

ANNUAL REPORT

2013-2014

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Ministry of Agriculture
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Chapter-1 Overview

1.1 As per the land use statistics 2010-11, the total geographical area of the country is 328.7 million hectares, of which 141.6 million hectares is the net sown area. The gross cropped area is 198.9 million hectares with a cropping intensity of 140.5%. The net irrigated area is 63.6 million hectares.

1.2 Agriculture GDP: The agriculture and allied sectors contributed approximately 13.9% of India's GDP (at constant 2004-05 prices) during 2013-14. Gross Domestic Product (GDP) of agriculture and allied sectors and its share in total GDP of the country during the last 4 years, including the current year, at 2004-05 prices is as follows:

(Rs. in Crore)

Items	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
GDP of Agriculture and Allied Sectors	6,60,987	7,17,814	7,53,832	7,64,510	7,99,996
Per cent to total GDP	14.6	14.56	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 sectors in the GDP from 14.6 percent in 2009-10 to 13.9 percent 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.

1.4 Growth (over the previous year) in the total GDP and that in the GDP of agriculture and allied sectors at 2004-05 prices is given below:

(In percent)

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 (RE)	4.5	1.4
2013-14 (BE)	4.9	4.6

Source: Central Statistics Office.

1.5 The sector witnessed a growth of 5.8 per cent in 2007-08, 0.1 per cent in 2008-09, 0.8 percent in 2009-10, 8.6 per cent in 2010-11, 5.0 per cent in 2011-12, 1.4 per cent in 2012-13 and 4.6 per cent in 2013-14 (BE) at 2004-05 prices.

1.6 Rainfall 2013-14: The year 2013-14 experienced a normal South West monsoon rainfall (June-September). At met sub-division level, 30 out of 36 met sub-divisions received excess/normal rainfall and 06 met subdivisions received deficient rainfall during this period. The country as a whole received 936.7 mm of rainfall against normal rainfall of 886.9 mm which represents a deviation of 6 percent above the Long Period Average (LPA). Out of 622 districts for which rainfall data were available, 184 districts (30%) received excess rainfall, 264

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districts (42%) received normal rainfall, 156 districts (25%) received deficient rainfall and 18 districts (3%) received scanty rainfall.

1.7 Production Scenario 2012-13: As per Final Estimates for 2012-13, total production of rice in the country is estimated at 105.24 million tonnes which is lower by 0.06 million tonnes than record production of rice during 2011-12. Production of wheat estimated at 93.51 million tonnes is lower than its record production of 94.88 million tonnes during 2011-12. The production of Coarse Cereals is estimated at 40.04 million tonnes which is lower than the production of Coarse Cereals during 2011-12. Total food grains production estimated at 257.13 million tonnes is lower by 2.16 million tonnes than the record

production of 259.32 million tonnes achieved during 2011-12. Total production of pulses and oilseeds estimated at 18.34 million tonnes and 30.94 million tonnes respectively are higher than their production levels during 2011-12. Production of sugarcane estimated at 341.20 million tonnes is lower by 19.83 million tonnes than its record production of 361.04 million tonnes during 2011-12. Production of cotton is estimated at 34.22 million bales (of 170 kg each) which is marginally lower than its production of 35.20 million bales during 2011-12. Production of jute & mesta estimated at 10.93 million bales (of 180 kg each) is a little lower than production of 11.40 million bales during 2011-12. Area, Production and Yield of major crops during last three years is given below:

Crops	Area (lakh hectares)			Production (million tonnes)			Yield (kg/hectare)		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Rice	428.62	440.06	427.53	95.98	105.31	105.24	2,239	2,393	2,462
Wheat	290.69	298.65	300.03	86.87	94.88	93.50	2,989	3,177	3,117
Coarse Cereals	283.39	264.22	247.61	43.40	42.04	40.04	1,531	1,591	1,617
Pulses	264.02	244.62	232.56	18.24	17.09	18.34	691	699	789
Food- Grains	1,266.71	1,247.55	1,207.75	244.49	259.32	257.13	1,930	2,079	2,129
Oilseeds	272.24	263.08	264.84	32.48	29.80	30.94	1,193	1,133	1,168
Sugarcane	48.85	50.38	49.98	342.38	361.04	341.19	70,091	71,668	68,254
Cotton#	112.35	121.78	119.77	33.00	35.20	34.22	499	491	486

1.8 Agriculture Production Scenario 2013-14 : As per Second Advance Estimates for 2013-14, total production of rice in the country is estimated at 106.19 million tonnes which is a new record. The current year's production is higher by 9.5 lakh tonnes than the last year's record production of 105.24 million tonnes. Production of wheat estimated at 95.60 million tonnes is also a new record. Previous record

production of 94.88 million tonnes of wheat was achieved during 2011-12. Production of rice as well as wheat is also considerably higher than their average production levels. The production of Coarse Cereals estimated at 41.64 million tonnes is also higher by 1.60 million tonnes than the last year's production and 1.83 million tonnes than the average production of last five years. Total food grains production estimated

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at all time record of 263.20 million tonnes is higher by 6.07 million tonnes than the last year's production of 257.13 million tonnes. During the year, there has been quantum increase of 20.50 million tonnes over the average production of foodgrains during the last five years. Setting all time new records, production of pulses and oilseeds estimated at 19.77 million tonnes and 32.98 million tonnes respectively are higher by 1.43 million tonnes and 2.04 million tonnes over their last year's production levels. Their production is also higher by 3.19 million tonnes and 3.83 million tonnes respectively than their average production levels. The current year's production of Sugarcane estimated at 345.92 million tonnes is higher by 4.72 million tonnes than the last year. The production of Cotton estimated at an all time record of 35.60 million bales (of 170 kg each) registered an increase of 5.86 million bales over the average cotton production of 29.74 million bales. Production of Jute is also estimated to be marginally higher than its average production. A statement showing crop-wise area and production of foodgrains, oilseeds and commercial crops during 2012-13 and 2013-14 is given at Annexure 1.1



1.9 Capital Formation in Agriculture and Allied Sector:

Gross capital formation(GCF) in Agriculture and Allied Sectors relative to GDP in this sector has been showing a steady increasing trend from 14.6 per cent in 2005-06 to 21.2 per cent in 2012-13

Gross Capital Formation (GCF) in Agriculture and allied sectors at 2004-05 prices

(Rs. in Crore)

Year	GCF	GDP	GCF as a % of GDP
1	2	3	4
2005-06	86,604	5,94,487	14.6
2006-07	92,057	6,19,190	14.9
2007-08	1,05,741	6,55,080	16.1
2008-09	1,27,127	6,55,689	19.4
2009-10	1,33,162	6,60,987	20.1
2010-11	1,32,734	7,17,814	18.5
2011-12	1,57,172	7,53,832	20.8
2012-13	1,62,084	7,64,510	21.2

Source: Central Statistics Office

1.10 Agricultural Credit

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 (provisional) 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.4,33,341 crore upto 31st December, 2013.

1.11 Kisan Credit Card

The Kisan Credit Card (KCC) Scheme is in operation throughout the country and is implemented by Commercial Banks, Coop. Banks and RRBs. The

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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.

1.12 Special Rehabilitation Package for distressed farmers: In the year 2006, the Government implemented a Special Rehabilitation Package of Rs.16,978.69 crore for 31 suicide prone Districts in the four States, namely, Andhra Pradesh, Maharashtra, Karnataka and Kerala and Rs.19,998.85 crore was released to these States. The implementation period of package has ended on 30.11.2011. The approach adopted under the package was basically convergence of the benefits available to the eligible farm households under various ongoing government scheme/programmes to improve the income and livelihood of farmers in a time bound and sustainable manner. The package has stabilized the conditions of the farmers in the identified districts and further action can be taken under various ongoing schemes and

programmes like RKVY, NFSM etc to address the problems faced by agriculture sector. The State Governments have been advised to constitute special teams in the identified districts to oversee the implementation of the various schemes/programmes.

1.13 A package for mitigation of agrarian distress in Idukki district of Kerala with financial outlay of Rs.764.65 crore was approved by Government of India in November, 2008. As reported by the Government of Kerala, as on October, 2013, Rs.438.21 crore has been sanctioned out of which Rs. 237.78 crore has been released and Rs. 167.86 crore has been utilized. The implementation period of the package has ended in November, 2013.

1.14 Package for Development of Kuttanad Wetland Ecosystem with financial outlay of Rs. 1840.75 crore, was also approved by Government of India in July, 2008. As reported by the State Government of Kerala, projects



worth Rs. 4,481.56 crore were submitted under the package of which projects involving amount of Rs. 1,266.68 crore were sanctioned. The implementation period of the package has ended in July, 2012.

1.15 Agriculture Insurance: Till 31st October, 2013, Department of Agriculture & Cooperation has implemented four Central Sector Crop Insurance Schemes namely (i) National Agricultural Insurance Scheme (NAIS) (ii) Pilot Modified National Agricultural Insurance Scheme (MNAIS) (iii) Pilot Weather Based Crop Insurance Scheme (WBCIS) & (iv) Pilot Coconut Palm Insurance Scheme (CPIS) to provide financial assistance to farmers against crop failure due to natural calamities, pests & diseases and adverse weather conditions. In order to make the crop insurance schemes more farmer friendly, based on the recommendations of evaluation studies, experience gained through the implementation of various crop insurance schemes and the views of stake holders including State Governments, a re-structured scheme in the name of National Crop Insurance Programme has been formulated by merging the pilot schemes of WBCIS, MNAIS and CPIS with provision for full fledged implementation throughout the country and roll back of NAIS from Rabi 2013-14. Administrative approval for implementation of NCIP w.e.f. Rabi 2013-14 has been issued on 01.11.2013.

1.16 The scheme provides for greater coverage in terms of farmers /crops and risk commitment. The financial liabilities of the Government in implementing the scheme is limited to provide premium subsidy to farmers , which is shared by the Central and State Governments on 50:50 basis. The liability towards payment of claims

is on the insurer. The scheme is available to all farmers, irrespective of the size of their holdings. The scheme is implemented on actuarial basis by the Agricultural Insurance Company (AIC) and private Insurance Companies empanelled by the Department of Agriculture & Co-operation, Government of India. Private Insurance Companies have been involved to bring more competition in crop insurance sector so as to provide the best services to farmers at competitive rates. The coverage of crop insurance schemes in terms of farmers insured is projected to be achieved to the level of 50% from the existing level of about 25% by the terminal year of the 12th plan.

National Policy for Farmers (NPF), 2007

1.17 The National Policy for Farmers (NPF), 2007 aims at improving economic viability of farming and increasing net income of farmers. Policy provisions in NPF, 2007 include, inter-alia, asset reforms in respect of land, water, livestock, fisheries and bio-resources; supply of good quality seeds and disease-free planting material; issue of soil health passbooks to the farmers and integrated pest management system; region and crop specific implements and machinery; support services for women; timely, adequate and easy reach of institutional credit at reasonable interest rates and farmer-friendly insurance instruments; support services and inputs like application of frontier technologies; agricultural bio-security system; use of information and Communication Technology and setting up of farm schools to revitalize agricultural extension; coverage of farmers under a comprehensive national social security scheme; effective implementation of Minimum Support Price (MSP) across the country and establishing community foodgrain

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banks; development of agricultural market infrastructure and terminal markets for agriculture; curriculum reforms in agricultural universities; special categories of farming like organic farming and contract farming; rural non-farm employment initiative for farm households; and integrated approach for rural energy, etc. Many of the Schemes/Programmes being implemented by Central and State Governments are as per the provisions of NPF, 2007.

1.18 An Inter-Ministerial Committee was set up under the Chairmanship of the Principal Adviser in the Department of Agriculture and Cooperation for preparation of a Plan of Action for Operationalisation of the NPF, 2007. The Committee comprised officers of Central Ministries/Departments concerned as members. Based on its meetings held from time to time between December, 2007 and May, 2008, visits to three States for discussion with the stakeholders and response/comments received from various quarters to the draft plan circulated in advance, a Final Plan of Action for Operationalisation of the NPF 2007 was finalized and circulated among all concerned in 2008 which include Central Ministries / Departments and the State Governments / U.T. Administrations. After carefully analyzing the differential between the action points as contained in the NPF, 2007 and action already taken, the Committee identified 201 further steps where necessary action was to be taken. Out of these 201 points, 64 relate exclusively to the Department of Agriculture and Cooperation, another 64 relate exclusively to other Central Departments/ Ministries and 73 points are common to the DAC and other Departments. Another Inter-

Ministerial Committee (IMC) was set up under the Chairmanship of Joint Secretary (Policy), Department of Agriculture & Cooperation to monitor the progress of implementation of these 201 action points. The IMC has held five meetings on 14.10.2009, 03.06.2010, 29.06.2012, 13.09.2013 and 9.1.2014. After the last meeting of I.M.C. which was held on 9.1.2014, out of 201 action points only 24 action points remain for further action. A regular monitoring mechanism has also been put in place to oversee the progress of implementation of the NPF 2007.

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

1.19 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, with the approval of Planning Commission all the ongoing 51 schemes of the Department has been re-structured into five Missions viz. National Food Security Mission (NFSM), Mission for Integrated Development of Horticulture Mission (MIDH), National Mission on Oil Seeds and Oil Palm (NMOOP), National Mission for Sustainable Agriculture (NMSA), and National Mission on Agricultural Extension & Technology (NMAET); five Central Sector Schemes viz. National Crop Insurance Programme (NCIP), Integrated Scheme on Agri-Census & Statistics (ISAC&S), Integrated Scheme of Agriculture Marketing (ISAM), Integrated Scheme of Agriculture Cooperation (ISAC) and Secretariat Economic Service; and one State Plan Scheme viz. Rashtriya Krishi Vikas Yojana. Details of the Mission/Schemes proposed during the 12th Plan are given in the succeeding chapters.

Chapter-2

Functions and Organisational 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 Principal Adviser and five Additional Secretaries including one Financial Adviser, Agriculture Commissioner, 11 Joint Secretaries including Mission Director, Mission for Integrated Development of Horticulture & Mission Director (National Food Security Mission), Horticulture Commissioner, Horticulture Advisor, Marketing Advisor and two Deputy Director Generals. In addition, Chairman of Commission for Agriculture Costs and Prices (CACPC) 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-two subordinate offices (**Annexure-2.2**) which are spread across the country for coordination with state level agencies and implementation of Central Sector Schemes in their respective fields. Further, two Public Sector Undertakings, nine autonomous bodies, ten national-level cooperative organizations and one authority (**Annexure-2.3**) are functioning under administrative control of 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 actions are 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.

2.4 A Public Grievance Cell has been set up and 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 is also nominated as nodal officer for monitoring redressal of public grievances received in the Department at Headquarters. One Deputy Secretary has been nominated as Staff Grievance Officer to deal with grievances of the employees working in the Department of Agriculture & Cooperation. Similar arrangements have been made at the level of all Attached and Subordinate Offices and other organizations under the administrative control of this Department in order to ensure expeditious redressal of grievances. During 2013-14, the DAC (proper) has been found

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to have improved significantly in reducing the pendency of online public grievances. This fact has been appreciated and commended upon by the Hon'ble MOS (Personnel, Public Grievances & Pensions).

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 available on the website of Department (www.agricoop.nic.in).

2.6 Implementation of the Right to Information Act, 2005: During the year 2013-14 (as on 31-03-2014), 829 physical applications, and 527 online applications seeking information under Right to Information Act, 2005 were received in RTI/IFC and replies were sent to applicants in time.

2.7 Information and Facilitation Counter: This counter provides information in respect of all the three Departments under the Ministry of Agriculture. During the year 2013-14, various visitors from NGOs as well as general public visited the counter to obtain information. Numerous telephonic calls were also received in RTI/IFC from general public to obtain information pertaining to three Departments 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 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. In accordance with guidelines issued by the Department of Official Language, a Joint Hindi Salahkar Samiti for all three departments of the Ministry of Agriculture has been reconstituted in consultation with the Department of Official Language under the chairmanship of Hon'ble Agriculture Minister.

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, twelve 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.

2.10 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. Employees possessing a working knowledge for proficiency in Hindi were deputed to undergo training in Hindi workshop organized by the Hindi Division from time to time during the year under report.

2.11 With a view to create awareness regarding the use of Hindi in the official work



of the Department, a Hindi Fortnight was held during 1-14 September 2013. On this occasion, the Honourable 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.

2.12 The Second Sub-Committee of the Committee of Parliament on Official Language conducted inspection of nine offices of the Department of Agriculture and Cooperation to review position regarding progressive use of Hindi in official work during the year. The officers of this Department were also present at these inspection meetings.

2.13 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.

2.14 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 these 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.

2.15 Results Framework Document (RFD): Ever since the introduction of the concept of RFD in the year 2009, to measure the performance of ministries/departments of Government of India, the Department of Agriculture & Cooperation has been preparing the RFDs every year and placing

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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**.

2.16 The performance of the Department against the targets set to fulfill 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	—



Chapter-3

Directorate of Economics & Statistics

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 and 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 of agricultural statistics; research and analysis on the basis of agricultural statistics; and dissemination of agricultural statistics. The Directorate's main functions include: furnishing agricultural economics and statistical inputs to DAC and CACP; providing expert services to DAC on various economic and statistical issues; providing coordination services to DAC on matters concerning agricultural economics and policy.

3.2 Major Programmes/Activities: Various Divisions of the Directorate deal with various agricultural economics and statistics related functions and also act as the Nodal agencies for Plan schemes, the details of which are given in the successive paragraphs.

3.3 Agricultural Statistics Division: Directorate of Economics & Statistics releases four advance estimates and final estimates of area, production and yield in respect of major food grains, oilseeds, sugarcane and fibres based upon

the information received from State Agricultural Statistics Authorities (SASAs) which have been designated the nodal agency responsible for the collection/compilation of Agriculture Statistics in the States. The first advance estimates (kharif only) of area, production and yield are released in the month of September. Second advance estimates (Kharif+Rabi) 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 prepared in April when the State Governments are ready with better assessment of production for both kharif and rabi crops. The fourth advance estimates are prepared in July. By this time, most of the rabi crops get 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 fourth advance estimates are almost same as the final estimates which are released in the month of February of the following year.





3.4 Food Economics and Commercial Crops Divisions: Government's price policy for agricultural crops seeks to ensure remunerative prices to the growers with a view to encourage higher investment and production and at the same time safeguard the interests of consumers by making available food supplies at reasonable prices. The price policy thus aims to evolve a balanced and integrated price structure in the perspective of the overall needs of the economy. The government decides on the support prices for various agricultural commodities, after taking into account the recommendations of the CACP, the views of state governments and central ministries, as well as other relevant factors, which are considered important for fixation of support prices. 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-3.1**

3.5 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 of 'Land Use Statistics', and 'Agricultural Statistics at a Glance'.

3.6 Market Intelligence & Price Analysis

Division: The division collects wholesale prices of approximately 154 agricultural Commodities on daily and weekly basis from approximately 700 markets, centres spread all over the country. Supply of weekly wholesale prices of 80 agricultural commodities from 153 market centres, spread all over the country, is made to the Office of the Economic Adviser, Ministry of Commerce & Industry, for construction of monthly Wholesale Prices Index (WPI). A publication on Agricultural Prices in India is prepared which contains the statistics on wholesale prices and retail prices of selected agricultural commodities. The Division also collects and compiles the data on farm harvest prices of 30 major crops from 30 States/Union Territories. These are obtained from the State Agriculture Departments of the respective states. A publication on Farm Harvest Prices is also prepared in the Division. Weekly Retail prices of 88 essential commodities, viz., 45 food items (once a week) and 43 non-food items (once a month) from 87 market centres spread all over the country are also collected.

3.7 Agricultural Market Information System

(AMIS): In June 2011, the G 20 Ministers of Agriculture, while recognizing the importance of timely, accurate and transparent information in addressing food price volatility launched the AMIS, a collaborative food information initiative. AMIS is designed to improve agricultural market information, analysis and forecasts at both national & international levels. Presently AMIS is

confined to four crops, i.e., wheat, rice, maize and soybean in terms of preparing balance sheets, incorporating data on production, consumption, stocks, export and import, etc. Directorate of Economics and Statistics (DES) is the focal point for providing data on regular intervals to Food and Agriculture Organization (FAO).

3.8 Agricultural Wages Division: Statistics relating to daily wages paid to different categories of agricultural and skilled rural labour at selected centres from various sources are collected and compiled by the 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.

3.9 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 annual publication of Agricultural Statistics at a Glance and State of Indian Agriculture. These compilation are made available on the website at www.agricoop.nic.in & <http://eands.dacnet.nic.in>.

3.10 In order to disseminate various agricultural statistics, the Directorate of Economics and Statistics brings out not only Agricultural Statistics at a Glance, a flagship publication; but also numerous other publications. These include Agricultural Situation in India, a monthly journal; and periodicals like Agricultural Prices in India, Agricultural Wages in India, Land Use Statistics at a Glance and Cost of Cultivation of Principal Crops.

3.11 Coordination Division: The Coordination

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Division's main work is to coordinate with the Department of Agriculture & Cooperation and other central and state government agencies in matters relating to plan formulation exercises, important publications of the Directorate of Economics and Statistics, DAC and other government agencies. It coordinates the preparation of Economic Survey Chapter on Agriculture & Food Management, background note for the Economic Editors Conference, Parliament matters and Five Year & Annual Plan formulation of the Directorate.

3.12 Plan Schemes: The plan schemes that are being implemented by Directorate of Economics & Statistics are detailed in the succeeding paragraphs.

3.13(A) Studies on Inputs for Agricultural

Economic Policy and Development: This is an Umbrella Scheme with following five components:

- **Cost of Cultivation Scheme:** The Comprehensive Scheme for studying the Cost of Cultivation of Principal Crops in India, is being implemented since 1970-71 as a Central Sector Plan Scheme. During the 12th Five Year Plan, this scheme has become a component of the "Integrated Scheme on Agriculture Census, Economics and Statistics". The main objectives of the scheme is (i) collection and compilation of field data on cost of cultivation and cost of production in respect of 27 crops (paddy, wheat, jowar, bajra, maize, ragi, barley, moong, urad, arhar, gram, masur,



peas, groundnut, rapeseed and mustard, nigerseed, soyabean, sunflower, safflower, sesamum, cotton, jute, sugarcane, onion, potato, coconut, black pepper); and (ii) Generation of estimates of cost of cultivation and cost of production of various crops in 19 States covered under the scheme (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal). The study is conducted through 16 Agricultural/General Universities/Colleges. Under the scheme, field data pertaining to the cost of cultivation/cost of production of various crops is collected, compiled and analysed. The estimates of cost of cultivation/production furnished to CACP forms an important basis for its recommendations of MSPs of various agricultural commodities. The cost estimates generated under the scheme are also used by State Governments, Agricultural/General Universities, Government / Non-Government Research Organizations and individual researchers. During 2013-14, against the total allocation of Rs.55.00 crore, an amount of Rs.54.90 crore was released to the Implementing Agencies. Budget allocation (BE) for the 2014-15 is Rs.57.75 crore.

- **Agro-Economic Research Scheme:** The Scheme was started in 1954-55 for undertaking research studies on agro economic problems of the country. The

study reports help the administrators and policy-makers in their future planning and policy decisions besides immense help to the academicians/researchers in the field of agricultural economics. The Scheme is being implemented through 12 Agro-Economic Research Centres (AERCs) and 3 Units which are fully funded through the Scheme. On an average, 35-40 research studies are completed annually by these Centres, which relate to various economic problems in agriculture, animal husbandry, water management and allied areas. For the Year 2013-14 against allocation of Rs.18.30 crore (including Rs.2.50 crore for Northeast region) an amount of Rs.14.77 crore has been released by 31.03.2014.

- **Planning and Management of Agriculture:** The Scheme was formulated during 1998-99 with a view to organize conferences and seminars involving eminent economists, agricultural scientists and experts; to conduct short term studies; to 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, and studies. They form an important input in the formulation of national agricultural policy/sub-sectoral policies; and monitoring and implementation of the programmes. Specific activities funded under the scheme include – (i) Publication of ‘Agricultural Situation in India’, ‘Agricultural Statistics

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at a Glance', 'Cost of Cultivation', and 'Wage Statistics'; (ii) Cotton Study; and (iii) Funding of research studies required to be outsourced. During 2013-14 against allocation of Rs.3.00 lakh, an amount of Rs.50,000 has been released.

- **Strengthening of Agricultural Statistics and Policy Formulation (SAS&PF):** The scheme involves holding a National Workshop on Improvement of Agricultural Statistics every year. In the workshop, ways and means to bring about improvement in collection and compilation of agricultural statistics are discussed. The methodological issues relating to preparation of advance estimates of area and production of crops, reconciling estimates of cotton production with Cotton Advisory Board, compiling statistics relating to horticulture crops, forecasting area and production of crops through remote sensing, timely conduct of agricultural census and timely release of its reports, reducing time lag in collection of land use statistics, improving collection of wholesale and retail prices, cost of cultivation studies etc. are also discussed. Under the scheme, an allocation of Rs.7.00 lakh was made during 2013-14.
- **Drought Management (DM):** The Drought Management Programme, an independent Central Sector Plan Scheme, was discontinued in the Tenth Plan and the scheme was subsumed with the previously mentioned Umbrella Scheme namely 'Studies on Inputs for Agricultural Economic Policy and Development' during 2007-08, and its funds are allocated for studies

related to DM Division of DAC. Under this scheme an allocation of Rs.10.00 lakh was made during 2013-14.

3.14 Activities undertaken in North-Eastern States: Under the Umbrella Scheme of Studies on Inputs for Agricultural Economic Policy and Development, there are two centres at Jorhat, under Assam Agriculture University. These centres on Cost of Cultivation and Agricultural Economic Research are engaged in cost of cultivation compilation and agro-economic research on various issues of agricultural economics of state and national importance related to North-Eastern Region. During 2013-14 against allocation of Rs. 8.00 crore, an amount of Rs.6 crore and Rs.1.12 crore have been released under cost of cultivation scheme and the Agro-Economic Research Scheme respectively. The allocation for central sector schemes is Rs 6.00 crore for 2014-15

3.15 (B) Improvement of Agricultural Statistics: The basic objective of the Scheme is to collect and improve agricultural statistics of principal agricultural crops and selected horticultural crops. During the 12th Five Year Plan, this scheme has become a component of the "Integrated Scheme on Agriculture Census, Economics and Statistics". The Scheme has four components, viz. (i) Timely Reporting; (ii) Improvement of Crop Statistics; (iii) Establishment of an Agency for Reporting of Agricultural Statistics (EARAS); and (iv) Crop Estimation Survey on Fruits & Vegetables. From 2007-08, the scheme has been converted to Central Sector Scheme and is funded 100 per cent by the Central Government. During 2013-14, against an allocation of Rs.90.70 crore (RE), an amount of Rs.90.66 crore was released

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to States. For the year 2014-15, an amount of Rs. 113.00 crore (BE) has been allocated. The component-wise details of the scheme are as under:

- **Timely Reporting of Estimates of Area and Production of Principal Crops:** The objective of this component is to obtain estimates of area of principal crops, in each season, with the breakup of area under irrigated/un-irrigated and traditional/high yielding varieties of crops on the basis of priority enumeration conducted by random sampling of 20% of villages by a specific date. These estimates are used for generating advance estimates of production of principal crops. This component is being implemented in 16 land record States and also in Union Territories of Delhi and Puducherry.
- **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 16 States and the Union Territory of Puducherry. The performance of the implementation of this component also is being closely monitored through Quarterly and Seasonal progress Reports.
- **Establishment of an Agency for Reporting of Agricultural Statistics (EARAS):** This component is being implemented in the permanently settled States of West Bengal, Kerala, Odisha 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
- **Crop Estimation Survey of Fruits, Vegetables and Minor Crops (CES-F&V):** This component is implemented to generate estimates of area and production of fruits and vegetables in the country. The component is being implemented in 11 States covering a total of 14 crops (7 fruit crops of apple, mango, citrus, pineapple, grape, banana, and guava; and 7 vegetable crops of potato, onion, cabbage, cauliflower, tomato, ginger, and turmeric). The methodology developed by the Indian Agricultural Statistics Research Institute

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(IASRI) is being used for generation of these estimates.

3.16 Activities undertaken in 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 2013-14 under the Scheme 3.78 crore have been released to NES by November 2013.

3.17 Crop Forecast Coordination Centre (CFCC): CFCC carries out the following activities:

- 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, Agrometeorology 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.

3.18 During the Twelfth Plan (2012-17), it has been decided to merge the schemes of Directorate of Economics & Statistics along with the scheme of Agriculture Census under the Integrated Scheme of Agriculture Census and Statistics.

Chapter-4

National Food Security Mission

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 XI Plan through area expansion and productivity enhancement; restoring soil fertility and productivity; creating employment opportunities; and enhancing farm level economy.

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 resource conservation technologies along with capacity building of farmers. The major interventions/activities covered under NFSM include cluster demonstrations of rice, wheat and pulses, 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 XI Plan, NFSM was implemented in 482 districts of 19 states. NFSM-Rice was implemented in 144 districts of 16 states viz Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, J&K, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal; NFSM-Wheat was implemented in 142 districts of 9 states viz, Bihar, Gujarat, Haryana, Madhya

Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh and West Bengal; and NFSM-Pulses including Accelerated Pulse Production Programme (A3P) was implemented in 468 districts of 16 states, viz, Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

4.4 Interventions during XI Plan: New farm practices of improved production technologies and new varieties of rice, wheat and pulses have been conducted through demonstrations in 3.28 lakh ha. during 2007-08 to 2011-12. System of Rice Intensification (SRI) for rice as well as hybrid rice has been promoted. Nearly, 174.77 lakh qtls of high yielding variety/hybrid rice, wheat and pulses have been distributed. 123.00 lakh ha of area has been treated with soil ameliorants (gypsum/lime/micro nutrients) to restore soil fertility. 49.58 lakh ha area has been treated under Integrated Pest Management (IPM). 74.70 lakh improved farm machineries/water saving devices have been distributed. 49,151 farmers' field schools have been organized for capacity building of farmers. Under A3P, 1,416 units (1000 ha per unit) of compact block demonstration conducted.

4.5 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

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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 plan of implementations and the progress of the programme of each state. National Level Monitoring Team (NALMOT) headed by Mission Director with members from Department of Agriculture & Cooperation, Indian Council of Agricultural Research, State Agriculture Universities (SAUs), Crop Development Directorates. Project Management Team (PMT) conducts field visits regularly for monitoring and technical guidance to states.

4.6 Monitoring & Evaluation at State Level:

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.

4.7 The Mid-Term Evaluation of NFSM was conducted by an independent agency to assess the impact of the scheme 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 contributions coming from the NFSM districts. Significant outputs were recorded under NFSM since inception of the scheme in 2007-08. The Mission accomplished the target of additional production of 20 million tonnes within 4 years of its implementation.

4.8 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, pulses and enhancement of farm income etc.

4.9 Initiatives under XII th Plan: 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. In 2013-14, an amount of Rs.2,250.00 crores was provided under NFSM as Plan Outlay. Action Plan for the implementation of NFSM by the States were conveyed to the them and an amount of Rs.2,044.85 crores have been released to the States. Thus, NFSM has been implemented in 561 districts of 27 States of the country during 2013-14.

4.10 Interventions during 2012-13:

Recommended agronomic practices have been encouraged through Cluster demonstrations/ Frontline demonstrations in 6.91 lakh ha area. Nearly, 34.91 lakh quintals of high yielding varieties/hybrid rice, wheat & pulses are reported to have been distributed. 33.60 lakh ha area has been treated with soil ameliorants (Micronutrients/Gypsum/Lime) to restore soil fertility. 7.02 lakh ha area has been covered under Integrated Pest Management (IPM). Nearly 8.55 lakh numbers of improved farm machineries including pumpsets & sprinklers have been distributed. 9,446 cropping system based trainings were conducted for capacity building of farmers. Under A3P, 5,049 units (100 ha per unit) of compact block demonstration have been conducted.

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4.11 A programme on Additional Area coverage of Pulses during Rabi/Summer 2013-14 has been launched with an allocation of Rs.355.58 crores 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 allocation for implementation of the above said programme has been made to the States of Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

4.12 Outcome of NFSM since inception: The

focussed and target oriented implementation of mission initiatives has resulted in bumper production of wheat, rice and pulses in the country. The production of Wheat increased from 75.81 million tonnes in 2006-07 (pre-NFSM year) to 94.88 million tonnes during 2011-12, i.e. an increase of 19.00 million tonnes against the envisaged target of 8 million tonnes. Similarly, the total production of rice increased from 93.36 million tonnes in 2006-07 to 105.30 million tonnes in 2011-12 i.e. an increase of nearly 12.00 million tonnes against the target of 10 million tonnes. The total production of Pulses also increased from 14.20 million tonnes during



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2006-07 to 18.24 million tonnes during 2010-11 with an increase of 4.04 million tonnes against the envisaged target of 2.0 million tonnes. During 2011-12, production of 17.09 million tonnes of pulses was achieved. During 2012-13, the production 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.

4.13 Revamped NFSM from 2014-15: Cabinet Committee of Economic Affairs has cleared the continuation of NFSM programme in the XII Plan with allocation of Rs.12,350 crores including Rs.90 crores for Technology Mission on Cotton and Rs 60 crore for Jute Technology Mission. NFSM has been revamped during the XII Plan to cover all food grain crops including coarse cereals. During XII plan, the target of additional 25 million tonnes of food grains consisting of 10 million tonnes of rice, 8 million tonnes of wheat, 4 million tonnes of pulses and 3 million tonnes of coarse cereals has been fixed.

4.14 Cropping system based implementation of package of practices in compact blocks in cluster approach through- Accelerated Crop Production Programme for low productivity areas 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.

4.15 Under the NFSM, cropping system approach is being adopted by including commercial

crops like cotton, jute and sugarcane to meet the demand for both food & cash crops. This would be possible through proper crop rotation, multiple cropping systems, intercropping etc. The programme will be implemented in all major cotton, jute and sugarcane growing states. Other non-traditional States may also be covered on the basis of their potential. Beside States, ICAR, Krishi Vigyan Kendras (KVKs), State Agriculture Universities (SAUs), Cooperatives, NGOs, etc. will implement the activities of NFSM-commercial crops.

4.16 To increase the production and productivity of cotton and Jute, Centrally Sponsored Schemes of Mini Mission-II of Technology Mission on Cotton (MM-II of TMC) and Mini Mission-II of Jute Technology Mission (MM-II of JTM) are implemented.

4.17 Cotton: Area under Cotton as well as the production during 2013-14 as per 2nd Advance estimate season was 117.53 lakh ha. and 365.00 lakh bales respectively. This resulted higher export to the tune of 90 lakh bales after domestic consumption of 283.00 lakh bales during 2013-14. The increased yield of Cotton realization was mainly due to favorable weather conditions, concentrated efforts of Cotton Stake holders in implementation of mini mission II of TMC, breakthrough in Bt hybrid adaptation and better technology adoption by the farmers. Presently concentration is being given to develop Bt varieties at Public Sector, dissemination of Insecticides, Resistance Strategies, Front Line Demonstration, Farmer Field School, On-line pest monitoring, use of drip, bio-pesticides etc. The acreage under Cotton during 2013-14 has decreased slightly to 117.53 lakh ha due to



unfavorable rainfall distribution and delayed onset of monsoon. In general, the price of Kapas was higher in 2013-14 as compared to 2012-13. Government of India has increased the MSP of Cotton by around 18%, 29% and 2.8% in basic from staple group i.e. medium long and long staple during 2011-12, 2012-13 and 2013-14, respectively. The Government of India is implementing Mini Mission-II (MM-II) of Technology Mission on Cotton (TMC) in 13 major cotton growing states since 2001-02 to 2013-14.

4.18 Jute: Jute and Mesta shared an insignificant area to the tune of only 0.5% and 0.1, respectively to the total cropped area of the

Country. However, in the Jute growing States, share of the crop is about 1.4% of the total cropped area. However, it plays significant role in the Country's economy in terms of employment generation, earning foreign exchange and domestic demand. The Jute Technology Mission (JTM) was launched in 2007-08 to challenge the various problems in the Jute Sector. Marginal impact of JTM was noticed to increased production and productivity of the crops to the tune of 113.06 lakh bales and 24.00 quintal per ha. during 2013-14. However, there is enough scope to increase the yield to a level of 30 qtls/ha. by using higher SRR, improved genotypes nutrition and water management. In JTM to

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fulfill the domestic requirement strategies has been developed under commercial based cropping system approach during 12th plan giving more emphasis on supply of good quality certified seeds of newly developed varieties, soil corrective measures, facilitating retting process, Front Line Demonstrations (FLDs) etc. During 2013-14, Jute and Mesta area was 8.47 lakh ha with an estimated production of 113.06 Lakh bales.

