9. Maintaining Agricultural statistics	Preparation of 3rd Advance Estimates of food grain production for an agricultural year	Timely Completion	Cutoff date	06.04.11	30.04.13	30.04.14	30.04.15
	Preparation of 4th Advance Estimates of food grain production for an agricultural year	Timely Completion	Cutoff date	19.07.11	20.07.13	20.07.14	20.07.15
	Preparation of 1st Advance Estimates of food grain production for an agricultural year	Timely Completion	Cutoff date	14.09.11	30.09.13	30.09.14	30.09.15
	Preparation of 2nd Advance Estimates for an agricultural year and Final Estimates of food grain production for the previous agricultural year	Timely Completion	Cutoff date	3.02.12	15.02.14	15.02.15	15.02.16

	Dissemination of information on agricultural statistics	Bringing out 'Handbook on Agricultural Statistics' along with related database for the web	Target date	23.01.12	06.02.13	07.02.14	07.02.15	07.02.16
		Drought Management						
10. Drought Preparedness and Grant of Relief assistance from State Disaster Response Fund (SDRF) /National Disaster Response Fund (NDRF)	Review of Crisis Management Plan (CMP) for Drought & Review and release of Contingency Action Plans by respective Departments	Annual Review in the month of March for release of updated CMP and model Contingency Action Plans for agriculture, drinking water, alternative employment etc.	Date	21.02.12	20.03.13	25.03.14	25.03.15	25.03.16
	Visit of Central team and submission of Reports for Assessment by Inter ministerial Group	Completion of action within 60 days from submission of Memorandum	No. of days	57	57	60	60	60
11. Encouraging private investment in Agriculture through PPP mode	Creation of additional cold storage capacity	Additional cold storage capacity created	Lakh Metric Tonnes (MT)	-	4.80	5.0	5.5	6.0
	Formation of Farmer Producer Organization (FPO)	FPOs established	Number	-	-	160	168	43
Efficient functioning of the RFD system	Timely submission of Draft for approval	On-time submission	Date	07.03.11	05.03.12	04.03.13	-	-
	Timely submission of results	On-time submission	Date	01.05.12	30.04.13	01.05.14	-	-
Improving Internal Efficiency/ Responsiveness/Transparency/ Service delivery of Department	Update departmental Strategy to align with 12th Plan priorities	Timely Update of the Strategy	Date	-	-	17.09.13	-	-
	Independent Audit of Implementation of Citizens' / Clients' Charter (CCC)	% of implementation	Percentage	-	NA	95	95	95
	Independent Audit of implementation of Public Grievance Redressal system	% of implementation	Percentage	-	NA	95	95	95
Administrative Reforms	Implement mitigating strategies for reducing potential risk of corruption	% of implementation	Percentage	-	NA	95	95	95
	Implement ISO 9001 as per the approved action plan	% of implementation	Percentage	-	NA	95	95	95
	Implement Innovation Action Plan (IAP)	% of agreed milestones achieved	Percentage	-	NA	95	95	95
	Identification of core and non-core activities of the Department as per 2nd ARC recommendations	Timely submission	Date	-	-	15.10.13	-	-

Part II

Section 4: Description and definition of success indicators and proposed measurement methodology

The world Food Summit, defined food security as follows: 'Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle.' The same definition has been adopted in this RFD.

The Success Indicators in Section 2 and Section 3 supra range from numbers, to cut-off dates, to time taken to percentage utilisation. The numbers have been kept realistic in keeping with trend analysis of the past and commitments made by the Department of Agriculture & Cooperation in the Annual/ Five Year Plan. All these success indicators are easily measurable and can be confirmed from the official records maintained in the Department of Agriculture & Cooperation and its field offices. Only those aspects of various objectives have been kept as success indicators for which the Department of Agriculture can be held accountable save natural vagaries. Thus, for various reasons given in Section 5 below, the outputs and outcomes, which depend primarily on State Governments' performance in utilisation of funds and in physical progress under various schemes, have not been included.

Under Objective 1 of Section 2 of the RFD, the target of additional production of 5 million tonnes is on the assumption of normal monsoon. The target will be lower by 1 million tonnes on deficiency of every 1.5% in rainfall as compared to Long Period Average (LPA). Achievement of additional production target will be calculated based on moving average of last 5 years.

In only one of the SIs (as indicated below), the targets/criteria values have been revised downwards as compared to previous year's targets. There is upward revision in some of the SIs. The reason for the downward revision is as follows:

S. No.	Details of Success Indicator	Reason for downward revision
1	Objective 6, Sl. No.2 of Action 3: 'ventures set by the candidates'	The ACABC (Agri-Clinics & Agri-Business Centres) scheme is not under primary lending category of the Banks and the amount involved forms only a miniscule portion of the Banks' lending. Therefore, the success rate has dropped down in recent years and Banks are being persuaded to give importance to this scheme also.

Section-5: Specific performance requirement from other departments that are critical for delivering agreed results

Agriculture is a State subject. Almost all Centrally Sponsored or Central Sector schemes are implemented through States. The performance of the Department of Agriculture & Cooperation, therefore, largely depends on the States which are independent constitutional entities. Production figures also largely depend on vicissitudes of weather. The role of the Department of Agriculture & Cooperation gets mostly confined to formulation of a comprehensive perspective plan, immediate response to a crisis on account of vagaries

of weather, release of funds in a time bound manner, monitoring of progress and evaluation of outcomes. The Department

of Agriculture & Cooperation is heavily dependent on various Central Ministries/ Organisations which are as follows:

Department / Organisation	Linkage
Planning Commission	For allocation of requisite funds to ensure unhindered implementation.
Ministry of Water Resources	Creation and utilisation of irrigation potential.
Ministry of Power	Allocation of power from Central Grid to various States.
Department of Fertilizers	Provision of different grades and types of fertilizers as per the farmers' requirements from time to time.
Department of Financial Services	Flow of credit to the farmers.

Hence, various physical targets which find place in our Outcome Budget, are thus not controllable fully by the Department of Agriculture and Cooperation. The Department can only pursue the machinery of the State Governments for timely and optimum implementation. Hence, such items have not been included in Section 2 and 3 for the reasons given above.

Section 6: Outcome / Impact of activities of Department / Ministry

S. No	Outcome/ Impact	Jointly responsible for influencing this outcome / impact with the following organisation (s) / departments/ministries	Success Indicator (s)	Unit	2011-12	2012-13	2013-14	2014-15	2015-16
1	Increased agricultural production	Planning Commission, Ministries/ Depts. of Finance, Power, Water resources, Fertilizers, Financial Services etc., State Governments and RCs under DAC	Increase in foodgrain production	%	6.07	(-) 3.54	4.0	TBD	TBD
2	Increased horticulture production	Planning Commission, Ministry Ministries/Depts. of Finance, Power, Water resources, Fertilizers, Financial Services etc, State Governments and RCs under DAC	Increase in horticulture production	%	6.94	NA	6.0	TBD	TBD
3	Enhanced investment in Agriculture	Planning Commission, Ministries Depts. of Finance, Power, Water resources, Fertilizers, Financial Services etc, States Governments and RCs under DAC	Increase in investment i.e. GCF in Agriculture	%	11.7*	NA	NA	TBD	TBD
4	Improved growth of Agriculture sector	Planning Commission, Ministries/ Depts. of Finance, Power, Water resources, Fertilizers, Financial Services etc, State Governments and RCs under DAC	Growth in GDP for agriculture sector	%	3.6	1.8	4.0	TBD	TBD
5	Improved Economic Well-being of Farmers and Reduction in rural poverty	Planning Commission, Ministries/ Depts. of Finance, Power, Water resources, Fertilizers, Financial Services etc , State Governments and RCs under DAC	Increase in Farmers' Income	%	NA	NA	-	TBD	TBD
			Reduction in rural poverty	%	NA	NA	-	TBD	TBD

NA - Data Not Available
2015

TBD - To Be Decided

* Source: CSO data on GCF

Part - III

Commitments and Obligations of the Government

While the Department of Agriculture & Cooperation will be required to achieve the performance targets as stated in Part-II, the Govt. of India on its part is committed to:

1. Providing timely release of voted funds
2. Decision within thirty days on requests made by the Department that are related to performance obligations in Part - II.
3. Provide adequate and qualified staff as per sanctioned strength.

Part - IV

Frequency of Monitoring and Information Flow

The Department of Agriculture & Cooperation shall submit quarterly and annual performance reports to Cabinet Secretary against the performance obligations made in Part-II. These reports will be due within 30 days after the close of the quarter.

