



MODI GOVERNMENT

4

**YEARS OF DEVELOPMENT...
...COMMITMENTS AND TRUST**



**Ministry of Agriculture & Farmers' Welfare
Government of India**



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Swasth Dhara, Khet Hara



Agri Research

795 high yielding climate resilient crop varieties/hybrids of field crops released during last 4 years compared to 448 varieties during 2010-14

Established **35 Oilseeds, 150 pulses seed hub** to produce quality seeds.



Green Revolution

9.36% increase in foodgrains output. 279.51 million tonnes in 2017-18 (Third advance estimate) over 5 years average (2010-11 to 2014-15) : 255.59 million tonnes

Pulses 36.09% increase in pulses output. 24.51 million tonnes in 2017-18 (3rd advance estimates) over 5 years average (2010-11 to 2014-15) : 18.01 million tonnes.



Horticulture Production

Increased by **15.37%** i.e. 305.46 million tones in 2014-18 over 5 years average of 2010-15 : 264.99 MT



Agri Cooperation

155.58 % increase in released amount to support to Cooperative Sector in terms of grant and loan during 2014-18 over 2010-14



White Revolution
In comparison to 2010-14, growth in milk production during 2014-18 is **23.69%**



Blue Revolution

In comparison to 2010-14, growth in fisheries production during 2014-18 is

26.01%

Target to produce 15 million metric tonnes by 2020-21



Agri Education

5th Deans Committee

Recommendations implemented in all agricultural universities from 2016-17

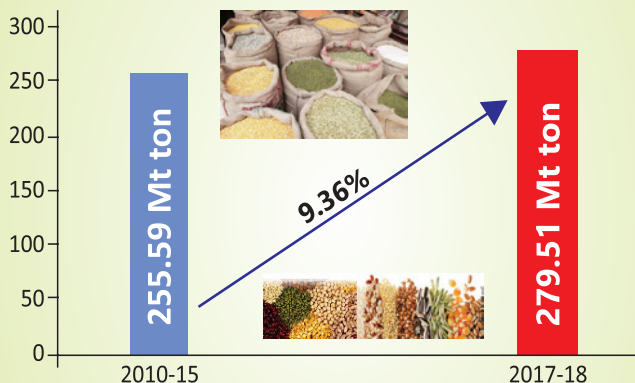
Degrees in Agriculture & allied subjects declared "professional degree".

Honorarium in Student Ready Program for agricultural graduate students enhanced from Rs. 750 to 3000/month

National Talent Scholarship for gaudate students enhanced from Rs. 1000 to Rs. 2000/ month

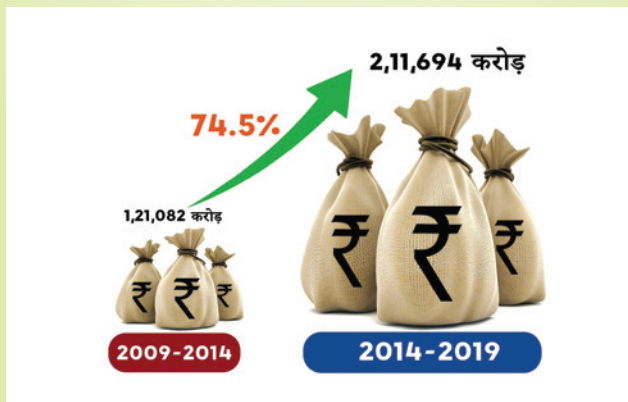


RECORD PRODUCTION IN FOODGRAINS (2017-18)



In 2017-18, record foodgrains production achieved as compared to last five years (2010-11 to 2014-15) average which is 9.36 percent.

MORE BUDGET ALLOCATED IN MODI GOVERNMENT



Promotion of Corpus Fund in addition to Budget Allocation:

- Micro irrigation Scheme- Rs. 5000 Crore (year 2017-18).
- Dairy Processing and Infrastructure Development Fund (DIDF)- Rs. 10,881 Crore.