4.19 Bringing Green Revolution to Eastern India (BGREI): This scheme was initiated in 2010-11 and intended to address the constraints limiting the productivity of “rice based cropping systems” in eastern India i.e. in the States of Assam, Bihar, Chhattisgarh, Jharkhand, Odisha, Eastern Uttar Pradesh and West Bengal. The programme is implemented in identified districts that are not covered under NFSM. Rs.400 crores each was allocated for the programme during 2010-11 & 2011-12 and Rs 1000 crores each during 2012-13 and 2013-14.

4.20 Activities undertaken through BGREI:

- Cluster demonstrations for rice and wheat in Non-NFSM districts
- Asset building for water management activities such as construction of Dugwells/

Shallow Tube wells/Borewells/Lift Irrigation Points; Promotion of Farm Implements such as Drum Seeders/Zero Till Seed Drills, Paddy Transplanters and Pumpsets

- Site specific activities for enhancing the production & productivity of crop. Activities also include other crop development programme, construction of water channels, power, etc.
- Marketing Support for the Promotion/Creation of Primary Processing Facilities including farm level storage, drying, grading, par-boiling of paddy, bagging etc.; Promotion of Self Help Groups (SHGs); Institution building /linkage for procurement operations).

4.21 Through these activities, production of rice increased substantially during 2012-13 over the normal in all the States. The maximum gain was recorded in Bihar followed by Chhattisgarh, Jharkhand, Uttar Pradesh and Assam. The major share of this achievement was attributed to implementation of BGREI along with NFSM and other crop development programmes. The above initiatives/efforts led to a record production of rice in implementing States during 2012-13 as indicated below:

Production of rice (in Lakh Tonnes)

Sl. No.	State	Normal (2007-08 to 2011-12)	2010-11	2011-12	2012-13 Final	Procurement of Rice during 2012-13	% procurement to production
1.	Assam	41.83	47.37	45.16	51.29	0.20	0.39
2.	Bihar	47.74	31.02	71.63	75.29	13.03	17.30
3.	Chhattisgarh	52.23	61.59	60.28	66.09	48.04	72.69



4.	Jharkhand	25.07	11.10	31.31	31.65	2.15	6.79
5.	Odisha	67.81	68.28	58.07	72.95	36.13	49.53
6.	Uttar Pradesh	123.40	119.92	140.22	146.16	22.86	15.86
7.	West Bengal	143.50	130.46	146.06	150.24	17.55	11.68
	Total for Seven States	501.58	469.74	552.73	591.67	139.96	23.65
	% Share of Seven States	51.58	48.95	52.49	56.22	41.14	
	All-India	972.42	959.70	1,053.01	1,052.41	340.24	

4.22 Pilot Scheme on Nutri- Farms: A pilot scheme on Nutri-Farm as a sub-scheme of RKVY was implemented in 9 states during 2013-14 to promote the cultivation of bio-fortified food crops enriched with critical micro-nutrients to improve the nutrition status of the most vulnerable sections of the population in the country.

This scheme was implemented in 100 high malnutrition burden districts of 9 states namely Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand. Micro-nutrient rich cultivars of cereal and vegetable crops namely, rice, pearl millet, maize, finger millet, wheat and sweet

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potato were promoted. Cluster Demonstrations of nutri.-rich crop varieties, food processing & value addition, publicity, establishment of Centres of Excellence and marketing support were undertaken.

4.23 Small Farmers Agri-business Consortium (SFAC) was designated as agency for procurement of the produce of bio-fortified crops and their supply to the Mid Day Meal Programme of School Education and Supplementary Nutrition Programme (SNP) of Integrated Child Development Scheme (ICDS) in 100 high burden malnutrition districts of 9 states.

4.24 Crop Diversification in Original Green Revolution States under RKVY: The scheme is being implemented in Original Green Revolution States viz: Punjab, Haryana and Western Uttar Pradesh as sub scheme of RKVY. During 2013-14 allocation under the scheme is Rs.500.00 Crore to

divert area from water guzzling crops like paddy to alternate crops to arrest the depletion of ground water and restoration of soil fertility. The scheme is in operation in 20 districts of Punjab (Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Ferozepur, Gurdaspur, Hoshiapur, Jalandhar, Kapurthala, Ludhiana, Mansa, Muktsar, Moga, SBS Nagar, Patiala, Ropar, Sangrur, S.A.S. Nagar and Taran Taran); 10 districts of Haryana (Ambala, Yamuna Nagar, Karnal, Kaithal, Jind, Fatehabad, Sirsa, Panipat, Kurukshetra, Sonapat); and 15 districts of Western Uttar Pradesh (Saharanpur, Muzaffarnagar, Meerut, Baghpat, Bulandsahar, Ghaziabad, Aligarh, Bareilly, Badaun, Sahajahanpur, Pilibhit, Bijnor, Moradabad, Amroha and Rampur). Cluster demonstration of alternate crops, farm mechanization & value addition, site specific activities and Awareness campaigns/ training programmes are the major interventions of the programme.

Chapter-5

Mission for Integrated Development of Horticulture

5.1 Department of Agriculture & Cooperation has been promoting horticulture through a number of schemes viz. (i) National Horticulture Mission (NHM), (ii) Horticulture Mission for North East and Himalayan States (HMNEH), (iii) National Bamboo Mission (NBM), (iv) Schemes of the National Horticulture Board (NHB), (v) Scheme of Coconut Development Board (CDB), (vi) Schemes of Central Institute of Horticulture (CIH), Nagaland and (vii) National Mission on Micro Irrigation (NMMI).

5.2 During XII Plan, with effect from 2014-15, it has been decided to subsume the three Missions of NHM, HMNEH and NBM and others schemes of NHB, CDB and CIH under the umbrella of Mission for Integrated Development of Horticulture (MIDH). Brief description of MIDH components are given below:

5.3 National Horticulture Mission (NHM): This is a Centrally Sponsored Scheme launched

in 2005-06 for promotion of holistic growth of the horticulture sector comprising of fruits, vegetables, root & tuber crops, mushroom, spices, flowers, aromatic plants, cashew and cocoa. While Government of India (GOI) contributes 85%, 15% share is contributed by State Governments.

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 2012-13. The details of progress achieved so far are given below:

Progress under NHM

(Area in lakh ha)

S. No.	Components	Unit	Progress during 2005-06 to 2012-13	Progress during 2013-14 (as of March 2014)
1.	Nursery	No.	2,509	132
2.	Area Expansion	LakhHa.	22.63	1.19
3.	Rejuvenation of old & senile orchards	LakhHa.	4.42	0.22
4.	Organic Farming	LakhHa.	1.44	0.13
5.	Integrated Pest/Nutrient Management	Ha.	10.22	0.85
6.	Pack house	No.	7,183	2,509
7.	Cold Storage	No.	660	43
8.	Primary/mobile processing units	No.	1,075	488
9.	Market	No.	263	8
i.	Wholesale	No.	25	1
ii.	Rural	No.	238	7



During 2013-14, an outlay of Rs. 1,860.00 crore was proposed at RE stage against which an amount of Rs. 1,809.56 crore was released for implementation of the scheme.

5.5 Horticulture Sub-Mission for North East & Himalayan States (HMNEH): 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. Main achievements under HMNEH are as under:

- Establishment of 164 nurseries for production of quality planting material
- Establishment of 7 CoEs and 4 model Floriculture Centres

- Adoption of INM/IPM measures in 0.51 lakh ha,
- Area expansion in 0.50 lakh ha.
- Training of 1.6 lakh farmers on improved horticulture technologies

Against BE of Rs. 550.00 crore and RE of Rs. 530.00 crore, an amount of Rs. 532.99 crore was released during 2013-14. Expenditure of Rs. 428.81 crore has been reported.

5.6 National Mission on Bamboo: 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. Significant achievements under NBM during 2013-14 are as follows:

- Establishment of 106 bamboo nurseries
- Raising of new bamboo plantation in 0.58 lakh ha including 0.20 lakh ha in non-forest areas.
- Improvement of existing stock of bamboo plantation in 0.14 lakh ha.

Allocation for NBM scheme at BE stage was Rs. 100.00 crore during 2013-14. This was enhanced to Rs. 128.00 crore at RE stage and the amount was released in full to the implementing agencies. An expenditure of Rs. 121.22 crore has been reported so far.

5.7 National Horticulture Board: 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. There are 3 major components of the National Horticulture Board which 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.25.00 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.30.00 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 @ 40% of the project cost. For NE Regions, the subsidy is @ 55% of the project cost for a maximum storage capacity of 5000 MT per project. The scheme is demand driven.
- **Technology Development and Transfer for Horticulture Produce:** Under this scheme the Board is also providing financial assistance for following various components with a view 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.

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5.8 Coconut Development Board including Technology Sub-Mission on Coconut:

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 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 etc. The Coconut Development Board's activities/programmes are as follows:

- (i) Production and Distribution of Planting Material
- (ii) Expansion of Area under Coconut
- (iii) Integrated Farming for Productivity Improvement
- (iv) Technology Demonstration
- (v) Market Promotion & Statistics
- (vi) Coconut Palm Insurance scheme
- (vii) Information and Information Technology
- (viii) Human Resource Development
- (ix) Technology Mission on Coconut
- (x) Replanting and Rejuvenation of Coconut Gardens

5.9 Central Institute of Horticulture in Nagaland:

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.

5.10 Horticulture include a wide range of crops covering fruits, vegetables, root and tuber crops, flowers, aromatic and medicinal crops, spices and plantation crops. Due to its vast diversity, horticulture facilitates diversification in agriculture. Horticulture crops cover an area of 23.7 million ha (m. ha) at present by registering increase of about 17.3% as compared to 20.2 m ha in 2007-08. However, with a production of about 268.8 million MT, horticulture production has witnessed an increase of about 24% during the period 2007-08 to 2012-13. The significant feature is that there has been improvement of productivity of horticulture crops, which increased by about 7.2% between 2007-08 and 2012-13. Area, production and productivity of horticulture crops during the last 6 years is

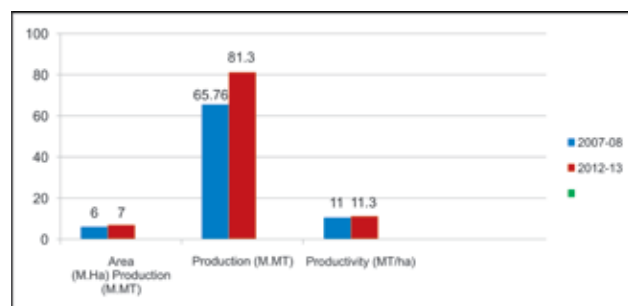
given below:

**Area, production and productivity of horticulture crops
(Area in m.Ha, Prod. In m. MT, Pnty. MT/ha)**

Year	Area	Production	Productivity
2007-08	20.2	211.0	10.45
2008-09	20.5	214.4	10.46
2009-10	20.8	223.2	10.73
2010-11	21.8	240.4	11.03
2011-12	23.2	257.3	11.09
2012-13	23.4	268.8	11.20

5.11 The area under fruit crops during 2012-13 was 7.0 m. ha with a total production of 81.3 m. MT. During the XI Plan, production of fruits increased by about 24% while the area increased by about 17%. Comparative details of area, production and productivity of fruit crops are given below:

Area, Production and Productivity of Fruits

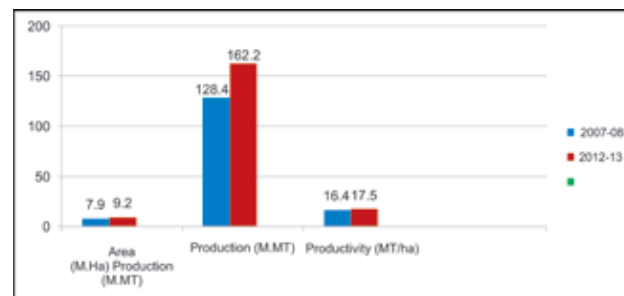


5.12 India is the second largest producer of fruits in the world and holds first position in production of fruits like mango, banana, sapota, pomegranate and aonla.

5.13 Vegetables are an important crop in horticulture sector, occupying an area of 9.20 million ha during 2012-13 with a total production of 162.2 million tonnes and having average productivity of 17.6 tonnes/ha. In fact,

vegetables constitute about 61% of horticulture production. During the XI Plan, area and production of vegetables increased by 16% and 26% respectively. The comparative details are given below:

Area, Production and Productivity of Vegetables



5.14 India is the second largest producer of vegetables after China and 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.

5.15 Interventions in horticulture including National Horticulture Mission (NHM) in the country, have led to increased per capita availability of fruits from 158 gm/person/day in 2007-08 to 179 gms/person/day in 2012. Similarly, per capita availability of vegetables has increased from 309 gm/person/day in 2007-08 to 359 gm/person/day in 2012.

5.16 India has also made noticeable advancements in production of flowers, particularly cut flowers, which have a high potential for exports. Floriculture during 2012-13 covered an area of 0.23 million ha with

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a production of 1.73 m. MT of loose flowers and 7674 million number of cut flowers. There has been phenomenal growth in cut flower production, which is finding place in export market.

5.17 India is the largest producer, consumer and exporter of spices and spice products, the total production of spices during 2012-13 was

5.7 m.MT from an area of 3.10 m.MT.

Schemes on Horticulture during XII Plan:

5.18 The comparative details of area, production and productivity of various horticulture crops during 2012-13 with reference to 2004-05 viz. 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 : T/ha)

Crop	Area			Production			Productivity		
	2004-05	2012-13	Annual Growth Rate%	2004-05	2012-13	Annual Growth Rate%	2004-05	2012-13	% diff.
Fruits	5,049	6,982	5.16	50,867	77,701	7.54	10.07	11.30	12.21
Vegetables	6,755	9,205	4.89	1,01,246	1,59,511	8.22	14.99	17.59	17.34

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Flowers									
Loose	116	224	13.30	655	1,459	17.54	5.65	6.51	15.22
Cut*				1,952	87,500	626.1	16.83	390.62	2,221.0
Spices	5,909	3,101	-6.79	8,051	5,806	-3.98	1.36	1.87	37.50
Medicinal & Aromatic Plants	192	534	25.45	226	589	22.95	1.18	1.09	-7.63
Plantations	3,119	2,593	-2.41	13,171	16,915	4.06	4.22	4.71	11.61
Others	28			46			1.64		
Total	21,168	23,394	1.50	1,76,214	2,61,981	6.95	8.32	11.20	34.62

- Production of cut flowers in lakh nos.



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5.19 Centrally Sponsored Scheme on National Mission on Micro Irrigation (NMMI) is being implemented since the year 2010 to promote the use of efficient methods of irrigation such as drip and sprinkler irrigation system in the country. During the XII Plan, with effect from 2014-15, it has been decided to subsume NMMI under National Mission on Sustainable Agriculture (NMSA)

Progress under National Mission on Micro Irrigation (NMMI):

5.20 An outlay of Rs. 1,693 crore has been earmarked for the year 2013-14, out of which, funds to the tune of Rs. 923.50 crore has been released to the States. So far, an area of 4.03 lakh has been covered including 1.99 lakh ha under drip irrigation and 2.04 lakh ha under sprinkler irrigation.



Chapter-6

National Mission on Oilseeds and Oil Palm

6.1 Centrally Sponsored Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM): This scheme is under implementation in the country for increasing area, production and yield of these crops w.e.f. 2004-05. The pulses component has been merged with NFSM w.e.f. 1.4.2010. The area expansion programme of oil palm has been implemented since 2011-12. The details regarding implementation of the programme is given below:

- **ISOPOM Oilseeds:** The Programme is being implemented in 14 major Oilseeds growing States viz; Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka,

Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

- **ISOPOM Maize:** The scheme is under implementation in 15 states viz. Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, J&K Tamil Nadu, U.P. & West Bengal.
- **ISOPOM Oil Palm:** Initially the programme was proposed to be implemented in 12 states (Andhra Pradesh, Karnataka, Tamil Nadu, Gujarat, Goa, Orissa, Kerala,





Assam, Tripura, West Bengal, Mizoram & Maharashtra). However, only 9 states are implementing the programme and the remaining States i.e. Assam, Tripura and West Bengal are not interested in implementing the programme. Recently the State of Chhattisgarh and Arunachal Pradesh also included under Oil Palm Development Programme.

6.2 The ISOPOM has the following special features:

- (i) Flexibility to the States to utilize the funds for the Scheme/Crop of their choice.
- (ii) Annual Action Plan to be formulated by the State Governments for consideration and approval of the Government of India.

- (iii) Flexibility to the States for introducing innovative measures or any special component to the extent of 10% of financial allocation.
- (iv) Involvement of private sector by the State Governments in the implementation of the programme with a financial cap of 15%.
- (v) Flexibility for inter component diversion of funds up to 20% for non-seed components only.
- (vi) Diversion of funds from seed components to non-seed components with the prior approval of the Department of Agriculture and Cooperation.

6.3 Major components of ISOPOM: Under the Scheme, assistance is provided for purchase of breeder seed, production of foundation seed, production and distribution of certified seed, distribution of seed minikits, distribution of plant protection chemicals, plant protection equipments, weedicides, supply of rhizobium culture/phosphate solubilising bacteria, supply of improved farm implements, supply of micronutrients, distribution of gypsum/pyrite/liming/dolomite, distribution of sprinkler sets and water carrying pipes, publicity, etc.. In order to disseminate information on improved production technologies amongst the farmers, block demonstrations and Integrated Pest Management (IPM) demonstrations are organized through State Department of Agriculture and Front Line Demonstrations through ICAR. For Oil Palm development programme, assistance is given for planting material, cultivation cost, installation of drip irrigation system, diesel pump sets, training,

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development of wasteland & technology transfer through demonstration & publicity.

6.4 Achievement under ISOPOM:

(i) **Oilseeds:** 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. 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 framers are realizing higher yield and net income. The production of oilseeds has increased from 24.35 million tones in 2004-05 to 30.94 million tones in 2012-13 The highest production of oilseeds to the tune of 32.48 million tones was achieved during 2010-11. The oilseeds yield which was 885 kg. per hectare in 2004-05 increased to 1169 kg per hectare. Area, production and yield of oilseeds during last three years are as under;

**Area: Million ha.,
Production: Million tonnes, Yield:-Kg./ha.**

Year	Kharif			Rabi			Total		
	Area Mil-lion ha.	Prodn. Million tonne	Yield Kg./ ha	Area Mil-lion ha.	Prodn. Million tonne	Yield Kg./ ha	Area Mil-lion ha.	Prodn. Million tonnes	Yield Kg./ ha
2011-12	18.42	20.69	1,123	7.89	9.11	1,155	26.31	29.80	1,133
2012-13	18.32	20.79	1,135	8.16	10.15	1,244	26.48	30.94	1,169
2013-14*	19.65	22.02	1,121	8.63	11.0	1,270	28.28	33.0	1,166

* 2nd Adv. Estimate (Kharif)

(ii) **Maize:** There has been a significant achievement under Maize Production Programme during the period of ISOPOM. The production of maize has increased from 14.17 million tonnes in 2004-05 to 22.26 million tonnes in 2012-13 The productivity has also Improved from 1,907 kg. in 2004-05 to 2,566 kg./hectare in 2012-13. The production increase is mainly attributed to substantial enhancement of the productivity in respect of Maize. About 90 percent of cultivated maize is kharif rainfed. Maize is cultivated mainly for food, fodder, feed and industrial use. The major achievements in area, production & productivity of maize for the period 2011-12, 2012-13 and 2013-14 are given as under:

**Area: Million ha.; Production : Million tonnes;
Yield:-Kg./ha.**

Year	Kharif			Rabi			Total		
	Area	Prodn.	Yield	Area	Prodn.	Yield	Area	Prodn.	Yield
2011-12	7.38	16.49	2,234	1.40	5.27	3,765	8.78	21.76	2,478
2012-13	7.21	16.19	2,245	1.46	6.06	4,158	8.67	22.26	2,566
2013-14*	7.59	16.88	2,223	1.49	6.40	4,288	9.09	23.29	2,563

* 2nd Adv. Estimate

(iii) **Oil Palm:** The year-wise target and achievement for the period 2010-11, 2011-12, 2012-13 and 2013-14 in respect of area coverage under oil palm through implementation of Oil Palm Development Programme is as under:

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(Target & Achievement in ha.)

Year	Target	Achievement
2010-11	28,770	17,925
2011-12	60,270	28,388
2012-13	49,932	26,157
2013-14	42,347	11,713

To improve the declining production and productivity of oilseeds in future, Government of India is implementing Oil Palm Area Expansion (OPAE) Programme in 8 identified states under Rashtriya Krishi Vikas Yojana (RKVY)

Palm Area Expansion (OPAE) a sub-scheme of RKVY and Central Sector Scheme of Integrated Development of Tree Born Oilseeds (TBO) has been re-structured into National Mission on Oilseeds and Oil Palm (NMOOP) which will be implemented from 2014-15. The Mission will consist of three Mini Missions, Mini Mission-I on Oilseed; Mini Mission-II on Oil Palm; and Mini Mission-III on TBOs for overall development of vegetable oilseeds production. The Broad strategy would include:



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- Differential strategies for yield improvement in districts with low yield high spread and to explore the possibilities of area expansion in districts with low spread high yield;
- Cluster demonstrations on improved production technologies of oilseeds including use of micro-nutrients, gypsum;
- Augmenting production and availability of certified/quality seeds with emphasis on seed treatment;
- Enhancing irrigation through Sprinklers/Rain-guns/water carrying pipes and pump-sets;
- Encouraging cultivation of oilseeds in areas of low wheat productivity, rice fallows and intercropping with coarse cereals, pulses;
- Promotion of Sunflower cultivation in Zaid season;
- Capacity building through FLD/FFS in Pest

& Disease Management;

- Procurement tie-up through NAFED.

6.6 NMOOP consists three Mini Missions. Mini Mission-wise aims of the scheme are given below:-

Mini Mission-I on Oilseeds: To achieve production of 35.51 million tones and productivity of 1,328 kg/ha. of oilseeds from the present average production & productivity of 28.93 million tones and 1,081 kg/ha during 11th Plan period respectively.

Mini Mission-II on Oil Palm: To 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 from 4927 kg per ha. to 15000 kg per ha.

Mini Mission-III on Tree Borne Oilseeds (TBOs): To enhance seed collection of TBOs from 9 lakh



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tones to 14 lakh tones and to augment elite planting materials for area expansion under waste land.

6.7 Implementation of NMOOP will be as follows:

(i) Mini Mission-I on Oilseed: Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, Assam, Jammu & Kashmir, Jharkhand, Nagaland and Tripura.

(ii) Mini Mission on Oil Palm: Andhra Pradesh,

Chhattisgarh, Goa, Gujarat, Maharashtra, Mizoram, Karnataka, Kerala, Odisha, Tamil Nadu, Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Nagaland, Sikkim, Tripura and West Bengal.

(iii) Mini Mission-III on TBOs: Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand and West Bengal.

Chapter-7

National Mission for Sustainable Agriculture (NMSA)

7.1 NMSA is one of the eight Missions outlined under National Action Plan on Climate Change. The strategies and programme of action outlined in the Mission Document, that was accorded 'in principle' approval by Prime Minister's Council on Climate Change on 23-09-2010, are aimed at promoting sustainable agriculture through seventeen deliverables focusing on ten key dimensions of Indian agriculture.

7.2 NMSA as a restructured Mission for 12th Plan has been conceptualized by subsuming Rainfed Area Development Programme (RADP), National Mission on Micro Irrigation (NMMI), National Project on Organic Farming (NPOF), National Project on Management of Soil Health & Fertility (NPMSH&F) and Soil and Land Use Survey of India under its domain. NMSA will accord special focus for development of rainfed areas, resource conservation, water use efficiency and soil health management. NMSA will also replicate the learning of the National Initiatives of Climate Resilient Agriculture (NICRA) being implemented by ICAR in selected blocks on pilot basis.

7.3 NMSA is expected to transform Indian agriculture into a climate resilient production system through suitable adaptation and mitigation measures in the domains of both crop husbandry and animal husbandry. These measures will help in absorption of improved technology and best practices and promote

suitable coping mechanisms for climatic and non-climatic stresses. While primary focus of NMSA will be on conservation and sustainable use of natural resources for food and livelihood security, it will also expand its coverage primarily to rainfed areas by integrating farming systems with livestock and fisheries, so that agricultural production continues to grow in a sustainable manner.

7.4 Programme Components

- (i) **Rainfed Area Development (RAD):** This component has been formulated in a 'watershed plus framework' i.e. to explore potential utilization of natural resources base/assets available/created through watershed development and soil conservation activities/interventions under MGNREGS, RKVY, IWMP etc. It will rely on Integrated Farming System (IFS) for enhancing productivity and minimizing risks associated with climatic variabilities.
- (ii) **On Farm Water Management (OFWM):** OFWM will focus primarily on enhancing water use efficiency by promoting efficient on-farm water management technologies and equipment.
- (iii) **Soil Health Management (SHM):** SHM will aim 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, judicious application of fertilizers and minimizing soil erosion.

- (iv) **Climate Change and Sustainable Agriculture, Monitoring, Modeling & Networking (CCSAMMN):** CCSAMMN will provide creation and 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 and integrated farming systems suitable to local agro-climatic conditions.

Rainfed Farming Systems

7.5 The rainfed agro-ecologies cover about 55 per cent of the net cultivated area of India and is widely distributed in the country. Of the total food production in the country, 44% is from rainfed/ dryland farming which also supports about 40% of the population. Approximately 85% of the coarse cereals, 80% pulses, 70% oilseeds, 65% cotton and 45% rice are grown in the rainfed areas. Rainfed areas also support 78% of cattle, 64% of sheep and 75% of goats. It remains a stark reality that even with the full development of irrigation, between 45 to 50% of net sown area will continue to be rainfed.

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7.6 Rainfed agriculture is complex, diverse and risk prone. It is characterized by low levels of productivity and input usage coupled with vagaries of monsoon result in wide variation and instability in yields. However, these areas, if managed properly have tremendous potential to contribute a larger share in food production and faster agricultural growth compared to irrigated areas which have reached a plateau.

Rainfed Area Development Programme (RADP)

7.7 To ensure agriculture growth in the rainfed areas, this Department launched a new scheme “Rainfed Area Development Programme (RADP)” in the year 2011-12 as a

sub-scheme under Rashtriya Krishi Vikas Yojana (RKVY). It aims at improving quality of life of farmers’ especially, small and marginal farmers, by offering a complete package of activities to maximize farm returns in rainfed areas.

7.8 RADP focuses on Integrated Farming System (IFS) by integrating location specific cropping system with livestock, fisheries and other livelihood support activities for enhancing productivity and minimizing risks associated with climatic variability. It seeks to harness efficiency of natural resources/assets/commodities by supporting location-specific farming systems. During 2011-12, the scheme was piloted in 10 major rainfed states and was



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extended to 12 more States from 2012-13. During 2012-13, about 7,159 clusters (1.23 lakh ha) have been covered benefitting nearly 2.05 lakh farmers. The scheme is being continued for implementation during 2013-14 with release of Rs.167.90 crore in the States of Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Jharkhand, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Sikkim and Tripura.

Accelerated Fodder Development Programme (AFDP)

7.9 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 crore.

7.10 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.

Watershed Development Fund (WDF)

7.11 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. 188.93 crore (till December 2013), had been released for the development of 543 Watershed projects under non distressed districts of 16 States. In case of Prime Minister's Rehabilitation Package, an amount of Rs.690.26 crore (up to December, 2013) had also been released to develop 754 Watershed projects under distressed districts of 4 States.

7.12 Agro-forestry Policy – 2014: Based on the advice of National Advisory Council (NAC), Agro-forestry Policy has been formulated. The aim of the policy is to promote land use system which integrates trees and shrubs on farmlands and rural landscapes to enhance productivity, profitability, diversity and ecosystem sustainability. The Cabinet has approved the National Agro-forestry Policy, 2014 on 6th February, 2014.

7.13 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:

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 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.409.90 crore has been spent upto March, 2014.

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 March, 2014, an amount of Rs.856.43 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.

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. Indo German Bilateral Cooperation (GIZ):

Effective information exchange is a prerequisite to promptly respond to the needs of the farmers'

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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 (policy makers at National and State levels, extension agents, intermediaries, and farmers, etc.). With this background, a technical cooperation project was conceptualized under Indo-German Bilateral Cooperation to establish a Climate Change Knowledge Network that promotes inter-active dialogues among different stakeholders to establish and enhance linkages between climate change and sustainable development in agriculture. Climate Change Knowledge Network in Indian Agriculture (CCKN-IA) was operationalised after the signing of implementation agreement on 4th September, 2013. The project is being implemented in three states of Maharashtra, Jharkhand and Odisha. The Project is expected to assess the strengths and weaknesses of the existing agricultural knowledge information systems in the pilot States and districts and use their strengths for developing effective, timely, dynamic, authentic, and sustainable information system. The project will also facilitate in mainstreaming of climate resilient technologies by leveraging resources from State/National agriculture development programmes and supplementing resources through limited demonstration of technologies and practices.

7.14 Programmes in North-Eastern States:

Details of Rainfed Farming System Programmes programmes being executed in North-Eastern States during 2013-14 are as follows:

Schemes	Details of Schemes/ Activities/ Programme taken up	Physical target (Area in ha)	Achievement (Area in ha)	Budget Allocation (Rs. in lakhs)	Amount Utilized (Rs. in lakhs)
Rainfed Area Development Programme	All the components of Rainfed Area Development Programme	10,000	8,000	1,950.00	1,400.00

*Tentative Expenditure reported by States as on January, 2013

Natural Resource Management

7.15 As per available estimates of Indian Council of Agricultural Research (ICAR-2010), out of total geographical area of 328.73 million hectares (m.ha), about 120.40 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.

7.16 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 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.

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

(A) Central Sector Schemes:

7.18 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.

7.19 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 XII Five Year Plan, SLUSI revisited its mandate with special reference to Soil Health Management activity. The revised mandate of SULSI include:

- 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

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(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.

7.20 Progress of SLUSI

- **Consultancy Project:** Desertification Mapping of Uttrakhand and Punjab States in collaboration with Space Application Centre, Ahmadabad on 1:500000 has been completed. SLUSI has also taken up Soil Resource Mapping of Wayanad, Kannur, Kottiyam and Thirur districts of Kerala State with collaboration of Kerala State Land Use Board (KSLSU).
- **Development of Digital Micro watershed Atlas:** Digital version of micro-watershed Atlas provides platforms 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 Sikkim, Gujarat, Karnataka and Chhattisgarh States have been prepared and uploaded on web site and same for other completed States namely Himachal Pradesh, Jharkhand, Mizoram, Delhi and Chandigarh is about to be uploaded. The digital spatial databases in respect of Micro-watershed Atlas of Rajasthan, Mizoram, Delhi, Chandigarh and Andaman & Nicobar Islands have also been created.

- **Soil Survey:** During 2013-14, RRS of 1.43 lakh ha., DSS of 4.98 lakh ha. and SRM of 117.65 lakh ha. have been completed up-to March, 2014.

7.21 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 2013-14, an amount of Rs.45 lakh was released and eight training courses in different areas of soil & water conservation and climate change adaptation mitigation have been conducted upto March, 2014.

(B) EXTERNALLY AIDED PROJECTS

- (i) **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 2013-14, an area of 0.20 lakh hectare of Soidic land and 0.02 lakh ha. of Ravine area have been developed up-to March, 2014.

- (ii) **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.22.0 crore has been utilized upto March, 2014.

Integrated Nutrient Management

7.22 Assessment of Fertilizers: To ensure adequate availability of fertilizers, DAC in consultation with Department of Fertilizers makes an assessment of the requirement for

major fertilizers namely Urea, Di Ammonium Phosphate (DAP), Muriate of Potash (MOP), and Complex fertilizers before each cropping season viz., Kharif (1st April to 30th September) and Rabi season (1st October to 31st March) in consultation with all the states and agencies concerned. Requirement of fertilizers is assessed on the basis of requirement of N, P & K nutrients, which are calculated after the comparison of consumption in last season vis-a-vis recommended doses. Gross Cropped Area, Irrigated Area and Cropping Pattern are also taken into account while calculating the total requirement of N, P & K nutrients.

7.23 After finalizing requirement of different fertilizers for all States, Statement indicating month-wise and fertilizer-wise requirement is prepared and communicated to Department of Fertilizers (DOF). Accordingly, Department of Fertilizers prepare monthly supply/allocation plan for each State. A weekly Video Conference with state representatives is organized by this Ministry to monitor and ensure availability of fertilizers as per monthly allocation plan, in which Department of Fertilizers and Ministry of Railways also participate.

- (a) **Kharif 2013 Season:** Requirement of major fertilizers viz., Urea, DAP, MOP, Complexes and SSP (Single Super Phosphate) for Kharif 2013 season was assessed at 153.19 Lakh Metric Tonnes (LMT), 64.59 LMT, 20.26 LMT, 54.82 LMT and 25.28 LMT respectively.
- (b) **Rabi 2013-14 Season:** A new concept has been introduced in case of urea for Rabi 2013-14 season and as per the new concept total assessed requirement of urea has been divided into two parts i.e. (i) Actual

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allocation and (ii) Reserve allocation. State Governments have prepared their monthly requirement on the basis of the quantities assessed under 'actual allocation' and they would demand additional urea from their quantities kept under 'reserve allocation' whenever they would require it provided they have completely utilized/consumed the quantity of urea kept under 'actual allocation'. Accordingly, requirement of major fertilizers viz., Urea, DAP, MOP, Complexes and SSP for Rabi 2013-14 season was assessed at 171.97 LMT (Actual allocation = 163.72 MT, Reserve allocation = 8.25 LMT), 47.26 LMT, 19.28 LMT, 52.53 LMT and 42.85 LMT respectively.

7.24 This Ministry has also started promoting use of SSP, as an alternative source of 'P' nutrient and accordingly, an attempt has been made in consultation with State Governments to convert 5% requirement of DAP into equivalent SSP for the Rabi season 2013-14. Besides, State Governments have also been advised to promote use of Phosphorous Solublizing Bio-fertilizers

(PSB). As per information available, current production of bio-fertilizers as per recommended dose of bio-fertilizers (kg/hectare) can cover only about 10% of total gross sown area of our country. State Governments have been advised to make an assessment of how much of PSB is required to be produced for ensuring coverage of more than 80% of gross sown area and start a campaign to ensure to cover this area by funding from various Central/State Government schemes.

7.25 Consumption of Chemical Fertilizers:

A great deal of variability has, however, been observed in fertilizer consumption among the States. While per ha consumption of fertilizers is 250.19 kg in Punjab, 212.23 kg in Bihar, 207.56 kg in Haryana, the consumption is comparatively low in Rajasthan (51.70 kg/ha), Odisha (90.29 kg/ha), Himachal Pradesh (50.23 kg/ha) and certain other States. The consumption is less than 5 kg/ha in some of the north-eastern States. 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

7.26 Fertilizer Pricing: Urea is the only fertilizer under the statutory price control and its price has been revised on 01.11.2012 at Rs. 5,360/- per MT. For Phosphatic and Potassic fertilizers, Government of India introduced Nutrient Based Subsidy (NBS) policy w.e.f. 01.04.2010. Under NBS policy, a fixed rate of subsidy (on Rs. Per kg. basis) is announced on nutrients, namely, Nitrogen (N), Phosphate (P) and Potash (K) and Sulphur (S) by the Department of Fertilizers on annual basis. Any variant of the fertilizers covered under the subsidy scheme with micronutrients namely Boron and Zinc, is eligible for a separate per tonne subsidy to encourage their application along with primary nutrients. Under this Scheme, Maximum Retail Price (MRP) of P&K fertilizers has been left open and fertilizer manufacturers are allowed to fix the MRP at reasonable rates.

7.27 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 are notified under FCO. To encourage use of organic and bio-fertilizers, seven bio-fertilizers namely; Rhizobium, Azotobacter, Azospirillum, Phosphate Solubilizing Bacteria, Potash mobilizing Bacteria (KMB), Zinc Solubilizing Bacteria (ZnSB), Mycorrhizae and Acetobacter have been incorporated in FCO, 1985. Generalized specifications of organic manures and other organic fertilizers, namely, city waste 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.

7.28 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 supplement their efforts through random inspection of manufacturing units and their distribution network. Presently there are 75 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 given below:-

Year	No. of Labs.	Annual Analytical Capacity	No. of samples Analyzed	% Non Standard Samples
2008-09	71	1,32,965	1,04,498	5.5
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

Further, States namely Delhi, Goa, Tripura, Nagaland, Manipur, Meghalaya, Sikkim and Arunachal Pradesh do not have any Fertilizer Quality Control Laboratory. In addition, none of the Union Territories except Puducherry have Fertilizer Quality Control Laboratory.