MINIMUM SUPPORT PRICES (According to Crop Year)

(Rs. per quintal)

Sl. No.	Commodity	Variety	2009-10	2010-11	2011-12	2012-13	2013-14	(#) increase in MSP 2013-14 over 2012-13	2014-15	(#) increase in MSP 2014-15 over 2013-14
KHARIF CROPS										
1	PADDY	Common	950\$	1000	1080	1250	1310	60(4.8)	1360	50(3.8)
		Grade 'A'	980\$	1030	1110	1280	1345	65(5.1)	1400	55(4.1)
2	JOWAR	Hybrid	840	880	980	1500	1500	-	1530	30(2.0)
		Maldandi	860	900	1000	1520	1520	-	1550	30(2.0)
3	BAJRA		840	880	980	1175	1250	75(6.4)	1250	-
4	MAIZE		840	880	980	1175	1310	135(11.5)	1310	-
5	RAGI		915	965	1050	1500	1500	-	1550	50(3.3)
6	ARHAR(Tur)		2300	3000¶	3200¶	3850	4300	450(11.7)	4350	50(1.2)
7	MOONG		2760	3170¶	3500¶	4400	4500	100(2.3)	4600	100(2.2)
8	URAD		2520	2900¶	3300¶	4300	4300	-	4350	50(1.2)
9	COTTON	Medium Staple	2500 ^a	2500 ^a	2800 ^a	3600	3700	100(2.8)	3750	50(1.4)
		Long Staple	3000 ^{aa}	3000 ^{aa}	3300 ^{aa}	3900	4000	100(2.6)	4050	50(1.3)
10	GROUNDNUT IN SHELL		2100	2300	2700	3700	4000	300(8.1)	4000	-
11	SUNFLOWER SEED		2215	2350	2800	3700	3700	-	3750	50(1.4)
12	SOYABEEN	Black	1350	1400	1650	2200	2500	300(13.6)	2500	-
		Yellow	1390	1440	1690	2240	2560	320(14.3)	2560	-
13	SESAMUM		2850	2900	3400	4200	4500	300(7.1)	4600	100(2.2)
14	NIGERSEED		2405	2450	2900	3500	3500	-	3600	100(2.9)
RABI CROPS										
15	WHEAT		1100	1120\$	1285	1350	1400	50(3.7)	1450	50(3.6)
16	BARLEY		750	780	980	980	1100	120(12.2)	1150	50(4.5)
17	GRAM		1760	2100	2800	3000	3100	100(3.3)	3175	75(2.4)
18	MASUR (LENTIL)		1870	2250	2800	2900	2950	50(1.7)	3075	125(4.2)
19	RAPESEED/ MUSTARD		1830	1850	2500	3000	3050	50(1.7)	3100	50(1.6)
20	SAFFLOWER		1680	1800	2500	2800	3000	200(7.1)	3050	50(1.7)

21	TORIA		1735	1780	2425	2970	3020	50(1.7)		
	OTHER CROPS									
22	COPRA	Milling	4450	4450	4525	5100	5250	150(2.94)	5250	-
	(Calender Year)	Ball	4700	4700	4775	5350	5500	150(2.80)	5500	-
23	DE-HUSKED COCONUT (Calender Year)		1200	1200	1200	1400	1425	25(1.79)	1425	-
24	JUTE		1375	1575	1675	2200	2300	100(4.55)	2400	100(4.3)
25	SUGARCANE*		129.84	139.12	145.00	170	210.00	40(23.5)	220.00	10(4.8)

Figures in brackets indicate percentage increase.

\$ An additional incentive bonus of Rs. 50 per quintal was payable over the Minimum Support Price(MSP).

^a Staple length (mm) of 24.5 - 25.5 and Micronaire value of 4.3 - 5.1

^{aa} Staple length (mm) of 29.5 - 30.5 and Micronaire value of 3.5 - 4.3

¶ Additional incentive at the rate of Rs. 500 per quintal of tur, urad and moong sold to procurement agencies was payable during the harvest/arrival period of two months.

* Fair and remunerative price.

Annexure 6.1

State-wise Area, Production & Productivity of Oilseed Crops from 2008-09 to 2013-14

State	Area (in lakh ha.)					Production (in lakh tonnes)					Productivity (Kgs./ha.)							
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14*	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14*	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14*
Andhra Pr.	25.99	20.72	23.19	19.45	19.45	19.66	21.89	15.00	19.96	12.65	16.51	18.36	842	724	861	650	849	934
Bihar	1.38	1.38	1.30	1.33	1.28	1.29	1.38	1.45	1.36	1.39	1.43	1.44	1000	1043	1048	1046	1120	1114
Chhatisgarh	3.81	3.30	3.16	3.08	2.97	2.89	1.93	2.00	2.17	1.69	2.15	1.85	506	606	686	550	723	640
Gujarat	29.85	27.93	28.93	31.31	24.52	30.78	40.16	30.97	48.96	50.35	27.05	68.38	1345	1109	1692	1608	1103	2222
Haryana	5.41	5.33	5.19	5.53	5.80	5.51	9.33	8.77	9.64	7.71	9.93	8.98	1724	1645	1855	1394	1712	1630
Karnataka	21.78	20.01	16.24	14.16	14.22	15.07	12.12	10.05	12.70	9.42	9.20	12.85	556	502	782	665	647	853
Madhya Pr.	64.90	67.65	70.30	72.07	75.34	78.28	69.77	76.36	80.35	77.28	92.76	66.55	1075	1129	1143	1073	1231	850
Maharashtra	39.80	38.84	36.15	36.67	38.06	44.54	34.10	28.14	50.40	44.85	50.86	52.41	857	724	1394	1223	1337	1177
Orissa	2.98	2.92	2.90	2.51	2.43	2.21	1.80	1.72	1.80	1.66	1.70	1.61	604	589	619	661	700	727
Punjab	0.60	0.62	0.53	0.50	0.51	0.49	0.76	0.83	0.71	0.68	0.69	0.68	1266	1339	1336	1360	1350	1372
Rajasthan	46.49	41.33	54.88	46.22	49.12	52.80	51.78	44.07	66.05	57.44	63.65	60.70	1114	1066	1203	1243	1296	1150
Tamil Nadu	5.85	4.95	4.49	4.49	3.88	4.22	10.43	9.40	9.33	11.14	8.17	10.05	1782	1899	2077	2479	2103	2383
Uttar Pr.	13.46	10.84	11.05	11.29	11.47	11.07	11.64	8.16	9.19	9.35	10.30	9.32	865	753	832	828	898	842
West Bengal	7.04	6.83	6.72	6.76	7.32	7.87	5.83	7.27	7.04	6.72	8.51	9.33	828	1064	1047	994	1162	1186
Others	6.24	6.93	7.21	7.71	8.47	8.57	4.27	4.63	5.13	5.66	6.50	6.26	684	668	711	734	767	730
All India	275.58	259.59	272.24	263.08	264.84	285.25	277.19	248.82	324.79	297.99	309.41	328.77	1006	958	1193	1133	1168	1153

* IVth Advance Estimates

Annexure- 8.1

Seeds Programmes in North-Eastern States

S. No.	Schemes/ Programmes Activities Approved	Details of Schemes/ Programmes/Activities taken	Target for 2013-14	Achievement 2013-14	Target for 2014-15	Achievement 2014-15
1.	National Seed Reserve (NSR)	The basic objective of this component is to keep seed available for meeting requirement during natural calamities.	50150 qtls	38681 qtls	54163 qtls	-
2.	Transport Subsidy on movement of Seeds to North-Eastern States including Sikkim, Himachal Pradesh, J&K, Uttaranchal and Hill areas of West Bengal.	<p>The topographical situation and climatic condition being not conducive for the production of seeds in the North-Eastern States.</p> <p>(a) Reimbursement of 100% difference between road and rail transportation cost to implementing States/ agency for movement of seeds produced outside the state and movement to identified state capital/ district headquarter.</p> <p>(b) The actual cost, restricted to maximum limit of Rs. 60/- per quintal for the movement of seed within the State from State Capital/ district headquarters to sale outlets/ sale counters is being reimbursed to implementing State/ agency.</p>	<p>It is a reimbursement programme.</p> <p>Therefore, targets cannot be pre-fixed as transportation of seeds depends on demand which varies from year to year.</p>	<p>For NE State, a quantity 35,586 quintals transported exclusively to NE States in 2013-14.</p> <p>(All the State including NE States is 123200 quintals)</p> <p>(in 2013-14)</p>	As mentioned in Col. 4 targets cannot be pre-fixed as the component is demand driven.	<p>For NE States a quantity of 7506.03 qtl transported exclusively to NE States</p> <p>(upto 30.10.2014)</p> <p>(The quantity of seeds transported total including NE States is 60,709.71 qtls.)</p>

Status of DAPs and SAPs under RKVY

S. No.	State/UT	No. of Districts	DAP Prepared	SAP Prepared
1	2	4	5	6
1	Andhra Pradesh	23	23	Yes
2	Arunachal Pradesh	16	16	Yes
3	Assam	27	27	Yes
4	Bihar	38	38	Yes
5	Chhattisgarh	18	16	Yes
6	Goa	2	In Progress	No
7	Gujarat	26	26	Yes
8	Haryana	21	21	Yes
9	Himachal Pradesh	12	12	Yes
10	Jammu & Kashmir	22	22	Yes
11	Jharkhand	24	24	Yes
12	Karnataka	28	29	Yes
13	Kerala	14	13	No
14	Madhya Pradesh	50	50	Yes
15	Maharashtra	35	33	Yes
16	Manipur	9	9	Yes
17	Meghalaya	7	7	Yes
18	Mizoram	8	7	Yes
19	Nagaland	11	8	Yes
20	Odisha	30	30	Yes
21	Punjab	20	20	Yes
22	Rajasthan	33	33	Yes
23	Sikkim	4	4	Yes
24	Tamil Nadu	32	29	Yes
25	Tripura	4	4	No
26	Uttarakhand	13	13	Yes
27	Uttar Pradesh	70	71	Yes
28	West Bengal	18	17	Yes
29	Telengana	-	-	-
	Total	615	602	25