Announced in 2018-19

- Agriculture Market Infrastructure Development Fund- Rs. 2000 Crore.
- Fisheries and Marine Science Infrastructure Development Fund- Rs. 2450 Crore.
- Dairy Infrastructure Development Fund - Rs. 7550 Crore.

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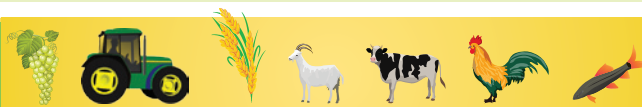
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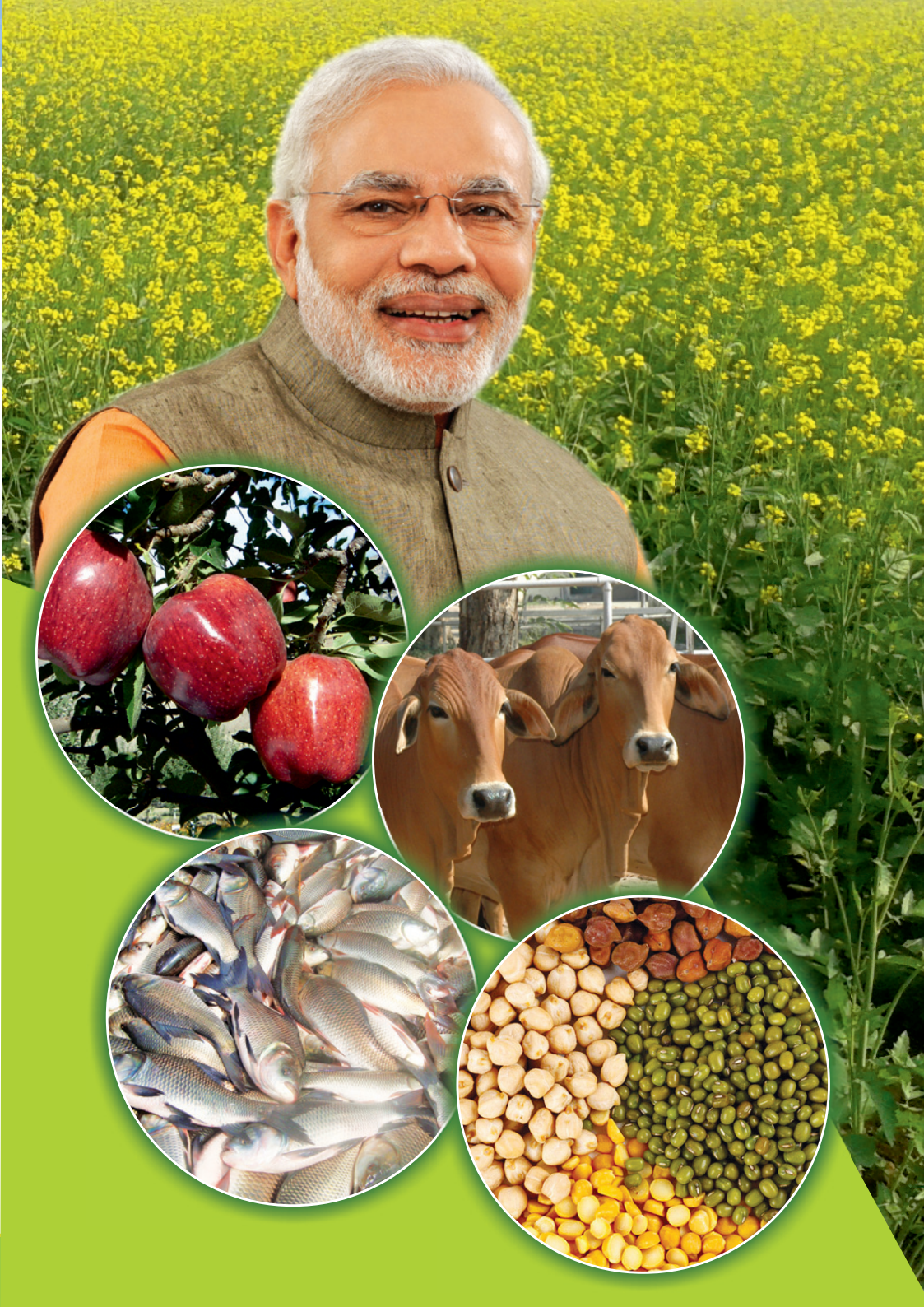
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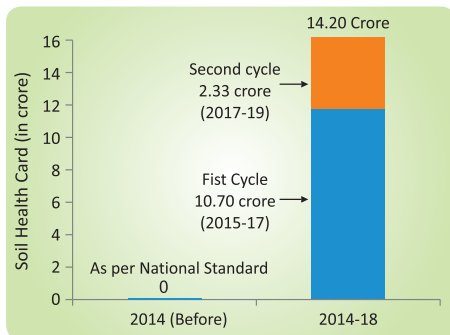