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7.29 Central Fertilizer Quality Control & Training Institute (CFQC&TI), Faridabad:

Main activities of CFQC&TI and its three Regional Fertilizer Control Laboratories (RFCLs) located at Navi Mumbai, Chennai and Kalyani consist of drawal, inspection and analysis of both indigenous and imported fertilizers, trainings to State Fertilizer Inspectors, Fertilizer Analysts and other Enforcement Officers, Development of methods of analysis for inclusion in FCO has been undertaken. CFQC&TI also acts as a referral laboratory and advisory body on issues relating to Fertilizer Quality Control. During 2012-13, 9233 samples against target of 8500 samples were analyzed, out of which, 344 samples were found Non Standard. During 2012-13, 1096 ships/containers were inspected by CFQC&TI/RFCLs, out of which, 6 ships/containers were found Non Standard. During random inspection of manufacturing units and dealers' premises, central teams collected 83 samples during 2012-13, out of which 41 samples were found Non Standard. During 2012-13, 15 Refresher Training Programmes for Fertilizer Inspectors/Analysts/Notified Authorities were organized by CFQC&TI/RFCLs including one Refresher Training Course at RFCL, Kalyani for the benefit of enforcement officers of NE states. In addition, 10 Orientation Courses for State Enforcement Officers including one at Assam and 15 Dealers Training Programmes were organized. Further, one exclusive training programme for Foreign Participants under Bilateral Technical Cooperation Schemes of Ministry of External Affairs like ITEC/SCAAP/COLOMBO Plan was also organized at CFQC&TI, in which 17 officers from different countries participated.

7.30 Balanced Use of Fertilizers: Balanced fertilization is normally defined as the timely application of all essential plant nutrients (primary, secondary and micronutrients) in readily available form, in optimum quantities and in the right proportion, through the correct method, suitable for specific soil/crop conditions. Components of balanced fertilization include judicious use of chemical fertilizers based on deficient soil nutrients. In order to encourage balanced application, under the Centrally Sponsored Scheme National Project on Management of Soil Health and fertility (NPMSH&F), grant is provided for soil testing, use of micronutrients, application of lime etc. Further, DAC has identified the concept of customized fertilizers. These fertilizers are crop specific, area specific and soil specific. At present, there are 29 customized fertilizers notified under clause 20 B of FCO for various areas of the country. The deficiency of micro nutrients has been reported in many parts of the country. In order to encourage the use of micro nutrients, DAC is encouraging use of fortified fertilizers to achieve maximum fertilizer use efficiency. So far 14 (fourteen) such fertilizers have been included in FCO.

7.31 Indian Institute of Soil Science (IISS), Bhopal was sanctioned a project for preparation of Geo-Referenced Soil fertility maps including interlinking of soil fertility status with Soil test Crop response (STCR) data to generate site specific recommendations in 19 major states (171 districts). As per the latest information, soil maps of all 171 districts have been completed.

7.32 National Project on Management of Soil Health and Fertility (NPMSH&F): The

scheme was introduced in 2008-09 as a centrally sponsored scheme whose components include setting up of new Soil Testing Laboratories (STLs), strengthening of existing STLs, acquisition of mobile STLs, setting up of new Fertilizer Quality Control Laboratories (FQCLs) and strengthening of existing FQCLs. Achievement under the scheme is indicated in table below :-

S. No.	Component	Total Number of Labs.
1.	New Static STLs	134
2.	New Mobile STLs	123
3.	Strengthening of existing STLs	173
4.	New FQCLs	16
5.	Strengthening of FQCLs	46
6.	Total	492

As on 31.3.2013, there are 1,206 STLs in the country, with annual analyzing capacity of 128.31 lakh samples.

7.33 The Department encourages the judicious use of chemical fertilizers in conjunction with the organic sources of nutrients, biofertilizers etc. It includes judicious use of chemical fertilizers based on deficient soil nutrients with other sources of plant nutrients such as organic manure and biofertilizers. It aims at ensuring adequate availability of nutrients in soil to meet the requirement of plants at critical stages of growth and thus ensuring adequate soil humus to improve physio-chemical and biological properties of the soil.

7.34 Organic Farming: Organic Farming is farming in harmony with nature respecting natural cycle, natural land fertility, animal welfare, landscape features and rural development.

Organic farming is the process of producing food naturally. This method avoids the use of synthetic chemical fertilizers & pesticides and genetically modified organisms to influence the growth of crops. The main idea behind organic farming is to have zero impact on the environment. The aim of the organic farmer is to protect the earth's resources (land, water and plants) and produce safe, healthy food. Organic farming uses the earth's natural resources for sustainability. Organic farmers do not use pesticides, herbicides, genetically modified foods, growth promoters or hormones. National Center of Organic farming was established in year 2004-05 with an objective to promote organic farming in the country.

7.35 National Project on Organic Farming (NPOF):

NCOF is a continuing scheme from 10th Five Year Plan. The revised mandate lays stress on technical capacity building, information generation and promotion of organic farming in the country. Major components include:

- Financial assistance for setting up of Fruit and vegetable/Agro waste compost units and Bio-fertilizers/Bio-pesticides production units.
- Technical capacity building and Human Resources Development through trainings and research
- Development and regulation of quality control of organic inputs
- Biological assessment of Soil Health
- Launching and operationlisation of low cost certification system known as Participatory Guarantee System (PGS).
- Awareness creation and publicity for

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increasing adoption of organic farming in the country

7.36 Major achievement under NPOF during the year 2013-14 (April 2013-March, 2014):

- a) Under human resource development component three, 30 days “Certificate Course on Organic Farming”; one, 30 days training on “Promotion of Liquid Biofertilizer Technology”; six, 10 days training / refresher course for analyst; thirty five, 05 days trainers’ training course on various subjects and one hundred & forty, 02 days training for extension officers were organized and 3,745 participants were benefited.
- b) For ensuring quality of organic inputs 1,868 samples of biofertilizers and 581 samples of organic manures were analysed.
- c) Total 1,913 mother culture strain(s) of different microorganisms were supplied to various bio-fertilizer production units through-out the country.

- d) Distributed 94,682 copies of literature, arranged 07 exhibitions, organized 14 radio talks and 15 television programmes on various activities of NPOF.
- e) Under the Participatory Guarantee System (PGS) to ensure the access of organic quality assurance system 20 Regional Councils were appointed.
- f) Publication of Organic Farming Newsletter (04 issues) and Biofertilizer Newsletter (02 issues).

7.37 Initiatives during 12th Plan: National Project on Management of Soil Health and Fertility (NPMSH&F) and National Project on Organic Farming (NPOF) schemes have been subsumed under National Mission for Sustainable Agriculture (NMSA) in 12th plan and these will be implemented under Soil Health Management (SHM) component of NMSA w.e.f. 01.04.2014. The two sub-components of SHM are; Soil Health and Integrated Nutrient Management & Organic Farming.

Chapter-8

National Mission on Agricultural Extension & Technology (NMAET)

8.1 National Mission on Agricultural Extension & Technology has the following components:

(i) Sub Mission on Agriculture Extension

(SMAE): Creating awareness, enhanced use of appropriate technologies in agriculture and allied sectors, enhancing self-employment opportunities and entrepreneurship development in agriculture and allied sectors would be promoted through the Sub-Mission on Agriculture Extension. Use of interactive and innovative methods of information dissemination like pico projectors, low cost films, handheld devices, extensive use of ICT, enhancement in quality through domain experts and reaching out to maximum of households every year through Kisan Call Centres (KCCs) and through mobile telephony by sending information and advisories to disseminate timely and relevant information and appropriate technologies to all farmers particularly small and marginal ones are proposed to be promoted.

(ii) Sub Mission on Seed and Planting

Material (SMSP): The interventions in the Sub-Mission cover the entire gamut of seed chain from nucleus seed to supply to farmers for sowing and also to the major stakeholders in the seed chain. In order to

provide 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 it has been considered necessary to recognize and protect the rights of the farmers through strengthening Protection of Plant Varieties and Farmers Rights Authority (PPV&FRA).

(iii) Sub Mission on Agricultural Mechanization

(SMAM): This scheme has been proposed with a focus on farm mechanization as against the situation prevalent hitherto wherein the States were taking recourse to macro-management in agriculture to fulfill farmers' needs for machinery and equipment. The Sub-Mission primarily revolves around the needs of the small and marginal farmers while introducing high technology equipment also, through institutional arrangements such as custom hiring, mechanization of selected villages, subsidy to small and marginal farmers for procurement of machines and equipments etc.

(iv) Sub Mission on Plant Protection and

Plant Quarantine (SMPP): This scheme envisages to increase agricultural production by keeping the crop disease free using scientific and environment friendly techniques and by reducing use



of chemical pesticides. Integrated Pest Management is mandated to monitor pest/disease, produce and release of bio-control agents/bio-pesticides and conserve bio-control agents. The component on Strengthening and Modernization of Plant Quarantine facilities in India is regulatory in nature with an aim to prevent introduction and spread of exotic pests that are harmful to crops by regulating/restricting import of plant/plant products. Monitoring the pesticide residues in food commodities and environmental samples is also included in this Sub-Mission. The component on National Institute of Plant Health Management (NIPHM) is proposed to promote environmentally sustainable Plant Health Management practices in diverse and changing agro-climatic conditions, Pesticides Managements, and Biosecurity & Incursion Management through capacity building programmes

besides extending policy support to Central and State Governments.

8.2 Support to State Extension Programmes for Extension Reforms Scheme (ATMA Model):

This Scheme launched during 2005-06, aims at making extension system farmer driven and farmer accountable by way of new institutional arrangements for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at district level to operationalize the extension reforms. ATMA has active participation of farmers / farmers' groups, NGOs, Krishi Vigyan Kendras, Panchayati Raj Institutions and other stakeholders operating at district level and below. The release of funds under ATMA scheme is based on State Extension Work Plans (SEWPs) prepared by the State Governments. At present the scheme is under implementation in 639 districts in 28 States and 3 UTs in the country. In order to promote key reforms under the scheme, ATMA Cafeteria 2010 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 are also the 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.
- **Sustainability of extension services:** It is mandated that minimum 10% contribution should be realized from beneficiaries with respect to beneficiary oriented activities.

8.3 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

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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.
- Public extension functionaries are made more effective through trainings and exposure visits. MANAGE, Hyderabad is offering PG Diploma in Agriculture

Extension Management for public extension functionaries which is fully funded under the ATMA Programme.

8.4 Implementation Status

- Total 639 ATMAs have been constituted in 28 States and 3 UTs.
- Institutional arrangements viz. Inter Departmental Working Group (IDWG)/ in 28 States and 3 UTs, ATMA Core Committees–Governing Board (GB) & ATMA Managing Committee in 630 Districts; Block Technology Team (BTT) in 5,593 Blocks & Block Farmer Advisory Committees (BFACs) reconstituted in 5,544 Blocks; district FACs have been constituted in (465) and State Level FACs in (18) States.
- SEWP of 29 States/ UTs prepared and approved based on District Agriculture Action Plans of 639 ATMA districts. As against the B.E. of Rs. 550.00 crores, an amount of Rs.480.93 crores has been released to the States up to March, 2014 for implementation of the Scheme and total release since the inception of the scheme in 2005-06 to March, 2014 has been to the

tune of Rs.2,282.88 crore.

- Physical performance of the Scheme since its inception in 2005-06 (April 2005 to March, 2014) is given below:

- ◆ Over 2,85,82,014 farmers including 73,25,144 farm women (25.63%) have participated in farmer oriented activities like exposure visits, trainings, demonstrations & kisan melas.
- ◆ Over 1,58,063 Commodity based Farmer Interest Groups (CIGs)/FIGs have so far been mobilized under the scheme.
- ◆ Over 77,034 Farm Schools have been organized on the fields of outstanding farmers.
- ◆ Eighteen States have submitted reports on 3rd Party Monitoring and Evaluation (M&E) so far since inception and M&E is under process in rest of the states.

- **Progress of implementation during current financial year (up to 31.3.2014):**

- ◆ Over 33,56,955 farmers including 8,61,837 farm women (25.67%) have participated in farmer oriented activities like exposure visits, trainings, demonstrations & kisan melas.
- ◆ 17,787 CIGs/ FIGs organized.
- ◆ 17,012 Farm Schools organized.
- ◆ 12,049 specialists & functionaries have been reported as deployed

8.5 Mass Media Support to Agricultural

Extension: This component of the Scheme is focusing on the use of Doordarshan and All

India Radio (AIR) infrastructure for providing agriculture related information and knowledge to the farming community. 36 Narrowcasting producing Kendras, 18 Regional Kendras and one National Kendra (CPC) are producing programmes 2 days and 5 days a week respectively. 180 Narrow casting Centres, 18 Regional Centres and 1 National Centre of Doordarshan Kendras are telecasting agricultural programmes for 30 minutes, five to six days a week. Programmes of Regional Kendras and some Narrowcasting Centres 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.

8.6 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.

8.7 With a view to provide service oriented information to the farming community, Doordarshan is telecasting programme on 'Agriculture News' and 'Mandi Bhav'. This programme is being produced and telecast through National and 18 Regional Kendras five days a week and the 36 Narrowcasting Kendras are producing these bulletins 2 days a week and the same are being telecast through 180 HPTs/LPTs of Doordarshan.

8.8 To increase the content of the

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programmes, the telecast timings of 25 out of 27 Narrowcasting Kendras 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. The timings of Kendras located in Maharashtra and Jammu & Kashmir have not been staggered because of different agro climatic zones and language of the Kendras located in these states.

8.9 Free Commercial Time (FCT) available under Krishi Darshan and Kisanvani programme is being utilized for dissemination of Advisories on Rabi / Kharif, KCC, Kisan Credit Card, package of practices available to the farmers under various schemes of DAC, MSP, contingency plan developed by State Governments and emergent issues like Drought, Flood etc.

8.10 The 'Focused Advertisement Campaign' which would cut 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. Video Spots on Farm School (Munim), Farm School (Sass Bahu), Kisan Credit Card, Kisan Call Centre (Husband & Wife) National Horticulture Mission, Accelerated Pulse Production Programme (A3P), Jagrook Kisan –Judicious use of Fertilizers, Harit Kranti, Kisan Call Centre (Sequel), Record Food grain Production and ACABC, Audio spots on Kisan Call Centre are being broadcast/telecast through 96 F.M. Stations of AIR under 'Kisanvani' programmes and through National, 18 Regional & 180 High Power/ Low Power (HTPs/LTPs) of Doordarshan during 'Krishidarshan' under the Scheme "Mass Media Support to Agricultural Extension" 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 during News, entertainment programmes, serials etc. telecast during 12.00-7.00 p.m., 7.00 – 8.00 p.m. and 8.00-10.00 p.m. In view 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 medium i.e. Digital



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

8.11 Community Radio Stations (CRS) would make a major contribution to agricultural extension by utilizing reach of radio transmitter and disseminating information and knowledge, produced locally and having relevance for a specific area. In order to give further boost to this the guidelines for funding of private institutions under Scheme "Support to State Extension Programmes for Extension Reforms" were revised. Till date 88 proposals have been received from KVKs, Private Institutions, SAUs. 11 CRS are in operation.

8.12 Establishment of the Agri-Clinics and Agri-Business Centres (ACABC): This 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 and science graduates with post graduation in agriculture related courses supporting agriculture development and supplementing the efforts of public extension. **MANAGE** is the implementing agency for training component under the scheme at identified Nodal Training Institutes (NTIs) in various states. **NABARD** is the implementing agency for banks for implementing subsidy component under the scheme and is monitoring credit support to Agri-Clinics through Commercial Banks.

8.13 The scheme is open to graduates in

agriculture and allied subjects/ biological science graduates with post graduation in agriculture & allied subjects from SAUs/ Central Agricultural Universities/ Universities recognized by ICAR/ UGC, diploma / post graduate diploma holders in agriculture and allied subjects from State Agricultural Universities and also Intermediate (i.e. plus two) level with agriculture courses. The credit linked back-ended subsidy @ 36% of the 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 other disadvantaged sections and those from North-Eastern and Hill areas. So far, 37,120 candidates have been trained and 15,313 agri-ventures have been established in the country during the period of implementation of the scheme (since inception till March, 2014). During the year 2013-14, 4451 candidates have been trained and 2,320 agri-ventures have been established till March, 2014.

8.14 The ACABC scheme has recently been revised with changes in relevant operational aspects and also to expand its scope so as to harness the potential of rural educated unemployed youths to start agri-enterprises





in rural areas for serving farming community. The details of the scheme is available at www.agriclinics.net.in.

8.15 Pre-seasonal DAC-ICAR Interfaces: Pre-seasonal DAC-ICAR Interfaces are organized under the co-chairmanship of Secretary (A&C) and Director General (DG), ICAR to evolve joint strategies on the emerging issues of Agriculture Sector. During the Interface both the Department of Agriculture & Cooperation (DAC) and Indian Council of Agricultural Research (ICAR) share a common platform to deliberate upon various recommendations made by expert group in different Subject Matter Areas. Action Taken on the recommendations of previous Interface are also reviewed. The participants in DAC-ICAR Interface involve the senior officers from DAC, Department of Animal Husbandry, Dairy and Fisheries (AHD&F) and ICAR. The Pre-Rabi DAC-ICAR Interface was organized during September, 2013 and the group recommendations of the

said interface were shared with senior officers of State Agriculture Departments during National Rabi Conference held on September, 2013. Besides the group recommendation were also circulated to the concerned Divisional Heads of DAC, DAHD&F & ICAR, all the states and related institutes for necessary follow-up and the implementation of recommendations.

8.16 HRD Support: 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 (EElIs) at the regional level and the State Agricultural Management & Extension Training Institutes (SAMETIs) at the State level.

(i) **MANAGE:** 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

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Reforms (ATMA) scheme. Against 213 training courses planned, 203 training courses with 5456 participants have been organized by MANAGE up to March, 2014. Against the budget estimates of Rs.480.00 lakh, an amount of Rs.480.00 lakh has been released in 2013-14. The self-financing educational training 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 distance education Diploma in Agricultural Extension Services for Input Dealers (DAESI) are being continued during the year 2013-14 at MANAGE.

(ii) Extension Education Institutes (EIs):

Four Extension Education Institutes namely, Nilokeri (Haryana), Rajendranagar, Hyderabad (Andhra Pradesh), Anand (Gujarat), Jorhat (Assam) are functioning at the Regional Level. The objectives of EIs 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 field 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. During 2013-14, a total of 178 training programmes approved by the Directorate, consisting of 109 On-Campus and 69 Off-Campus trainings in which 188 training programmes (126 on campus and 62 off campus) have already

been conducted till March, 2014. Against the budget grant of Rs.1,244.50 lakh an amount of Rs. 977.10 lakh has been released to the EIs till March, 2014. Extension Education Institutes at Jorhat (Assam) set up in 1987 has been providing training support at the regional level to the middle level functionaries of 8 states of North East Region and West Bengal. During the year 2013-14, till November, 2013, 26 courses have been organized and 852 officers trained. An amount Rs.157.85 lakhs has been released to EEI Jorhat till March, 2014 as against the budget estimate of Rs.200.00 lakh.

(iii) 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 65 Model Training Courses have been planned, out of which 54 training courses have been conducted till March, 2014. Against the budget grant of Rs.128.00 lakh an amount of Rs.112.35 lakh has been released till March, 2014.

(iv) 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 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. The following Macro/ Micro level and Action Research Studies have been initiated by the Centre:

- Study on "Setting up of Agri-Clinic and Agri-Business ventures by Women with agricultural background trained under different Scheme of DAC, Terms of Reference (TOR) have been prepared.
- A new study on "Gender Based Impact Analysis under ATMA Scheme" is being proposed and TOR preparation is under process.
- A study on the "Extent of adoption of Gender Friendly Tools by women farmers along with studying the impact of such tools on their lives" - TOR has been prepared and the selection of agencies is under process.
- Being a Nodal Agency for women in agriculture in DAC, Ministry of Agriculture, the Centre is involved in a 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.

8.17 Central Monitoring and Evaluation:

Support to Extension Reforms is a scheme that started 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 for taking up M&E Studies. 18 States namely Andhra Pradesh, A&N Islands, Gujarat, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Odisha, Punjab, Rajasthan, Tamilnadu, Uttar Pradesh, Uttarakhand, West Bengal, Arunachal Pradesh, Mizoram, Nagaland and Chhatisgarh 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 i.e. AFC. Important suggestions and issues for further improvements in ATMA schemes have already been fully addressed in the modified ATMA guidelines.

8.18 EXHIBITIONS: Agricultural exhibitions/ Fairs are an excellent means of reaching to a large number of farmers. DAC participates in India International Trade Fair (IIF) at Pragati Maidan, New Delhi. 6 Adhoc exhibitions/fairs at different places in the country are being organized by Government and private sector agencies and 1 international exhibitions/fairs abroad for creating export potential for agricultural products and services at the international level. DAC supports 5 Regional Agricultural Fairs in 5 regions viz. North, South, East, West and North East which are organized by State Agricultural Universities/ ICAR Institutes. In pursuance of the objectives of participation in different exhibitions/fairs, DAC

has participated in following events:

- Participated in AGRI INTEX 2013 at Coimbatore District Industries Association (CODISSA), Tamil Nadu from 11-14th July, 2013.
- Participated in 17th National Exhibition at Central Calcutta Science & Culture Organizatrion for Youth, West Bengal from 6-10th September, 2013.
- Participated in IITF 2013 in Agriculture pavilion at Pragati Maidan from 14-27th November, 2013.
- Participated in Agrimach India 2013 by FICCI at Pusa from 5-7th December, 2013.
- Participated in Kisan 2013'by Kisan Forum Pvt. Ltd. Pune, Maharashtra from 11-17th December 2013
- National Agriculture Exhibition-cum-Fair "Krishi Vasant, 2014" organized at Nagpur, Maharashtra from 09-13th February, 2014
- Regional Agricultural Fair organized at CRR, Cuttack and CAU, Gangtok during March, 2014

8.19 Mahalanobis National Crop Forecast

Centre (MNCFC): It is an attached office of the Department of Agriculture & Cooperation established to use cutting edge space technology developed by Indian Space Research Organisation for agricultural applications. MNCFC carries out two major operational programmes called FASAL (Forecasting Agriculture using Space, Agrometerology and Land based observations) and NADAMS (National Agricultural Drought Assessment and Monitoring System). Under FASAL

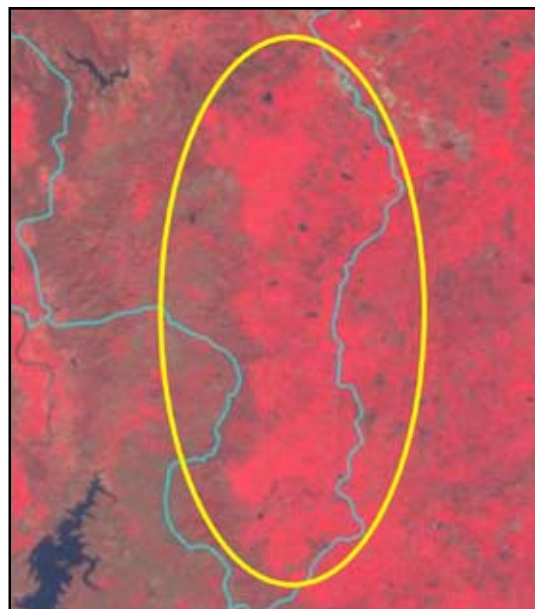
programme multi-data optical and microwave data were used to provide multiple pre-harvest crop production forecasts at National/State/District level for 8 crops, i.e. Rice, Wheat, Rapeseed & Mustard, Potato, Jute, Sugarcane, Cotton and Sorghum (Rabi). 16 forecasts were issued in 2013-14. This activity was carried out in collaboration with 18 State Agricultural Departments, who collected more than 7900 ground truth points, out of which 6200 points were collected using Smart phones. Crop cutting experiments were carried out for Rice crop in Bihar using remote sensing based sampling plan. Rice flood inundated area in Odisha, post Phailin cyclone, was assessed using microwave remote sensing data. Under NADAMS programme, fortnightly/monthly drought assessments were generated at district level for 13 major States of India (out of which 4 States at sub-district level) using multiple satellite, meteorological and agricultural data. Remote sensing data was also used for generating periodic crop emergence scenario and crop alert districts in Rabi season of 2013-14.

8.20 Five one-week training programmes were carried out on "Basics of Remote Sensing & GIS and Applications in Agriculture", which were attended by 73 officials from 15 State Agricultural Departments and India Meteorological Department. MNCFC also conducted 18 onsite trainings in as many number of States for ground truth collection using Smartphone/GPS. Scientists of MNCFC participated in many national/international technical events including FAO Workshop in Laos and IRRI Training workshops in Kathmandu and Chittagong.

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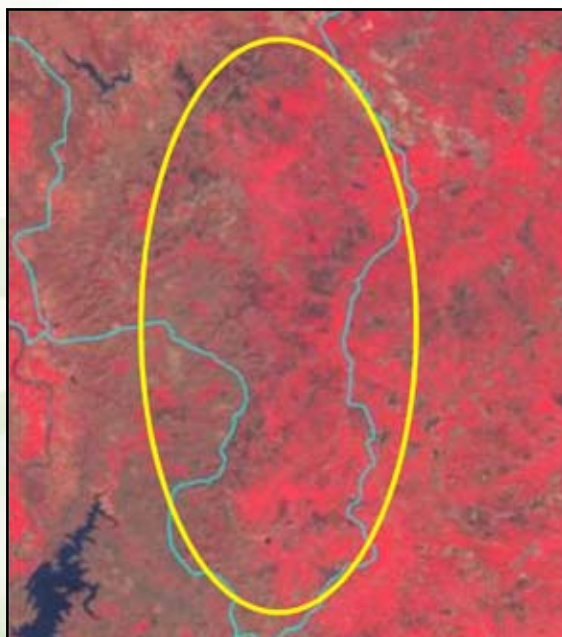
Summary of Crop Forecasts

Crop	No. of States	Forecasts	Dates of Forecasts	Satellite Data Used
Jute	3	F1	Jul 24, 2013	RISAT-1 SAR
Kharif Rice	13	F1 F2 F3	Aug 31, 2013 Sep 30, 2013 Jan 22, 2014	RISAT-1 SAR RISAT-1 SAR RISAT-1 SAR
Sugarcane	3	F1	Dec 18, 2013	R2 LISS III
Cotton	7	F1	Dec 18, 2013	R2 LISS III
Rapeseed & Mustard	5 5 6	F1 F2 F3	Dec 31, 2013 Jan 31, 2014 Feb 28, 2014	R2AWiFS R2 AWiFS R2 LISS III
Winter Potato	4 5	F1 F2	Jan 31, 2014 Mar 04, 2014	R2 AWiFS R2 LISS III
Wheat	9	F1 F2 F3	Feb 15, 2014 Mar 11, 2014 Apr 04, 2014	R2AWiFS R2 AWiFS R2 LISS III
Sorghum	2	F1	Feb 15, 2014	R2 LISS III
Rabi Rice	4	F1	Apr 04, 2014	RISAT-1 SAR



20 February, 2014

Satellite Image of part of Chittaurgarh District in Rajasthan showing Increase in wheat crop area (red colour represents crop/vegetation)



20 February, 2013

State	Normal	Mild	Moderate
Andhra Pradesh	20	1	1
Bihar	20	12	5
Chhattisgarh	13	2	0
Gujarat	25	0	0
Haryana	20	0	0
Jharkhand	14	8	0
Karnataka	27	1	2
Maharashtra	34	0	0
Madhya Pradesh	45	0	0
Odisha	30	0	0
Rajasthan	32	0	0
Tamil Nadu	25	5	0
Uttar Pradesh	64	5	0
Total	369	34	8

Number of Districts under various Drought Assessment Category during Kharif, 2013

Use of Information Technology

8.21 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.

8.22 National e-Governance Plan in Agriculture (NeGP-A): This Centrally Sponsored Mission Mode Project (MMP) sanctioned at a total cost of Rs.227.79 crore for implementation in seven States during Phase-I of the Programme has been introduced during the last phase of the 11th plan (2010-11). The NeGP-A aims to achieve rapid development of agriculture in India through the use of ICT by ensuring timely access to agriculture related information for the farmers of the country. There are a number of current IT initiatives/schemes undertaken or implemented by DAC which are aimed at providing information to the farmers on various activities in the agriculture value chain. These initiatives 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

(USSD) and Voice Recognition. Twelve clusters of services have been identified and the project has been sanctioned for implementation in seven selected States of Assam, Himachal Pradesh, Karnataka, Jharkhand, Kerala, Madhya Pradesh and Maharashtra. 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 export 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.

8.23 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. NIC as the agency for Software Application Development has already submitted SRS for 11 services and input screen inputs for some components in five services are under discussions with the Stakeholders.

8.24 Farmers' Portal: 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,

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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, Dealer network for seeds, fertilizers & pesticides, machinery and tools, agro-meteorological advisories etc will be provided to farmers once the Portal is launched formally in English and vernacular languages of the country. Presently, the Portal is running in beta version. Some of the G2C 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.

8.25 SMS Portal: The Department of Agriculture & Cooperation, has created a SMS Portal for Farmers. Officers, Scientists and Experts will use this Portal for disseminating information on various agricultural activities, giving topical & seasonal advisories and providing services through SMSs to farmers in their local languages. SMSs that are sent to the farmers can be broadly classified into three categories, viz. information, services and advisories. The content may include information about the Schemes, Advisories from Experts, Market Prices, Weather Reports, Soil Test Reports etc. The farmers registered for receiving SMS messages have been grouped based on the State, District, Block and the Crops/Activities selected by respective farmers. Grouping of farmers based on their location and their preferred crop/activity will help sending relevant messages to the farmers. The SMS Portal provides a platform for integration of service delivery under different sectors viz. Agriculture,

Horticulture, Animal Husbandry and Fisheries. Nearly 78 Crores SMSs have been sent to farmers by all agencies/organisation/departments in agriculture and allied sectors down to Block level throughout the country.

8.26 The farmers can register for this service by calling Kisan Call Center (KCC) on the toll free number 1800-180-1551 or through the web portal. SMS based registration is also being introduced shortly. Farmer can give up to 8 choices for his preferred crops/activities. This also includes activities under Animal Husbandry, Fisheries & Dairying in addition to Agriculture & Horticulture. The language choice of the farmer is also being taken based on which the language of the SMS will be determined.

8.27 Integration of Transaction based services with Electronic Transaction Aggregation and Analysis Layer (e-Taal): It is a web portal launched by Department of Electronics & Information Technology, Ministry of Communications & Information Technology, Government of India for dissemination of e-Transactions statistics of National and State level e-Governance Projects including Mission Mode Projects. It receives transaction statistics from web based applications periodically on near real time basis. E-Taal presents quick analysis of transaction counts in tabular and graphical form to give quick view of transactions done by various e-Governance projects. Transaction based services under NeGP – A are integrated with e-Taal. A screen shot of e-Taal portal (having details of Agriculture) is given below which shows that transaction based services in Agriculture are the highest in the country.

8.28 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 scheme has the following components:

- Strengthening of IT apparatus in Department of Agriculture and Cooperation
- IT Apparatus in the field Offices and Directorates of DAC
- Development of Agricultural Informatics and Communication
- Strengthening of IT Apparatus in Agriculture and Cooperation in the States and Union Territories (AGRISNET)

8.29 Strengthening of IT Apparatus in Department of Agriculture and Co-operation

Headquarters: Computer peripherals and consumables have been supplied to officers and sections (upto the level of Dealing Hands) of DAC Headquarters as per the norms laid down by the Norms Committee on a functional and need basis.

8.30 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. 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 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 Government of India Guidelines on Websites (GIGW) guidelines/parameters.

8.31 Strengthening of IT Apparatus in Agriculture and Cooperation in the States and Union Territories (AGRISNET):

Under the Central Sector Plan Scheme “Strengthening/Promoting Agricultural Informatics & Communications”, one of the components is 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.

8.32 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 evident from the fact that till 2013-14, more than **1.49 crore** calls have been registered at the KCCs. 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.

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

(a) Voice/Media Gateways (IPPBX based

decentralized system);

- (b) Dedicated MPLS leased line network with dedicated bandwidth;
- (c) Call barging; 100% call recording and call reply.
- (d) SMS to caller farmers providing a gist of advisories given to them on phone;
- (e) 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;
- (f) Soft phones in every personal computer with caller ID facility;
- (g) Playing location specific seasonal advisories when the call lines are busy;
- (h) 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.

8.34 Activities in the North-Eastern Region:

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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 pilot states for implementing the Scheme. Support under AGRISNET is extended to various North Eastern states as per their project proposal. 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.

Seeds

8.35 Seeds are the basic and most vital 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 are given below:

Production of breeder, foundation and certified/ quality seeds:-

Year	Production/Availability of Seed (Metric Tonnes)		
	Breeder Seed	Foundation Seed	Certified/ Quality seed
2005-06	6,823	74,800	14,05,000
2006-07	7,382	79,654	14,81,800
2007-08	9,196	85,254	19,43,100
2008-09	9,441	96,274	25,03,500
2009-10	10,683	1,14,638	27,97,200
2010-11	11,921	1,80,640	32,13,592
2011-12	12,338	2,22,681	35,36,200
2012-13	11,020	1,61,700	32,85,800
2013-14	10000 (anticipated)	1,74,307	34,73,130*

*Indent

8.36 Indian Minimum Seed Certification



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Standards: The Indian Minimum Seed Certification Standards have been revised and updated after 3 decades. The Revised standards have been compiled in a book entitled “Indian Minimum Seed Certification Standards, 2013”. This Book contains certification standards for 59 Agriculture Crops, 94 Horticulture Crops and 8 Tissue Culture raised propagules. The book fulfills the requirements of seed quality standards under the Seeds Act, 1966. It also provides guiding principles and standards for undertaking certified seed production in the country.

8.37 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 seize

the sub standards stocks. Seed Inspectors are also empowered under the Environment (Protection) Act, 1986 to regulate the quality of genetically modified (GM) Crops.

8.38 Policy on Export/Import of Seeds and Planting Materials: The export/import of seeds has 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.

8.39 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.

8.40 Salient Achievements:

- Distinctiveness, Uniformity and Stability (DUS) test guidelines of 9 New Crops/Species have been finalized and published in the Plant Variety Journal of India. The crops include Fruits crops (Pomegranate) Vegetable (Bitter gourd, Bottle gourd, Cucumber and Pumpkin), Orchids (Cattleya and Phalaenopsis), Forestry (Eucalyptus and Casuarina).

DUS test guidelines of 31 New Crops/Species are under various stages of development.

- The Authority has instituted the “Plant Genome Saviour Community Awards, Farmers Reward and Recognition” from the National Gene Fund to recognize the contributions of the farming communities in the conservation of agro-biodiversity hotspots. On 22 May, 2013, the Authority celebrated the 5th Plant Genome Saviour Award ceremony at A. P. Shinde

Auditorium Hall at NASC Complex, New Delhi. During this event, 4 Plant Genome Saviour Community Awards, 10 Plant Genome Saviour Farmer Awards and 15 Plant Genome Saviour Recognitions were conferred to the farming communities and farmers across the country.

- The Authority has organized 104 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.
- Branch offices have been established at Ranchi and Guwahati to facilitate the registration of farmers’ varieties and other varieties. The branch offices also monitor DUS centers within their territorial region; provide support in the development of DUS guidelines and organise training and awareness programs.
- A total of 254 registration certificates have been issued.

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- 75 DUS test centres are being supported by the Authority which are located in various State Agriculture Universities, ICAR, ICFRE, CSIR and other reputed research institutes.
- Databases on Indian Information System as per DUS Guidelines (IINDUS) and Notified and Released Varieties of India (NORV) already developed by Authority are being regularly updated and being used by the PPV&FR Authority. Varietal databases of 20 crop species including inputs from respective crop directorates/ institutes under the ICAR/ NARS system have been developed.
- 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.

8.41 National Seed Research and Training Centre (NSRTC) at Varanasi : The NSRTC, Varanasi (Uttar Pradesh) 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 act as a referral laboratory to ensure uniformity in Seed Testing in the country and is also national institute for capacity building in

seed testing and certification. NSRTC has analysed approximately 17,808 nos. of seed samples during 2012-13 under 5% re-testing programme. Besides, Court referred Seed Samples are also analysed in the CSTL as and when received from the respective Court.

8.42 The Details of the seed samples received and analyzed during last six 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	7,235	82
2.	2008-09	12,262	33
3.	2009-10	11,865	61
4.	2010-11	13,859	66
5.	2011-12	15,978	66
6.	2012-13	17,808	89
	Total	79,007	397

8.43 During 2012-13, 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 to National Level Training Programme, NSRTC has also organized one National Workshop and one National Seed Congress.