Annexure- 13.2 Sector wise Approved Projects Cost During XIth Plan

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	ORFM	DDEV	TOTAL
1	Andhra Pradesh	124.5	372.3		326.58	158.67	45.13		0.39	447.9	16.26	184.12	25.22	56.02		8.94	123.34		65.43	50.92	77.65	2083.37
2	Arunachal Pradesh	13.09	12.91	3.02	7.35	1.75	7.03			0.7		2.73	0.28	4.52					1.42	0.05		54.85
3	Assam	43.19	44.38		68.22	33.32	54.78			33.25	19.44	95.53	12.72	25.82			30.94	14.89	152.14	13.5	17.61	659.73
4	Bihar	307.73	62.22		160.38	115.87	45.85	95.25	46.61	188.96	6.44	227.16	139.26	34.78	28.81	13.1	102.33	6.87	1.63	141.13	90.89	1815.27
5	Chattisgarh	151.37	196.74		136.81	53.46	63.62	35.42	4.84	109.91	5.72	40.84	61.15	29.08	42.35	1	2.77	15	27.82	17.9	1.27	997.07
6	Goa	2.08	3.91		11.09	16.1	0.17			0.24	4.55	2.46	1.65	0.08	2.25	3	0.51	16.97	0.05	0.18	4.19	69.48
7	Gujarat	146.03	111.81	0.57	131.4	133.67	41.3	9.6	34.11	63.37	25.33	172.82	18.42	214.51	24.59		50.24	522.21	78.85	115.58	124.42	2018.83
8	Haryana	30.43	31.16		136.69	6.45	12.52		28.06	73.68	28.7	43.82	1	18.67			13.34	6.1	186.04	8.72	16.43	641.81
9	Himachal Pradesh	19.26	36.54		31.87	2.32	9.88		1.1	13.55	1.73	3.14	1.68	12.3	0.59	0.66	3.61	7.92	21.75	26.49	3.51	197.9
10	Jammu And Kashmir	4.68	64.24	5.42	34.22		7.96	1.63	1.63	13.65	5.3	6.61	9.21	18.51	2.68	0.03		7.84	31.73	4.97		220.31
11	Jharkhand	122.08	69.1	1.95	65.52	8.68	33.95	31.2	1.18	69.29	26.06	54.47	73.62	30.08	0.59		1.25	37.26	159.03	4.73	115.29	905.33
12	Karnataka	93.25	182.31	6	169.99	330.16	56.95		12.62	129.51	6	281.5	139.78	124.35	36.13	5	156.03	23.94	55	67.9	3	1879.42
13	Kerala	148.6	80.19	1.24	132.44	2.09	120.31	0.2	1.88	5.52	1.9	105.18	28.97	10.35	3.61	0.32	71.31	20.63	11.27	2.13	14.95	763.09
14	Madhya Pradesh	145.44	53.23		288.07	17.61	70.39		39.95	291.25	63.46	151.31	103.78	39.81	12.86	5	23.81	38.4	423.81	26.15	27.21	1821.54
15	Maharashtra	142.44	222.5	10.08	466.35	36.8	90.63	40	37.08	104.52	55.22	231.56	87.58	290.26		8		88.33	1206.08		69.59	3187.02
16	Manipur	6.33	15.48		6.41		8.7		0.33		0.06	2.25	3.95	3.25	0.6			0.78	4.88	3.17	4	54.92
17	Meghalaya	12.46	144.27	2.38	16.69	0.12	73.44	1				0.95		0.84	0.7			55.79	4.88	0.45	1.15	317.46
18	Mizoram	6.33	4.57	0.4	1.15	14.8	0.8											3.52	0.78			33.6
19	Nagaland	7.2	14.26	1.1	14.19	1.85	6.91		0.71	0.6	1.22	3.23	1.55	8.01	2.33		0.12	13.24	0.8	2.54		79.86
20	Orissa	211.27	37.63		87.64	0.85	67.17	46.57	4.89	50.63	11.23	216.64	51.22	55.78	2.01		31.68	105.16	92.3	17.57	54.97	1145.21
21	Punjab	31.5	85.47		109.32	22	6.85		8.9	6.8	13.3	21.7	12.75	44.98		3.75	76.29	101.74	41.88	13.5	72.74	673.47
22	Rajasthan	210.61	298.4		127.76	17.65	17.86	61.54	5.58	226.12	158.62	37.61	194.58	56.05		5	69.71	24.1	736.76	32.77	198.69	2479.41
23	Sikkim	1	7.57		9.37	4.34	0.77			0.82	1.93		1	0.63	2.85			2.22	4.5	4.46	4.08	45.54
24	Tamilnadu	199.56	109.62	0.5	93.98	217.74	32.57	3.35	2	40.69	12.92	185.17	29.41	133.73	2	17.72	1.98	0.7	29.06	25.96	48.54	1187.2
25	Tripura	53.82	23.63		29.85	4.09	5.8		0.37	2.29	4.21	7.33	3.75	15.45	0.84		2.79	13.5	15.88	4.85	1	189.45
26	Uttar Pradesh	225.98	170.37	60.76	176.47	342.38	37.39	64.72	24.73	279.67	220.57	36.82	140.6	5.51	3	23.45	8.04	159.64	723.07	56.58	74.62	2834.37
27	Uttarakhand	13.74	57.55	1.89	45.12	12.02	5.48		1.04	3.74	5.26	2.83	11.98	47.66			1.61	19.9	20.39	32.48	12.61	295.3
28	West Bengal	0.6	60.58	11.25	181.41	33.16	58.79	39.92	4.28	74.84	14.45	69.04	10.81	59.68	6.17	0.11	4.84	91.33	18.91	1.22	15.44	756.83
29	Total	2474.57	2572.94	106.56	3066.34	1587.95	983	430.4	262.28	2231.5	709.88	2189.72	1165.92	1341.01	174.96	95.08	776.54	1397.98	4111.26	675.9	1053.85	27407.64

Rs. 27407.64

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION; IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORT/ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; ORFM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2007-08

(Rs. in crore)

S No	STATE NAME	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL
1	Andhra Pradesh		3.56				2.25			30			13			2.7				25.09	13.45	90.05
2	Bihar	5.8			11.17		3.07		3.64		0.29	1.35	5.59	21.1				2.72			3.01	57.74
3	Chattishgarh		10.07		12.25	15.15	3.19			5.86	4.04	0.65	2.46	7.85					4.89	0.5		66.91
4	Goa	0.31			0.19	0.36	0.04				0.21	0.12	0.02		0.75				0.05			2.05
5	Gujarat	6.28			4.41									3.45				32.68				46.82
6	Haryana	0.9	1.65		2.4		2.09			0.3	1.6	3.94								4.84		17.72
7	Himachal Pradesh		2.43		1.3					1.99	0.05		0.27	0.04				4.63			0.61	11.32
8	Jharkhand	7.48	9.95		12.85	0.47	6.74		0.4	5.73	17.52	20.53	9.61	2.06	0.59			12.33	21.5	2.25	12.24	142.25
9	Karnataka									38.64			22.41	3		42.95			45			152
10	Kerala	8.08	10.62	0.38	18.66		1.27		1.05		0.2	5.78	1.1	2.18	0.75	0.28		1.75	0.28	0.51	2.13	55.02
11	Madhya Pradesh		2		5.87		2			10.65	4.31	2	10.75	0.88				38.4	4.8	0.25		81.91
12	Maharashtra													15					114			129
13	Meghalaya		2.11											0.84				1.81	1.04	0.45		6.25
14	Nagaland	0.5	1		1	0.5	0.6		0.11	0.6	0.12	0.5		1	0.3	0.12		2			8.35	
15	Orissa	3.59			0.57		2.7		0.24	11.23	2.07	12.48	4.26			3.7		10.1	5.12	0.97	4.69	61.72
16	Punjab		0.66		3.73							5	8.75	20.5				10.16			3.9	52.7
17	Rajasthan	10	35.8				15.25				9.81		4	6.2		11.71			0.77		6.07	99.61
18	Sikkim														2.57			0.59				3.16
19	Tamilnadu	9.96	4.7		3.08	80.58	7.65			22.25	7.17	10.06				10.22		12.08	8.71	6.67	183.13	
20	Tripura				0.5		0.6													3.3		4.4
21	Uttar Pradesh		4		4		4			14.65	6		2	5.51				1	58.35	10.67		110.18
22	Uttarakhand				8.9		4.62		0.54	3.74				1.87						7.66		27.33
23	West Bengal		7.05		13.91		7.63			11.54	2.05	4.96	1.2	8.28				5.64			4	66.26
24	Total	52.9	95.6	0.38	104.79	97.06	63.7	0	5.98	157.18	55.44	67.37	85.42	99.76	4.96	12.92	58.76	123.81	267.88	65.2	56.77	1475.88

Total Cost :Rs. 1475.88

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Sector wise Approved Projects Cost under RKVY 2008-09