8.44 Development and Strengthening of Infrastructure facilities for production and distribution of Quality Seeds: This is a Central Sector Scheme being implemented from the year 2005-06. The Scheme is intended to develop and strengthen the existing infrastructure for the production and distribution of certified/quality seeds. The following components of scheme are being implemented:-

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1. Transport subsidy on Movement of seeds
2. Establishment and Maintenance of Seed Bank
3. Quality Control Arrangement on Seed
4. Seed Village Programme
5. Creation/strengthening of Infrastructure Facilities in Public Sector
6. Assistance for Boosting Seed Production in Private Sector
7. Use of Bio-technology in Agriculture
8. Promoting Hybrid Seeds
9. Assistance for boosting seed Export

8.45 Use of Bt. Cotton Hybrid Seeds: Bt. Cotton is the only transgenic crop available in the country for commercial cultivation. The Genetic Engineering Approval Committee (GEAC) of the Ministry of Environment and Forests is a 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 are available for cultivation in nine States (Gujarat, Madhya Pradesh, Maharashtra (Central zone), Andhra Pradesh, Karnataka, Tamil Nadu, Haryana, Punjab and Rajasthan) of the country (upto May, 2012). The area under Bt. Cotton has increased from 0.29 lakh hectare in Kharif 2002 to 107.35 lakh Ha in Kharif, 2013 i.e by 93.6%.

8.46 Establishment & Maintenance of Seed Bank: The basic objective of this component is to meet requirement of seed during natural calamities and also to develop necessary infrastructure for its production and distribution. During 2012-13, a total of 2.27 lakh quintals of certified and foundation seed were maintained

under the seed bank and Rs.594.64 lakh were released to the implementing agencies.

8.47 Seed Village Programme: The scheme 'Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds' has a component of 'Seed Village Programme', which is aimed at upgrading the quality of farm saved seeds. The Department has covered 78,943 seed villages under this component during the year 2012-13. A special programme through the Seed Village Programme is being implemented from 2005-06 to improve the quality of farmers' saved seed. Financial assistance is provided for distribution of foundation/certified seeds at 50% cost to upgrade the quality of farmers saved seed, training of farmers on seed production technology, assistance @ 33% subject to a maximum of Rs.3,000 for SC/ST farmers and @ 25% subject to maximum of Rs.1000 for other farmers for procuring seed storage bin of 10 qtls. capacity. The progress under the programme is as under:

Year	Number of Seed Village Organized	Quantity of Seed Produced (Lakh in 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	199.280
2012-13	78,943	116.708
2013-14 *	50,979	76.82

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

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8.48 Certified/Quality seed production:

Certified/ Quality seed production has increased from 140.51 lakh quintals during 2005-06 to 347.31 lakh quintal during 2013-14.

8.49 Boosting Seed Production in Private Sector:

Under the scheme 'Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds', credit linked back-ended capital subsidy is provided at the rate of 25% of the project cost subject to a maximum limit of Rs. 25.00 lakh per unit on seed infrastructure development. Private Companies, partnership firms, individual entrepreneurs, self-help groups and seed co-operatives are eligible for subsidy. So far, 441 such projects have been sanctioned for the small entrepreneurs in 16 States with 92.39 lakh quintals seed processing capacity and storage capacity of 32.27 lakh quintals.

8.50 The DAC has two Central Public Sector Undertakings namely National Seeds Corporation and the State Farms Corporation of India.

- During 2013-14, the National Seeds Corporation earned profit after tax of Rs. 44.30 crore as compared to Rs. 30.96 crore during 2011-12 and declared

dividend of Rs. 4.12 crore @ 20% on the paid up capital of the Corporation. Sale of seeds by the National Seeds Corporation was 16.02 lakh quintal in 2012-13. 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 vegetable crops. NSC is now a scheduled 'B' CPSE and has also been granted Mini Ratna (Category-I) status.

- State Farms Corporation of India (SFCl) has achieved an all time high turnover of Rs.485.55 crore as against previous year's turnover Rs.376.24 crore with an increase by 29% over previous year's sales. The profit after tax has shown an appreciable increase to Rs. 42.58 crores as against Rs.38.96 crores in the previous year. The Corporation has also declared a dividend of Rs. 2.36 crore @ 7.5% of the paid up equity share capital against Rs. 1.57crore @ 5% of the paid up equity share capital for the previous year. The earnings per share has also increased to Rs. 1,352.00 from Rs. 1,176.00 compared to the previous year. During the year 2012-13 the Corporation achieved a profit before tax of Rs. 57.77 Crore and the net worth of the Corporation increased from Rs. 203.79 crores to Rs. 247.37 crores, registering a growth of 21.38 %.

8.51 Programme being implemented in the North-Eastern States : Details of the programmes being implemented in the North – Eastern region are given at **Annexur-8.1**

8.52 Modifications in New Policy on Seed

Development: 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).

8.53 In order to harmonize New Policy on Seed Development, 1988 with the National Seed Policy, 2002, following two 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.

8.54 Implementation of OECD Seed Schemes

in India: The objective of the Organisation for Economic Co-operation and Development (OECD) Seed Schemes is to encourage use of seeds of consistently high quality in participating countries. These schemes authorize the use of labels and certificates for seed produced and processed for international trade according to OECD guidelines. India's participation in OECD Seed Schemes aims to enhance its seed export capabilities and probabilities. The Department of Agriculture and Cooperation has become a member of OECD Seed Scheme from 23rd October, 2008 and 96 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 been taken for implementation of OECD Varietal Certification in India. In addition, 13 more varieties in 4 crops have also been sent to OECD Secretariat for listing in OECD list of varieties.

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Mechanization and Technology

8.55 Mechanization of agriculture is an essential input in modern agriculture. It enhances productivity besides reducing human drudgery and cost of cultivation. Mechanization also helps in improving utilization efficiency of other inputs, safety and comfort of the agricultural worker, improvements in the quality and value addition of the produce and also enabling the farmers to raise a second crop or multi crop making the Indian agriculture attractive and a way of life by becoming commercial instead of subsistence. There is a need to double the food production by 2020. This will call for raising more crops in a year thus limiting the turnaround time. Increased production will require more use of agricultural inputs and protection of crops from various stresses. This will call for greater engineering inputs which will require developments and introduction of high capacity, precision, reliable and energy efficient equipment. Mechanization of horticultural crops is also becoming a necessity. The farm power availability and the average food grain yield have a direct relationship. Also, there has been close nexus between farm power availability and increased productivity. Those states like Punjab and Haryana, where availability of farm power is more, have in general, more productivity as compared to the others. Mechanization of agriculture is an essential input in modern agriculture. It enhances productivity besides reducing human drudgery and cost of cultivation. Mechanization also helps in improving utilization efficiency of other inputs, safety and comfort of the agricultural worker, improvements in the quality and value addition of the produce and also enabling the farmers

to raise a second crop or multi crop making the Indian agriculture attractive and a way of life by becoming commercial instead of subsistence.

8.56 The Department is implementing a scheme for Promoting Agricultural Mechanization through “**Outsourcing of training and demonstrations of newly developed equipments**”. The objective of the scheme is to create awareness about agricultural equipment and machinery among the end users and other stakeholders. Through this scheme, State Governments organize demonstration of improved/newly developed agricultural/horticultural equipment as identified by them at farmers’ fields so that the farmers get acquainted about their use and utility for production of different types of crops. In the year 2013-14, an outlay of Rs. 21.12 Crores was made. Out of total outlay, Rs. 5.00 crores was earmarked for North Eastern States.

8.57 Scheme on “**Post Harvest Technology and Management**” (PHTM) is being implemented, during XII Plan period. Under the scheme the technologies developed by ICAR, CSIR and those identified from within the country and abroad for primary processing, value addition, low cost scientific storage and transport of agricultural produce are promoted to minimize wastage during post harvesting processes. The main components of the PHT&M scheme are establishment of low cost Post Harvest Technology (PHT) units for transfer of primary processing technology, supply of PHT equipments to end users with Government assistance, demonstration of PHT technologies and training of farmers, entrepreneurs and scientists. During 2013-14, an outlay of Rs.18.77

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crores was earmarked out of which Rs. 5.77 crore was earmarked for North Eastern States.

8.58 Beside above interventions, the Department is promoting Farm Mechanization by making agricultural equipment available among farmers at cheaper rates. A level of 25-50% subsidy on procurement cost is made available under RKVY, NFSM, NHM & TMOOP scheme for different categories of equipment. The subsidy on tractors and power tillers is available on the models approved by the department under institutional financing. Besides tractors and power tillers, combine harvesters are also available to the farmers as per approved pattern of subsidy. As an individual farmer may not be in a position to purchase high cost equipment on his own, Self Help Group of farmers (SHGs), user groups, cooperative societies of farmers etc are also made eligible for assistance under the programme.

8.59 As a result of different programmes implemented by the Government of India over the years and equal participation from Private Sector, the level of 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 are 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- till Dec. 2013	2,75,332	25,000

8.60 Average farm power availability for the cultivated areas of the country has increased from 0.48 kW/ha in 1975-76 to 1.73 kW/ha at present and is likely to be achieved 2.0 kW/ha by 2017.

8.61 Training of Farmers & Technicians: The Farm Machinery Training & Testing Institutes (FMTTIs) located at Budni (Madhya Pradesh), Hissar (Haryana), Garladinne (Andhra Pradesh), and Biswanath Chariali (Assam), have been imparting training to farmers, technicians, retired/retiring defence personnel etc., in the selection, operation, maintenance, energy conservation and management of agricultural equipments. These Institutes have also been conducting testing and performance evaluation of various agricultural implements and machines. During the year 2012-13, 6,422 persons were trained till 31st March, 2013 against the annual target of 6,000 in different courses. To supplement the efforts of the FMTTIs in human resource development, outsourcing of the training through the SAUs, Agricultural Engineering colleges, polytechnics, etc., has been approved during the XI plan. For training of farmers, the identified institutions are reimbursed Rs 5,200 per trainee per month, which also includes a stipend of Rs 1,200 and to and fro travel expenses by normal mode of transport. 3,557 farmers were trained till 31st December, 2013 against the annual target of 6000 in different courses



8.62 Testing and Evaluation of Farm Machinery & Equipment:

The Institute at Budni has been authorized to conduct tests on tractors and other agricultural machines; while the institute at Hissar conducts tests on self-propelled combine harvesters, irrigation pumps, plant protection equipments, agricultural implements and other machines including issuing of CMVR certificate of Combine Harvester. The Institute at Garladinne has been authorized to test power-tillers and also conduct tests on various agricultural implements/equipment components. This Institute is being developed as a specialty institute for meeting the mechanization demand 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 199 machines of various categories, including tractors, power-tillers, combine harvesters, reapers, rotavators and other implements, till 31st March, 2013 against the target of 165 for the year 2012-13. During 2013-14, 105 machines have been tested till 31st December, 2013.

8.63 To cope up with the ever increasing demand for testing of newly developed

agricultural machines and equipments, DAC has authorized 24 State Agricultural Universities (SAUs)/ICAR Institutions and 5 State Agricultural Departments as Authorized Testing Centers for testing and certifying certain categories of agricultural machinery and equipments namely, Hand tools, Manual Operated Equipments/Machines etc. Relevant information has been made available on the departmental website for wider publicity among the users/manufacturers. For tractor mounted combine harvesters, 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.

8.64 Demonstration of Newly Developed Agricultural/Horticultural Equipment:

For enhancing production and productivity, as well as for reducing the cost of production, the induction of improved/new technology in the agricultural production system is inescapable. Therefore, with this aspect in view, the demonstration of newly developed agricultural equipment including horticultural equipment at farmers' fields has been included as a component of the restructured scheme. The scheme "Promotion and Strengthening of Agricultural Mechanization through Training, Testing and Demonstration" is being implemented during the Eleventh Plan. This scheme envisages conduct of demonstration of improved/newly developed agricultural/ horticultural equipment, identified by the State Governments/Government Organizations at farmers' fields, to acquaint them about their use and utility for production of different types of crops. During the year 2012-13, the number of demonstrations

conducted by the State governments are 16,028. The physical target for the 2013-14 is to train 4,000 farmers. 21,263 demonstrations have been conducted till 31st December, 2013.

8.65 Promotion and Strengthening of Agricultural Mechanization through Training, Testing and Demonstration, Training of Farmers, entrepreneurs and scientists through Outsourcing: The Schemes 'Promotion and Strengthening of Agricultural Mechanization through Training, Testing and Demonstration' and 'Post Harvest Technology and Management' envisages to conduct on the job training on operation, maintenance and repair of farm power and agricultural machinery through outsourcing training by the State Governments/ Government Organizations. The objective of this component is to develop and improve the technical know-how of the users of agricultural machinery and post harvest technologies for its proper and effective utilization. Under outsourcing of training during 2012-13, 6445 beneficiaries were trained and during Current year 2013-14, (till 31st December 2013) 3357 No. of beneficiaries were trained.

8.66 Farm Mechanization Programmes under various schemes of Agriculture schemes:

Assistance in the form of subsidy at the rate of 25-50 percent of the cost with permissible ceiling limits is made available to the farmers for the purchase 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 under the centrally sponsored schemes like RKVY, NFSM & NHM. During XIIth Plan (from 2014-15), a Sub Mission on Agricultural Mechanization will

be implemented as part of National Mission on Agricultural Extension & Technology.

8.67 State Agro Industries Corporations: 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, Odisha, 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 giving greater decision making power to the state governments by allowing transfer of its shares to state governments on following guidelines:

- Where the net worth of the SAIC is positive, the Government of India would be willing to consider offering its shares to the State Governments at a price 25 per cent less than the book value of the shares on the basis of the latest available audited balance sheet.
- In the case of SAICs whose net worth is negative, the Government of India would be willing to pass on its stake for a token consideration of Rs 1000 for the value of the shares.

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8.68 So far, the Government of India's shares in SAICs of Gujarat, Karnataka, Uttar Pradesh, Tamil Nadu, Rajasthan and West Bengal have been transferred to the State Governments concerned. The State Governments of Madhya Pradesh, Assam and Jammu & Kashmir have since agreed, in principle, for transfer of the Government of India's shares held in these SAICs. It is reported that State Govt. had notified closure of the Assam State Agro Industrial Corporation w.e.f 31.08.2006.

8.69 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. The Institute imparted training to 802 persons and tested 18 machines up to 31st March, 2013 during the year 2012-13 and 602 persons and tested 7 machines up to 31st December, 2013 during 2013-14. The details of various programmes launched in the North-Eastern states during the year 2013-14 are indicated in **Annexure 8.2**.

8.70 Gender Friendly Equipment for Women: Under the Central Sector Scheme – 'Promotion and Strengthening of Agricultural Mechanization through Training, Testing, and Demonstration', a total of 271 women have been imparted training during 2012-13 at Farm Machinery, Training, and Testing Institutes (FMTTIs) and 579 women have been trained during 2013-14 till 31st December, 2013. 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 been sent to all states and UTs. for popularizing them. State governments have been directed to earmark 10 per cent of total funds allocated for the training for women farmers. (**Annexure- 8.4**)

Plant Protection and Plant Quarantine

8.71 Plant protection strategy and activities have significant importance in the overall crop production programmes for sustainable agriculture. Plant protection activities encompass plant quarantine, regulation of pesticides, activities aimed at minimizing crop losses due to pests including locust control in desert areas, and training and capacity building in plant protection.

8.72 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 Plant Quarantine (Regulation of Import into India) Order, 2003 issued under provisions of Destructive Insects and Pests Act, 1914 regulates imports of Plants and Plant Projects. Post entry quarantine inspection is carried out in cases of imports of seeds and planting material for propagation. Phytosanitary Certificates (PSC) are issued for exports as per International Plant Protection Convention (IPPC), 1951 of the Food and Agricultural Organization (FAO). These functions are being discharged by 57 Plant Quarantine Stations (PQs) at various international airports, seaports and land customs stations across the country to facilitate international trade in agricultural products. These PQs are functioning under Directorate of Plant

Protection, Quarantine & Storage (DPPQ&S), Faridabad. The Plant Quarantine infrastructure is created and maintained under Central Sector Plan Scheme 'Strengthening and Modernization of Plant Quarantine Facilities'. PQSs at Bongaon, Cochin, Kandla and Tuticorin have acquired ISO 9001:2000 certification in addition to 5 major PQSs at Amritsar, Chennai, Kolkata, Mumbai and New Delhi for quality management in plant quarantine services. Molecular diagnostics facilities have been established at Chennai, Kolkata, Mumbai and New Delhi.

8.73 During 2013-14 (up to October-2013), Pest Risk Analysis (PRA) for import of 9 items were completed and technical information provided for export of 10 items to concerned National Plant Protection Organizations. 4.05 lakhs import permits were issued for seed and plant material and screening of 337.53 lakhs metric tons of imported agricultural commodities was undertaken. Phytosanitary inspection for export of 565.16 lakh metric tons of plant and Plant materials was conducted and 4,50,222 Phytosanitary Certificates (PSCs) issued. As on 31.10.2013, 427 pest control agencies have been accredited for undertaking fumigation with methyl bromide including 23 new agencies. 245 agencies have been accredited for Forced Hot Air Treatment (FHAT) for wood and wood packing material which includes 9 new agencies.

8.74 The web based Plant Quarantine Information System (PQIS) is now providing plant quarantine services relating to issue of import permits, PSC and release orders to importers and exporters.

8.75 Integrated Pest Management: The Government is popularizing the strategy of

Integrated Pest Management (IPM) through a Central Sector Scheme "Strengthening and Modernization of Pest Management Approach in India" which includes cultural, mechanical, biological and other methods of pest control and emphasizes safe and judicious use of pesticides. Under the ambit of IPM programme, the Government has established 31 Central IPM Centres in 28 States and one UT. The mandate of these Centres is pest/disease monitoring, production and release of bio-control agents/bio-pesticides, conservation of bio-control agents and Human Resource Development in IPM by imparting training to Agriculture/Horticulture Extension Officers and farmers at grass root level by organizing Season Long Training Programme, Human Resource Development Programme and Farmers Field Schools (FFSs) in farmers' fields. The basic aim of FFS is to train the farmers on the latest IPM technology so that they are able to take decision in pest management operation. Besides, large number of locally available bio-control agents are augmented from field to field based on the requirement. Under these programs alternate tools for pest management viz; cultural, physical, mechanical methods of pest control as well as use of biopesticides and biocontrol agents, effects of pesticides on natural enemies of pests, do's and don'ts about the use of pesticides including proper use of pesticides application equipments are advocated and chemical pesticides are to be used as a last resort.

8.76 IPM activities are propagated through Farmers Field Schools (FFSs) which evolved from the experience that farmers learn optimally from field observations and experimentation. FFSs are organized to help farmers tailor IPM

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practices to suit their needs. These schools are conducted separately for the Kharif and Rabi seasons, each FFS lasting 14 weeks. During 2013-14 (upto March, 2014), 614 FFSs were conducted by CIPMCs in which 18,420 farmers and 201 Agriculture Extension Officers (AEOs) were trained.

8.77 Apart from conducting FFSs, the CIPMCs carry out pest/disease monitoring and conservation, production and release of bio-control agents. Pest and disease survey was conducted over 7.65 lakh hectares. A total of 19.20 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 736.01 thousands hectares (upto March, 2014).

8.78 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, which are serious threats to crop production. Since 1997, seed treatment campaign is taken up every year by Department of Agriculture and Cooperation (DAC) during Kharif and Rabi seasons involving State Departments of Agriculture and CIPMCs.

8.79 Implementation of Insecticides Act, 1968: The insecticides Act, 1968 regulates import, manufacture, sale, transportation, distribution and use of insecticides with a view to prevent risk to humans or animals. Registration Committee, constituted under Section 5 of the Act, registers pesticides under Section 9 of the Act after verifying efficacy and safety. During 2013-14 (up to March, 2014), 10,023 registrations have

been granted. In order to bring about greater transparency and efficiency in the process of registration of pesticides, on-line registration of insecticides has been partially operationalized. The system enables on-line filing of applications for registration in all categories viz under sections 9(4), 9(3B), 9(3) for Export/ Endorsements and generation of Certificates of Registration under section 9(4) along with label and leaflets.

8.80 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. The samples analyzed/tested by the various divisions of CIL for the year 2013-14 are given below:

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Name of the Division	No. of samples Target (2013-14)	No. of sample analyzed (Achievement upto March, 2014)
Chemistry	1600	977
Bioassay	Pesticides-60 Bio-Pesticides (No fixed targets)	Pesticides-64 Bio-pesticides-107
Medical Toxicology	20	17
Packaging & Processing	150	57

8.81 Creation of necessary infrastructure is under process for National Pesticide Reference Repository (NPRR), and NPRR will address issues of National Pesticides Investigational laboratory (NPIL) supply of reference standards and variation in analysis of pesticide samples. NPIL will detect presence of chemical pesticides in microbial biopesticide products. This laboratory will also have a technical audit division for pesticide testing laboratories. NPRR and NPIL would help bring about a distinct change in standards of testing of pesticides.

8.82 Locust Control and Research: The scheme 'Locust Control and Research' 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-Locust2 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 in 254 (Central H.Q 5, Field H.Q. Jodhpur 44, Field Circle Offices 178 and FSIL Bikaner 27).

8.83 National Desert Locust Situation and Control Campaign: India continued to remain free from any gregarious phase of desert locust activity during the year 2013-14. However, Solitary desert locusts were observed at many places a density ranging from 1-100 numbers per hectare in the districts of Sriganganagar, Bikaner, Jaisalmer and Suratgarh in State of Rajasthan. During the year upto Octo., 2013, four 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, 14 numbers of Locust Situation Bulletins have

been issued. As regard physical achievements, in total, 131.00,000 ha. SDA area was scanned during the locust surveys and monitoring (target 97,00,000ha). As regards financial achievements, actual expenditure incurred upto March during the year 2013-14 is Rs1,26,00,000 (Plan) and Rs. 7,64,36,000 (Non-Plan) against B.E. of Rs. 1,10,34,000(Plan) and Rs. 7,85,00,000 (non-plan).

8.84 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.

8.85 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.

8.86 Capacity Building in Plant Protection:

The National Plant Protection Institute (NPPTI), Hyderabad was converted during 2008-09 into a society to give it more autonomy and develop it as a premier institution for capacity building. The institute, re-named as National Institute of Plant Health Management (NIPHM) and headed by a Director General, has entered into MOUs with selected institutions and started new courses, including training courses for officers of DPPQ&S. A new faculty building is under construction. During 2012-13 (upto November, 2012), 57 regular courses were conducted at NIPHM wherein 667 trainees from various States and organizations were trained.

8.87 National Agricultural Biosecurity System:

In view of threat perception to biosecurity 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 Biosecurity 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 Biosecurity Authority (NABA) for which an Agricultural Biosecurity Bill has been finalized. The bill has been examined by Parliamentary Standing Committee.

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, the 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. The scheme of Weather Based Crop Insurance (WBCIS), Modified National Agriculture Insurance (MNAIS) & Coconut Palm Insurance Scheme (CPIS) are being implemented on pilot basis from Kharif 2007, Rabi 2010-11 and year 2009-10 respectively and have already completed their respective pilot period. A Central Sector Scheme of NCIP has been formulated by merging the erstwhile three schemes of 11th Plan, namely Pilot MNAIS, Pilot WBCIS and Pilot CPIS from Rabi 2013-14. The Scheme has the following components:

- (i) **NCIP component:** Modified National Agricultural Insurance Scheme (MNAIS): It is improved version of NAIS and has been launched from Rabi 2010-11 in 50 districts. In this scheme, the actuarial premiums are charged which are subsidized for farmers. The claim liability is on the insurance company.
- (ii) **NCIP component-II: Weather-based Crop Insurance (WBCIS):** Protects losses caused by adverse weather conditions. It was

launched from Kharif 2007 in 20 States. In this scheme, the actuarial premiums are charged which are subsidized for farmers. The claim liability is on the insurance company.

- (iii) **NCIP component-III: Coconut Palm Insurance Scheme (CPIS):** It has been launched in seven Coconut palms growing States from 2009-10 compensating the damages to coconut palm. In this scheme, the actuarial premiums are charged which are subsidized for farmers. The claim liability is on the insurance company.

9.2 Strategy: The coverage of NCIP in terms of farmers and area insured has been projected to be achieved to the level of 50% each from the existing level of about 25% and 20% respectively by the terminal year 2016-17 of the 12th Plan. The coverage under CPIS is projected at 25% of the coconut growers/planters during 2013-14 with increase of 5% each year during remaining years of 12th Five Year Plan.

9.3 Department of Agriculture & Cooperation has been implementing four Central Sector Crop Insurance Schemes namely (i) National Agricultural Insurance Scheme (NAIS) (ii) Pilot Modified National Agricultural Insurance Scheme (MNAIS) (iii) Pilot Weather Based Crop Insurance Scheme (WBCIS) & (iv) Pilot Coconut Palm Insurance Scheme (CPIS) to provide financial protection/ assistance to the farmers against the

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crop damages due to natural calamities, pests & diseases and adverse weather conditions. The penetration/coverage of these schemes in terms of number of farmers / area has reached

to about 25% of the total No. of land holdings / cropped area in the country. The details of coverage during last five years are given below:

(Rs. In lakhs)

Sl. No.	Year	Farmers Insured (no)	Area Insured (ha)	Sum Insured	Premium	Claims Paid/ payable	Farmers benefitted (no)
XI Plan							
1	2007-08	1,91,28,731	2,92,10,232.09	26,26,652.13	83,138.41	1,83,100.62	33,97,897
2	2008-09	1,95,99,952	2,69,74,769.88	27,70,143.02	88,933.08	3,92,853.76	64,23,542
3	2009-10	2,62,14,803	3,70,77,862.19	43,59,426.8	1,59,549.9	5,15,886.52	1,03,83,842
4	2010-11	2,76,69,862	3,81,95,818.13	51,51,991.96	2,32,720.2	1,94,728.81	60,11,456
5	2011-12	2,95,39,380	1,99,40,905.00	58,07,286	3,13,145	25,77,890	5,66,49,043
XII Plan							
1	2012-13	3,19,86,024	2,32,74,269.00	67,53,032.00	4,46,619.72	5,97,959.07	1,39,52,171

9.5 Under the aforesaid schemes, Rs.1053.33 crores and Rs.1549.18 crores had been released during the financial year 2011-12 & 2012-13, respectively against committed liability towards subsidy in premium of farmers, claims, administrative expenses and publicity. Out of the total budget provision of Rs.2150 crore for the financial year 2013-14 kept for these schemes, Rs.1978 crore have been utilized till 31/12/2013.

National Agricultural Insurance Scheme (NAIS)

9.6 NAIS with the aim to increase coverage of farmers, crops and risk commitment was introduced in the country from Rabi 1999-2000 replacing the erstwhile Comprehensive Crop Insurance Scheme (CCIS). The main objective of the scheme is to protect the farmers against the crop losses suffered on account of natural

calamities, such as, drought, flood, hailstorm, cyclone, pests and diseases. The scheme is implemented by the Agriculture Insurance Company of India Ltd. (AIC).

9.7 The scheme is available to all the farmers both loanee and non-loanee irrespective of their size of holding. It envisages coverage of 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. Among the annual commercial/horticultural crops, sugarcane, cotton, ginger, jute, onion, potato, tomato, brinjal, turmeric, chillies, garlic, pine-apple, annual banana, tapioca, Isabgol, methi, coriander, cumin and fennel have been covered under the scheme. Other annual commercial/horticultural crops are covered subject to availability of past yield data. The scheme is operating on the basis of 'Area Approach' i.e. defined areas for each notified crops.

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9.8 The premium rates are 3.5% of sum insured for bajra and oilseeds, 2.5% for other Kharif crops; 1.5 per cent for wheat, and 2 per cent for other Rabi crops. In the case of commercial/ horticultural crops, actuarial rates are charged. Under the scheme, Small and Marginal farmers were originally provided the subsidy of 50% of the premium charged from them which has been phased out over a period of 5 years and at present, 10% subsidy in premium is available to

small & marginal farmers which is shared equally by Centre and State Governments.

The scheme is optional for States/UTs. NAIS has been implemented by the 25 States and 2 Union Territories in one or more seasons. 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 2012-13 are given as under :-

(Rs. in lakh)

Sl. No.	States/UTs.	Farmers Insured (no)	Area Insured (ha.)	Sum Insured	Premium Collected	Claims Paid	Farmers Benefitted (no.)
1	Andhra Pradesh	2,85,78,464	4,37,62,477	56,06,783	1,60,398	4,41,990	65,81,020
2	A&N Island	2,532	4,049	734	17	8	438
3	Assam	3,38,936	2,52,864	62,238	1,756	1,329	61,056
4	Bihar	60,36,983	73,77,698	11,90,402	30,383	2,11,347	24,31,008
5	Chhattisgarh	97,74,546	1,97,81,274	10,22,157	26,108	38,240	16,71,623
6	Goa	7,893	12,973	279	5	2	702
7	Gujarat	1,32,98,937	3,05,76,316	35,52,734	1,37,461	4,54,035	48,85,981
8	Haryana	6,35,688	7,68,865	83,459	2,413	4,024	1,29,217
9	Himachal Pradesh	3,02,530	2,24,894	47,603	995	1,669	1,06,683
10	J&K	44,520	63,165	9,044	167	123	4,292
11	Jharkhand	60,88,264	35,92,539	3,25,861	8,078	52,166	21,78,175
12	Karnataka	1,29,11,992	2,05,74,232	1,58,22,723	46,848	1,77,698	51,33,480
13	Kerala	4,37,915	3,89,798	76,878	1,646	2,500	75,684
14	M.P.	2,80,38,512	6,86,84,709	43,68,005	1,24,207	1,72,917	46,77,299
15	Maharashtra	3,27,51,138	2,84,01,545	20,54,414	81,370	2,25,068	95,33,989
16	Manipur	19,629	24,372	6,478	160	668	18,946
17	Meghalaya	29,619	30,925	5,019	245	47	2,668
18	Mizoram	121	134	23	1	11	119
19	Odisha	1,44,47,590	1,44,78,255	19,37,570	48,386	1,36,558	26,61,382
20	Puducherry	37,402	53,434	9,246	176	293	7,037
21	Rajasthan	155,86,74	3,13,79,980	16,20,309	45,754	2,62,166	52,00,566
22	Sikkim	1,893	1,324	254	4	1	86

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23	Tamil Nadu	59,61,793	77,82,617	16,11,269	41,164	1,54,814	25,01,663
24	Tripura	19,573	12,671	2,927	81	58	3,432
25	UP	2,21,37,563	2,95,55,100	29,76,571	60,756	1,00,973	42,27,898
26	Uttarakhand	3,86,068	3,62,836	84,106	1,903	4,145	1,18,698
27	West Bengal	1,11,29,748	56,10,472	11,15,589	46,638	94,707	23,36,616
	Total	20,84,78,523	31,37,69,515	2,93,52,675	8,67,121	25,37,558	5,45,49,758

NB:-Figures are as on 31/12/2013

9.9 As against, the budget provision of Rs.400 crore during 2012-13, the actual expenditure under NAIS was of the order of Rs.700 crore. Entire BE of Rs.1200 crore for the year 2013-14 for NAIS has been fully utilized till 31/12/2013.

Modified National Agricultural Insurance Scheme (MNAIS)

9.10 To improve further and make the scheme easier & more farmer friendly, a Joint Group was constituted under the Chairmanship of Additional Secretary in the Department of Agriculture & Cooperation to study the improvements required in the existing crop insurance schemes. Based on the recommendations of the Joint Group and views/comments of various stake-holders, a proposal on Modified National Agricultural Insurance Scheme (MNAIS) was prepared which was approved by Government of India for implementation on pilot basis in 50 districts from Rabi 2010-11 season.

9.11 The salient features of MNAIS are as under:

- (i) actuarial premium with subsidy in premium ranging- upto 75% to all farmers,
- (ii) only upfront premium subsidy is shared by the Central and State Governments on

50 : 50 basis and all claims liability lies on the insurance companies,

- (iii) unit area of insurance reduced to Village/village panchayat level for major crops,
- (iv) indemnity for losses due to localized calamities i.e. hailstorm & landslide on individual farm assessment
- (v) indemnity for prevented sowing/planting risk & for post harvest losses due to cyclone (coastal areas),
- (vi) on account payment up to 25% advance of likely claims as immediate relief,
- (vii) more proficient basis for calculation of threshold yield,
- (viii) minimum indemnity level of 70% instead of 60%,
- (ix) scheme is available to all the farmers – loanee and non-loanee - irrespective of their size of holding,
- (x) loanee farmers are covered on compulsory basis in a notified area for notified crops whereas for non-loanee farmers scheme is voluntary as in NAIS,
- (xi) uniform seasonality disciplines both for loanee & non-loanee farmers.

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(xii) participation of private sector insurers for creation of competitive environment for crop insurance,

9.12 Cumulative State-wise details of coverage up to 2012-13 under the scheme are given in the table below:

(Rs. in lakhs)

Sl. No.	States/UTs.	Farmers Insured (no)	Area Insured (ha.)	Sum Insured	Premium Collected	Claims Paid	Farmers Benefitted (no.)
1.	Andhra Pradesh	6,45,528	7,01,409.36	2,71,815.8	19,250.8	41,589.8	2,95,040
2.	Assam	11,881	8,352.74643	3,074.749	145.324	27.79097	1,073
3.	Bihar	5,04,097	5,66,499.208	1,16,124.7	24,008.79	321.6624	60,662
4.	Chhatisgarh	18	31.76	4.764	0.217125	0	0
5.	Gujarat	432	590.66	261.2243	28.23437	0	0
6.	Haryana	1,22,158	2,18,714.508	87,325.36	3,511.715	3,475.778	40,321
7.	Jharkhand	41,676	37,659.3554	8,613.567	851.5822	2,445.858	96
8.	Karnataka	4,11,506	6,88,896.01	98,367.24	11,012.74	6,828.751	93,059
9.	Madhya Pradesh	1,04,698	1,55,408.625	19,991.42	1,084.364	77.581	2,571
10.	Maharashtra	51,964	49,621.11	7,621.06	1,361.989	0	0
11.	Mizoram	453	434	74.488	5.2425	8.66232	453
12.	Odisha	54,765	41,981.7968	11,770.24	544.8975	439.4005	8,411
13.	Rajasthan	8,57,201	8,63,855.496	70,796.4	8,961.71	4,274.577	1,07,791
14.	Tamil Nadu	2,04,654	2,30,889.23	47,370.94	5,609.796	3,523.89	1,04,430
15.	Uttar Pradesh	2,94,122	2,49,292.904	76,015.48	2,828.031	692.9323	35,071
16.	Uttarakhand	52,072	35,415.1673	8,910.668	378.6939	102.5692	7,419
17.	West Bengal	2,71,283	88,477.55	63,290.35	10,126.46	4,487.776	51,182
	TOTAL	36,28,508	39,37,529.49	8,91,428.4	89,710.58	65,853.62	8,07,579

(Figures are as on 31/12/2012)

NB: Assessment and payment of claims is under progress according to availability of yield data from states.

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9.13 Against the budget provision of Rs.80 crores for 2012-13, the actual expenditure was of the order of Rs. 194.18 crores. Against the budget provision of Rs. 250 crores for the year 2013-14, Rs.77.76 crores have been utilized till 31/12/2013.

Pilot Weather Based Crop Insurance Scheme (WBCIS)

9.14 With the objective to bring more farmers under the fold of Crop Insurance, a Pilot Weather Based Crop Insurance Scheme (WBCIS) was launched in 20 States (as announced in the Union Budget 2007). WBCIS is intended to provide insurance protection to the farmers against adverse weather incidence, such as deficit and

excess rainfall, high or low temperature, humidity etc. which are deemed to impact adversely the crop production. It has the advantage to settle the claims within shortest possible time. The WBCIS is based on actuarial rates of premium but to make the scheme attractive, premium actually charged from farmers has been restricted at par with NAIS.

9.15 The entire budget provision of Rs. 655 crore earmarked for the year 2012-13 under WBCIS was fully utilized. Also, the budget provision of Rs. 700 crore for the year 2013-14 has already been utilized till 31/12/2013.