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL	
1	Andhra Pradesh		24.73		34.29	0.1	6.2		0.29	75.4	16.26	33.32	10	2.69		6.24	72.66			25		12.6	319.78
2	Assam	19.58	4.29		25.91		19.58			12.84	3.65	8.75		12.47			10	9.91	7.9			3.31	138.19
3	Bihar	5.49	11.3		30.57	1.07	2.41			10.23	6.15	26.09	24.17	1.7	4.8	12.1				7.44	30.21		173.73
4	Chattishgarh		23.54		26.54		10.9	13	1.02	22.17	1.16	0.03	14.9	11.26					4	3.1	0.27		131.89
5	Gujarat	3.47	0.92		60.53	30.12	26.97	9.6	6.63	37.66	9.1	5.35	10.21	62.82			12.37	66.62		2.65	7.06		352.08
6	Haryana		5		20.85	2	6.68		16.56	0.95	8.35			6				2.85	10	0.82			80.06
7	Himachal Pradesh	0.6	2.94				0.65			1.59								2.57	0.94	1.5			10.79
8	Jharkhand	2	8.54	1.95		1.13	2			4.08	3.6		2.55						2.74				28.59
9	Karnataka		55.48		41.37	85.61	13.14					72.89	66.17	42.71	9.02		23		10	34.4			453.79
10	Kerala	18.6	4.2	0.43	12.25	0.05	11.25		0.12	1.79	0.2	2.65	0.15	1.93	1.05				1.04	0.37	1.54		59.11
11	Madhya Pradesh		5.65		34.62	17.61	6.14		2	66.56	10	2	8.59	2.01		5	12.43		33.77	6.44			212.82
12	Maharashtra		0.54		219.99					20			25	20					143.79		21.6		450.92
13	Meghalaya		14.12				6.33																20.45
14	Nagaland		3.5	1.1	1.65	1.35	1.14		0.35		0.55	0.35	0.35	1				2.55					13.89
15	Orissa	14.1	6.33		28.55	0.24	3.81			14.45	1.45	24.31	30.17	4.53	0.25			15.15	50.48	11.68	1.03	29.4	235.93
16	Punjab	12	19.88		6.52		1.7		5.7	0.2				5				62.77	20.5	1.88		30.18	166.33
17	Rajasthan		109.71		36.85				3.59	38.36	9.54	5.32	3.08	14.98			16	8	168.43		46.2		460.06
18	Sikkim	0.57	1.43			2.76				0.24									4.5		4.08		13.58
19	Tamilnadu	7.89	3.65		20.04	45.78	1.57			10.75	5.15	25.8							5.4	17.25	1.5		144.78
20	Tripura		5.99		6.68		2.14				1.7		2	5	0.69			0.9	3.6				28.7
21	Uttar Pradesh	1.25	40.04	10.97	25.57	70	7.18		2.83	33.19	27.08	0.46	30.48			0.75	0.46	11.77	58.59	10	12.02		342.64
22	Uttarakhand		0.63	1.89	7.64								0.8	17.94									28.9
23	West Bengal	0.6	5.66		25.9	0.54	9.23	4.62	0.47	14.65	4.7	5.93	4.12	14.03	5.05	0.11	0.21	6.99	10.51	0.32	4.84		118.48
24	Total	86.15	358.07	16.34	666.32	258.36	139.02	27.22	39.56	365.11	108.64	213.25	232.74	226.07	20.86	24.2	226.54	183.14	478.77	110.32	204.81		3985.49

Total Cost : Rs. 3985.49

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MIRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORTI)/ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; ORFM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2009-10

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL
1	Andhra Pradesh		49.01		85.01		7		0.1	155		18.7	2.22	8			9.84			0.12	26.65	361.65
2	Arunachal Pradesh	4.77	0.91	1.1	0.75		2.36					0.14	1.8							0.05		11.88
3	Assam	1.25	3		10		9.46			3.37	1.29	15.44	1.43	6.18			5.54	4.98	12.24		4.3	78.48
4	Bihar	13.93	10.25		45.66	1.08	8.59	7.26				47.09	7.82	11.97	17.01	1	8.04	4.15			24.7	208.55
5	Chattishgarh		21.31		18.64	24.97	8.08		0.12	11.44		3.16	3.64	9.97			2		0.5	2.3		106.13
6	Goa																					0
7	Gujarat	2.37	7.71	0.57	19.78	32.13	4.1		1.08	6.37		4.3	4.98	24.76	21.3		2.81	186.41	2.13	1.97	7	329.77
8	Haryana	2	1		22.88	2.35	1.25		2	18.64	8.25	17.17	0.25	2			3.16	0.72	1.05	3.3		121.68
9	Himachal Pradesh	1.45	9.44		15.77		0.5			4.95			1.41	2.08				2.68	7.59	0.87		43.83
10	Jammu And Kashmir	0.62	13	0.97	8.02		0.42	0.77	0.4	2.61		1.51	2.63	4.72								46.81
11	Jharkhand	14.57	5.84		7.63		3.04			0.13	4.35	6.13	0.58				1.04		22.22		51.31	116.84
12	Karnataka	0.62	38.13		43.62	151.61	18.69		12	10.5	4	90.5	15	25	7.11		9.92				3	429.7
13	Kerala	35.71	1.66	0.44	23.94	0.77	24.46			0.25	1.5	8.49	0.06	0.35	0.63		16.21	7.17	6.66	0.02	1.01	129.33
14	Madhya Pradesh	4.01	12.83		45.08		6.06		7	72.03	4.37	11.1	15.96	6.62	3.14				84.8	3.8		276.8
15	Maharashtra				162.3	1.8		20	14.91		0.92	42.56		41.3				7.99	256.01			547.79
16	Manipur	1.33	1		1		1															4.33
17	Meghalaya	4.79	2.5		8.34										0.7			4.04	2.95			23.32
18	Nagaland	1.1	0.8		0.81		0.68		0.25		0.55	0.34	0.4	0.75				1.5				7.18
19	Orissa	0.6								3.25		39.37		0.96	1.76			3.61	2.08	4.42	1.99	58.04
20	Punjab	7	5.88		39.47		0.4			1.6				18.48				11.08			7.51	91.42
21	Rajasthan	113.29	20.91		31.8	7.96		4.37	0.25	120.09	45.52	14.08	83.61	17			3.43	14.6	325.32	22.35		824.58
22	Sikkim		1.64		4.36						1.67			0.63						1.96		10.26
23	Tamilnadu	28.61	10		13.54	29.76	1.17					21.67	11.95	3.5					4.45		3.26	127.91
24	Tripura	3.08	3.47		5.9	4.04				1.2		1.3	1.75	5.33			2.79		1.37	0.4		30.63
25	Uttar Pradesh	3.45	53.56	7.48	56.46	70.46	4.22		8.85	54.06	46.08	2.92	14.27			20.88	7.4	18.65	156.7	3.98	12.02	541.44
26	Uttarakhand	8.12	15.91		14.98	3.75			0.5		5.26		1.45	20.51					19.45		5.52	106.96
27	West Bengal		9.25		26.28	3.22	7.64	10.28	0.32	13.87	2.61	6.53	1.11	7.45			4.33	12.7		0.56	6.6	112.75
28	Total	252.67	299.01	10.56	712.02	333.9	109.12	42.68	47.78	479.36	126.37	352.36	170.66	219.36	51.65	21.88	76.51	282.78	945.36	59.16	154.87	4748.06

Total Cost :Rs. 4748.06

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION; IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORTI/ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; ORFM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2010-11