9.16 State-wise cumulative progress achieved is as under:-

(Rs. in lakh)

SI No		Farmers Insured	Area Insured (Ha)	Sum Insured	Gross Premium	Claims Paid	Farmers benefitted (No.)
1	Andhra Pradesh	19,50,482	31,29,703.10	7,54,122.94	75,001.41	58,228.19	14,18,892
2	Bihar	58,17,847	62,44,817.57	14,04,429.04	1,19,819.11	38,775.30	42,60,478
3	Chhatisgarh	1,09,521	1,94,591.67	36,098.24	2,868.60	4,945.90	93,069
4	Gujarat	4,97,661	4,13,126.40	22,394.75	2,239.48	857.35	1,70,576
5	Haryana	1,23,713	1,87,039.97	61,867.44	5,690.67	2,348.73	71,866
6	Himachal Pradesh	46,757	39,297.94	21,843.35	2,518.69	3,765.96	42,178
7	Jharkhand	2,09,874	1,61,629.87	28,668.81	2,790.53	806.43	1,85,477
8	Karnataka	6,03,795	7,58,645.31	1,00,070.90	10,833.82	8,048.16	4,84,602
9	Kerala	34,328	29,601.14	8,365.96	892.12	718.76	26,459
10	Madhya Pradesh	8,82,745	16,40,853.96	3,45,610.98	30,485.43	16,663.85	7,39,848
11	Maharashtra	4,97,015	5,88,658.17	1,31,024.45	15,708.14	8,499.86	4,12,123
12	Odisha	3,15,755	4,56,503.67	1,17,798.57	5,656.27	3,210.35	2,15,814
13	Punjab	67	338.20	47.58	4.79	0.67	50
14	Rajasthan	2,09,28,397	3,06,91,389.48	24,46,586.57	2,28,464.48	1,39,420.25	11,02,9101

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15	Tamil Nadu	1,08,404	1,70,647.32	25,630.61	2,459.24	719.44	48,026
16	Uttar Pradesh	1,41,348	8,73,66.60	23,654.16	2,212.12	546.45	68,407
17	Uttarakhand	42,217	90,849.85	12,690.20	1,522.82	3,041.48	27,281
18	West Bengal	94,259	1,08,637.78	16,966.31	1,602.77	1,281.28	53,996
	TOTAL	3,24,04,185	4,49,93,698.01	55,57,870.83	5,10,770.502	2,91,878.4	1,93,48,243

(Figures as on 31/12/2013)

Pilot Coconut Palm Insurance Scheme (CPIS)

9.17 The Coconut Palm Insurance Scheme (CPIS) was approved for implementation on pilot basis for the years 2009-10 and 2010-11 in the selected areas of Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Odisha and Tamil Nadu. Later on, it was extended to West Bengal also. The pilot was implemented during the years 2011-12 and 2012-13 and continues to be under implementation during the year 2013-14 also. The Sum Insured (SI) under the scheme is based on the average input cost of the plantation and the age of the specific plant. The SI varies from Rs. 600 per palm (in the age group of 4-15 years) to Rs. 1150 per palm (in the age group of 16-60

years). The premium rate per palm ranges from Rs. 4.25 (in the age group of 4 to 15 years) to Rs. 5.75 (in the age group of 16 to 60 years). Fifty per cent of premium is contributed by GOI; 25% by the concerned State Govt. and the remaining 25% by the farmer. The CPIS is administered by the Coconut Development Board (CDB).

9.18 During the financial year of 2009-10, 2010-11, 2011-12 and 2012-13, an amount of Rs. 0.10 crore, Rs. 0.85 crore, Rs.1 crore and Rs. 0.50 crore respectively was released to Coconut Development Board for the scheme. During 2013-14, Rs. 1 crore has been earmarked out of which Rs.0.50 crore has been released till 31/12/2013. The details of coverage under CPIS as on 31/12/2013 are as under:-

(Rs. In lakh)

Sr. No.	State	No. of farmers	Area (Ha)	Sum Insured	Total Premium	Claims Paid	Farmers benefitted
1	Andhra Pradesh	517	13.33	558.47	2.97	0.00	0
2	Goa	240	625.26	692.50	3.32	1.63	14
3	Karnataka	684	635.66	1,035.52	5.84	1.49	36
4	Kerala	40,330	17,188.20	16,505.84	92.25	193.27	4,338
5	Odisha	91	21.71	43.53	6.85	0.00	0
6	Maharashtra	5,963	3,802.78	3,575.18	25.15	8.24	174
7	Tamil Nadu	2,314	3,308.23	5,680.24	29.28	9.42	129
8	West Bengal	969	342.66	426.83	2.14	0.00	0
	TOTAL	51,108	25,937.83	28,518.12	167.79	214.05	4,691

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9.19 The above schemes are demand driven; therefore, SC/ST/Women Gender-wise & State-wise allocations are not made under the schemes. However, under NCIP implementing agencies have been asked to collect individual farmer-wise data including SC/ST/Women.

Chapter-10

Integrated Scheme on Agriculture Census & Statistics

10.1 Agriculture Census in India forms part of a broader system of collection of agricultural statistics. It is a large-scale operation for collecting statistics relating to the agricultural holdings and deriving quantitative information about important facets of agriculture in the country. Recognizing the importance of Agriculture Sector, the Department of Agriculture and Cooperation (DAC) has been conducting Agriculture Census, since 1970-71. So far, eight Agriculture Censuses have been conducted and the ninth Agriculture Census with reference year 2010-11 is in progress. Agriculture Census Scheme 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. All India Reports of various Censuses conducted are available in the website of the Department at <http://agcensus.nic.in>

10.2 Periodic Agriculture Censuses are the main sources of information on number and area of operational holdings, land use, cropping patterns, irrigation status, tenancy, terms of leasing and dispersal of holdings which is tabulated by different farm-sizes and social groups. Data is also collected on input use pattern for different size classes of farmers. Agriculture Census in India is conducted following broad guidelines of decennial World Census of Agriculture evolved by Food and Agriculture Organization (FAO) of

United Nations. It is conducted at an interval of five years and data is collected in three distinct Phases. The operational holding has been taken as statistical unit at micro-level for data collection as this is the ultimate unit for taking agriculture-related decisions.

10.3 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 is being conducted by National Sample Survey Organisation (NSSO), Ministry of Statistics & Programme Implementation and funds for the same are provided by DAC. The field work of the Survey was completed in December 2013 and after processing of data, the preliminary results are expected by December, 2014.

10.4 Agriculture Census 2010-11: Results of Phase-I of Agriculture Census 2010-11 have been released in the public domain. All India Report on number and area of operational holdings in the country based on results of Agriculture Census 2010-11 has been placed on the Department's website. Field work of Phase-II of Agriculture Census 2010-11 has been completed in all the States/UTs in the country. After completing data entry and validation, output tables for Phase-II of

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the Census have been generated and are being scrutinized for all States/ UTs and at the National level. For Phase-III of Agriculture Census 2010-11, field work has been completed in most of the States /UTs and data processing is in progress. Details of number and area of operational holdings in the country, based on the results of latest Agriculture Censuses 2010-11 are given below:

Group wise size of distribution of Number of holdings and Area operated

Sl. No	Size Group	Number of holdings (in millions)	Area operated (in million ha.)
1	2	3	4
1	Marginal (Below 1.00 ha.)	92.8	35.9
2	Small (1.00-2.00 ha.)	24.8	35.2
3	Semi-Medium (2.00-4.00 ha.)	13.9	37.7
4	Medium (4.00-10.00 ha.)	5.9	33.8
5	Large (Above10.00 ha.)	1.0	16.9
	All holdings	138.3	159.6

Note: Total may not tally due to rounding off.

10.6 Gender Perspective in 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 group (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 below:-

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.)	6.86	7.77	8.49
5	Large (Above10.00 ha.)	5.22	6.00	6.78
	All Size Groups	10.83	11.70	12.78

* Excludes Jharkhand

10.7 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.

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 aspects of agricultural marketing and its implementation by the three organizations under its administrative control, namely, the Directorate of Marketing & Inspection (DMI), Faridabad, Ch. Charan Singh National Institute of Agricultural Marketing (NIAM), Jaipur and Small Farmers Agri- Business Consortium (SFAC), New Delhi.

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 of producer-sellers as well as the consumers. It maintains a close liaison between the Central and the State Governments in implementation of agricultural marketing policies in the country.

11.3 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.

11.4 Major functions of DMI:

- Promotion of Standardization and Grading of agricultural and allied produce under the Agricultural Produce (Grading & Marking) Act, 1937 as amended in 1986.
- Reforms in State Agricultural Marketing Laws and guides States/UTs for development and management of Agricultural Produce Markets.
- Implementation of Plan Schemes viz. (i) Marketing Research and Information Network (MRIN); (ii) Grameen Bhandaran Yojana (GBY); (iii) Development/ Strengthening of Agricultural Marketing Infrastructure, Grading & Standardisation (AMIGS) and (iv) Strengthening of Agmark Grading Facilities (SAGF).
- Marketing Extension.
- Training of personnel in Agricultural Marketing.

11.5 Standardization and Grading: The Agricultural Produce (Grading & Marking) Act, 1937 provides for grading and marking of agricultural and other produce. The Act

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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 marks to represent particular grade designation. Standards 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.

11.6 As on date, 105 Grading and Marketing Rules, covering 213 commodities, have been notified under the provisions of AP (G&M) Act, 1937. These include fruit and vegetables, cereals, pulses, oilseeds, vegetable oils, ghee, spices, honey, etc. Grading and marking of agricultural commodities is voluntary as per provisions of the Act.

11.7 The Central Agmark Laboratory at Nagpur and Regional Agmark Laboratories at Mumbai, Chennai and Kochi 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 Laboratories at Delhi, Jaipur, Kanpur and Kolkata is in progress.

11.8 Agriculture Marketing Reforms: Agriculture Sector needs competitive and well-functioning markets which provide alternative choices to the farmers to sell their produce. Reforms in agricultural marketing were therefore initiated to ease restrictive and monopolistic policies of State Governments, reduce the intermediaries in supply chain and enhance

the private sector investment in post-harvest marketing infrastructure development so as to reduce the wastages and thereby strengthen the supply side and also to benefit cultivators through access to global markets. Accordingly, the Ministry of Agriculture formulated a Model Act in consultation with States / UTs and circulated the same during 2003 and its Rules in 2007 for adoption by the States/UTs.

11.9 The States of Andhra Pradesh, Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Mizoram, Nagaland, Odisha, Rajasthan, Sikkim, Tripura and Uttarakhand have amended their APMC Acts to provide private market, direct marketing and contract farming. The State of Bihar has repealed its APMC Act since September, 2006 while the States/Union Territories of Kerala, Manipur, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman Diu and Lakshdweep do not have APMC Acts. States/Union Territory of Uttar Pradesh, West Bengal, Meghalaya, J&K and Puducherry have not yet amended their APMC Acts. Eight States have notified the amended APMC Rules to implement the amended provisions of the Act while State of Mizoram has partially amended the Rules so far.

11.10 To take the reform agenda forward, an Empowered Committee of State Ministers, in-charge of Agriculture Marketing was constituted on 2nd March 2010. The Committee submitted its final report to Government on 2nd July, 2013.

11.11 Implementation of Central Plan Schemes: DMI implements four Central Plan Schemes in the agri-marketing sector. Details of these schemes are given in succeeding paragraphs.

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11.12 Marketing Research and Information Network (MRIN): This scheme was launched as Central Sector Scheme in March 2000 with the objective to collect and disseminate information on price, arrival and other market related data for the benefit of farmers and other market users. DMI has been implementing 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 portal on daily basis. More than 3200 markets have been linked to the Central AGMARKNET Portal and more than 2200 markets have been reporting the data. Movement of weekly prices and arrivals are also being disseminated using the portal. In addition to price, several other market related information like accepted standards / grades, labeling, sanitary and phyto-sanitary

requirement, physical infrastructure of storage and warehousing, marketing laws, fees payable, etc are being provided.

11.13 The price and arrival information is being disseminated in eleven 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 XI Plan 590 nodes have been covered under the scheme against a target of 360 nodes. So far,



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3241 nodes have been linked to central portal (www.agmarknet.nic.in).

11.14 Grameen Bhandaran Yojana (GBY), a Central Sector Scheme is being implemented since 01.04.2001 with the objective to create scientific storage with allied facilities in rural areas to meet various requirements of farmers for storing their farm produce till the market prices are favorable and to prevent distress sale by creating the facility of pledge loan and marketing credit. The scheme is demand-driven and not location specific except for the restriction that the project should be outside the limits of Municipal Corporation.

11.15 The project for construction of rural godowns can be taken up by individuals, farmers, Group of farmers/growers, Partnership/Proprietary firms, Non-Government Organization (NGOs), Self Help Group (SHGs), Companies, Corporation, Co-operatives, Local Bodies other than Municipal Corporation, Federation, Agricultural Produce Marketing Committees, Marketing Boards and Agro Processing Corporations. Assistance for renovation of rural godowns is, however, restricted to cooperatives only. Under the scheme, credit linked capital investment subsidy @ 25% is given to all categories of farmers, Agriculture graduates, Cooperatives and State/Central Warehousing Corporation while it is 15% for entrepreneurs belonging to category of Individuals, Companies and Corporations etc. For projects located in NE States, Sikkim/hilly areas and projects belonging to Women farmers/SC/ST entrepreneurs and their self-help groups/Cooperatives, the subsidy is @ 33.33%. The normative cost for the purpose of calculation of subsidy is Rs. 3500/MT for

godowns above 1000MT capacity; while it is Rs.3000/MT for godowns up to 1000 MT capacity. The normative cost is Rs.4000/MT for NE region/hilly areas irrespective of godown capacity; and Rs.750/MT for renovation of godowns by cooperatives. The subsidy is restricted to the capacity of 30,000 MT (25,000 MT for NE States, Sikkim and hilly areas) excluding the cases of cooperatives. The ceiling on maximum subsidy is Rs.3.33 crore in case of 33.33% entitled category and Rs.2.25 crore and Rs.1.35 crore for 25% and 15% subsidy entitled category respectively.

11.16 Since inception of the scheme, from 01.04.2001 and up to 28.02.2014, a total number of 33,472 godowns having a capacity of 497.89 lakh MT have been sanctioned and subsidy of Rs.1,397.81 crore has been released. The target set for the XI Plan was to create a storage capacity of 90.00 lakh MT and achievement was 135.01 lakh MT. The revised estimates for the year 2013-14 is Rs.344.16 crore. During the last 13 years, the average annual capacity creation of rural godowns was 34.40 lakh MT whereas the achievement during the eleven months of current year up to February, 2013-14 is 85.98 lakh MT.

11.17 Development/Strengthening of Agricultural Marketing Infrastructure, Grading & Standardization (AMIGS): The Scheme, launched on 20.10.2004, provides for credit linked investment subsidy for general or commodity specific marketing infrastructure for agricultural and allied commodities and for strengthening and modernization of existing agricultural markets - wholesale, rural periodic markets or markets in tribal areas. The scheme covers all agricultural and allied sectors including dairy, poultry, fishery,

livestock and minor forest produce. It is reform linked and is being implemented in those States/UTs which have amended their APMC Acts to permit- (i) setting up of agricultural markets in private and cooperative sectors; (ii) allow direct marketing; and (iii) contract farming. Presently, 28 States/UTs are permitted to take benefits of the scheme.

11.18 The eligible beneficiaries under the Scheme are Individuals, Group of Farmers/ Growers/ Consumers, Partnership /Proprietary firms, Non-Government Organizations (NGOs), SelfHelpGroup (SHGs), Companies, Corporations, Autonomous Bodies of Government, Cooperatives, Corporative Marketing Federations, Local Bodies, Agricultural Produce Market Committees and Marketing Boards in the entire Country. Assistance under the scheme is credit linked and subject to sanction of the infrastructure projects by the financing banks and the subsidy is released through NABARD. For cooperative sector projects, subsidy is released through NCDC. However, for the projects promoted by the state agencies (APMC etc.), the stipulation of credit linkage and sanction of the infrastructure project by Banks is optional and subsidy is released by DMI directly for own funded projects of State Agencies. Subsidy @ 33.33 % of capital cost with a ceiling of Rs.60 lakhs is provided for projects located in North Eastern States, in the States of Uttarakhand, Himachal Pradesh, Jammu & Kashmir, hilly and tribal areas, and to entrepreneurs belonging to Scheduled Caste (SC)/Scheduled Tribe (ST) and their cooperatives, while it is 25% with a ceiling of Rs.50 lakh for project for all other categories.

11.19 Since inception of the Scheme from

20.10.2004 up to 28.02.2014, NABARD has sanctioned 7,115 projects and released a total subsidy of Rs.807.60 crores. In cooperative sector, NCDC has sanctioned 3073 projects and subsidy of Rs.53.53 crores has been released. Besides this, 319 projects of different State Agencies have been sanctioned by DMI and subsidy of Rs.128.96 crores has been released. A sum of Rs.276.90 crores has been earmarked for the Scheme for the year 2013-14, out of which an amount of Rs.241.90 crores has been released to NABARD, Rs.6.29 crores has been released to NCDC and Rs 2.21 crore released to State Agencies.

11.20 Strengthening of Agmark Grading Facilities (SAGF): The Agricultural Produce (Grading and Marking) Act, 1937 provides for the grading and marking of agricultural produce. It involves framing of grades, standards and certification of agricultural commodities included in the schedule appended to the Act. This programme requires analysis of check samples and research samples in Agmark Laboratories. SAGF scheme aims to meet the expenditure for the purchase of equipment, chemicals, glassware and apparatus, AMC of the equipments as well as renovation and repair works in the Agmark Laboratories/ Regional and Sub-Offices. With this support, 11 Regional Agmark Laboratories and a Central Agmark Laboratory, Nagpur are carrying out analysis of check samples and research samples for developing and promoting grading and standardization of agricultural commodities under Agmark.

11.21 Marketing Extension – Quality control programmes under Agmark as well as different plan schemes of the Directorate are given wide

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publicity through mass media. The information is disseminated through documentaries, video spots, printed literature, exhibitions, conferences, seminars and workshops. The Directorate has participated in IITF 2013 from 14-27 November, 2013 at Pragati Maidan, New Delhi, National Agriculture Fair cum Exhibition (Krishi Vasant, 2014) at Nagpur from 9-13 February, 2014, Pusa Krishi Vigyan Mela at New Delhi, from 26-28 February, 2014. AAHAR, 2014 at New Delhi from 10 -14 March, 2014. The Directorate has organised National Agmark Exhibition at Bhopal from 12-15 March, 2014. The Directorate has also conducted National Consumer Day celebrations on 24th December, 2013 at five Regional offices and World Consumer Rights' Celebrations Day on 15.03.2014 at five Regional offices.

11.22 Training of Personnel in Agriculture Marketing – The Directorate have been conducting a number of training courses relating 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. Under these training programmes, 13004 Agricultural Marketing Personnel have been trained since inception till 31.03.2014. During the current year from 1st April, 2013 to 31st March, 2014 a total of 123 personnel have been trained.

11.23 Small Farmers' Agribusiness Consortium (SFAC): SFAC was set up as a registered society in January, 1994. Currently, the members of SFAC include RBI, SBI, IDBI, EXIM Bank Oriental bank of Commerce, NABARD Canara Bank, 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.

11.24 SFAC is implementing the Central Sector Scheme for agribusiness development in association with 22 Commercial Banks for providing (i) Venture Capital to agribusiness projects, and (ii) assistance to farmers / products groups for preparing bankable Detailed Project Reports (DPR). During 2013-14, SFAC achieved a physical target of 213 projects against the annual target of 180. Since the inception of the Scheme, DAC has released an amount of Rs.290.68 crore till 31.03.2014, against which an expenditure of Rs.282.40 crore had been incurred. SFAC has also assisted 850 agribusiness projects and released Venture Capital Assistance of Rs.264.30 crores generating private investment of Rs.3065.72 crore, which provides an assured market to 120194 farmers for their produce and create direct employment for 53364 persons.

11.25 The Venture Capital Assistance Scheme has been extensively revised during 2013-14 to introduce new and liberalized norms for the XII Plan. The most significant change is a 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 especially in Central and Eastern Indian States, where the penetration of the VCA Scheme has been less than satisfactory so far.

11.26 SFAC has also taken up the implementation of the Equity Grant and Credit Guarantee Fund Scheme for Farmer Producer Companies which was approved by the Government 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.

11.27 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. NIAM is conducting training programmes in the field of agricultural marketing and allied areas for senior and middle level officers from various line Departments of State Governments, Co-operatives, Marketing Boards and Agribusiness Entrepreneurs. In the wake of reforms in agricultural marketing, the Institute is also playing an active role in orienting agricultural extension personnel towards agricultural marketing. The detail of activities undertaken by NIAM during 2013-14 are as follows:-

- The institute organized 185 training programmes, of which seven training programmes were conducted in North Eastern States. 83 core training programmes were organized in different

streams of Agricultural Marketing like Agricultural Marketing reforms, post harvest management and value addition, project management, ICT in agricultural marketing, e-Marketing, food safety and quality management, terminal markets, risk management, market-led extension and modern marketing practices etc.; 93 Farmer Awareness Programmes were organized in different parts of country to give exposure to the Indian farmers on various agricultural marketing reforms, modern marketing methods, direct marketing, group marketing, interface with the experts of commodities specialist and marketing personnel, ware housing, pledge financing and scientific storage of agricultural commodities in India and to upgrade their skill on the subject and 9 Buyer Seller Meets organized on various commodities like Organic Produce, Aonla, Flower, Seed Spices and Sericulture at different locations to provide a learning platform to both buyers and sellers regarding effective practices which each one should follow to promote growth and commerce of the concerned Agriculture commodity.

- Consultancy assignments undertaken on (i) Guar Outlook – 2015 (for NCDEX); (ii) Detailed Project Report for Marketing of Floriculture Produce in Uttarakhand (for USAMB); (iii) Farmers Awareness Programmes on Futures Trading in Agricultural Commodities (for FMC); (iv) Awareness programme for stakeholders on Futures Trading in Agricultural Commodities

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– price display for APMC (for FMC); (v) Capacity building of Elected members of APMCs Management and personnel of Cooperative Banking on Futures Trading in Agricultural Commodities (for FMC); (vi) Accreditation of warehouses (for WDRA); (vii) Capacity building of warehouse managers of accreditation warehouses (for WDRA); (viii) Farmers awareness programmes on negotiability of warehouse receipts (for WDRA) and (ix) Capacity building of Extension Workers of Uttar Pradesh on New Dimensions in Agricultural Marketing (for SAMETI –U.P.)

- Research Studies undertaken on (i) An analysis of performance of Guar crop in India and (ii) Agricultural marketing system in Manipur

11.28 Post Graduate Diploma in Agribusiness Management (PGDABM): NIAM also offers two

year PGDABM which has been accorded 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 total 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%.

Chapter-12

Integrated Scheme on Agriculture Cooperation

12.1 The cooperatives play an important role in the National economy. There are about 6 lakhs cooperative societies in the country. About 100% villages and 71% rural households are attempted to be covered by these cooperative societies. Around 16% agricultural credit & 35% fertilizer is distributed by cooperatives and 26.5% fertilizer is produced by the cooperatives. Further, 45% of total sugar production in the country comes from cooperative sugar mills. In the areas of milk production, oil seeds, cotton, handloom, fisheries, cooperatives are making significant contribution.

12.2 The cooperatives, however, are beset with a number of problems, viz., financial unviability, poor governance and management, lack of professionalization, operational inefficiency and obsolete infrastructure. With the present scenario of economic liberalization and globalization, cooperatives have to compete with other private enterprises. The capacity building, marketing infrastructure and information, storage and agro processing are the crucial elements of development of cooperatives in the present context. The basic objective of the Cooperation Division is to design long-term and short-term strategies for reducing economic disparities between the downtrodden rural people and the rural rich as well as regional imbalances including rural and urban differences.

12.3 The Central Sector Integrated Scheme on Agricultural Cooperation which is a result of

merger of two erstwhile schemes of 11th Five Year Plan, namely, Restructured Central Sector Scheme for Assistance to NCDC Programmes for Cooperative Development and Central Sector Scheme for Cooperative Education and Training is being implemented during 12th Five Year Plan. The scheme seeks to achieve the objectives of Agriculture Policy relating to the role of Cooperative in support of agriculture. The Agriculture Policy, as a measure of institutional structure, envisages that the government will provide active support for promotion of cooperative form of enterprises and ensure greater autonomy and operational freedom to improve their functioning. During the year 2013-14 against the Budget Estimate (BE) of Rs.110 crore which was reduced to Rs. 90.25 crores at RE Stage, an amount of Rs.87.34 crore was released to these institutions. A provision of Rs.84.50 crore which was reduced to Rs. 46.00 crore at RE Stage, made under the head of Non Plan for implementing Market Intervention Scheme/ Price Support Scheme through NAFED against which Rs.45.99 crore was released during the year to concerned agency.

12.4 Assistance for the Scheme of Cooperative Education and Training: 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 the National Council for Cooperative Training (NCCT) since the 3rd Five year plan. It is a

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continuing scheme. However from the 12th Five Year Plan all the schemes of Cooperation Division have been merged in a single scheme namely 'Central Sector Integrated Scheme on Agricultural Cooperation'. The National Cooperative Union of India has been implementing the Central Sector Scheme for Cooperative Education in cooperatively under developed States/under developed areas of Developed States. The Government of India had been providing 100% grants-in-aid to NCUI for implementing the Special Scheme of intensification of Cooperative Education in cooperatively under Developed States. From 12th five year Plan it has been proposed that Department of Agriculture & Cooperation (DAC) will provide expenditure upto 50% to NCUI and rest of the expenditure will be met from Cooperative Education fund. At present NCUI is running 44 projects spread over 22 States/UTs. During the year 2012-13, an amount of Rs. 358.50 lakhs was released as grants-in-aid to NCUI including Rs. 30 lakh for the NE regions. The NCUI organized 27,698 events and imparted education to 4.63 lakh persons, including 66 training programmes for 1998 persons.

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 the Vaikunth Mehta National Institute of Cooperative Management, Pune. The NCCT had also been receiving 100 percent financial assistance for conducting cooperative training programmes up to 11th Five Year Plan. However, from 12th

five year plan onwards it has been proposed that NCCT will meet its requirement by utilizing interest earnings of corpus funds created during the 10th Plan by equal contribution of Rs.100 crores by the GOI and cooperative movement. The Council provides academic support to Junior Cooperative Training Centers (JCTC) in the country which is run by State Cooperative Unions/States Governments. There is no change in pattern of financial assistance as far as JCTC and VAMNICOM is concerned. During the year 2012-13, DAC released Rs. 570.00 lakhs to NCCT for the VAMNICOM component.

12.6 Cooperative Education and Training Activities in the North Eastern 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, Aizwal (Mizoram), Thobal & Imphal (Manipur), Mangalwaria (Sikkim), Shillong (Meghalaya), Kohima (Nagaland), Morigaon and Jorhat (Assam) in the North-Eastern Region.

12.7 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, NCUI is now running 4 exclusive women development projects located at Shimoga (Karnataka), Berhampur (Odisha), Imphal (Manipur) and Bhopal (MP) under the Special Scheme of intensification of Cooperative Education in the cooperatively under-developed

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states. Besides, each field project has got a special women development component. Under this, women are organized into self-help groups and 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 by organizing fair/exhibitions. During the year 2012-13, a total number of 31,358 women were benefited by the education programmes organized by the cooperative education field projects in NE states.

12.8 Assistance to NCDC Programmes for Development of Cooperatives: The Government of India implements its cooperative

development programmes through National Cooperative Development Corporation (NCDC). The programmes/schemes being implemented through NCDC are (i) Integrated Cooperative Development Projects in selected districts, (ii) assistance to cooperative marketing, processing and storage etc., programmes in cooperatively under-developed/least developed States/Union Territories and (iii) share capital participation in growers'/weavers' cooperative spinning mills under the restructured central sector scheme. It has been decided that under this scheme, subsidy component will be provided by Government of India and the loan component will be arranged by NCDC through its own sources.

12.9 NCDC is a non-equity based development financing institution created exclusively for



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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 however 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 10.40% and 13.00% during the year. In 2013-14, an assistance of Rs 5,267.04 crore has been disbursed by the NCDC against approved outlay of Rs. 4,500.00 crore.

12.10 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. During the year 2013-14, NCDC released

an overall amount of Rs. 83.23 crore, including Rs 64.39 crore under Restructured Central Sector Scheme. NCDC is implementing Restructured Central Sector Scheme of DAC for share capital participation in Growers'/Weavers' Cooperative Spinning Mills. Term loans are met out of funds of the Corporation and subsidy is provided by DAC under this scheme.

12.11 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 has increased from 11 lakh MT to 159.96 lakh MT as on 31.3.2014. During the year 2013-14, financial assistance of Rs. 46.66 crore (Rs 33.80 crore loan + Rs. 12.86 crore subsidy) has been released and Rs 98.48 crore (Rs 67.29 crore loan + Rs 31.19 crore subsidy) has been sanctioned for the storage programme under Central Sector Scheme of DAC.

12.12 NCDC provides financial assistance to the extent of 90% of the block cost to the State Governments for setting up / modernization / expansion / rehabilitation of cold storages and Ice plants by cooperatives. In case of direct funding, assistance to the extent of 75% is provided. NCDC has also dovetailed its cold storage programme with National Horticulture Board (NHB). In such cases 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

@ 40% of the project cost for general category and 55% in case of hilly and scheduled areas for maximum storage capacity upto 5,000 MT per project at normative cost @ Rs 6000 / 7000 / 8000 per MT as per prescribed standards under the scheme. During the financial year 2013-14, assistance of Rs 2.30 crore has been sanctioned to one cold storage project at Mahua, Bihar and Rs 3.89 crore has been released to such projects including spillover assistance.

12.13 Integrated Cooperative Development

Projects: NCDC is implementing Integrated Cooperative Development Projects (ICDP) Scheme in selected districts in the rural areas. During the year 2013-14, 19 projects in the States of Jharkhand (3), Arunachal Pradesh (1), Haryana (1) Kerala (1), Himachal Pradesh(3), Madhya Pradesh (2) and Uttar Pradesh (8) worth Rs 421.99 crore have been sanctioned involving NCDC's share of assistance of Rs 405.70 crore (Rs 321.20 crore as loan and Rs 84.50 crore as subsidy). During the same period, NCDC has released loan assistance of Rs. 262.64 crore and Subsidy of Rs 39.54 crore totaling to Rs 302.18 crore for ICDP. The subsidy of Rs 39.54 crore includes Rs 12.16 crore towards expenditure on Project Implementation Team.

12.14 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 Fifth Five Year Plan, limitation of this approach came to force and as a consequence, the concept of cooperatively under-developed States 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 2012-13, financial assistance of Rs 2461.14 crore has been disbursed by the NCDC to cooperatives in cooperatively least/under-developed states/UTs., under its various schemes. During the year 2013-14, an amount of Rs.3,126.23 crore has been provided for cooperatives in cooperatively least/under-developed states/UTs., under its various schemes.

12.15 Strengthening of National-level Cooperative Federations and Multi State Cooperative Societies (MSCS):

The objective of the scheme is to assist the National Level Federations and Multi State Cooperative Societies which are undertaking promotional and research activities, bringing about improvement in infrastructural facilities and also to assist in building up their equity base for betterment of the cooperative movement and improving the cooperative activities in the rural areas of country.

12.16 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

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& vegetables, ICDP, sugarcane processing, consumer stores, handloom, powerloom, spinning and services etc. activities. Upto 31.03.2014 the NCDC has cumulatively sanctioned and released financial assistance of Rs. 182.58 Crore and Rs 89.93 crore respectively for the development of cooperative societies exclusively organized by women. This included foodgrain processing, plantation crops, oilseed processing, fisheries, Integrated Cooperative Development Projects (ICDPs), spinning mills handloom and powerloom weaving etc. During 2013-14, NCDC has sanctioned Rs 42.07 crore for women cooperatives under ICDP Rs.12.40 crore), fisheries (Rs 4.42 crore), and power loom (Rs 25.25 crore), programmes.

12.17 Revitalization of Cooperatives: With phenomenal expansion of cooperatives in almost all the sectors, signs of structural weakness and regional imbalances have also become apparent. The reason for such weakness could be attributed to the large percentage of dormant membership, heavy dependence on Government assistance, poor deposit mobilization, lack of professional management, mounting overdues, etc. Concrete steps have now been initiated to revitalize the cooperatives to make them vibrant democratic organizations with economic viability and active participation of members. The steps taken for revitalization of cooperatives include enunciation of a National Policy on Cooperatives, revamping of cooperative credit structure and reforms in cooperative legislation for providing an appropriate legislative frame-work for sound and healthy growth of cooperatives.

12.18 Amendment to the Constitution in respect of Cooperatives: Pursuant to the

Common Minimum Programme of the UPA Government 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 has given 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.

12.19 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, namely:-

- 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-operative

societies and penalties in respect of such offences.

12.20 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.

12.21 Amendment to the Multi-State Co-operative Societies Act, 2002: The MSCS (Amendment) Bill, 2010 was introduced in Lok Sabha on 15.11.2010. The proposed amendment intends to strengthen the Cooperatives by making

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them more member-driven and professional. Bill was referred to Standing Committee on Agriculture for examination and report. The report of Standing Committee on Agriculture was presented on 20.12.2012 and the same is under consideration of the Department.

12.22 Helping farmers in getting remunerative price for their produce through NAFED: The Department of Agriculture & Cooperation is implementing Price Support Scheme (PSS) for procurement of oilseeds and pulses through NAFED, NCCF, CWC and SFAC at the Minimum Support Price (MSP) declared by the Govt. 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.

12.23 Price Support Scheme (PSS): 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.

12.24 Achievement under Price Support Scheme (PSS): During the Milling Copra 2013, the prices of Milling Copra ruled below respective MSP fixed for the relevant marketing season. NAFED procured Milling Copra during the Milling Copra 2013 as per the details given below:-

S. No.	State	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	A & N Islands	3,300	1,732.50
2.	Andhra Pradesh	1	0.53
3.	Kerala	41	21.53
4.	Lakshadweep	538	282.45
5.	Tamil Nadu	551	289.28

12.25 Further, a quantity of 29,535 MTs of Ball Copra at the MSP of Rs. 5,500 per quintal valuing Rs. 16,244.25 lakhs were also procured. A quantity of 4,384 MTs of sunflower seed valuing Rs. 1,622.08 lakhs in Odisha, Karnataka and Andhra Pradesh were procured. Further, groundnuts under PSS were also procured as per the details given below:-

S. No.	State	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	Odisha	830	307.10
2.	Gujarat	1,07,203	42,881.20
3.	Rajasthan	1,89,767	75,906.80
4.	Uttar Pradesh	7,347	2,938.80
5.	Karnataka	8,819	3,527.60
6.	Maharashtra	61	24.40
7.	Andhra Pradesh	30,190	12,076.00

12.26 During Kharif 2012-13 and 2013-14, urad, tur and gram were also procured as per the details given below:-

Urad

S. No.	State	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	Maharashtra	35,462.00	15,273.58
2.	Andhra Pradesh	7,963.54	3,424.32
3.	Uttar Pradesh	16,930.25	7,280.00
4.	Rajasthan	8,409.47	3,616.07
5.	Madhya Pradesh	3,285.89	1,412.93
6.	Karnataka	9,871.90	4,244.91
7.	Gujarat	442.74	190.37
8.	West Bengal	2,022.64	868.32
9.	Jharkhand	103.57	44.53

Tur

S. No.	State	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	Maharashtra	32,536.00	13,585.92
2.	Andhra Pradesh	28,911.83	12,119.48
3.	Madhya Pradesh	66.00	25.41

Gram

S. No.	State	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	Maharashtra	4,932	1,528.92
2.	Andhra Pradesh	24,388	7,560.28
3.	Karnataka	5,430	1,683.30

12.27 NAFED also procured cotton under PSS as per the details given below:-

S. No.	State	Variety	Quantity in MTs	Ex-godown value (Rs. in lakhs)
1.	Maharashtra	Bunny	1,203.20	469.25
		H-4/H-6	16.20	6.16
2.	Andhra Pradesh	Bunny	1,80,290.95	70,273.96
		H-4/H-6	-	-

12.28 Market Intervention Scheme (MIS):

The Department of Agriculture & Cooperation implements the Market Intervention Scheme (MIS) for procurement of horticultural commodities which are perishable in nature and are not covered under the Price Support Scheme. 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 Market Intervention Scheme (MIS) 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 NAFED as the Central agency and 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 2012-13 and 2013-14 as on 31.03.2014 are as below:-

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S. No.	Year	Commodity	MIP (Rs. Per MTs)	State	Sanctioned Qty. (in MTs.)
1)	2)	3)	4)	5)	6)
1.	2012-13 20.03.2012 to 20.05.2012	Turmeric	40,000/-	Andhra Pradesh	54,000
2.	2012-13 25.05.2012 to 25.06.2012	Chilly	41,000	Andhra Pradesh	52,000
3.	2012-13 01.06.2012 to 30.06.2012	Turmeric	40,000/-	Tamil Nadu	35,000
4.	2012-13 01.12.2012 to 31.12.2012	Iskut (Choyate)	5,600	Mizoram	4,000
5.	2012-13 01.01.2013 to 31.03.2013	Oil Palm FFB	5,720/-	Andhra Pradesh	90,000
6.	2012-13 07.03.2013 to 07.04.2013	Potato	3,580/-	Uttar Pradesh	1,00,000
7.	2013-14 01.08.2013 to 21.10.2013	C-grade Apple	6,500/-	Himachal Pradesh	27,000
8.	2013-14 01.08.2013 to 31.08.2013	Pineapple	8,500/-	Nagaland	12,675
9.	2013-14 20.02.2014 to 20.03.2014	Potato	3,750/-	Uttar Pradesh	1,00,000

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. During XI Plan, Rs. 22,408.77 crore was released to States & Union Territories (UTs) of which Rs. 22,190.94 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 XII Five Year Plan, an outlay of Rs. 63,246 crore has been earmarked for implementing RKVY, out of which Rs. 8,400 crore was already allocated during 2012-13 (Revised Estimate) and Rs. 7,089 crore during current year 2013-14 (RE).

13.2 Objectives: RKVY aims at (i) holistic development of agriculture and allied sectors by incentivizing the States to increase public investment; (ii) providing optimum flexibility and autonomy in planning and executing

projects; (iii) building robust infrastructure and creating assets for filling identified gaps; and (iv) enabling Central Government to launch strategic initiatives from time to time reflecting national priorities.

13.3 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 emphasises 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.

13.4 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

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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.

13.5 Over the years, RKVY has also facilitated in addressing national priorities, without affecting the autonomy and flexibility of States, through special sub-schemes namely, Bringing Green Revolution to Eastern India (BGREI), Rainfed Area Development Programme (RADP), Vegetable Initiative in Urban Clusters (VIUC), Saffron Mission, Vidarbha Intensive Irrigation Development Programme (VIIDP), Accelerated Fodder Development Programme (AFDP), Crop Diversification Project, Establishment of Nutri-Farms etc.

13.6 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(BE). Leveraging higher investments, States have been able to enhance production and productivity of crops and animal husbandry sector. During XI Plan, States have taken up 5,749 projects across the entire spectrum of agriculture & allied sectors e.g., crop development, horticulture, agricultural mechanisation, 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% during the XI plan against 2.4% per annum during Xth plan period.

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

13.8 Eligibility Criteria for Access to RKVY funds: Initially, following two eligibility conditions were stipulated for States to become and remain eligible for receiving assistance under RKVY:

- a) Base line share of agriculture and allied sectors in their total State Plan (excluding RKVY funds) is at least maintained. The base line is the moving average of the share of expenditure in the agriculture and allied sectors in the State Plan during the previous three years.
- b) District Agriculture Plans (DAPs) and State Agriculture Plans (SAPs) have been formulated.

Both these criteria were relaxed after scheme came into operation. Condition of completion of SAP/DAP was relaxed as States required some time to prepare SAPs, after completion of massive exercise of preparing Comprehensive District Agriculture Plans, in accordance with the Planning Commission guidelines, which could be issued only in 2008. Criterion of maintaining base line expenditure was also relaxed to make it higher than the minimum of last three years' expenditure. However, this does not take away incentive of higher allocation to States, as state wise allocations are still dependent on additional

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funds actually allocated/spent by states on agriculture and allied sectors.

13.9 Criteria for Allocation of Funds to States:

Allocation of RKVY fund to each of the eligible States is based on three parameters namely un-irrigated area, growth potential and additional allocation to agriculture and allied sectors out of state plan funds with a weightage of 20%, 30% and 50% respectively as per formula given below:-

Sl. No.	Parameter	Weight
1.	The percentage share of net un-irrigated area in a State to the net unirrigated area of the eligible states. Eligible States are those States that become eligible to avail of the RKVY based on their baseline level of expenditure under the State Plan and preparation of District and State Agriculture Plans.	20%

2.	The projected growth rates to a base year Gross State Domestic Production (GSDP) for agriculture and allied sectors (say, 2005-06) will be applied to the GSDPs to be attained by the end of the 11th Plan by the States. The parameter will be set in terms of inter-state proportion of these GSDPs projected to be reached by the state by the end of the 11th Plan.	30%
3.	Increase in the total Plan expenditure in Agriculture and allied sectors in the previous year over the year prior to that year.	50%

13.10 Streams of Funding in RKVY: RKVY is primarily a project oriented scheme. However, additional outlay in non-projectised mode is also available from RKVY for supplementing ongoing State and Central Schemes. Following illustrates funding streams under RKVY:





- **Stream-I (Project Mode):** A minimum of 75% of the RKVY fund is to be used for specific projects/schemes/programmes which have been approved as part of the State and District Plans.
- **Stream-II (Non Project Mode):** A maximum of 25% of the total RKVY funds can be used in a year for strengthening/supplementing existing state sector schemes.

13.11 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 Stream-I of RKVY. State Agriculture Department is the nodal Department for implementation of the scheme.

13.12 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). 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), Swaran jayanti Gram Swarozgar Yojana (SGSY), National Rural Employment Guarantee Scheme (NREGS) and Bharat Nirman, and various tied and untied grant from the Central and State Finance Commissions etc.

13.13 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 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 have already prepared the DAPs (602 districts out of 651 districts in the country). 25 States have completed SAPs till date. Status of SAPs/DAPs is at Annexure 13.1.

13.15 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 XIth plan (i.e, 2007-08 to 2012-13) & 2013-14 is given at 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.

13.16 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 eleven special Programme/schemes are being implemented as sub-schemes of RKVY with a total allocation of Rs.3,300 crore for 2013-14:

- **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. 1000 crore during 2012-13 & 2013-14.
- **Special Programme on Oil Palm Area Expansion (OPAE):** To reduce import bill of edible oil and to achieve a major



breakthrough in oil palm production, OPAE was introduced in 2011-12 to bring 60,000 hectares under oil palm plantation and by integrating the farmers with the markets. During 2013-14, Rs. 150 crore has been allocated to implement this scheme.

- **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 2013-14 is Rs.200 crore.
- **Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP):** To promote balanced nutrition, emphasis is being given for higher production of

bajra, jowar, ragi and other millets through INSIMP in 1000 compact blocks covering about 25,000 villages. Additionally, projects are also undertaken under INSIMP to upgrade processing technologies and create awareness regarding their health benefits. This initiative is expected to provide market linked production support to ten lakh millet farmers in the arid and semi-arid regions of the country. Launched in 2011-12, outlay for this programme for 2013-14 is Rs.100 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 2013-14 is Rs.400 crore.

- **Accelerated Fodder Development Programme (AFDP):** Launched during 2011-12, AFDP aims at accelerating fodder production through intensive promotion of dual crops and relevant processing technologies for ensuring round the year availability of fodders. The allocation for this programme for 2013-14 is Rs.100 crore.
- **Rainfed Area Development Programme (RADP):** The scheme has been implemented since 2011-12 with the broad objective of promoting integrated farming and enhancing livelihood opportunities in rainfed areas. The allocation for this programme for 2013-14 is Rs.250 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.
- **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 2013-14 is Rs.300 crore.
- **Nutri Farms:** Pursuant to announcement in Union Budget (2013-14), this scheme has been launched in 2013-14 with an allocation of Rs. 200 crore for promoting and introducing new crop varieties that are rich in micro-nutrients in selected districts

most affected by malnutrition.

- **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.

13.17 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.

13.18 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.**

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

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(Rs. in crore)

Year	RE	Fund released	Expenditure Reported
2007-08	1,263.00	1,246.89	1,246.79
2008-09	2,891.70	2,886.80	2,880.88
2009-10	3,707.07	3,760.93	3,756.51
2010-11	6,722.00	6,720.06	6,719.23
2011-12	7,810.87	7,794.09	7,680.06
2012-13	9,217.00	8,400.00	8,094.45
2013-14	7,089.00	7,052.51	3,379.34

13.20 State-wise status of funds released for the years up to 2013-14 and expenditure/UC status as on **31.03.2014** is given in **Annexure-13.4**.

13.21 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 and 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. DAC 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 2014 defining the roles and responsibilities of various agencies involved in crisis management during drought. CMP, 2014 has been updated in the web-site of the Department

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 (17 out of 28 namely, Andhra Pradesh, 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 28 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 2013-14, Government of Bihar declared drought in 33 out of 38 districts on 18.09.2013, Government of Karnataka declared drought in 22 districts on 16.11.2013 and hailstorm occurred in Feb.-March, 2014 in 14



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districts, Government of Maharashtra declared hailstorm occurred in Feb.-March, 2014 in 28 districts, Government of Madhya Pradesh declared hailstorm occurred in Feb.-March, 2014 in 51 districts and submitted drought / hailstorm memoranda seeking central financial assistance from NDRF. Inter-Ministerial Central Teams (IMCTs) were constituted to visit the affected areas to assess the loss/damages to crops and recommend appropriate central financial assistance from NDRF. Government of Andhra Pradesh also declared drought as well as hailstorm and submitted drought / hailstorm memorandum seeking central financial assistance from NDRF. Inter-Ministerial Central Team (IMCT) was constituted to visit the affected areas to assess the loss/damages to crops.

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 climatic 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 so far prepared Contingency Plans for 500 districts of 23 States.

14.6 Empowered Group of Ministers (EGoM) on Drought has been re-constituted on 29.08.2013 with the following terms of reference:-

- to assess and monitor the situation arising out of drought/deficit rainfall on a regular basis;
- to take decisions on policy issues and approve new and innovative schemes for effective management of drought/deficit rainfall and related issues; and
- to examine the existing schemes of the Government of India and take decisions on suitable modifications/relaxations that may be required for effective management of drought/deficit rainfall and related issues.

14.7 Further, Empowered Group of Ministers (EGoM) has also been constituted on 12.03.2014 to consider the matter relating to damage to standing crops in different States. The EGoM will be serviced by the Ministry of Home Affairs.

Chapter-15

International Cooperation

15.1 The mandate of International Cooperation Division is to foster mutually beneficial partnerships with other countries of the world in a multilateral as well as bilateral format. 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 Agreements, Memoranda of Understanding (MoUs), 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.

A. MULTILATERAL COOPERATION

15.2 Food & Agriculture Organization (FAO): India is a founder member of the FAO and has been taking part in its activities. India makes payment of the annual membership contribution to FAO. 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:

- **India's contribution to the Bay of Bengal Large Marine Ecosystem (BOBLME):**

Current phase of the project with total budget of US\$ 112,570 was started in April 2011 and is scheduled to complete in March 2014.

- **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 complete in December 2014.
- **Support for piloting integrated 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 to 2015 with total budget of US \$ 385,000.
- **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\$ 5,637,513. The project started in May, 2012 with total duration of 36 months.

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- 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.
- **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. The project started in July, 2012 for three years duration.

15.3 Country Programming Framework (CPF): This Department has given in-principle approval to the process of formulation of the next National Medium Term Priority Framework' (NMTPF), now renamed as 'Country Programming Framework' (CPF) for India to run concurrently with the 12th Five Year Plan from 2012-2017, as also the TCP support for the same. FAO has set up a Project Steering Committee (PSC) under the chairmanship of Secretary (A&C) to provide critical direction and guide the course and content of the CPF. A working document for the CPF is under finalization in consultation with various stakeholders.

15.4 WORLD FOOD PROGRAMME (WFP): 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 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 in support of WFP India Country Programme, India has made full payment to UNWFP for biennium 2011 and 2012. Besides, GoI makes an annual payment of Rs. 30 lakh to UNWFP Country office towards their Local Operating Cost (LOC).

15.5 Ms. Ertharin Cousin, Executive Director, UN WFP during her visit to India during 19-22 November, 2013 met Shri Sharad Pawar, Union Agriculture Minister in New Delhi on 20th November, 2013 and discussed WFP's activities and future strategies in India at length.

15.6 Annual meeting of the Country Programme Advisory Committee (CPAC) of WFP India Country Programme 2008-12 extended upto year 2013 was held on 4th June, 2013 to review/monitor progress of the Country Programme.

15.7 World Food Day: World Food Day (WFD) was celebrated throughout the country on 17th October, 2013 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 "Sustainable Food Systems for Food Security and Nutrition."

15.8 Office of Minister (Agriculture), Embassy of India, Rome: For the purpose of maintaining liaison and coordination with the FAO the Government of India 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 an 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 meetings of various UN agencies. The office of Minister(Agriculture), EOI, Rome is a Subordinate office under the administrative control of this Department.

B. BILATERAL COOPERATION

15.9 MOU/Agreements/Work Plans: There are about 55 countries with whom India has signed MOU/Agreements/Work Plans for agricultural cooperation. However, during the financial year 2013-14, no MOU/Agreement/Work Plan was signed by the Department of Agriculture & Cooperation.

15.10 Joint Working Group (JWG) Meetings : During the financial year 2013-14, following JWG meetings were held :

(i) 3rd meeting of the India-Canada Joint Working Group (JWG) held in New Delhi on



4th April, 2013.

- (ii) 6th meeting of India-Brazil-South Africa (IBSA) JWG on Agriculture was held in New Delhi on 10th May, 2013.
- (iii) 1st meeting of India-South Africa JWG on Agriculture was held in New Delhi on 24th May, 2013.
- (iv) Sixth Session of the Indo-French Joint Working Group (JWG) on Agriculture held on 5th December, 2013 in Paris.
- (v) 2nd meeting of India-Australia JWG held on 22nd October, 2013 in Canberra, Australia.

15.11 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 Extension Marketing (NIAM), Jaipur are also

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collaborating with USAID to provide training for nationals of three African Countries viz, Liberia, Kenya and Malawi under trilateral Cooperation envisaged under MOU with USA. So far MANAGE and NIAM have conducted two and one such training programmes respectively.

C. STRATEGIC GROUPS

15.12 India is a member of multilateral groupings such as 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. The 6th meeting of Joint Working Group under IBSA was held in New Delhi on 10th May, 2013. The Indian delegation led by Union Agriculture Minister participated in 3rd meeting of BRICS Agriculture Ministers' held in Pretoria, South Africa on 28-29 October, 2013.

15.13 G-20: A Ministerial Declaration on Action Plan on food Price Volatility and Agriculture under the presidency of France was issued during the first meeting of G-20 Agriculture Ministers' meeting on 23rd June, 2011 held at Paris, France. Next G-20 Agriculture Vice Ministers meeting was held in Mexico City in April, 2012 and May, 2012 to discuss and finalize the report of the G-20 leaders on Food Security. A Final Report of the Group was released in Mexico City on 18th May, 2012. The Russian presidency of G-20 Group had held the meeting of the Group on 5-6 September, 2013 and issued the Leaders' Declaration of St. Petersburg Summit. The presidency of G-20 Group has now been taken over by Australia.

D. OTHERS

15.14 Cooperation with International Organizations: This Department 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 by the IC Division. These International Organizations are as under :-

- i) Food and Agriculture Organization of United Nations (FAO).
- ii) World Food Programme(WFP).
- iii) Trust Fund of FAO for Desert Locust in Eastern Region.
- iv) Trust Fund for International Desert Locust.
- v) Regional Network on Development of Agricultural Cooperatives (NEDAC).
- vi) Organization for Economic Cooperation & Development (OECD).
- vii) Asia and Pacific Coconut Community (APCC).
- viii) Asia-Pacific Plant Protection Convention (APPPC).

15.15 International Seminars/Workshops/Conferences etc. : During 2013-14 (upto December, 2013), this Department took part in 110 International Conferences/Meetings/Seminars/Training etc. dealing with various aspects of agricultural development organized by the FAO and other International Organizations.

E. EXTERNAL ASSISTANCE

15.16 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 five World Bank assisted Projects, one IFAD assisted project and two ADB assisted projects being implemented through this Department.

15.17 World Bank Assisted Projects : Currently there are five 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 in 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. 23 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 on March, 2016. The project aims at prevention of degradation of high potential area, prevention and protection of high bio-diversity, 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. As per data available on CAA&A website, total IDA assistance utilized till November 2013 amounted to XDR 37.93 Million as against the credit amount of XDR 41.40 Million, constituting 91.62 percent of the credit amount. The Project has also been extended effective from November, 2012 to March 2016 and an additional financing of XDR 24.60 million has been provided for the extended period. Till November, 2013, the project has been disbursed XDR 0.66 million accounting for 2.70 percent of the total Additional Financing of XDR 24.60 million.

(iii) Uttar Pradesh Sodic Land Reclamation Project-III : The Uttar Pradesh Sodic Land



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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. As per data available on the website of CAA&A, the project has been disbursed XDR 41.28 Million till November 2013 constituting 32.43 per cent of the Credit assistance worth XDR 127.30 Million.

(iv) Maharashtra Agricultural Competiveness Project (MACP): 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 opportunities”. As per data available on the website of CAA&A, the project has been disbursed XDR 11.97 Million till November 2013 constituting 18.16 per cent of the Credit assistance worth XDR 65.90 Million.

(v) Rajasthan Agricultural Competiveness

Project (RACP): Rajasthan Agricultural Competiveness 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. As per data available on the website of CAA&A, the project has been disbursed XDR 0.32 Million till November 2013 constituting 0.46 per cent of the Credit assistance worth XDR 70.30 Million.

15.18 International Fund for Agriculture Development (IFAD) : 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 face production and market risks without falling back in to poverty and distress. As per data available on the website of CAA&A, the project has been disbursed XDR 3.70 Million till November 2013 constituting

13.79 per cent of the Credit assistance worth XDR 26.82 Million.

15.19 Asian Development Bank (ADB) Project: Agribusiness Infrastructure Development Investment Programme 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). Using an integrated value chain (IVC) approach, the investment program will invest in physical and institutional links along horticultural value chains by supporting (i) site development and agribusiness infrastructure, (ii) linking infrastructure to ensure connectivity and basic services across the value chain, (iii) backward links to the production areas through contract farming and producer companies, and

(iv) capacity building to strengthen technical and managerial skills along the value chain. The investment program area covers selected regions of Bihar and Maharashtra, two States that have adopted different agri-marketing policies: Bihar promotes the provision of agri-marketing as a private-sector-led function, and Maharashtra enables greater private sector participation but leaves the role of regulator and market manager with the public sector.

1. Agribusiness Infrastructure Development Investment 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



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Program, 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. As per data available on the website of CAA&A, no reimbursement has been reported under the project till November 2013. The Project is having an ADB assistance of US\$ 67.60 million.

2. Agribusiness Infrastructure Development Investment 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 Nashik and Aurangabad-Amravati regions of the State. As per data available on the website of CAA&A, the project has been disbursed US\$ 0.30 Million till November 2013 constituting 1.24 per cent of the Credit assistance worth XDR US\$ 24.30.



Chapter-16

Agricultural Trade

16.1 India is among the 15 leading exporters of agricultural products in the world and has also emerged a significant exporter in certain crops like cotton, rice, meat, oil meals and sugar. Over the years India has developed export competitiveness in certain specialized agriculture products like basmati rice, guar gum and castor. As per WTO's Trade Statistics, in 2012 India's agricultural export had a share of 2.6% of world trade and imports had a share of 1.47%.

16.2 The Agricultural Exports as a percentage of agricultural GDP has increased from 9.10% in 2008-09 to 14.10 % in 2012-13. The Agricultural imports as a percentage of agricultural GDP also increased from 3.94% to 6.10% during the same period.

Agricultural Exports and Imports

16.3 Agricultural exports increased from Rs.1,87,000 crore in 2011-12 to 2,32,000 crore in 2012-13 registering a growth of nearly 24%. Increase in value of agricultural exports during 2012-13 was primarily on account of higher exports of guar gum, cotton, basmati & non-basmati rice, marine products, meat & meat preparations, oil meals and spices. The share of agricultural exports in total exports increased from 12.8% in 2011-12 to 13.1% in 2012-13. India's top 10 agricultural export commodities in terms of quantity and value for the year 2010-11, 2011-12, 2012-13 and 2013-14 (upto Feb, 2014) are given in the table below:

Quantity in lakh tonnes, Value: in Rs crores

S. No.	Item	2010-11		2011-12		2012-13		2013-14 (Apr 13 – Feb 14)	
		Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1	Guargum	4	2,806	7	16,357	4	21,190	5	10,964
2	Cotton Raw incl.waste	13	12,981	20	21,623	20	19,813	16	19,657
3	Rice Basmati	22	10,582	32	15,450	35	19,391	34	26,519
4	Marine products	8	11,548	10	16,588	10	18,833	9	28,033
5	Meat & Preparations		8,776		14,111		17,902		24,547
6	Oil Meals	68	10,846	74	11,762	63	15,822	59	15,603
7	Spices	7	7,870	9	13,176	10	15,319	9	14,499
8	Rice (other than Basmati)	1	220	41	8,668	67	14,417	64	16,117
9	Wheat	0	1	7	1,024	65	10,488	51	8,604
10	Paper/Wood products		7,763		8,712		10,363		11,424

Source: DGCI, Kolkata

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16.4 India's agricultural imports increased from Rs. 85,000 crore in 2011-12 to Rs 100,000 crore in 2012-13 registering a growth of nearly 18%. Increase in value of agricultural imports during this period was primarily on account of imports of vegetable oils, wood and its products, pulses, fruits and nuts, cashew nuts raw, sugar

, cotton and spices. Share of agricultural imports in the total imports increased from 3.6% in 2011-12 to 4.1% in 2012-13. India's top 10 agriculture import commodities for the year 2010-11, 2011-12, 2012-13 and 2013-14 (upto Feb,2014) are given in the table below:-

Quantity in lakh tonnes, Value: in Rs crores

S. No.	Item	2010-11		2011-12		2012-13		2013-14 (Apr 13 – Feb 14)	
		Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1.	Vegetable Oils fixed edible	69	29,860	84	46,242	101	56,520	95	51,699
2.	Wood & Wood Products	0	7,251	0	11,860	0	12,883	0	13,981
3.	Pulses	26	6,980	33	8,767	35	11,640	28	9,861
4.	Fruits & Nuts (excl. Cashew nuts)	0	3,684	0	4,519	0	5,326	0	7,155
5.	Cashew Nuts	5	2,480	8	5,338	9	5,085	7	4,313
6.	Sugar	12	2,787	10	3,138	10	2,807	9	2,278
7.	Cotton raw & waste	1	604	1	1,059	2	2,338	2	2,220
8.	Spices	1	1,359	1	2,102	1	2,291	1	3,084
9.	Oil Seeds	0	118	0	99	0	322	0	810
10.	Jute, raw	1	273	2	449	1	317	.51	142

Source: DGCIS, Kolkata

16.5 Trade policy has been amended from time to time for various agricultural commodities in response to domestic availability and price situation. The details are given below:-

- **Cereals-** In view of domestic shortage and price volatility, import duty on wheat was brought down to zero in September 2006 and export was banned in October 2007. Similarly, to manage shortage in domestic markets, import duty on rice was brought down to zero in March 2007 and export was banned in April 2008. In September 2011, export restrictions on wheat and rice

were removed in view of the stable prices and improved stocks. Also, import duty on rice has been restored to the statutory level in 2011 in view of sufficient domestic availability.

The export policy in cereals is currently free and imports are allowed through FCI subject to some conditions. The import duty is zero for wheat and 80% for rice. Rice from India is traded in two varieties- Basmati and non Basmati. Wheat is traded as Duram and Other wheat.

- **Sugar & Cotton-** In case of sugar and cotton, the exports are free subject to registration.

A 15% import duty is levied on sugar while free import is allowed for cotton. Cotton exports used to be subjected to quantitative restrictions till September 2011. With sufficient availability to meet domestic demands and stable prices, exports of cotton have been made free since October 2011, except for a brief period from 5th to 12th March 2012 when export of the said commodity was restricted. The only requirement for export of cotton is prior registration with DGFT.

- **Oilseeds & edible Oil-** In case of oil seeds, exports are free and imports are free with a levy of 30% duty. Exports of edible oils were banned in March 2008 and import duty was brought down to zero on crude and 7.5% on refined edible oils in April 2008 as a price stabilization measure. Later, certain relaxations were made for export of edible oils in consumer packs. In 2012, when prices of coconut fell below MSP, port restriction on export of coconut oil was removed to facilitate exports. Further, export of edible oils has been allowed in consumer packs of 5 kg subject to a Minimum Export Price (MEP) of US\$1100 per MT. Import duty of 2.5% and 10% are levied on crude and refined edible oils respectively.
- **Pulses-** In June 2006, import duty on pulses was brought down to zero and export of pulses was banned to augment domestic availability. Later in 2007, export of chickpea (Kabuli Chana) was permitted considering that India is the largest producer of this commodity. In 2011, export up to 10,000 MT of organic pulses including lentils per

annum was also permitted. Import is free.

- **Onions-** Policy on export of onion has seen frequent changes in past. Exports have been regulated through MEP or outright ban. In view of high domestic supply and fall in prices, the requirement of MEP was suspended in May 2012. MEP has been introduced again in August 2013 in view of high domestic prices. The same has been removed w.e.f. 4th March, 2014. Earlier export of onion was permitted through State Trading Enterprises (STEs). Now, export of onion has been made free with effect from 12th March, 2014.

16.6 India has been negotiating Free Trade Agreements (FTAs) including liberalized trade in agriculture goods to increase its trade. The main developments during period under review have been as under:

- Negotiations on PTAs/FTAs continued to mark progress with European Union, EFTA (Switzerland, Norway, Iceland and Liechtenstein). MERCOSUR (Brazil, Argentina, Paraguay, Uruguay), Chile, Israel, Indonesia, Australia, New Zealand and Thailand.



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- Trade in Goods Agreement between India and ASEAN (Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand, Cambodia, Lao PDR, Myanmar and Vietnam) was signed on 13th August 2009. This FTA became effective from 1st January 2010. India -South Korea Partnership Agreement (CEPA) was concluded on 7th August 2009 and came into force w.e.f 1st January, 2010.
 - Trade in goods agreements under India-Japan CEPA and India-Malaysia CECA were concluded during 2010-11 and have become effective from 1st August 2011 and 1st July 2011 respectively.
 - More tariff concession has been provided to SAFTA LDCs (Bangladesh, Nepal, Bhutan, Afghanistan and Maldives) and Non-LDCs (Sri Lanka and Pakistan). Tariff on all agricultural products has been reduced to zero for SAFTA LDCs. Bangladesh is major beneficiary of this liberalization.
- 16.7** After implementation of the India-ASEAN FTA, India's export to ASEAN of garlic, onions, turmeric, wheat & meslin, cane sugar, groundnuts, oilcake/ oilcake meal of soyabean, oilcake/ oilcake meal of rape/colza seed, millets (sorghum, bajra) etc. have registered an increase. On the other hand, high growth of import from Indonesia are noticed in "black pepper, refined

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palm oil, mace etc; from Malaysia in crude palm oil and cotton from Thailand in dog & cat food and other fresh fruit; from Vietnam in cashew kernel (whole), black pepper, anise seeds, starches; from Myanmar in chickpeas, red beans and kidney beans. However, no significant import under FTA is noticed from Philippines and Cambodia.

16.8 The 9th WTO Ministerial Conference was held in Bali, Indonesia from 3-7 December 2013 to discuss certain issues concerning developing countries, envisaged in Doha Round of negotiations which started in 2001. India emphatically argued during the conference that procurement of food grains with the objective of supporting resource poor farmers should not be construed as Aggregate Measure of Support

(AMS). This view was supported by a number of developing countries.

16.9 Bali Ministerial Declaration resolved to complete the Doha Development Agenda (DDA) and has adopted 10 texts in Part II as Ministerial Decisions under DDA including 4 texts relating to Agriculture namely, General Services, Public Stockholding for Food Security Purposes, Understanding on Tariff Rate Quota (TRQ) Administration Provisions of Agricultural Products under Agreement on Agriculture (AoA) and Export Competition. The decisions taken during 9th WTO Ministerial Conference in Bali are in line with the views taken by this Department on the issues of food security and trade facilitation.



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16.10 Foreign Direct Investment (FDI) Policy in Agriculture aims at attracting investments in technology, machinery, equipments, seeds/ planting material, warehousing and cold storages and other infrastructure logistics. It complements public and private investments necessary to bring knowledge, technologies and services to farmers. Hundred percent FDI has been allowed in development and production of seeds and planting material; floriculture, horticulture and cultivation of vegetables and mushrooms under controlled conditions; animal husbandry

(including breeding of dogs), pisciculture, aquaculture under controlled conditions and services related to agro and allied sectors as well as tea sector. From April 2000 to January, 2014, FDI inflows of Rs. 8,283.82 crores have been received in agriculture sector.

16.11 Besides, policy for FDI in Multi-Brand Retail Trading (MBRT) provides that at least 50% of the first tranche of US \$ 100 million shall be invested in back- end infrastructure which includes construction of warehousing and cold storages.

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.

17.2 Institutional Arrangements: Agricultural credit is disbursed through a Multi-Agency network comprising of Commercial Banks (CBs), Regional Rural Banks (RRBs) and Cooperatives. With their vast network (covering almost all the villages in the country), wider coverage and outreach extending to the remotest part of country, the Cooperative Credit Institutions, both in short and long-term structure are the main institutional agency for dispensation of agricultural credit. There are 1,13,596 Primary Agricultural Credit Societies (PACS), 371 District Central Cooperative Banks (DCCBs) with 13,495 branches and 31 State Cooperative Banks (SCBs) with 1,047 branches providing primarily short-

term and medium term agricultural credit in the country. The long term cooperative structure consists of 19 State Cooperative Agriculture and Rural Development Banks (SCARDBs) with 2,496 operational units comprising of 777 branches and 714 Primary Agricultural & Rural Development Banks with 1,005 branches.

17.3 Policy Initiatives for Increasing the Flow of Credit: 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:-

- In order to improve the flow of credit and mitigate the distressing situation of farmers due to the problem of indebtedness, the Government of India on 18.06.2004 announced a special farm credit package. The package inter-alia envisaged that credit to agriculture sector will double in next three years.
- Banks have been advised to simplify the procedure for documentation for agricultural loans.
- 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.

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- As part of the measures announced by the Reserve Bank of India (RBI) for financial inclusion, banks have been advised to open “No Frills” accounts and issue simple overdraft facility against such accounts. Banks have also been advised to issue General Credit Cards upto Rs.25,000/- without insisting on security and end use of funds.
- Banks have been advised to undertake, on a pilot basis, 100% financial inclusion in at least one district in each State. Based on the success of the pilot, the State Level Bankers Committee in the States will draw a time bound plan for achieving 100% financial inclusion in other districts of the State.
- 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.
- NABARAD has introduced a concessional refinance scheme in the year 2011-12 for financing agricultural investment in Eastern Region by supporting the banking system finance such key investments. The objective is to accelerate investments in agriculture to enhance production and productivity of crops in the Eastern region (Assam, Bihar, Jharkhand, Chhattisgarh, Odisha, West Bengal and Eastern Uttar Pradesh) by incentivizing the banks. Under the scheme, NABARD provides 100% refinance to banks at a concessional rate of 7.5% p.a. provided certain minimum targets are achieved by the bank in financing these key investments. The operative period of scheme is for financial years, 2011-12 and 2012-13. Four activities viz, Water Resources development, Land development, Farm Equipments (including tractor financing on group mode basis) and Seed Production are covered. Concessional refinance is provided subject to condition of minimum 70% lending against credit potential for the identified activities assessed on the basis of projections made in the Potential Linked Plans. The commercial banks are required to achieve the minimum lending level of 70% while the RRBs and Co-operative Banks are required to achieve the minimum lending level of 50% of the Overall lending Target/Potential assessed. The norms were revised during 2011-12 being the first year of the scheme, to 50% in case of Commercial Banks and 25% in case of RRBs and Co-operative Banks. The scheme supports the banks for (a) Forming and linking of Joint Liability Groups (JLGs) (b) Awareness programmes for promoting the

scheme (c) Organizing sensitization meets for the branch officials of implementing banks and (d) Training and capacity building of identified entrepreneurs, (e) Tractor Financing under group mode to Self Help Groups (SHGs)/ JLGs.

17.4 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 (provisional) 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.4,33,341 crore upto 31st December, 2013.

17.5 Revival Package for Short Term Cooperative Credit Structure: The Government is implementing a package for revival of Short-term Rural Cooperative Credit Structure in the country. The Revival Package is aimed at reviving/strengthening the Short-term Rural Cooperative Credit Structure (CCS) and make it a well-managed and vibrant medium to serve the credit needs of rural India, especially the small and marginal farmers. It seeks 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.



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the Revival Package will be 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 which has been estimated at Rs. 13,596 crore will be available for cleansing of Balance Sheet and increasing the capital to a specified minimum level. In order to ensure that the CCS continues on sound financial, managerial and governance norms, technical assistance will also be provided to upgrade institutional and human resources of the CCS, computerization and building up proper internal control and accounting system. The Package seeks 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 have been proposed in the package. These form part of the important conditionalities to be complied with under the Package.

17.7 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 Gol and NABARD for implementation of the package. This covers more than 96% of the STCCS units in the country. An amount of 9002.11 crore has been released by NABARD as Gol share for recapitalisation of

52,902 eligible PACS in seventeen States, 1,510 ineligible PACS affiliated to 30 CCBs in three States and 13 CCBs in Odisha, while the State Governments concerned have released 855.53 crore as their respective share.

17.8 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, fertilizers, pesticides, etc. The Kisan Credit Card Scheme is in operation throughout the country and is implemented by Commercial Banks, Coop. Banks and RRBs. Upto March, 2013, 12.03 crore KCC have been issued. 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 KCC Scheme has been recently refined and modified to make it more farmer friendly. The main highlights are:-

- (i) Flexi KCC with simple assessment prescribed for marginal farmers.
- (ii) Validity of KCC for 5 years.
- (iii) For crop loans, no separate margin need to be insisted as the margin is in-built in scale of finance.
- (iv) 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.

- (v) No processing fee up to a limit of Rs. 3.00 lakh.
- (vi) One time documentation at the time of first availment and thereafter simple declaration (about crops raised/ proposed) by farmer.
- (vii) 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.
- (viii) Disbursement through various delivery channels, including ICT driven channels like ATM/ PoS/ Mobile handsets.

17.9 Rate of Interest on Agricultural Loan:

From Kharif 2006-07, farmers are receiving crop loans upto a principal amount of Rs.3 lakh at 7% rate of interest. During the financial year, 2010-11 Government provided additional 2% interest subvention as incentive to those farmers who repay their crop loans on time which was enhanced to 3 percent in 2011-12. Thus the effective rate of interest for such farmers is 4 percent per annum. The interest subvention scheme for short-term crop loans has been continued for the year 2013-14 and a farmer who repays the loan on time will be able to get crop loan at 4 percent per annum. 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.

17.10 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 will be 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

17.11 Rehabilitation Package for Distressed Farmers:

In the year 2006, the Government has implemented a Special Rehabilitation Package of Rs.16,978.69 crore for 31 suicide prone Districts in the four States, namely, Andhra Pradesh, Maharashtra, Karnataka and Kerala. The rehabilitation package aimed at establishing a sustainable and viable farming and livelihood support system through debt relief to farmers, improved supply of institutional credit, crop centric approach to agriculture, assured irrigation facilities, watershed management, better extension and farming support services and subsidiary income opportunities through horticulture, livestock, dairying, fisheries etc. So far, Rs.19,998.85 crore (as on Sept, 2011) has been released to these States and the package has been ended on 30.11.2011. The approach adopted under the package was basically convergence of the benefits available to the eligible farm household under various ongoing government schemes/programmes to improve the income and livelihood of farmers in a time



bound and sustainable manner. The package has stabilized the conditions of the farmers in the identified districts and further action can be taken under various ongoing schemes and programmes like RKVY, NFSM etc to address the issue of problems faced by agriculture sector. The State Governments have been advised to constitute special teams in the identified districts to oversee the implementation of the various schemes/programmes.

17.12 Packages for Development of Kuttanad Wetland Eco-system and Mitigation of agrarian distress in Idukki district of Kerala: The Government approved in July,2008 a package as part of Rehabilitation Package for

providing financial support of Rs.1,840.75crore for implementing various programmes/interventions for development of Kuttanad Wetland Eco-system. Rs.1,266.68 crore has been sanctioned for various activities under the package and Rs.136.51 crore has been utilized. The implementation period of the package ended in July, 2012. Another package for providing financial support of Rs.764.65 crore for mitigating the agrarian distress in Idukki District of Kerala has been approved in November, 2008 as part of Rehabilitation Package. Rs.438.21 crore has been sanctioned for various activities under the package and the Rs.167.86 crore has been utilized. The implementation period of the package ended in November, 2013.