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL
1	Andhra Pradesh	34.58	73.41		110.34	153.07	15.35			150		117.1		5.33			17.7			0.71	4.95	682.54
2	Arunachal Pradesh	5.5	7.25	1.43	4.92	0.16	3.48			0.7		2	0.14	2					1.42			29
3	Assam		13.04		7.92		13.87			4.54	4.5		1.09	7.17			13		132	4.5	3.07	204.7
4	Bihar	85.76	6.22		25.55	5	9.97	5.49	42.98	74.08		37.31	55.44		7		0.74		1.63	32.64	8.4	398.21
5	Chattisgarh	74.65	101.85		64.59	10.61	24.76	20.15	0.72	53.74	0.12	22	36.46		42.35		0.77		11.43	12	1	477.2
6	Goa	0.51					0.03				0.09	1.14		0.08	0.75	3	0.34	10.25			1.81	18
7	Gujarat	24.93	33.83		15.8	64.88	8.6			13.65	11.32	66.38	3.02	39.67			0.82	95.63	27.24	2.8	59.89	468.46
8	Haryana	13.63	10.38		47.85	1.05	1		6	32.64	6.5	13.36	0.54	7.24			9.67	0.75	79		4.25	233.86
9	Himachal Pradesh	2.42	18.41		6.1	1.3	0.45		0.33	3.85	1.67	0.88		9.24	0.59	0.66	0.44		13.33	11.63	2.9	74.2
10	Jammu And Kashmir	2.53	30.52	3.3	19.1		5.6		0.93	7.87	4.12	3.81	5.48	9.04	2.38			1.6	21.53	3.31		121.12
11	Jharkhand	30.22	16.32		14.36		1.8	31.2	0.79	33.46	0.6	12	55.63	24			0.21	10.17	54	0.9	11.77	297.43
12	Karnataka	1.6	13.7		21	27.94	11		0.62	78.37	2	63.5	25.2	0.64	7		14.91	0.94			0.5	268.92
13	Kerala	45.18	21.11		25.35	0.3	33.31		0.71			51.84	1.74	2.86	1	0.32	17.75	10.13	3.07		4.13	218.8
14	Madhya Pradesh	1.88	15.82		125.37		27.41		10.95	126.28	43.78	117.39	20	25.3	9.72		11.38		161.45	11.26	17.12	725.11
15	Maharashtra		200		20.1		81.59		20.17	61.67	54.3	51	17.79	163.33				65.95	459.31		1.86	1197.07
16	Manipur	5	4				4							1						0.35	4	18.35
17	Meghalaya		10				8	1	0.33			2.66						23.68				45.67
18	Mizoram		1.07	0.2	0.52		0.4							0.3				3.22	0.78			6.49
19	Nagaland	1.6	0.48		2.38		1.59						0.8	2.51				1.99	0.8	1.04		13.19
20	Orissa	54.82	10.64		31.75			46.57	2.4	19.67	4	92.32	11.78	46.27			12.11	15.1	13.38	11.15	12.12	384.08
21	Punjab	12.5	21.05		23.33		3.62		3.2	5	13.3	10.6	4	1					40	13.5	16.96	168.06
22	Rajasthan	87.32	104.34		59.1	6.81	2.61	57.17	1.74	67.67	88.75	18.22	102.73	5.87		5	31.16	1.37	241.26	6.75	144.9	1032.77
23	Sikkim						0.77															0.77
24	Tamilnadu	55.55	1.5		7.46	51.19	1.89		1.25	1.39		55	15	106.23	2		1.17		1.38		1	302.01
25	Tripura	45.61	8.83		14.99	0.05	1.72		0.37	1.09	1.75	6.03		5.13	0.16			12.6	10.91	1.15	1	111.39
26	Uttar Pradesh	60.15	0.06	23.71	48.32	92.15	6.84		7.75	104.92	67.66	27.38	49.85		3	0.19		62.64	137.74	15.37	32.23	739.96
27	Uttarakhand				5.7								0.67	1.62								7.99
28	West Bengal		9.11		32.81	10.19	9.3	8.44	1.32	16.03	5.09	0.6	3.25	18.05	1.12			21.72	6.4	0.35		143.78
29	Total	645.94	732.94	28.64	734.71	424.7	278.96	170.02	102.56	856.62	309.55	772.52	410.61	483.88	77.07	9.17	132.17	337.74	1418.06	129.91	333.36	8389.13

Total Cost :Rs. 8389.13

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION;IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORTI/ ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; OREM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2011-12

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL	
1	Andhra Pradesh	89.92	221.59		96.94	5.5	14.33			37.5		15		40			23.14		65.43		20	629.35	
2	Arunachal Pradesh	2.82	4.75	0.5	1.68	1.59	1.19					0.73		0.72									13.98
3	Assam	22.36	24.05		24.39	33.32	11.88			12.5	10	71.33	10.2				2.4			9	6.93	238.36	
4	Bihar	196.76	34.45		47.43	108.72	21.81	82.5		104.65		115.31	46.25				93.55			101.05	24.56	977.04	
5	Chattishgarh	76.72	39.97		14.79	2.73	16.69	2.27	2.97	16.7	0.4	15	3.7			1		15	7			214.94	
6	Goa	1.26	3.91		10.9	15.74	0.1			0.24	4.25	1.2	1.63		0.75		0.17	6.72		0.18	2.39	49.44	
7	Gujarat	108.98	69.34		30.88	6.56	1.63		26.39	5.69	4.92	96.79	0.21	83.81	3.29		34.24	140.88	49.48	108.16	50.47	821.72	
8	Haryana	13.9	13.13		42.71	1.05	1.5		3.5	21.15	4	9.35	0.21	3.42			3.67		57.21	1.51	12.18	188.49	
9	Himachal Pradesh	14.78	3.34		8.69	1.02	8.28		0.78	1.17		2.26		0.94					6.43	10.05		57.74	
10	Jammu And Kashmir	1.54	20.72	1.15	7.1		1.94	0.86	0.3	3.17	1.18	1.29	1.1	4.75	0.3	0.03		3.56	2.61	0.79		52.39	
11	Jharkhand	67.81	28.45		30.68	7.09	20.37			25.88		15.81	5.25	4.01				14.75	58.57	1.58	39.97	320.22	
12	Karnataka	91.03	75	6	64	65	14.12			2		54.61	11	53	13	5	65.25	23		33		575.01	
13	Kerala	41.04	42.6		52.24	0.97	50.02	0.2		3.47		36.41	25.93	3.04	0.19		35.58	1.58	0.22	1.23	6.14	300.86	
14	Madhya Pradesh	139.55	16.93		77.14		28.78		20	15.73	1	18.83	48.47	5					139	4.4	10.09	524.92	
15	Maharashtra	142.44	21.96	10.08	63.96	35	9.04	20	2	22.85		138	44.79	50.63		8		14.39	232.97		46.13	862.24	
16	Manipur		10.48		5.41		3.7				0.06	0.24		2.25	0.6			0.78		2.82		32.24	
17	Meghalaya	7.67	115.54	2.38	8.35	0.12	59.11					0.95						26.27	0.89		1.15	221.78	
18	Mizoram	6.33	3.5	0.2	0.63	14.8	0.4					2.04						0.3				27.11	
19	Nagaland	4	8.48		8.35		2.9					2.04		2.75	2.03			5.2		1.5		37.25	
20	Orissa	138.17	20.66		26.77	0.61	60.66		2.25	2.04	3.7	48.15	5	4.03			0.72	25.88	60.05		6.77	405.46	
21	Punjab		38.01		36.27	22	1.13					6.1					3.75	60			14.19	194.97	
22	Rajasthan		27.64			2.88				0.58	0.26		1	12	0.28		7.41	0.13	0.98	3.67	1.52	62.39	
23	Sikkim	0.43	4.5		5.01	1.58												1.63		2.5		17.77	
24	Tamilnadu	97.55	89.77	0.5	49.87	10.43	20.29	3.35	0.75	6.3	0.6	72.65	2.46	24			7.5	0.81	5.75		36.11	429.39	
25	Tripura	5.14	5.34		1.79		1.35				0.76											14.38	
26	Uttar Pradesh	161.13	72.71	18.6	42.11	109.77	15.16	64.72	5.3	72.86	73.75	6.07	44.01				1.63	0.18	311.69	16.56	18.35	1100.18	
27	Uttarakhand	5.61	41.01		7.9	8.27	0.86		2.18	18.75		2.83	9.06	5.71			1.61	19.9	0.93	13.31	7.09	124.09	
28	West Bengal		29.51	11.25	82.52	19.22	24.99	16.58				51.01	1.13	11.87			0.3	44.28	2			315.59	
29	Total	1436.94	1087.34	50.66	848.51	473.97	392.23	190.48	66.42	373.23	109.88	784.21	266.51	311.93	20.44	26.91	282.55	470.53	1001.21	311.31	304.04	8809.3	

Total Cost :Rs. 8809.3

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Sector wise Approved Projects Cost under RKVY 2012-13

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL
1	Andhra Pradesh	11.29	210.45	10	105.8		21.53		63.68			319.81	4.95	48.67			19.49	19.65		15	29.9	880.22
2	Arunachal Pradesh	30.41	17.87	0.35	6.06	0.47	6.05					10.63	1.11	6.5					0.47	2.99	2.92	85.83
3	Assam	52.45	27.8		36.7	7.54	20.5		5.38			26.1	132.35	22.63	15.05		13		21.6	11.57	10.97	403.64
4	Bihar	323.97	156.42		27.6	64.87	24.92	50.72				161.45	2								26	837.95
5	Chattishgarh	174.12	102.9		67.43	8.54	28.51	34.34	13.01	13.97	2.1	18.19	48.63	16.83			12.58		16.3		24.17	581.62
6	Goa	4.29	25.16			1.1			1.29	6.52			0.76				1.77				4.01	44.9
7	Gujarat	156.82	155.93		75.75		25.04	3.28	1.04	24.82		100.83	94.24	27.71	4.05		6.97	149.88	165.89	11.63	1.8	1005.68
8	Haryana	10.14	16.34		53.79	2.74	2		11.81	11.05	14.23	12	0.79	3.11			15.65	5.22	79.99	3.38	26.45	268.69
9	Himachal Pradesh	14.25	3.72	1	8.59		10.28			1.56			0.1	3			0.76		3.35	10.5	8.06	65.17
10	Jammu And Kashmir	1.81	11.44	1.27		0.63		0.43	4.24			0.96			1.27		0.19		10.71	2.37	12	47.32
11	Jharkhand	245.24	12		12.17	89.51	15.68		6.25	55.34		140.13	5.42						49.31	4	95.85	730.9
12	Karnataka	18.67	114.03	13.5	101.21	81.59	15		3.5	24.85	5	85		43	5	16	24.4	25		21		596.75
13	Kerala	61.96	55.16		44.33	2.71	32.42					0.81	0.25	0.25	1.74		5.03	5.89	9.73	1.44	10.58	232.3
14	Madhya Pradesh	50.01	100.6		108.16	18.39	12.34	134		113.83	25.18	65.74	25.89		1.51		14.35		85	5.69		760.69
15	Maharashtra	137.86	169.67		30.16	10.61			252.61	15			82.72			1.16		370	25.06			1094.85
16	Manipur		8.34	1.15	5.57		7.81	0.7	0.6			2.3	12.53	1.6				1		0.75		42.35
17	Meghalaya		7.75		7.22														4.93	12.14		32.04
18	Mizoram	29.47	15.77	12.55	14.4		13.91		0.3			3.11	5.77	0.7					55.37	3.47	1.3	156.12
19	Nagaland	10.5	9.5	2	12.4	3	12.84	1.5	2		2	3.3	1.5	2.5	5.21			11	6.35	3		88.6
20	Orissa	275.89	61.6		103.49		13.6	4	5.14	2.21	6.1	58.73	75.34				10.36		10		6.5	632.96
21	Punjab	10	1224.11		47.33	1	7.23		26.57		11.56	18.58			5.5		15.6	60			34.46	1461.94
22	Rajasthan	4.41	3.88		105.6		16.95	20.6	2	15.95		50.75		101.22			37.19		2	0.7	165	526.25
23	Sikkim	1.52	8.36					0.91				1.28						6.5		1.2	1	20.77
24	Tamilnadu	160.24	87.25		64.16	9.19	40.98	12.25	28.29		1.9	112.2	24.28	32.44	8.74	3.34	3.72		9.2	6.6	27.63	632.41
25	Tripura	43.48	4.9		6.13		8.71					0.63		2.02								65.87
26	Uttar Pradesh	96.74	37.99		26.77	10.34	4.07	176	7.65	164.32	2.3	106.62	2.17	2.32		0.86	1.06	52.85	13.11	28.18	34.77	768.12
27	Uttarakhand	6		1.6	8.91		3.58			0.06	0.55		0.9	10			2.04			9.44	15.08	58.16
28	West Bengal		22.12	6.35	32.01	2.45	9.28	6.68	19.96					167.57	4.31		0.15	4.63	6.11			281.62
29	Total	1931.54	2671.06	49.77	1111.74	314.68	353.23	445.41	333.17	571.63	70.92	1299.15	521.7	492.07	52.38	21.36	184.31	771.92	523.68	145.55	538.45	12403.72