Chapter-18

Gender Perspective in Agriculture

18.1 The National Agriculture Policy formulated in the year 2000, accorded high priority to 'recognition and mainstreaming of women's role in agriculture' and highlighted incorporation of 'gender issues' in the agricultural development agenda. "Gender Mainstreaming' was one of the important pillar of the National Agriculture Extension Policy framework and it was mandated that appropriate structural, functional & institutional measures would be initiated to empower women and build their capacities and improve their access to inputs, technology and other farming resources'. Mainstreaming of gender concerns is also being addressed by earmarking 30% of funds for women under various major schemes/programmes and development interventions. Focus is also being given on formation of women Self Help Groups (SHGs), capacity building interventions, linking them to micro credit, enhancing their access to information and ensuring their representation in decision making bodies at various levels.

18.2 A National Gender Resource Centre in Agriculture (NGRCA) was set up in the Department of Agriculture & Cooperation, Ministry of Agriculture, in the year 2004-05 under the Scheme 'Extension Support to Central Institutes/DOE' reflecting the nation's commitment to women's empowerment. 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.

18.3 NGRCA has been actively working through States in providing training, extension, managerial, entrepreneurial and other support services to farm women from small and marginal farm families through a series of its women specific projects. Different innovative approaches viz. improving women's access to land by long-term leasing of community wasteland/fallow land to women SHGs for collective farming; support for land development, grain storage facilities; seed banks, implements & infrastructure and Micro Capital Assistance for taking up income generating activities have proved to be immensely successful.

18.4 Besides undertaking and supporting training, research and advocacy to mainstream gender issues in agriculture and natural resource management, NGRCA aims at forging effective functional linkages with other related departments, agencies and institutions and is mandated to ensure that the policies and programmes in agriculture are fully engendered and reflect the national commitment to empowerment of women.



18.5 Gender Budgeting Cell (GBC) has been constituted in the Department of Agriculture & Cooperation for looking into the budgetary commitments of various schemes of DAC, bringing gender concerns on to the centre stage in all aspects of public expenditure and policy and ensuring a proportionate flow of the public expenditure benefiting women farmers. Nodal officers/Gender Coordinators in various Divisions have been sensitized about the concept of gender budgeting. Formats of all the beneficiary oriented schemes of the Ministry have been revised to generate gender disaggregated data.

18.6 The Mandate of NGRCA is as under:-

- Act as a comprehensive data base & a clearing house to women related policies/ issues in agriculture and allied sectors including NRM.
- Monitor and assess the Gender impact of various ongoing programmes of agriculture and allied sector including NRM of Deptt.
- of Agriculture and Cooperation, Ministry of Agriculture and make recommendation on appropriate improvements in their design/ strategy.
- Assess the gender impact of agricultural technologies and Research Project on 'women in agriculture', identify/assess the agronomic based drudgery prone activities of women and suggest ways to make these technologies/tools gender friendly.
- Identify & float macro/micro level studies to identify the needs, requirements, potential and constraints faced by women in agriculture sector especially in the areas of technological development, access to inputs, credit and other productive resources, marketing intervention etc.
- Review the existing laws and other Government decisions/measures relating to basic production resources such as land, water, forest and to examine women's

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access and control over these basic resources and recommend necessary changes to protect women farmers' right to livelihood.

- Document, scientifically validate and disseminate traditional/indigenous knowledge of women in agriculture and allied sector.
- Forge effective functional linkages with various departments, agencies and institutions including non- governmental organizations and farm women groups; document and disseminate lessons and experiences from ongoing initiatives taken by these agencies/institutions in sustainable agriculture and NRM.
- Collaborate with Agri. Research institutions to identify technologies/crops/processes in which women farmers have a comparative advantage and develop a strategy for systematic capacity building on these issues.
- Undertake preparation of suitable training modules on gender issues in agriculture and NRM which include gender sensitization modules for policy planners and development managers.
- View the existing policies related to land, water, forests with respect to their impact on women farmers and suggest remedial measures to bring about structural changes, if required.
- Promote 'action research' on critical issues including women's access to land, water, common property resources, impact of macroeconomic changes on women farmer and implications of legal and regulatory framework on vulnerable groups such as landless farmers, tribal farm women &





those affected by natural calamities.

- Organize national level interactions between policy makers/administrators and women farmers to share concern, issues and perspectives and evolve concrete policy recommendations.
- Bring out publications on gender related areas/issues in agriculture & allied sector focusing the experiences, efforts and the work from ongoing initiatives taken up by NGRCA/other related agencies/institutions.

18.7 Current Initiatives by DAC

- Gender sensitization of extension functionaries at senior, middle and
- Gender Sensitization Modules (GSM) for

functionaries at the cutting edge level to ensure the inclusion of gender dimensions in policy and programmes for bringing women into the mainstream of agriculture development. Also, MANAGE has been entrusted to develop a 'Capsule Module on Gender Learning' of half day duration, 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.

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programme implementers at three different levels, namely senior, middle and cutting-edge level developed by NGRCA through MANAGE, are being utilized to sensitized extension functionaries at different levels.

- The State Governments were requested to provide a separate report along with MPR/QPR of ATMA activities for enabling NGRCA to apprise Ministry of Women and Child Development and Ministry of Finance about such qualitative intervention on gender addressal within DAC.
- To ensure food and nutritional security at the household level, it is proposed to support promotion of Farm women's Food Security Groups (FSGs) under ATMA. It is proposed that ATMA should lay focus and address womens' issues through special interventions. These FSGs would be provided support for training, publication and access to inputs @ 10,000 per group. It is proposed that minimum 2 FSGs per Block per year is mandated under the scheme from the third year onwards (with one such FSG in the second year for 2,500 Blocks each). These FSGs would serve as "Model Food Security Hubs" through establishing kitchen garden, backyard poultry, goatery, animal husbandry & dairying, mushroom cultivation, etc. The promotion of FSGs will start from second year of 12th plan. Thus, 36,700 groups are to be supported over the Plan period. These groups would essentially be provided input support including small tools, seeds, planting material for setting up backyard food security garden @ 10,000 per group which would work out to 36.7 crore during the 12th 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.
- Strengthening of the Gender Budgeting Cell for gender budgeting and mainstreaming. The Gender Budgeting Cell of the Department of Agriculture & Cooperation has been reconstituted and the major issues discussed during the meeting are as follows:
 - Status of revision of Scheme Guidelines and Reporting Formats.
 - GBC reviewed the Gender Budgeting (GB) Allocations vis-à-vis the total allocations of the Schemes and reflected in the Statement 20 of the Expenditure Budget Volume I.
 - Inclusion/approval of the Schemes in Statement 20 of the Expenditure Budget Volume I: Technology Mission on Cotton, Jute Technology Mission, Integrated Oilseeds/Oilpalm/Pulses and Maize Development, Support to State Extension Services, National Food Security Mission, Horticulture Mission for North East and Himalayan States (HMNEH), National Horticulture Mission, Post Harvest Technology and Management and Scheme 'Promotion and Strengthening of Agricultural Mechanization through Training,

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Testing and Demonstration.

- Review of the guidelines of all beneficiaries oriented scheme of the DAC, and their revision, if required, to ensure the flow of benefits to women farmers.
- Reporting and MIS formats of all Beneficiary-Oriented Schemes (BOS) of the DAC have been revised to generate gender disaggregated data.
- The compilation of the responses received from the State Governments on the Best Practices, Successful Models and Innovative Approaches followed in the State for the purpose of cross learning, up-scaling and replication is under way.

18.8 Besides promoting mainstreaming of Gender issues, NGRCA has also taken other initiatives, which include undertaking macro/ micro level and action research studies in critical thrusts areas including the assessment of the gender content and impact of various on-going programmes of the DAC and to make recommendations, if required, on appropriate improvements in the strategy and design of the scheme to incorporate gender perspective. The progress of macro/ micro level and action research studies undertaken are as under:

- “Adoption of Gender Friendly Tools by Women Farmers and its impact on their lives”. TOR has been prepared and identification of agencies is under process.
- Collecting, analyzing and documenting success stories of Women farmers.
- Assessing gender contents and generating ‘gender disaggregated data’ in respect of various schemes & programmes of different divisions of DAC.
- Revising reporting and monitoring formats to generate gender disaggregated data.
- 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, Department of Agriculture & Cooperation have been taken up following activities:
 - (i) Examining draft Cabinet Notes for various new schemes proposed by Ministry of Rural Development, Women and Children from perspective of women in agriculture.

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- (ii) Coordination with Central Institute of Agricultural Engineering (CIAE), Bhopal, Directorate of Research on Women in Agriculture (DRWA), Bhubaneswar and State Agricultural Universities for documenting Gender Friendly Tools/Technology for wider circulation and collecting information on popularization and adoption among women.
- (iii) Coordination with Ministry of Women & Child Development for inter-sectoral convergence under National Mission for Empowerment of Women (NMEW) for coordinated efforts for women's welfare and socio economic development.
- (iv) Member of Project Approval Committee for approval and Sanctioning of Project Hon'ble Minister of Agriculture under Mahila Kisan Sashaktikaran Pariyojana (MKSP) and Special Project under Swaranjyanti Gram Swarajgar Yojana (SGSY) skill development.
- (v) 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.
- (vi) Preparation of separate chapter on 'Gender Perspective in Agriculture' for the Annual Report of DAC, Ministry of Agriculture.
- (vii) Preparation of Gender Related Write-up for the Out Come Budget of DAC, Ministry of Agriculture.
- (viii) The Reporting Formats of Extension Division have been revised to include and reflect the benefits accrued to women in agriculture under different schemes/programmes. These formats have been shared with all the subject matter divisions of the Department for revising the formats of the beneficiary oriented schemes of the respective divisions.

18.9 Mainstreaming efforts of various Divisions of DAC: The important mainstreaming efforts within various subject matter divisions are briefly given in the succeeding paragraphs.

(A) Horticulture: National Horticulture Mission (NHM) is being implemented from 2005-06 for the holistic development of horticulture crops such as fruits, vegetables, flowers, spices, plantation crops of cashew and cocoa, medicinal and aromatic plants, etc. in 18 States and 3 UTs. 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 the budget allocation is earmarked for women beneficiaries/farmers. During the current financial year 2013-14 funds to the tune of Rs.1,287.60 crore have been released to NHM implementing States. Training and capacity building for women beneficiaries with regard to activities such as floriculture including protected cultivation of flowers, mushroom production and beekeeping are also envisaged. Centrally Sponsored Scheme 'Horticulture Mission for North East and Himalayan States (HMNEH)' is being implemented for overall development of horticulture in North East States and Himalayan

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States of Jammu & Kashmir, Himachal Pradesh and Uttarakhand in a mission mode approach. The mission consists of four mini missions which individually address specific goals and covers the entire spectrum of horticulture right from production to consumption through backward and forward linkages.

As per the directives of Planning Commission, Implementing Agencies and State Governments have been advised to utilize at least 30% of budget allocation under HMNEH Scheme for Women empowerment. The women farmers are provided technical training on different aspects of horticulture like production technology especially production of high value crops like flowers and vegetables under green houses, production of mushrooms, nursery management, primary processing, value addition, marketing, access to credit, etc. The scheme envisages making women farmers self-reliant by providing them opportunities for acquiring entrepreneurial and decision making skills. This endeavor has also helped in mobilization of Self Help Groups, acting as an instrument of economic empowerment of women. The system of Micro marginalization to decision making process, besides acting as a network for channelizing the horticulture support to women farmers.

National Bamboo Mission started in 2006-07, is being implemented in twenty seven States of the country to promote holistic growth of the bamboo sector. In the operational guidelines of this scheme, activities are not defined based on gender. Under the Mission both men and women benefit from activities like the establishment of private nurseries, plantation in non-forest areas and training. However, 30% of budget allocation

has been earmarked for women beneficiaries under the Mission.

(B) Rashtriya Krishi Vikas Yojana (RKVY): RKVY is a 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 4% annual growth in Agriculture allied sectors.

(C) Agriculture Extension: Centrally Sponsored Scheme "Support to States Extension Programme for Extension Reforms" (ATMA programme), launched in 2005-06, is under implementation in 639 districts of 28 States and 3 UTs of the country. The funds under the Scheme are being released to the States on the basis of State Extension Work Plan (SEWP) formulated and submitted by them. Operational guidelines of modified ATMA scheme 2010 provide that:

- At least 30% beneficiaries should be women farmers/farm women;
- Minimum 30% of resources meant for the 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 to be represented in Farmers

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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';
- Reduced beneficiary contribution for women to an extent of 5% for four beneficiary oriented activities listed in the cafeteria viz. Farmers' Training, Demonstrations, Exposure Visits and Capacity Building of Farmers' Groups against normal beneficiary contribution of 10%.

Since inception of the scheme in 2005-06, a total of 73,25,144 farm women (25.63% of the total benefited farmers) have participated in farmer oriented activities like Exposure Visits, Trainings, Demonstrations and Kisan Melas. This includes 8,61,837 women farmers who have been benefited during 2013-14.

The Central Sector Scheme "Establishment of Agri-Clinics & Agri-Business Centres (ACABC)" is under implementation since April, 2002 with an 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.

The National Institute of Agricultural Extension Management (MANAGE) is the implementing agency for Training Component and National Bank for Agriculture and Rural Development (NABARD) is the implementing agency for Subsidy Component of ACABC Scheme.

Under ACABC scheme, the training is imparted to unemployed agricultural graduates, Diploma/ Post Graduate Diploma holders in agriculture and allied subjects/ Biological Science graduates with Post-Graduation in Agriculture and allied subjects from State Agriculture Universities (SAUs)/ Central Agricultural Universities/ Universities recognized by ICAR/UGC, Diploma/ Post-Graduate Diploma holders in agriculture and allied subjects from SAUs and also agriculture courses at intermediate (i.e., plus two) level.

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, a total number of 37,120 candidates including women candidate have been trained and 15,313 agri-ventures have been established in the country upto 2013-14. During 2013-14, 4,451 candidates including women candidate have been trained and 2,320 agri-ventures have been established.

(D) Watershed Development:

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The National Watershed Development Project for Rainfed Areas (NWDPA) does not have a gender specific component. However, all communities living in watershed areas are benefited through natural resource management. Under the scheme, women are benefited through formation of Self Help Groups and Users Groups.

The guidelines of the scheme have been revised in favour of women. Under new common guidelines for Watershed Development issued by National Rainfed Area Authority (NRAA), it has been envisaged that at least one member of the Watershed Development Team (WDT) should be a woman. The guidelines focus on mobilizing women to ensure that interests of women are adequately reflected in the watershed action plan. The Watershed Committees that are formed to implement NWDPA would comprise of at least 10 members and half of the members shall be representatives of SHGs and User groups, SC/ST community, women and landless persons in the village. Besides, it has been found that a large number of SHGs from watershed areas comprise women members.

(E) 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. The beneficiaries of the Mission include small and marginal farmers, including women farmers. States have been advised to set aside at least 33% of the total allocation for small and marginal farmers, including women farmers. To create more visible impact of these technologies, progressive small and marginal farmers are given preference for seed mini-kits and demonstrations.

Under the 'Integrated Scheme of Oilseeds, Pulses, Oil palm and Maize (ISOPOM), benefits to the tune of 30% of the allocation are flowing to women farmers. In components like distribution of agricultural inputs, training and demonstration, etc., preference is given to women farmers who head the house-hold.

(F) Agricultural Marketing: Central Sector capital investment subsidy scheme 'Gramin Bhandaran Yojana' for construction/renovation of rural godowns was introduced in 2001-02 to create scientific storage capacity with allied facilities in rural areas to meet the requirements of farmers for storing farm produce, processed farm produce and agricultural inputs, promotion of grading, standardization and quality control of agricultural produce to improve their marketability, prevention of distress sale by providing the facility of pledge financing and marketing credit. The scheme is demand-driven and not location specific except for the restriction that the project should be outside the limits of Municipal Corporation.

Under institutional lending, a back-ended subsidy as term loan is provided by the banks. The pattern of funding is different for projects in which subsidy is routed through National Cooperative Development Corporation (NCDC) and National Bank for Agriculture and Rural Development (NABARD). However, in both the cases, projects belonging to women farmers, SC/ST entrepreneurs and self-help groups, cooperatives located in the NE states/hilly areas - (i) the owner's minimum contribution is 20%, whereas, for other categories it is 25%, (ii) Subsidy from Government is 33.33% compared to 15% for other categories and (iii) the minimum

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Term loans from eligible Financing Institutions is 46.67% for women farmers, SC/ST entrepreneurs and Self-Help Groups, cooperatives located in the NE states/hilly areas and 50% for all other categories. Since the scheme is demand driven there is no separate target for women beneficiaries.

CCS National Institute of Agricultural Marketing (NIAM), set up by the Government of India in August, 1988 as an apex Institute for agricultural marketing, is playing a vital role in expediting the reform process, creating awareness, preparing professional managers through its mandate for research, consultancy, training and education programme. The Institute organizes training programmes for Women entrepreneurs. Such training programmes and farmer awareness programmes have been planned to be organized in Nagaland, Tripura and Assam and other States in the current financial year.

Small Farmers Agri-Business Consortium (SFAC) was set up in January, 1994 as a society registered under the Societies Registration Act. 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 Commercial Banks for providing (i) Venture Capital to agri-business projects, and (ii) assistance to farmers/producer groups for preparing quality Detailed Project Reports (DPR). The scheme is open to women entrepreneurs also. SFAC has assisted project proposals of two women entrepreneurs in the current year and granted venture capital as per norms.

(G) Mechanisation and Technology: Under the Central Sector Scheme 'Promotion and Strengthening of Agricultural Mechanization through Training Testing and Demonstration', for the component of outsourcing of training and demonstration of newly developed agricultural equipment at Farmers' Fields, 30% of funds have been allocated for women farmers and separate physical targets have also been fixed. State Governments have been directed to earmark 10% of the total funds allocated for training to women farmers.

In order to reduce the drudgery and increasing efficiency in farm operations, a number of agricultural implements and hand tools suitable for far women have been developed by Research & Development organizations under ICAR. The list of gender friendly equipments have been sent to all States/UTs for popularization them through various schemes of Government.

Under the Scheme, Post-Harvest Technology and Management through demonstration, distribution and outsourcing of training, the States have been directed to ensure release of 30% funds to women beneficiaries. The components i.e. establishment of Units for transfer of primary processing technology, value addition, low cost scientific storage, packaging units and technologies for bi-product management in the production catchments under bi-lateral agreement and establishment of low cost PHT units/supply of PHT equipments with Government assistance have provision for direct benefits to individuals or families including the women. The implementing agencies have been advised to ensure that 30% beneficiary under the scheme belongs to women as per the

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guideline.

(H) Plant Protection Initiatives: Under the scheme “Strengthening and Modernization of Pest Management Approach in India” assistance is being provided to women organizations for opening mass production units of bio-control agents/bio-pesticides and to purchase of laboratory equipments for setting up bio-control laboratories. The subsidy on total cost of equipments is provided at the rate 35% for general category whereas for SC/ST/Women’s Organizations it is 50% subject to maximum of Rs.5.00 lakhs per unit.

(I) Cooperation: The Cooperation Division is implementing two Central Sector Schemes viz. ‘Cooperative Education & Training’ and ‘Assistance to NCDC for Development of Cooperative Programmes’, wherein, due focus is given to women for their economic and social upliftment.

Stress is given on implementing women development activities with the overall objective of bringing women in to 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 by National Cooperative Union of India (NCUI) through the State Cooperative Unions in the states of Arunachal Pradesh, Assam, Bihar, Delhi, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Mizoram, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. NCUI is now running four exclusive women development projects

located at Shimoga (Karnataka), Berhampur (Odisha), Imphal (Manipur) and Bhopal (M.P.), under the Special Scheme of Intensification of Cooperative Education in cooperatively under-developed states (UDS). Besides, each field project has got a special women development component. Under this, women are organized into self-help groups to help them develop thrift habits. Women are also provided training to undertake income-generating activities with the help of their own resources or by borrowing from cooperatives. The project personnel help the women in marketing their produce in the local market and by organizing fair/ exhibitions. Women have been given due consideration by educating them under NCUI’s UDS Projects. Under this, women are organized into self-help groups and 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. During the year 2012-13 a total number of 31,358 women were benefited by the education programmes organized by the cooperative education field projects in NE states.

The National Cooperative Development Corporation (NCDC) encourages women’s cooperatives to avail assistance under its various schemes. A large number of women members are engaged/ involved in cooperatives dealing with fruits and vegetables, Integrated Cooperative Development Project (ICDP), sugarcane processing, consumer stores, handloom, power loom, spinning and services, activities etc.

Up to 31.3.2014, the NCDC has cumulatively sanctioned and released financial assistance of Rs.182.58 crore and Rs.89.93 crore, respectively for the development of cooperative societies exclusively organized by women. This included food grains processing, plantation crops, oil seed processing, fisheries, service cooperatives and integrated cooperative development projects, spinning mills, handloom and power loom weaving, sugar mills etc.

During 2013-14, NCDC has sanctioned Rs.42.07 crore for women cooperatives (ICDP-Rs.12.40 crore, fisheries-Rs.4.42 crore and powerloom-Rs.25.25 crore).

18.10 Skill Development of Women's by Cooperative Training: 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, NCUI is now running 4 exclusive women development projects located at Shimoga (Karnataka), Berhampur (Orissa), 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 and 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. During the

year 2012-13 a total number of 31,358 women were benefited by the education programmes organized by the cooperative education field projects in NE states.

(A) Seeds: Development & Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds' is a Central Sector Scheme being implemented from the year 2005-06 on all-India basis. There is no separate allocation under the scheme for women farmers. However, under the component 'Seed Village Programme,' implementing agencies/States/UTs are requested to allocate adequate funds/give preference to women farmers.

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

- (i) Asset reforms under land, water and livestock for an equitable share to women farmers.
- (ii) Better access to inputs and services, science and technology, implements, credit and support services like creches, child care centres, nutrition, health and training.
- (iii) Encouragement to women for participating in group activities aimed at achieving economies of scale through farming groups.
- (iv) Involvement of women in conservation and development of bio-resources.

(C) Agriculture Census: Gender based data in Agriculture Census is being collected since 1995-96 on the recommendations of

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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 group (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 below:-

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.)	6.86	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.

18.11 A brief summary of flow of benefits to women under various schemes/programmes of the DAC is given in Annexure.

18.12 The Way Forward: The foremost goal and mandate of the DAC, Ministry of Agriculture

is to enhance productivity and production of agricultural commodities to ensure the food security of the nation and also to make agriculture a sustainable and viable vocation for livelihood. Within its overall mandate, goals and objectives, the effort is to ensure that women also contribute effectively to agricultural productivity and production. In order to mainstream gender concerns in agriculture, the Department of Agriculture & Cooperation is making conscious efforts to 'engender the agricultural development process' for which appropriate structural, functional and institutional measures are being initiated along with working towards building the capacities of women, improving their access, control & ownership over productive and other farming resources. The Department of Agriculture & Cooperation is not implementing any specific programmes for women farmers. However, 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.

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ANNEXURE – 1.1

Chapter – 1

Second Advanced Estimates of Production of Foodgrains for 2013-14

(As on 14.02.2014)

(Million Tonnes)

Crop	Area ('000 Hectares)		Production ('000 Tonnes)	
	2013-14	2012-13	2013-14	2012-13
Rice	43,954.5	42,753.9	1,06,186.9	1,05,241.4
Wheat	30,610.5	30,003.3	95,602.9	93,506.5
Jowar	5,714.8	6,214.4	5,526.9	5,281.5
Bajra	7,952.7	7,297.4	8,796.0	8,742.0
Maize	9,087.2	8,672.6	23,285.9	22,258.2
Ragi	1,138.1	1,128.0	1,688.2	1,574.4
Small Millets	697.0	754.1	424.5	435.7
Barley	756.6	695.1	1,922.1	1,752.4
Coarse Cereals	25,346.3	24,761.6	41,643.6	40,044.2
Tur	3,885.4	3,892.9	3,337.1	3,022.7
Gram	9,657.0	8,521.8	9,786.1	8,832.5
Urad	2,990.8	3,073.9	1,590.3	1,896.7
Moong	2,936.3	2,718.7	1,280.0	1,186.2
Pulses	24,790.9	23,256.8	19,772.4	18,342.5
Foodgrains	1,24,702.2	1,20,775.6	2,63,205.9	2,57,134.6
Groundnut	5,567.5	4,721.1	9,140.3	4,695.3
Castorseed	1,005.9	1,233.6	1,646.4	1,963.5
Sesamum	1,598.7	1,705.8	671.8	685.0
Nigerseed	274.8	310.4	99.2	100.8
Soyabean	12,034.0	10,840.7	12,448.1	14,666.4
Sunflower	705.6	830.5	470.1	544.1
Rapeseed & Mustard	6,629.2	6,362.6	8,251.0	8,028.9
Linseed	302.8	296.3	139.6	148.6
Safflower	165.1	183.5	116.7	108.5
Oilseeds	28,283.7	26,484.4	32,983.0	30,941.2
Sugarcane	5,032.1	4,998.9	3,45,922.9	3,41,199.7
Cotton*	11,615.0	11,977.0	35,601.5	34,220.0
Jute**	765.5	776.7	10,723.1	10,340.3
Mesta**	81.1	85.8	583.1	589.8

* Production in '000 bales of 170 kg each, **Production in '000 bales of 180 kg each

Lakh bales of 170 kgs. each

Lakh bales of 180 kgs. each

Chapter - 2 Functions and Organizational Structure

List of Functional Divisions in the Department of Agriculture and Cooperation

Divisions:

1. Administration
2. Agricultural Census
3. Agricultural Marketing
4. Budget, Finance and Accounts
5. Credit
6. Cooperation
7. Crops
8. Drought Management
9. Economic Administration
10. Extension
11. General Coordination
12. Hindi
13. Horticulture
14. Information Technology
15. Integrated Nutrients Management
16. International Cooperation
17. Mechanization and Technology
18. Natural Resource Management
19. Plant Protection
20. Policy
21. Plan Coordination
22. RKVY
23. Rainfed Farming System & Watershed Development
24. Seeds
25. Oil Seeds
26. Trade
27. Vigilance

Chapter - 2

Functions and Organizational Structure

Inventory of Field Formations

I. Attached Offices

Directorate of Economics & Statistics, Shastri Bhavan, 'B' Wing, New Delhi.

1. Commission for Agricultural Costs and Prices, Shastri Bhavan, 'F' Wing, Second Floor, New Delhi.
2. Directorate of Plant Protection, Quarantine and Storage, N.H.IV, Faridabad (Haryana).
3. Directorate of Marketing & Inspection, N.H.IV, Faridabad (Haryana).
4. Mahalanobis National Crop Forecast Centre, New Delhi.

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).

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 Tobacco Development, 26 Haddows Road, 3rd Floor, Shastri Bhawan Annexe, Chennai-600006 (Tamil Nadu).
9. Directorate of Sugarcane Development, 8th Floor, Hall No.3, Kendriya Bhavan, Aliganj, Lucknow - 226024 (U.P).
10. Directorate of Rice Development, 191, Patliputra Colony, Patna-800013 (Bihar).
11. Directorate of Wheat Development, CGO Building, Hapur Road Chauraha, Kamla Nehru Nagar, Ghaziabad (U.P).
12. Directorate of Extension, Krishi Vistar Bhavan, Dr. K.S. Krishna Marg, IARI Campus, Pusa, New Delhi-110 012.
13. Directorate of Oilseeds Development, Telhan Bhavan, Himayat Nagar, Hyderabad (A.P).
14. Directorate of Pulses Development, 8th Floor, Vindhyachal Bhavan, Bhopal-462004 (M.P).
15. Central Fertiliser Quality Control & Training Institute, N.H.IV, Faridabad (Haryana).

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16. National Centre of Organic Farming, C.G.O. Complex, Kamla Nehru Nagar, Hapur Road Chungi, Ghaziabad (U.P).
17. Directorate of Cashewnut and Cocoa Development, M.G. Road, Kochi-682011 (Kerela).
18. Directorate of Arecanut and Spices Development, Cannanore Road, Kozhikode-673005 (Kerela).
19. Office of the Minister (Agriculture), Embassy of India, ROME (ITALY).
20. All India Soil and Land Use Survey, IARI Campus, Pusa, New Delhi-110 012.
21. National Seed Research & Training Centre (NSRTC) VARANASI (U.P.).
22. Central Institute of Horticulture, Medziphema, Nagaland.

Chapter - 2 Functions and Organizational Structure

I. Public Sector Undertakings

1. National Seeds Corporation, New Delhi.
2. State Farms Corporation of India, 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. Authorities

1. Protection of Plant Varieties and Farmers' Rights Authority, New Delhi.

Chapter-2

Functions and Organizational Structure

Results-Framework Document (RFD) 2013-14

(Period: From April 1, 2013 – March 31, 2014)

Department of Agriculture & Cooperation

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 production and Productivity to ensure food security and enhanced income level to farmers	15.50	Preparation of tentative allocations & approval of State action plans for 2013-14	Food grain production	Date	100%	31.05.13	90%	80%	70%	60%	20.06.13
		Release of funds to States/Institutions	% of funds (R.E.) released by 31.03.2014	Percent	95	85	75	65	60		
		Additional foodgrain production	Additional production of 5 Million tons over year (5 year moving average)	Million tons	5.0	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	1.10	1.00		
		NFSM Impact Evaluation Studies	completion of evaluation study by independent external agency and submission of report	Date	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	14	12	10	8	06		
		Rashtriya Krishi Vikas Yojana (RKVY)									
2. Incentivizing states to enhance public investment in Agriculture & allied sectors	09.00	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	0.25	0.20	0.15	0.10	0.05		

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	Release of Stream 1 funds	Average value of number of days for all States after receipt of SLSC meeting minutes	Number	2.00	30	40	50	55	60
	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	3.00	26	23	20	18	16
	Oil Seeds/Oil Palm Component of ISOPOM								
3. Diversification in Agriculture for increased income generation	Utilisation/Release of funds allocated under ISOPOM	% of funds (R.E.) released by 31.03.2014	Percent	0.50	90	80	70	65	60
	Enhancing production of oilseeds for increased availability of edible oils	Production of nine oil seeds	Lakh tones	1.00	305	300	290	280	270
	Monitoring and Evaluation of ISOPOM	Organize meetings/ field visits	Number	1.00	25	23	21	19	17
	National Horticulture Mission & Horticulture Mission for North East and Hilly States								
	Area expansion under horticultural crops and rejuvenation of senile gardens	Additional area covered	Lakh ha	2.00	1.95	1.75	1.56	1.36	1.17
	Additional Horticulture production	Additional production of 3 Million tons over year (5 year moving average)	Million Metric tons (MT)	2.00	3.0	2.7	2.4	2.1	1.8
	Establishment of nurseries and their Accreditation	Total number of nurseries established	Number	1.00	400	360	320	280	240
	Sanction of projects for PHM/Market/Others	Total number of nurseries Accredited	Number	1.00	80	72	64	56	48
	Micro Irrigation	Number of projects sanctioned	Number	1.00	500	450	400	350	300
	Area to be covered under drip irrigation	Area covered	Lac hectares	1.50	3.45	3.25	3.00	2.0	2.20

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		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	9.00	Extension & IT								
		Training of Farmers	Number of farmers trained through ATMA	Number in lakh Man days	1.25	15.0	13.5	12.0	10.5	9.0
			Farmers' training under Farm Schools (Farmer to Farmer Extension)	No. of Farm Schools organised	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

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		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	2.50	50	40	35	30	25		
		Quality control of Organic Manure, Bio-Fertilizers and fertilizers	Number of Samples tested	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	Percent	2.50	95	90	85	80	75		
		Implementation of NAIS, MNAIS and WBCIS during 2013-14	Date of Administrative approval of schemes	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)	Lakh MT	2.50	40	36	30	24	20		
		Implementation of AMIGS scheme	Number of Projects cleared	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	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	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	Cutoff date	1.00	30.09.13	15.10.13	30.10.13	14.11.13	29.11.13		

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Improving Internal Efficiency/ Responsiveness/ Transparency/ Service delivery of Department	6.00	Update departmental Strategy to align with 12 th Plan priorities	Timely Updation of the Strategy	Date	2.00	10.09.13	17.09.13	24.09.13	01.10.13	08.10.13
		Independent Audit of Implementation of Citizens'/Clients' Charter (CCC)	% of implementation	Percentage	2.00	100	95	90	85	80
Administrative Reforms		Independent Audit of implementation of Public Grievance Redressal system	% of implementation	Percentage	2.00	100	95	90	85	80
	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 FY 11/12	Actual Value FY 12/13	Actual Value FY 13/14	Actual Value FY 14/15	Actual Value FY 15/16
Food grain production								
1. Increasing 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 tons over year (5 year moving average)	Million tons	-	12.59	5.0	5.2	5.4
	Area expansion of pulses by promoting pulse cultivation in rice fallows, as well as intercropped 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 balue 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

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Oil Seeds/Oil Palm Component of ISOPOM									
2. Diversification in Agriculture for increased income generation	Utilisation/Release of funds allocated under ISOPOM	% of funds (R.E.) released by 31.03.2014	99	NA	90	90	90	90	90
	Enhancing production of oilseeds for increased availability of edible oils	Production of nine oil seeds	-	-	305	305	305	305	305
	Monitoring and Evaluation of ISOPOM	Organize meetings/field visits	34	28	25	25	25	25	25
	NHM & HIMINEH								
	Area expansion under horticultural crops and rejuvenation of senile gardens	Additional area covered	2.46	1.71	1.75	1.75	1.75	1.75	1.75
	Additional Horticulture production	Additional production of 3 Million tons over year (6 year moving average)	-	10.90	2.70	-	-	-	-
	Establishment of nurseries and their accreditation	Total no. of nurseries established	117	290	360	360	360	360	360
	Sanction of projects for PHM/Market/Others	Total number of nurseries Accredited	-	95	80	100	100	100	100
		No. of projects sanctioned	567	818	450	500	500	500	500
	Micro Irrigation								
	Area to be covered under drip irrigation	Area covered in lac hectares	3.40	NA	5.40	5.50	5.50	5.50	6.00
	Area expansion under sprinkler irrigation	Area covered in lac hectares	2.95	NA	2.29	2.50	2.50	2.50	3.00
	Monitoring and Evaluation	Number of field Visits by the Joint Inspection Team	17	20	18	19	19	19	20
	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	283.58	300	300	300	300	300	300

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Mechanisation & Technology								
	Organize training programmes for farmers, technicians, trainers, entrepreneurs, manufacturers and officials from State Governments at FMTTIs	Number of persons trained	Nos.	6422	6445	5400	6000	6000
	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	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	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 in lakh Man days	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

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	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	62	45	45	50
	Quality control of Organic manure, Bio-Fertilizers and fertilizers	Number of Samples tested	Number	13859	9332	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	66	90	90	90
	Implementation of NAIS, MNAIS and WBCIS during 2013-14	Timely Administrative approval of scheme	Date	10.04.11	07.03.12	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	73.98	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	30.04.12	30.04.13	30.04.14	30.04.15

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	Preparation of 4th Advance Estimates of food grain production for an agricultural year	Timely Completion	Cutoff date	19.07.11	16.07.12	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	24.09.12	30.09.13	30.09.14	30.09.15
	Preparation of 2nd Advance Estimates for an agricultural year and Final Estimates of foodgrain production for the previous agricultural year	Timely Completion	Cutoff date	3.02.12	08.02.13	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	-	-

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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	-	-
Administrative Reforms	Independent Audit of Implementation of Citizens' / Clients' Charter (CCC)	% of implementation	Percentage	-	NA	95	95	95
	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 2 nd 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 tons is on the assumption of normal monsoon. The target will be lower by 1 million tons 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, S.I. 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

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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

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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 Reduction in rural poverty	%	NA	NA	-	TBD	TBD
				%	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)

(As on 17-10-2013)
(Rs. per quintal)

Sl. No.	Commodity	Variety	2009-10	2010-11	2011-12	2012-13	(#) increase in MSP 2012-13 over 2011-12	2013-14	(#) increase in MSP 2013-14 over 2012-13
KHARIF CROPS									
1	PADDY	Common	950\$	1000	1080	1250	170(15.7)	1310	60(4.8)
		Grade 'A'	980\$	1030	1110	1280	170(15.3)	1345	65(5.1)
2	JOWAR	Hybrid	840	880	980	1500	520(53.1)	1500	-
		Maldandi	860	900	1000	1520	520(52.0)	1520	-
3	BAJRA		840	880	980	1175	195(19.9)	1250	75(6.4)
4	MAIZE		840	880	980	1175	195(19.9)	1310	135(11.5)
5	RAGI		915	965	1050	1500	450(42.8)	1500	-
6	ARHAR(Tur)		2300	3000¶	3200¶	3850	650(20.3)	4300	450(11.7)
7	MOONG		2760	3170¶	3500¶	4400	900(25.7)	4500	100(2.3)
8	URAD		2520	2900¶	3300¶	4300	1000(30.3)	4300	-
9	COTTON	Medium Staple	2500 ^a	2500 ^a	2800 ^a	3600	800(28.6)	3700	100(2.8)
		Long Staple	3000 ^a	3000 ^a	3300 ^a	3900	600(18.2)	4000	100(2.6)
10	GROUNDNUT IN SHELL		2100	2300	2700	3700	1000(37.0)	4000	300(8.1)
11	SUNFLOWER SEED		2215	2350	2800	3700	900(32.1)	3700	-
12	SOYABEEN	Black	1350	1400	1650	2200	550(33.3)	2500	300(13.6)
		Yellow	1390	1440	1690	2240	550(32.5)	2560	320(14.3)
13	SESAMUM		2850	2900	3400	4200	800(23.5)	4500	300(7.1)
14	NIGERSEED		2405	2450	2900	3500	600(20.7)	3500	-
RABI CROPS									
15	WHEAT		1100	1120\$	1285	1350	65(5.05)	1400	50(3.7)
16	BARLEY		750	780	980	980	0(0.00)	1100	120(12.2)
17	GRAM		1760	2100	2800	3000	200(7.14)	3100	100(3.3)
18	MASUR (LENTIL)		1870	2250	2800	2900	100(3.57)	2950	50(1.7)
19	RAPESEED/MUSTARD		1830	1850	2500	3000	500(20.00)	3050	50(1.7)
20	SAFFLOWER		1680	1800	2500	2800	300(12.00)	3000	200(7.1)
21	TORIA		1735	1780	2425	2970	545(22.47)	3020	50(1.7)

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OTHER CROPS									
22	COPRA	Milling	4450	4450	4525	5100	575(12.7)	5250	150(2.94)
	(Calender Year)	Ball	4700	4700	4775	5350	575(12.0)	5500	150(2.80)
23	DE-HUSKED COCONUT (Calender Year)		1200	1200	1200	1400	200(16.7)	1425	25(1.79)
24	JUTE		1375	1575	1675	2200	525(31.3)	2300	100(4.55)
25	SUGARCANE*		129.84	139.12	145.00	170	25(17.2)	210.00	40(23.5)

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.