Total Cost :Rs. 123403.72

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION;IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORT/ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; OREM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2013-14

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	ORFM	DDEV	TOTAL	
1	Andhra Pradesh	3.5	86.66	4.42	50.47	34.43	6.56	28		48.34		94.5		16.53			14.96	29.91	1.02	16	13.22	448.52	
2	Arunachal Pradesh	9.99	5.42	0.99	10.01	0.59	7.32			1		1	1						0.75				38.07
3	Assam	108.79	39.72	4.95	29.7	24.5	14.85			28.27		20.41	100.22	14					6.5	11.88	4.46		408.25
4	Bihar	328.35	12			23.43	15.4	49.46				44.56		28.55									501.75
5	Chattishgarh	193.82	69.66		8.21		28.32	14.2		10.85		12.75					0.25		2	1.26	4.96		346.28
6	Goa	6.97			7.71		2.5						1.56	21.78		1.83							42.35
7	Gujarat		0.26		27.7	1.2		0.18			3	103.64		31.66	13.13	1.25		18.8	90.45	39.09	10.5		340.86
8	Haryana	20.4	20.57		63.7	3.72		2.8	2	24.08	5.83	13.93	0.42	109.01			11	13.17	89.07	2	23.15		404.85
9	Himachal Pradesh	4.16	107.86	1	7.56		7.27						4.16	4			6.7	6.7	5.76	7.5			162.67
10	Jammu And Kashmir	2.45	104.15	0.65		0		0.2		2.34	0.6	1.45		1.22	3.11				5.41	1.64			123.22
11	Karnataka	58.64	123.58	14	51.59	62.2	10.75		1.5	116.1		72		40	31		35.25	92.5		14.4			723.51
12	Kerala	36.83	63.12		72.32		12.78					51.45		0.52			6.98	17.48			12.25		273.73
13	Madhya Pradesh	109.38	1052.96		99.67	18.5	10.71		1.77	77.91		63.08	26.29		8.57		1.57		4.5	3	29.47		1507.38
14	Maharashtra	98.1	135.46	8.67	89.8	2.75			1.83	16.38	2.5	30	56.85	15.64				52.58	214	4.88	55.76		785.2
15	Manipur			3	4.05		5.4	2.6		3.07		1.41	3.34					7.25		0.29	1.6		33.01
16	Meghalaya		8.64	2.78	6.55	3.44	11.5	0.94											3.1				36.95
17	Mizoram	41.59	10.58	3	12.06		10.31		0.33			22.35	2.41	2.48				11.37	6.5	0.05	1.33		124.36
18	Nagaland	5.2	6.07	1.5	6.17	1.18	6.4	1.5	0.8	1	0.8	3.2		1.6	0.59			13.3	2	0.6			51.91
19	Orissa	258.92	93.26		40.36	55.88	59.96	92.65	2.88	3.79	0.31	79.08	52.8	19.4				29.81	56.13		67.23		912.46
20	Punjab	59.9	348.94	0.72	80.63		1.08										31.42	51			29.8		603.49
21	Rajasthan				64.29		1.25		3	25.06	4.42	4.5	0.4	19.95			4	32.52					159.39
22	Tamilnadu	85.51	33.73		19.28		6.96	1.4			6	162.1	44	19.9			13.02	3.6			25.54		421.04
23	Tripura	24.87	9.06		9.67		12.2					2.25						4.54	0.63		2.52		65.74
24	Uttar Pradesh	348.89	30.44	1.3	47.48	26.11	12.12	25	2.03	90.41	14.59	47.4	1	17			0.64	3.61	40.67	95.03	34.98		989.71
25	Uttarakhand	12.96	7.56		11	3.2				2.87		3.2	1.1	19.1				55.65		19.42	3.93		139.99
26	West Bengal	5.67	31.35	10.72	48.85	14.92	17.67	16.5	0.21	13.9	4.33	60		80.11				20	5		5.74		334.97
27	Total	1824.89	2404.05	55.7	868.83	276.05	261.31	235.43	16.35	465.37	42.38	894.26	295.55	462.45	56.4	16.74	119.34	497.25	643.83	217.04	326.44		9979.66

Total Cost :Rs. 9979.66

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION; IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORT)/ ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; ORFM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Sector wise Approved Projects Cost under RKVY 2014-15

(Rs. in crore)

S No	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	OREM	DDEV	TOTAL
1	Andhra Pradesh		35.4	6.44	54.33	1.22	5.88		2.29	18	17.45	24.38	2.09	6.96			12.63	3.62		9.47	20.84	221
2	Assam	128.36	64.68		6.05	9.46	5.07			20.65		62.5	4.15	17	5.35		3.2		65.6	11	4.03	407.1
3	Bihar	610.19		1.44	23.37	9.95		77.36		2.88	3.07	31.75		15.08					30.2			805.29
4	Chattishgarh	179.82	46		15.16		28.02	6.07		32.58	18.7						15.36		17		8.35	367.06
5	Goa						9.77				0.41		0.45			10.88		15.9				37.41
6	Gujarat	8.35	172.19		34.4		10.24		2.14	58.2		281.04					0.7	450	15	0.2	15.89	1048.35
7	Haryana	125.27	62.34		47.54		6.77	0.34	2.25	29.98		22.75		16.3			21.48	13.51	99.22		14.86	462.61
8	Himachal Pradesh	3.82	18.5	1	23.03		1.89						5.44	1.4			1.19	6.7	12	8	2.4	85.37
9	Jammu And Kashmir	1.74	10.3	0.8	14.72	100.94	0.6	0.4		2.66		3.58	1.01	0.75	2.56		0.71	1.75	4.98	3.02		150.52
10	Jharkhand	209.59						14.31	7.69				1.85			0.77				7.85		242.06
11	Karnataka	11.46	116.13	5	49.55	42.5	5.89		5.1	49	1.5	72.68	34.02	58.74	25		39.15	41.53	51.68	12.45	2	623.38
12	Kerala	65.22	74.55		57.72		49.01			0.78		4		14.6	46.44		18.08	21.98	4.33	1.4	8.74	366.85
13	Madhya Pradesh	23.78	29.3	5.04	38.47	49.89	7.32		5.5	105.38		100.08	46.6				3.74		93.29			502.39
14	Maharashtra	105	94.65	6.02	44.78	1.44	4.43			13.69	2.7		57.19	30.15			3.77	41.1	400	3.1	37.81	845.83
15	Manipur		4.31	3.12	5.83		5.33	1.3		3.42		0.94	2.18		1.71		0.25	5.09		3.67	1	38.15
16	Meghalaya		2.6	7.54								0.3							8.73			19.17
17	Mizoram	9.68	11.65	10.42	17.4	2.75	13.98		2.55	0.11		10.13	6.03	0.66			1.33	17.79	6.8	0.21	1.26	112.75
18	Nagaland	10	10.66	4	9.27	4.34	9.5	4	2.5	5.5	3.49	11	2.6	3	1.96			20.84		1	1.43	105.09
19	Orissa	223.21	87.8	25.41	1.06				2.06	11.43	0.85	24.95				3.75	12.85		24.45			417.82
20	Punjab	284.11	11.39		177.28		18.34					43.72			9.03		35.76		39.36		72.53	691.52
21	Rajasthan	2.32	73.85		159.2	7.52	4.75	38.5	0.15	183.51	16.8	0.87	126.13	13.12	1.99		5.15	47.39	184.39	4.77	3.03	873.44
22	Tamilnadu	74	13.37		7.3	1.72	7.02			0.28	7.08	57.68	2.8	19.8			6.49	11.75	3.2		32.62	245.11
23	Telangana		36.06	1.12	28.79	2.85	3.74	5.66	0.2	36.92	1	53.03		2.47	1.03		15.83		1	5	13.11	207.81
24	Tripura	25.38	15.97	1	8	7.06	6.5					3.75	1.51		0.25			1.6	1.26			72.28
25	Uttar Pradesh	200.25				6.09		100				29.5		14.35					29.9			380.09
26	Uttarakhand	2.48	1		7.95	9.82						5.24	1.25				5.49	1.18		13.94		48.35
27	West Bengal	106.06	36.08	9.91	118.75	51.43	98.87	25.45	6.96	32.75		59.25	32.75	148.49	2.49		3.11	26.43	88.13		30.24	877.15
28	Total	2410.09	1022.78	88.26	949.95	308.98	302.92	273.39	39.39	607.72	73.05	903.12	328.05	362.87	97.81	15.4	206.27	728.16	1180.52	85.08	270.14	10253.95

Total Cost :Rs. 10253.95

CROP - CROP DEVELOPMENT; HORT - HORTICULTURE; SERI - SERICULTURE; ANHB - ANIMAL HUSBANDRY; OTHR - INNOVATIVE PROGRAMMES / OTHERS; FISH - FISHERIES; COOP - COOPERATIVES/COOPERATION;IPMT - INTEGRATED PEST MANAGEMENT; SEED - SEED; FINM - FERTILISERS AND INM; AMEC - AGRICULTURE MECHANISATION; EXTN - EXTENSION; MRKT - MARKETING AND POST HARVEST MANAGEMENT; NONF - NON FARM ACTIVITIES; ITEC - INFORMATION TECHNOLOGY; AGRE - RESEARCH (AGRI/HORTI/ANIMAL HUSBANDRY etc); NRM - NATURAL RESOURCE MANAGEMENT; IRRI - MICRO/MINOR IRRIGATION; OREM - ORGANIC FARMING / BIO FERTILISER; DDEV - DAIRY DEVELOPMENT

Annexure 13.3

State wise List of Flagship Projects Documented by NIRD

1	ANDHRA PRADESH	1	Seed Management
		2	Intensified mechanisation
		3	Integrated vegetable programme in A.P.
		4	Induction of milch animals
2	ASSAM	1	Shallow Tube Wells with electrically operated pump sets - increase in irrigated area and crop production in areas where SWT have been installed.
		2	Establishment of Organic agriculture produce market
		3	Agri mechanisation through increased use of power tillers
3	BIHAR	1	Farm mechanisation especially Power tillers
		2	Seed production and distribution programme
		3	Dairy activities undertaken under RKVY
4	GUJARAT	1	Water & Soil Conservation Project including reclamation of degraded Bhal areas and checking of salinity ingress in coastal areas and farm ponds.
		2	Export oriented clustering and infrastructure in PPP mode for banana
		3	Large animal surgery at Anand.
		4	Soil testing lab. operated in PPP mode.
5	HARYANA	1	Providing assistance on laying underground pipeline system for water conveyance so that water losses can be avoided and additional land brought under cultivation from the irrigation channels
		2	100% treatment of certified wheat seed
		3	Cattle health management to optimise fertility
6	HIMACHAL PRADESH	1	Construction of low cost green houses/ poly houses
		2	Organic cultivation
		3	Micro/minor irrigation and water harvesting
7	JAMMU AND KASHMIR	1	Protected cultivation of flowers & vegetables
		2	Creation of irrigation infrastructure for Horticulture
		3	Organic farming
8	KARNATAKA	1	Karnataka Seed Mission project
		2	Automated weather monitoring system
		3	Rainfed agriculture - Bhoo-chetana
		4	E-tendering project

9	KERALA	1	Paddy cultivation in fallow lands by leasing land to Padasekaram Samities
		2	Farm mechanisation for paddy harvesting, includes custom hiring of farm machinery by KAICO and giving agricultural machinery to district Panchayats and Padasekarams for collective use.
		3	Development of fishery seed farms, seed production and group mobilisation
10	MADHYA PRADESH	1	Micro irrigation schemes - Percolation tanks, minor irrigation tanks
		2	Seed replacement
		3	Development and promotion of hybrid rice varieties
		4	Kisan Call Centers
11	MAHARASHTRA	1	Construction of farm ponds
		2	Creation of low cost onion storage structures
		3	Surveillance and Monitoring of Pest and Disease on soybean and cotton
		4	AI delivery system
12	MEGHALAYA	1	Water conservation structures mini irrigation check dams
		2	Horticulture hubs
		3	Fisheries
13	ODISHA	1	Development of 100 new watersheds
		2	Acidic soil treatment
		3	Renovation of horticulture farms
14	PUNJAB	1	Animal insurance
		2	Conservation of irrigation water
15	RAJASTHAN	1	PPP for innovation in olive, date palm and jojoba
		2	Operation golden rays PPP for livelihood of 7.5 lakh families through hybrid maize
		3	Diggi Programme
16	TAMILNADU	1	Precision Farming sugarcane, banana
		2	Automated weather stations in 224 Blocks
		3	Promoting SRI through conduct of demonstrations in 40,000 ha
		4	Use of Paddy transplanters in outsourced mode
17	TRIPURA	1	SRI
		2	Pineapple cultivation
		3	Development of demonstration unit on piggery

18	UTTAR PRADESH	1	Production of high value vegetable crops through nursery production in low tunnel Polyhouses
		2	Land Reclamation of Katri Area
		3	Adoption & certification of Organic Agriculture Management System
		4	Saghan Mini Dairy Yojna
19	WEST BENGAL	1	Prani Bandhu Scheme
		2	Hybrid paddy seed production involving NGOs
		3	Implement hub at block level
20	SIKKIM	1	Hi-tech green houses
		2	Integrated farming system for sustainable agriculture
21	CHHATTISGARH	1	Establishment of model villages 'Adarsh Gram'
		2	Performance linked incentives to AI workers
22	JHARKHAND	1	Micro Lift Irrigation
		2	Vermi-composting
23	UTTARAKHAND	1	Strengthening organic vision
24	ARUNACHAL PRADESH	1	Area expansion by land terracing for paddy.
		2	Development of way side market sheds for fruits and vegetables
		3	Development of commercial fish farms through private fish farmers
25	GOA	1	Establishing modern rice mill processing facilities
		2	Incentivizing paddy cultivation through SHGs

Annexure 13.4

Statement Showing release and utilization of funds under RKVY during the period 2007-08 to 2014-15 (As on 31.12.2014)

(Rs. In Crore)

Sl. No	Name of the State/ UT	2007-08		2008-09		2009-10		2010-11		2011-12		2012-13		2013-14		2014-15	
		Release	UC Received														
1	Andhra Pradesh	61.08	61.08	297.17	297.17	410	410	432.29	432.29	734.2	734.2	577.79	577.79	456.87	456.87	253.54	88.96
2	Arunachal Pradesh	1.9	1.9	0	0	15.98	15.98	28.95	28.95	10.68	10.68	24.94	24.94	33.04	26.96	13.92	
3	Assam	0		144.12	142.62	79.86	79.86	216.87	216.87	227.77	227.77	399.57	399.57	218.87	202.47	205.71	
4	Bihar	57.77	57.77	148.54	148.54	110.79	110.79	415.1	415.1	506.82	506.82	700.2	687.39	254.26	246.56	545.73	261.82
5	Chhattisgarh	52.96	52.96	117.45	117.45	136.14	136.14	503.42	503.42	212.61	210.47	571.22	569.1	233.82	231.11	284.09	121.56
6	Goa	1.7	1.7	0	0	0	0	7.07	7.07	24.78	24.78	35.27	24.23	10.43	0	0	
7	Gujarat	49.81	49.81	243.39	243.39	386.19	386.19	388.63	388.63	515.48	515.48	610.87	610.87	476.89	298.41	290.03	100.19
8	Haryana	21.52	21.52	39.5	39.5	112.77	112.77	226.8	226.8	176.87	167.69	179.88	175.14	159.29	146.43	184.68	
9	Himachal Pradesh	16.17	16.17	15.11	15.11	33.03	33.03	94.85	94.85	99.93	99.93	59.27	59.27	77.4	77.4	86.11	26.35
10	Jammu & Kashmir	0		1.2	1.2	42.85	42.85	96.42	96.41	63.03	59.28	103.22	102.01	88.52	75.44	75.25	
11	Jharkhand	55.68	55.68	29.31	29.31	70.13	70.13	96.9	96.9	174.56	174.56	219.38	216.19	147.1	103.09	153.15	
12	Karnataka	154.3	154.3	314.14	314.14	410	410	284.03	284.03	595.9	595.9	549.15	549.15	467.29	465.41	632.22	209.02
13	Kerala	55.4	55.4	30.06	30.06	110.92	110.92	149.65	149.65	182.89	182.45	253.03	252.69	256.24	254.23	300.7	97.68
14	Madhya Pradesh	101.62	101.62	146.05	146.05	247.44	247.44	559.18	559.18	398.37	398.37	448.13	448.13	276.25	276.25	506.09	159.85
15	Maharashtra	128.2	128.2	261.77	261.77	404.39	404.39	653	653	735.44	735.44	1050.81	1050.81	959.69	959.69	935.84	308.57
16	Manipur	0		0.9	0.9	5.86	5.86	15.5	15.5	22.25	22.25	47.97	47.97	23.66	23.66	21.51	
17	Meghalaya	6.37	6.37	6.77	6.77	24.68	24.68	46.12	46.12	20.44	20.44	22.68	22.68	37.98	37.95	34.39	
18	Mizoram	0		0.8	0.8	0	0	3.75	3.75	36.63	36.63	184.73	184.73	77.41	77.41	56.96	
19	Nagaland	3.19	3.19	6.95	6.95	20.38	20.38	13.25	13.25	37.54	37.54	85.75	85.75	30.07	30.07	52.75	26.38
20	Orissa	39.3	39.3	115.44	115.44	121.49	121.49	274.4	274.4	356.96	356.96	468.28	468.28	529.42	529.42	482.07	157.63