Chapter - 8 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.	Establishment and Maintenance of Seed Bank.	The basic objective of this component is to keep seed available for meeting requirement during natural calamities.	50150 qtls	38,000qtls (anticipated) Information is still awaited from Assam Seeds Corporation.	50,000 qtls	-
2.	Transport Subsidy on movement o	The topographical situation and climatic condition being not conducive for the production of seeds in the North-Eastern States etc. This scheme is in operation to make timely availability of certified/ quality seeds at affordable price to the farmers of these hilly/ remote areas of North Eastern States including Sikkim. H.P, J&K, Uttaranchal and hill areas of West Bengal.	It is a re-imburement programme. Therefore, targets can not be pre-fixed as transportation of seeds depends on demand which varies from year to year.	For NE State exclusively, a quantity 35,586 Qtl quintals transported in 2013-14.	As mentioned in Col. 4 targets cannot be pre-fixed as the component is demand driven.	For NE States information is yet to be received. (The total quantity of seeds transported under the component including NE States is 1,23,200 Qtl.)

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Annexure-8.2

CHAPTER-8

Programmes of north-eastern states during 2013-14

(up to March, 2014)

(Rs. in crore)

S. No	Activity/Programme/ Schemes Approved	Details of Activities/ Programs/Schemes taken up	Targets	Achievements (upto 31.03.2014)	Budget Allocation	Amount utilized (Upto 31.03.2014)
1.	2.	3.	4.	5.	6.	7.
1.	Promotion and Strengthening of Agricultural Mechanization through Training, Testing and Demonstration					
	(i) Farm Machinery Training & Testing Institute, Bishwanath Chariali (Assam)	(i) Imparting training to the farmers and other beneficiary groups on the selection, operation, maintenance, energy conservation and management of agricultural equipment.	Physical: Training-800 personnel Testing-18 machines	828 28	2.21	1.95
	(ii) Outsourcing of training & Demonstration of Newly Developed Agricultural Equipment including Horticultural Equipment at Farmers' Field (Implemented on all India basis including NER)	(ii) (a) Demonstration of Newly Developed Agricultural Equipment Including Horticultural Equipment at Farmers' Field (b) Training of farmers through outsourcing by identified institutions of the State Governments.	Arunachal Pradesh-610, Assam: 1850 Manipur-4233 Mizoram-69 Nagaland-244 Sikkim-1875 Tripura-880	Not reported	5.00 -	Rs.5.00 (Arunachal-0.24, Assam: 2.17 Nagaland-0.44, Mizoram- 0.52, Sikkim-0.37, Tripura-0.39 & 0.89 crore by Manipur)
2.	Post Harvest Technology and Management.	(i) Demonstration of PHT Equipment.	Manipur-900 Mizoram-63 Sikkim; 1100	-	5.77 -	Rs.5.77 (Manipur-2.57, Mizoram-0.50, Nagaland: 0.99 Sikkim: 1.72
		(ii) Distribution of PHT equipment through subsidies.	Manipur-270			
		(iii) Outsourcing of training.	Nagaland:805			

Status of District Agriculture Plans (DAPs) & and State Agriculture Plans (SAPs)

SI	State/UT	Funds released for preparation of DAP (Rs. in Crore)	No. of Districts	DAP prepared	SAP prepared
1	2	3	4	5	6
1.	Andhra Pradesh	2.00	23	23	Yes
2.	Arunachal Pradesh	1.60	16	16	Yes
3.	Assam	1.50	27	27	Yes
4.	Bihar	3.40	38	38	Yes
5.	Chhattisgarh	1.70	18	16	Yes
6.	Goa	0.20	2	In progress	No
7.	Gujarat	2.20	26	26	Yes
8.	Haryana	1.90	21	21	Yes
9.	Himachal Pradesh	1.10	12	12	Yes
10.	Jammu & Kashmir	2.00	22	22	Yes
11.	Jharkhand	1.90	24	24	Yes
12.	Karnataka	2.30	28	29	Yes
13.	Kerala	1.20	14	13	No
14.	Madhya Pradesh	4.50	50	50	Yes
15.	Maharashtra	3.10	35	33	Yes
16.	Manipur	0.90	9	9	Yes
17.	Meghalaya	0.70	7	7	Yes
18.	Mizoram	0.80	8	7	Yes
19.	Nagaland	1.10	11	8	Yes
20.	Odisha	2.70	30	30	Yes
21.	Punjab	1.90	20	20	Yes
22.	Rajasthan	2.80	33	33	Yes
23.	Sikkim	0.40	4	4	Yes
24.	Tamil Nadu	2.90	32	29	Yes
25.	Tripura	0.20	4	4	No
26.	Uttarakhand	1.20	13	13	Yes
27.	Uttar Pradesh	6.60	70	71	Yes
28.	West Bengal	1.50	18	17	Yes
	TOTAL	54.30	615	602	25

Annexure-13.2

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	ORFM	DDEV	TOTAL
1	Andhra Pradesh		3.56				2.25			30.00			13.00			2.70				25.09	13.45	90.05
2	Bihar	5.80			11.17		3.07		3.64		0.29	1.35	5.59	21.10				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	0.50		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	0.90	1.65		2.40		2.09			0.30	1.60	3.94								4.84		17.72
7	Himechel Pradesh		2.43		1.30					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		0.40	5.73	17.52	20.53	9.61	2.06	0.59			12.33	21.50	2.25	12.24	142.25
9	Karnataka									38.64			22.41	3.00			42.95					152.00
10	Kerala	8.08	10.62	0.38	18.66		1.27		1.05		0.20	5.78	1.10	2.18	0.75		0.28	1.75	0.28	0.51	2.13	55.02
11	Madhya Pradesh		2.00		5.87		2.00			10.65	4.31	2.00	10.75	0.88				38.40	4.80	0.25		81.91
12	Maharashtra													15.00					114.00			129.00
13	Meghalaya													0.84				1.81	1.04	0.45		6.25
14	Nagaland	0.50	1.00		1.00	0.50	0.60		0.11	0.60	0.12	0.50		1.00	0.30		0.12	2.00				8.35
15	Orissa	3.59			0.57		2.70		0.24	11.23	2.07	12.48	4.26				3.70	10.10	5.12	0.97	4.69	61.72
16	Punjab		0.66		3.73							5.00	8.75	20.50				10.16			3.90	52.70
17	Rajasthan	10.00	35.80				15.25				9.81		4.00	6.20			11.71		0.77		6.07	99.61
18	Sikkim														2.57			0.59				3.16
19	Tamilnadu	9.96	4.70		3.08	80.58	7.65			22.25	7.17	10.06				10.22			12.08	8.71	6.67	183.13
20	Tripura				0.50		0.60													3.30		4.40
21	Uttar Pradesh		4.00		4.00		4.00			14.65	6.00		2.00	5.51				1.00	58.35	10.67		110.18
22	UTTARAKHAND				8.90		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	1.20	8.28				5.64			4.00	66.26
24	TOTAL	52.90	95.60	0.38	104.79	97.06	63.70	0.00	5.98	157.18	55.44	67.37	85.42	99.76	4.96	12.92	58.76	123.81	267.88	65.20	56.77	1475.88

Total Cost : Rs. 1475.88

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 -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	ORFM	DDEV	TOTAL
1	Andhra Pradesh		24.73		34.29	0.10	6.20		0.29	75.40	16.26	33.32	10.00	2.69		6.24	72.66			25.00	12.60	319.78
2	Assam	19.58	4.29		25.91		19.58			12.84	3.65	8.75		12.47			10.00	9.91	7.90		3.31	138.19
3	Bihar	5.49	11.30		30.57	1.07	2.41			10.23	6.15	26.09	24.17	1.70	4.80	12.10				7.44	30.21	173.73
4	Chattisgarh		23.54		26.54		10.90	13.00	1.02	22.17	1.16	0.03	14.90	11.26					4.00	3.10	0.27	131.89
5	Gujarat	3.47	0.92		60.53	30.12	26.97	9.60	6.63	37.66	9.10	5.35	10.21	62.82			12.37	66.62		2.65	7.06	352.08
6	Haryana		5.00		20.85	2.00	5.68		16.56	0.95	8.35			6.00				2.85	10.00	0.82		80.06
7	Himachal Pradesh	0.60	2.94				0.65			1.59								2.57	0.94	1.50		10.79
8	Jharkhand	2.00	8.54	1.95		1.13	2.00			4.08	3.60		2.55						2.74			28.59
9	Karnataka		55.48		41.37	85.61	13.14					72.89	66.17	42.71	9.02		23.00		10.00	34.40		453.79
10	Kerala	18.60	4.20	0.43	12.25	0.05	11.25		0.12	1.79	0.20	2.65	0.15	1.93	1.05		1.49		1.04	0.37	1.54	59.11
11	Madhya Pradesh		5.65		34.62	17.61	5.14		2.00	66.56	10.00	2.00	8.59	2.01		5.00	12.43		33.77	6.44		212.82
12	Maharashtra		0.54		219.99					20.00			25.00	20.00					143.79		21.60	450.92
13	Meghalaya		14.12				5.33															20.45
14	Nagaland		3.50	1.10	1.65	1.35	1.14		0.35		0.55	0.35	0.35	1.00				2.55				13.89
15	Orissa	14.10	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	29.40	235.93
16	Punjab	12.00	19.88		6.52		1.70		5.70	0.20				5.00			62.77	20.50	1.88		30.18	166.33
17	Rajasthan		109.71		36.85				3.59	38.36	9.54	5.32	3.08	14.98			16.00	8.00	168.43		46.20	460.06
18	Sikkim	0.57	1.43			2.76				0.24									4.50		4.08	13.58
19	Tamilnadu	7.89	3.65		20.04	45.78	1.57			10.75	5.15	25.80							5.40	17.25	1.50	144.78
20	Tripura		5.99		6.68		2.14				1.70		2.00	5.00	0.69			0.90	3.60			28.70
21	Uttar Pradesh	1.25	40.04	10.97	25.57	70.00	7.18		2.83	33.19	27.08	0.46	30.48			0.75	0.46	11.77	58.59	10.00	12.02	342.64
22	Uttarakhand		0.63	1.89	7.64								0.80	17.94								28.90
23	West Bengal	0.60	5.66		25.90	0.54	9.23	4.62	0.47	14.65	4.70	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	24.20	226.54	183.14	478.77	110.32	204.81	3985.49

Total Cost : Rs. 3985.49

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-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	ORFM	DDEV	TOTAL
1	Andhra Pradesh		49.01		85.01		7.00		0.10	155.00		18.70	2.22	8.00			9.84			0.12	26.65	361.65
2	Arunachal Pradesh	4.77	0.91	1.10	0.75		2.36						0.14	1.80						0.05		11.88
3	Assam	1.25	3.00		10.00		9.46			3.37	1.29	15.44	1.43	6.18			5.54	4.98	12.24		4.30	78.48
4	Bihar	13.93	10.25		45.66	1.08	8.59	7.26				47.09	7.82	11.97	17.01	1.00	8.04	4.15			24.70	208.55
5	Chattishgarh		21.31		18.64	24.97	8.08		0.12	11.44		3.16	3.64	9.97			2.00		0.50	2.30		106.13
6	Goa																					0.00
7	Gujarat	2.37	7.71	0.57	19.78	32.13	4.10		1.08	6.37		4.30	4.98	24.76	21.30		2.81	186.41	2.13	1.97	7.00	329.77
8	Haryana	2.00	1.00		22.88	2.35	1.25		2.00	18.64	8.25	17.17	0.25	2.00				2.50	39.84	1.55		121.68
9	Himachal Pradesh	1.45	9.44		15.77		0.50			4.95			1.41	2.08			3.16	0.72	1.05	3.30		43.83
10	Jammu And Kashmir	0.62	13.00	0.97	8.02		0.42	0.77	0.40	2.61		1.51	2.63	4.72				2.68	7.59	0.87		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		12.00	10.50	4.00	90.50	15.00	25.00	7.11		9.92				3.00	429.70
13	Kerala	35.71	1.66	0.44	23.94	0.77	24.46			0.25	1.50	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		7.00	72.03	4.37	11.10	15.96	6.62	3.14				84.80	3.80		276.80
15	Maharashtra				162.30	1.80		20.00	14.91		0.92	42.56		41.30				7.99	256.01			547.79
16	Manipur	1.33	1.00		1.00		1.00															4.33
17	Meghalaya	4.79	2.50		8.34										0.70			4.04	2.95			23.32
18	Nagaland	1.10	0.80		0.81		0.68		0.25		0.55	0.34	0.40	0.75				1.50				7.18
19	Orissa	0.60								3.25		39.37		0.96	1.76			3.61	2.08	4.42	1.99	58.04
20	Punjab	7.00	5.88		39.47		0.40			1.60				18.48				11.08		7.51		91.42
21	Rajasthan	113.29	20.91		31.80	7.96		4.37	0.25	120.09	45.52	14.08	83.61	17.00			3.43	14.60	325.32	22.35		824.58
22	Sikkim		1.64		4.36						1.67			0.63						1.96		10.26
23	Tamilnadu	28.61	10.00		13.54	29.76	1.17					21.67	11.95	3.50					4.45		3.26	127.91
24	Tripura	3.08	3.47		5.90	4.04				1.20		1.30	1.75	5.33			2.79		1.37	0.40		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	7.40	18.65	156.70	3.98	12.02	541.44
26	Uttarakhand	8.12	15.91		14.98	3.75			0.50		5.26		1.45	20.51					19.45	11.51	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	12.70		0.56	6.60	112.75
28	Total	252.67	299.01	10.56	712.02	333.90	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

Annual Report 2013-14

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	ORFM	DDEV	TOTAL	
1	Andhra Pradesh	34.58	73.41	110.34	4.92	153.07	15.35			150.00		117.10		5.33			17.70			0.71	4.95	682.54	
2	Arunachal Pradesh	5.50	7.25	1.43	7.92	0.16	3.48			0.70	4.50	2.00	0.14	2.00					1.42			29.00	
3	Assam		13.04				13.87			4.54			1.09	7.17			13.00		1.63	4.50	3.07	204.70	
4	Bihar	85.76	6.22	25.55	5.00		9.97	5.49	42.98	74.08		37.31	55.44		7.00	0.74			1.63	32.64	8.40	398.21	
5	Chattisgarh	74.65	101.85	64.59	10.61		24.76	20.15	0.72	53.74	0.12	22.00	36.46		42.35	0.77			11.43	12.00	1.00	477.20	
6	Goa	0.51					0.03				0.09	1.14		0.08	0.75	3.00	0.34	10.25			1.81	18.00	
7	Gujarat	24.93	33.83	15.80	64.88	8.60	8.60			13.65	11.32	66.38	3.02	39.67			0.82	95.63	27.24	2.80	59.89	468.46	
8	Haryana	13.63	10.38	47.85	1.05		1.00	6.00	32.64	6.50	13.36	0.54		7.24			9.67	0.75	79.00		4.25	233.86	
9	Himachal Pradesh	2.42	18.41	6.10	1.30		0.45	0.33	3.85	1.67	0.88			9.24	0.59	0.66	0.44		13.33	11.63	2.90	74.20	
10	Jammu And Kashmir	2.53	30.52	3.30	19.10		5.60		0.93	7.87	4.12	3.81	5.48	9.04	2.38			1.60	21.53	3.31		121.12	
11	Jharkhand	30.22	16.32	14.36			1.80	31.20	0.79	33.46	0.60	12.00	55.63	24.00			0.21	10.17	54.00	0.90	11.77	297.43	
12	Karnataka	1.60	13.70	21.00	27.94		11.00		0.62	78.37	2.00	63.50	25.20	0.64	7.00		14.91	0.94		0.50		268.92	
13	Kerala	45.18	21.11	25.35	0.30		33.31	0.71				51.84	1.74	2.86	1.00	0.32	17.75	10.13	3.07		4.13	218.80	
14	Madhya Pradesh	1.88	15.82	125.37			27.41		10.95	126.28	43.78	117.39	20.00	25.30	9.72		11.38		161.45	11.26	17.12	725.11	
15	Maharashtra		200.00	20.10			81.59		20.17	61.67	54.30	51.00	17.79	163.33				65.95	459.31		1.86	1197.07	
16	Manipur	5.00	4.00				4.00							1.00						0.35	4.00		18.35
17	Meghalaya		10.00				8.00	1.00	0.33			2.66						23.68				45.67	
18	Mizoram		1.07	0.20	0.52		0.40							0.30				3.22	0.78			6.49	
19	Nagaland	1.60	0.48	2.38			1.59						0.80	2.51				1.99	0.80	1.04		13.19	
20	Orissa	54.82	10.64	31.75				46.57	2.40	19.67	4.00	92.32	11.78	46.27			12.11	15.10	13.38	11.15	12.12	384.08	
21	Punjab	12.50	21.05	23.33			3.62		3.20	5.00	13.30	10.60	4.00	1.00					40.00	13.50	16.96	168.06	
22	Rajasthan	87.32	104.34	59.10	6.81		2.61	57.17	1.74	67.67	88.75	18.22	102.73	5.87		5.00	31.16	1.37	241.26	6.75	144.90	1032.77	
23	Sikkim						0.77															0.77	
24	Tamilnadu	55.55	1.50	7.46	51.19		1.89		1.25	1.39		55.00	15.00	106.23	2.00		1.17		1.38		1.00	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			12.60	10.91	1.15	1.00	111.39	
26	Uttar Pradesh	60.15	0.06	23.71	48.32	92.15	5.84		7.75	104.92	67.66	27.38	49.85		3.00	0.19		62.64	137.74	15.37	32.23	739.96	
27	Uttarakhand			5.70									0.67	1.62								7.99	
28	West Bengal		9.11	32.81	10.19		9.30	8.44	1.32	16.03	5.09	0.60	3.25	18.05	1.12			21.72	6.40	0.35		143.78	
29	Total	645.94	732.94	28.64	734.71	424.70	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

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Sector wise Approved Projects Cost under RKVY-2011-12

(Rs. in crore)

S. No.	STATE NAME	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPWT	SEED	FINM	AMEC	EXTN	MIRKT	NONF	ITEC	AGRE	NRM	IRRI	ORFM	DDEV	TOTAL
1	Andhra Pradesh	89.92	221.59		96.94	5.50	14.33		37.50		15.00		40.00				23.14		65.43		20.00	629.35
2	Arunachal Pradesh	2.82	4.75	0.50	1.68	1.59	1.19				0.73		0.72									13.98
3	Assam	22.36	24.05		24.39	33.32	11.88		12.50	10.00	71.33	10.20					2.40			9.00	6.93	238.36
4	Bihar	196.76	34.45		47.43	108.72	21.81	82.50	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	16.70	0.40	15.00	3.70			1.00		15.00	7.00			214.94
6	Goa	1.26	3.91		10.90	15.74	0.10		0.24	4.25	1.20	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	13.90	13.13		42.71	1.05	1.50		3.50	21.15	4.00	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	7.10		1.94	0.86	0.30	3.17	1.18	1.29	1.10	4.75	0.30	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	75.00	6.00	64.00	65.00	14.12		2.00		54.61	11.00	53.00	13.00	5.00		65.25	23.00		33.00		575.01
13	Kerala	41.04	42.60		52.24	0.97	50.02	0.20	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	20.00	15.73	1.00	18.83	48.47	5.00						139.00	4.40	10.09	524.92
15	Maharashtra	142.44	21.96	10.08	63.96	35.00	9.04	20.00	22.85		138.00	44.79	50.63		8.00			14.39	232.97		46.13	862.24
16	Manipur		10.48		5.41		3.70				2.25	3.95	2.25	0.60				0.78		2.82		32.24
17	Meghalaya	7.67	115.54	2.38	8.35	0.12	59.11			0.06	0.24							26.27	0.89		1.15	221.78
18	Mizoram	6.33	3.50	0.20	0.63	14.80	0.40				0.95							0.30				27.11
19	Nagaland	4.00	8.48		8.35		2.90				2.04		2.75	2.03				5.20		1.50		37.25
20	Orissa	138.17	20.66		26.77	0.61	60.66		2.25	2.04	3.70	48.15	5.00	4.03			0.72	25.88	60.05	6.77		405.46
21	Punjab		38.01		36.27	22.00	1.13				6.10				3.75		13.52	60.00			14.19	194.97
22	Rajasthan		27.64			2.88					5.00		1.16	12.00			7.41	0.13	0.98	3.67	1.52	62.39
23	Sikkim	0.43	4.50		5.01	1.58			0.58	0.26		1.00		0.28				1.63		2.50		17.77
24	Tamilnadu	97.55	89.77	0.50	49.87	10.43	20.29	3.35	0.75	6.30	0.60	72.65	2.46	24.00		7.50	0.81	0.70	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	18.60	42.11	109.77	15.16	64.72	5.30	72.86	73.75	6.07	44.01			1.63	0.18	65.58	311.69	16.56	18.35	1100.18

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27	Uttarakhand	5.61	41.01	7.90	8.27	0.86					2.83	9.06	5.71		1.61	19.90	0.93	13.31	7.09	124.09
28	West Bengal		29.51	11.25	82.52	19.22	24.99	16.58	2.18	18.75	51.01	1.13	11.87		0.30	44.28	2.00			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	282.55	470.53	1001.21	311.31	304.04	8809.3

Total Cost : Rs. 8809.30

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-2012-13

(Rs. in crore)

S. No.	State Name	CROP	HORT	SERI	ANHB	OTHR	FISH	COOP	IPMT	SEED	FINM	AMEC	EXTN	MIRKT	NONF	ITEC	AGRE	NRM	IRRI	ORFM	DDEV	TOTAL
1	Andhra Pradesh	11.29	210.45	10.00	105.80		21.53			63.68		319.81	4.95	48.67			18.44	19.65		15.00	29.90	879.17
2	Arunachal Pradesh	30.41	17.87	0.35	6.06	0.47	6.05					10.63	1.11	6.50					0.47	2.99	2.92	85.83
3	Assam	48.45	27.80		36.70	7.54	20.50			5.38		26.10	132.35	22.63	15.05		13.00		21.60	11.57	10.97	399.64
4	Bihar	323.97	156.42		27.60	64.87	24.92	50.72				161.45									26.00	835.95
5	Chattisgarh	174.12	102.90		60.12	8.54	28.51	34.34	13.01	13.77	2.10	18.19	45.26				12.58		16.30		24.17	553.91
6	Goa	4.29	25.16			1.10			1.29	6.52			0.76				1.77				4.01	44.90
7	Gujarat	156.82	154.43		53.75		13.04		1.04	24.22	100.83	94.24	26.71	4.05			6.97	149.88	142.39	11.63		940.00
8	Haryana	10.14	16.34		53.79	2.74	2.00		11.81	11.05	14.23	12.00	0.79	3.11			15.65	5.22	79.99	3.38	26.45	268.69
9	Himachal Pradesh	14.25	3.72	1.00	8.59		10.28			1.56			0.10	3.00			0.76		3.35	10.50	8.06	65.17
10	Jammu and Kashmir	1.81	11.44	1.62		0.63		0.43		4.24		0.96			1.27		0.19		10.71	2.37	12.00	47.67
11	Jharkhand	204.26	12.00		12.17	89.51	15.68		6.25	55.34		140.13	5.42						49.31	4.00	95.85	689.92
12	Karnataka	18.67	114.03	13.50	101.24	81.59	15.00		3.50	24.85	5.00	85.00	43.00	5.00	16.00		24.40	25.00		21.00		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	232.30
14	Madhya Pradesh	50.01	100.60		108.16	18.39	12.34	134.00		113.83	25.18	65.74	25.89		1.51		14.35		85.00	5.69		760.69
15	Maharashtra	137.86	169.67		30.16	10.61			252.61	15.00			82.72		1.16			370.00	25.06			1094.85
16	Manipur		8.34	1.15	5.57		7.81			0.60		2.30	12.53	1.60				1.00		0.75		41.65
17	Meghalaya				6.22														4.93	12.14		23.29
18	Mizoram	4.14	15.77	12.55	14.40		13.91		0.30			3.11	5.77	0.70				55.34	2.61		1.30	129.90
19	Nagaland	10.50	9.50	2.00	12.40	3.00	12.84	1.50	1.00		2.00	3.30	1.50	2.50	5.21			11.00	6.35	1.50		86.10
20	Orissa	275.89	61.60		103.49		13.60	4.00	5.14	2.21	6.10	58.73	75.34				10.36		10.00		6.50	632.96
21	Punjab	10.00	1224.11		42.29	1.00	7.23	20.60	26.57	11.56		5.70			5.50		15.60	60.00	2.00		34.46	1444.02
22	Rajasthan	4.41	1.18		105.60		16.95		2.00	15.95		50.75		101.22			37.19				165.00	522.85
23	Sikkim	1.52	8.36					0.91				1.28							6.50	1.20	1.00	20.77
24	Tamilnadu	160.24	87.25		64.16	9.19	40.98	12.25		28.29	1.90	112.20	24.28	32.44	8.74	3.34	3.72		9.20	6.60	27.63	632.41
25	Tripura	43.48	4.90		6.13		8.71					0.63		2.02								65.87
26	Uttar Pradesh	96.74	34.99		25.64	7.34	3.96	10076.00	7.65	156.54	2.30	106.62	2.17	2.32		0.86	1.06	52.85	13.11	28.18	34.77	10653.10
27	Uttarakhand	6.00			7.82		3.58			0.06	0.55		0.90	10.00						9.44	15.08	55.03
28	West Bengal		22.12	6.16	32.01	2.45	9.28	6.68		19.96				167.57	4.31		0.15	4.63		6.11		281.43
29	Total	1861.23	2656.11	49.93	1074.17	311.68	341.12	10341.43	332.17	563.05	70.92	1286.27	516.33	474.24	52.38	21.36	181.22	771.89	499.32	143.35	536.65	22084.82

Total Cost : Rs. 22084.82

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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	FINIM	AMEC	EXTN	MRKT	NONF	ITEC	AGRE	NRM	IRRI	ORFM	DDEV	TOTAL
1	Andhra Pradesh	3.50	86.66	4.42	50.47	34.43	6.56	28.00	40.00	69.50		2.99					9.69	25.00	9.50	13.22		383.94
2	Arunachal Pradesh	9.26	5.42	0.99	10.01	0.59	7.32		1.00	1.00		1.00	1.00						0.75			37.34
3	Assam	108.79	39.72	4.95	29.70	24.50	14.85		28.27	20.41		100.22	14.00						6.50	11.88	4.46	408.25
4	Bihar	316.35	12.00			23.43	15.40	24.73		44.56		14.27										450.74
5	Chattishgarh	193.82	69.66		8.21		28.32	14.20	10.85	12.75							0.25		2.00	1.26	4.96	346.28
6	Goa	0.30			7.71		2.50					1.56	21.78			1.83						35.68
7	Haryana	20.40	20.57		63.70	3.72		2.80	2.00	13.93	5.83	0.42	109.01				11.00	13.17	89.07	2.00	23.15	404.85
8	Himachal Pradesh	4.16	107.86	1.00	7.56		7.27				0.60			4.00			6.70	6.70	5.76	7.50		158.51
9	Jammu and Kashmir	2.45	4.15	0.65		0.00		0.20	1.50	2.34		1.22	3.11						5.41	1.64		23.22
10	Karnataka	58.64	114.90	14.00	44.84	62.20	10.75		1.77	74.68		63.08	26.29				0.18		4.50	3.00	29.47	1502.76
11	Kerala	36.83	63.12		72.32		12.78		1.83	3.40	2.50	30.00	56.85	15.64				52.58	114.00	4.88	21.08	602.94
12	Madhya Pradesh	109.38	1052.96		99.67	18.50	10.71		3.07			1.41	3.34					7.25		0.29	1.60	33.01
13	Maharashtra	88.99	118.84		89.60	2.75	5.40	2.60	0.33			2.35	2.41	2.48				11.25	3.18		1.33	58.44
14	Manipur		3.00	1.00	4.05				0.80	1.00	0.80	3.20		1.60	0.59			13.30	2.00	0.60		51.91
15	Mizoram	12.66	8.08	3.00	6.56		4.81		2.88	3.79	0.31	79.08	52.80	19.40				29.81	56.13		67.23	912.46
16	Nagaland	5.20	6.07	1.50	6.17	1.18	6.40	1.50														
17	Orissa	258.92	93.26		40.36	55.88	59.96	92.65														
18	Punjab		312.47	0.36																		358.83
19	Rajasthan				28.81		1.25	3.00	25.00	4.42	4.50	0.40	19.95				4.00	32.52				123.85
20	Tamilnadu	85.51	21.73		8.82		6.96	0.70		6.00	108.20	44.00	19.90			13.02	3.60				12.54	330.98
21	Tripura	24.87	7.55		6.74		8.00			2.25								4.54				53.95
22	Uttar Pradesh	153.51	29.46	1.30	43.77	26.11	11.86	25.00	0.68	90.41	1.53			17.00		0.64	0.84	31.38	151.01	89.56	34.98	709.04
23	Uttarakhand	12.96										3.20	1.10	8.11						6.95		32.32
24	West Bengal	5.67	58.64	10.71	48.85	14.92	17.67	16.50	0.21	13.90	4.33	60.00						20.00		5.74		277.14
25	Total	1512.17	2236.12	43.88	677.92	268.21	238.77	208.88	15.00	437.89	26.32	644.32	290.39	311.87	43.27	15.49	78.49	403.48	440.31	153.46	232.01	8278.25

Total Cost : Rs. 8278.25

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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 pipeline | 1 Providing assistance on laying underground 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 |

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|----|-------------------|--|
| 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 |

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|----|---------------|---|--|
| 12 | MEGHALAYA | 1 | Water conservation structures mini irrigation check dams |
| | | 2 | Horticulture hubs |
| | | 3 | Fisheries |
| 13 | ORISSA | 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 |

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- 20 SIKKIM
 - 2 Hybrid paddy seed production involving NGOs
 - 3 Implement hub at block level
 - 1 Hi-tech green houses
 - 2 Integrated farming system for sustainable agriculture
- 21 CHATTISHGARH
 - 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 2013-14 (As on 31.03.2014)

Statement Showing release and expenditure of the State under RKVY during the Xith plan as on 31.03.2014

(Rs. In Crore)

Sl. No	Name of the State/UT	2007-08		2008-09		2009-10		2010-11		2011-12		2012-13		2013-14	
		Release	UC Recd	Release	UC Recd	Release	UC Recd	Release	UC Recd	Release	UC Recd	Release	UC Recd	Release	UC Recd
1	Andhra Pradesh	61.08	61.08	297.17	297.17	410.00	410.00	432.29	432.29	734.20	734.20	571.43	571.43	456.87	175.55
2	Arunachal Pradesh	1.90	1.90	0.00	0.00	15.98	15.98	28.95	28.95	10.68	10.68	24.94	24.94	33.04	11.55
3	Assam	0.00	57.77	144.12	142.62	79.86	79.86	216.87	216.87	227.77	227.77	399.57	399.57	218.87	141.3
4	Bihar	57.77	57.77	148.54	148.54	110.79	110.79	415.10	415.10	506.82	506.82	700.2	585.56	254.26	234.84
5	Chhatisgarh	52.96	52.96	117.45	117.45	136.14	136.14	503.42	503.42	212.61	209.69	571.22	568.92	233.82	123.76
6	Goa	1.70	1.70	0.00	0.00	0.00	0.00	7.07	7.07	24.78	23.07	35.27	0	10.43	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	594.72	476.89	168.8
8	Haryana	21.52	21.52	39.50	39.49	112.77	112.75	226.80	226.80	176.87	167.38	179.88	164.8	159.29	84.33
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	57.65	77.40	23.24
10	Jammu & Kashmir	0.00		1.20	1.20	42.85	42.85	96.42	96.41	63.03	59.28	103.22	102.01	88.52	74.28
11	Jharkhand	55.68	55.68	29.31	29.31	70.13	70.13	96.90	96.90	174.56	174.56	219.38	211.78	147.10	82.27
12	Karnataka	154.30	154.30	314.14	314.14	410.00	410.00	284.03	284.03	595.90	595.90	549.15	549.15	467.29	242.99
13	Kerala	55.40	55.40	30.06	30.06	110.92	110.92	149.65	149.65	182.89	182.45	253.03	252.69	256.24	82.08
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	405.13	276.25	220.5
15	Maharashtra	128.20	128.20	261.77	261.77	404.39	404.39	653.00	653.00	735.44	735.44	1050.81	1050.81	959.69	368.76
16	Manipur	0.00		0.90	0.90	5.86	5.86	15.50	15.50	22.25	22.25	47.97	38.15	23.66	20.16

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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	30.45
18	Mizoram	0.00	0.00	0.80	0.80	0.00	0.00	3.75	3.75	36.63	36.63	184.73	184.73	77.41	42.14
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	25.57
20	Orissa	39.30	39.30	115.44	115.44	121.49	121.49	274.40	274.40	356.96	353.37	468.28	448.75	529.42	302.41
21	Punjab	36.05	36.05	87.52	87.52	43.23	43.23	179.12	179.12	145.87	145.87	86.83	68.51	229.44	71.25
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	735.24	221.29
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	10.20	9.11
24	Tamil Nadu	153.60	153.60	140.38	140.38	127.90	127.90	250.03	250.03	333.06	321.95	613.27	613.27	269.96	127.83
25	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	70.50	21.74
26	Uttar Pradesh	103.90	103.90	316.57	316.57	390.97	390.97	695.36	695.36	762.83	762.83	294.52	294.52	561.09	285.65
27	Uttarakhand	28.25	28.25	10.30	10.30	71.46	71.46	1.31	1.31	128.84	109.16	8.21	5.22	44.03	22.91
28	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	161.25
	Total States	1246.39	1246.39	2876.34	2874.83	3756.53	3756.51	6719.03	6719.02	7732.75	7680.06	8389.37	8095.14	7000.04	3376.01
29	A & N Islands			2.26	0.01	1.28									
30	Chandigarh			0.14		0.42									
31	D & N Haveli			0.00											
32	Daman & Diu			0.26											
33	Delhi	0.10		0.00		0.24									
34	Lakshadweep			6.14	6.04	1.09									
35	Puducherry	0.40	0.40	0.00		0.00									
	Total UTs	0.50	0.40	8.80	6.05	3.03	0.00								
	District Agri Plan														
	NIRD, ISEC, IEG, IIM-CMA, other & Admn Contingency			1.66		1.37		1.03		61.34		10.63		52.47	
	Grand Total	1246.89	1246.79	2886.80	2880.88	3760.93	3756.51	6720.06	6719.02	7794.09	7680.06	8400	8095.14	7052.51	3376.01

Being Done by Ministry of Home Affairs