21	Punjab	36.05	36.05	87.52	87.52	43.23	43.23	179.12	179.12	145.87	145.87	86.83	86.83	229.44	229.44	413.71	156.13
22	Rajasthan	55.76	55.76	233.76	233.76	186.12	186.12	628.01	628.01	692.08	692.08	348.18	348.18	717.43	735.24	695.28	229.46
23	Sikkim	2.77	2.77	5.68	5.68	15.29	15.29	6.56	6.56	24.64	24.64	15.21	15.21	10.2	10.2	9.49	6.24
24	Tamil Nadu	153.6	153.6	140.38	140.38	127.9	127.9	250.03	250.03	333.06	332.67	613.27	613.27	269.96	269.96	298.95	95.5
25	Telangana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179.64	76.3
26	Tripura	4.16	4.16	16.08	16.08	31.28	31.28	116.48	116.48	25.63	25.63	56.43	56.43	70.5	70.5	80.27	24.2
27	Uttar Pradesh	103.9	103.9	316.57	316.57	390.97	390.97	695.36	695.36	762.83	762.83	294.52	294.52	561.09	434.64	353.47	
28	Uttarakhand	28.25	28.25	10.3	10.3	71.46	71.46	1.31	1.31	128.84	128.01	7.59	8.21	44.03	28.65	45.7	
29	West Bengal	54.93	54.93	147.38	147.38	147.38	147.38	335.98	335.98	486.65	486.65	374.58	374.58	265.08	265.08	582.34	204.32
	Total States	1246.39	1246.39	2876.34	2874.84	3756.53	3756.53	6719.03	6719.02	7732.75	7716.02	8389.37	8353.3	7000.04	6544.7	7773.59	2350.16
30	A & N Islands			2.26	0.01	1.28											
31	Chandigarh			0.14		0.42											
32	D&N Haveli			0													
33	Daman & Diu			0.26													
34	Delhi	0.1		0		0.24											
35	Lakshadweep			6.14	6.04	1.09											
36	Pudducherry	0.4	0.4	0	0	0											
	Total UTs	0.5	0.4	8.8	6.05	3.03	0										
	District Agri Plan																
	NIRD, ISEC, IEG, IIM- CMA, & Admn Contingency			1.66		1.37		1.03		61.34		10.63		52.47		78.05	
	Grand Total	1246.89	1246.79	2886.8	2880.89	3760.93	3756.53	6720.06	6719.02	7794.09	7716.02	8400	8353.3	7052.51	6544.7	7851.64	2350.16

Being Done by MHA

Annexure 18.1

Women in Agriculture at a Glance

S. No	Divisions/ Subject Matter Area	Scheme/Component	Flow of benefit to women in schemes/ programmes
1.	Horticulture	Horticulture Mission for North East & Himalayan States (HMNEH), National Bamboo Mission (NBM), Central Sector Scheme of National Horticulture Board (NHB), Coconut Development Board (CDB) and Central Institute for Horticulture (CIH), Nagaland.	Implementing agencies viz. State Horticulture Missions have been directed to ensure that at least 30% of budget allocation is earmarked for women beneficiaries/ farmers. During the current financial year 2014-15 funds to the tune of Rs. 1116.44 crore have been released to the MIDH implementing States.
2.	Agriculture Extension	Support to States for Extension Reforms	<ul style="list-style-type: none"> • At least 30% scheme beneficiaries should be women farmers/farm women; • Minimum 30% of resources meant for programmes and activities are required to be allocated to women farmers and women extension functionaries with specific documentation of expenditure and performance for women being maintained; • Women farmers are to be involved in different decision making bodies at district and block level such as Agriculture Technology Management Agency(ATMA) Governing Board and ATMA Management Committee at district level; • Women are represented in Farmers Advisory Committees (FACs) set up at block/ district and state level; • More women are involved as 'Farmer Friends' under the newly introduced mechanism for extension delivery below the block level through a 'Farmer Friend';

			Since inception of the scheme in 2005-06, total 79,19,373 farm women (24.17% of the total benefited farmers) have participated in farmer oriented activities like Exposure Visits, Training, Demonstrations & Kisan Melas including 4,47,770 women farmers benefited during 2014-15 (up to 31st December, 2014).
3.		National Gender Resource Centre in Agriculture (NGRCA)	The Centre acts as a focal point to converge of all gender related activities & issues in agriculture & allied sectors within and outside the Department of Agriculture & Cooperation, add gender dimension to agriculture policies & programmes, render advocacy / advisory services to the States/ UTs to internalize gender specific interventions and ensure that the policies and programmes in agriculture are fully engendered & reflect the national commitment to empowerment of women.
4.		Establishment of Agri-Clinics & Agri-Business Centres (ACABC)	<p>During 2014-15 (up to 31.10.2014), 221 women agriculture graduates have been trained, out of which 93 trained graduates have established their Agri-ventures.</p> <p>The subsidy is 44% in respect of women, SC/ST & all categories of the candidates from North-Eastern and Hill States and 36% in respect of other categories.</p> <p>Since Inception of the scheme in 2002, 2883 women candidates have been trained and 801 women agri-ventures have been established. Out of these 380 women candidates have been trained and 118 agri-ventures have been established as on 3rd quarter of the year 2014-15 all over the country.</p>
5.	Crops	National Food Security Mission (NFSM)	30% of budgetary allocation is earmarked for women beneficiaries/farmers. Concerned Implementing Agencies are responsible for monitoring implementation of these components, i.e., allocation of resources for SC/ST/Women beneficiaries.

6.	Oilseeds	National Mission on Oilseeds & Oil Palm	As per direction of planning Commission, States have been asked to earmark 30% of budgetary allocation for women farmers/beneficiaries.
7.	Agricultural Marketing	Integrated Scheme for Agricultural Marketing (ISAM)	Women under AMI are eligible for subsidy @ 33.33% as against 25% for others.
8.	Horticulture	Mission for Integrated Development of Horticulture	All categories of farmers including women beneficiaries are covered under NHM. As per directives of Planning Commission, implementing agencies viz. State Horticulture Missions have been directed to ensure that at least 30% of budget allocation is earmarked for women beneficiaries/farmers.
9.	Mechanization and Technology	Sub Mission on Agricultural Mechanization (SMAM)	<ul style="list-style-type: none"> State Governments have been advised to ensure 30% of allocation under the scheme belongs to women beneficiary and also to furnish reports separately in SMAM guidelines.
			<ul style="list-style-type: none"> 10% more assistance for women beneficiary to procure Agricultural Machinery, implements and equipments including PHT under component 2 and 3.
			<ul style="list-style-type: none"> In order to reduce the drudgery and increasing efficiency in farm operations, a number of agricultural implements and hand tools suitable for farm women have been developed by Research & Development organizations under ICAR. The list of gender friendly equipments has been sent to all States/UTs for popularizing them through various schemes of Government.
			<ul style="list-style-type: none"> During the year 2014-15, 522 women farmers have been trained at FMTTIs till December, 2014.
			<ul style="list-style-type: none"> List of about 30 identified gender friendly tools/equipments developed by Research & Development Organization for its use in different farm operations has been sent to all States/UTs for popularizing them.
10.	Seed	Sub-Mission for Seed and Planting Material (SMSP)	States/Implementing agencies are requested to allocate adequate funds/give preference to women farmers.

11.	Cooperation	Cooperative Education and training through the National Cooperative Union of India (NCUI)	<p>The Cooperative Education programme for women is being implemented through the State Cooperative Unions in the States of Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Himachal Pradesh, Karnataka, M.P, Mizoram, Orissa, Rajasthan, Tamil Nadu, UP and West Bengal. During the year 2013-14, a total of 16944 women were imparted education under various educational activities. The Cooperative Education programmes for women are being implemented through the State Cooperative Unions in the states of Arunachal Pradesh, Assam, Bihar etc. NCUI is now running 4 exclusive women development projects located at Shimoga (Karnataka), Aska Behrampur (Orissa), Imphal (Manipur) and Bhopal (MP) under the Special Scheme of Intensification of Cooperative Education in the cooperatively under-developed states.</p>
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