SOIL HEALTH CARD SCHEME (SHC)

1. Soil Health Card (SHC)

- Soil Health Card was launched on 19 February, 2015.
- This is Nation-wide program for soil health testing.
- Soil Health Cards will be issued every two years for all land holders in the country.
- Provide customized crop specific recommendations for nutrient application.
- The second cycle started from 1st May, 2017.
- In both cycles, 14.20 crore 'Soil Health Cards' have been distributed to the farmers.

Soil Health Card Distribution

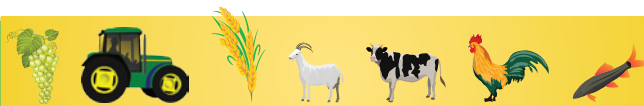


Total 14.20 crores Soil Health Cards have been distributed till 31 March 2018 in both cycles.

- **First Cycle:** 7.27 crore farmers registered in the first cycle on the Health Card portal & 10.7 crore Soil Health Cards distributed.
- **Second Cycle:** In the second cycle 3.5 crore farmers registered on the Health Card portal and registration on Soil Health Card portal has been made mandatory



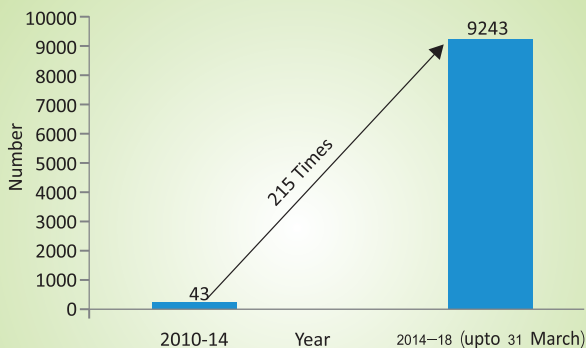
Hon'ble PM Inaugrated Soil Health Card on 19 Februry, 2015 at Suratgarh(Rajasthan)



2. Soil Health Management Plan (SHM)

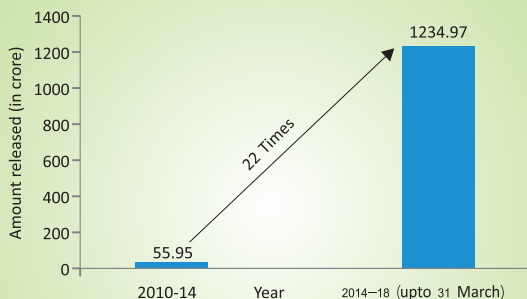
- Establishment of new soil testing laboratories, strengthening of existing laboratories, encourages use of micro nutrients to enhance fertilizer use efficiency are being promoted under this scheme.

Soil Testing Labs (Static + Mobile + Mini-Labs)



In the year 2010-14 there were only 43 soil testing laboratories sanctioned which has increased to 9243 during 2014-18.

Amount Released under Soil Health Card Scheme



Under Soil Health Card Scheme amount released in 2010-14 was Rs. 55.95 crore only while during 2014-18 it was Rs. 1234.97 crores which is 22 times more.

PARAMPARAGAT KRISHI VIKAS YOJANA (PKVY)

The Main Objective of this Scheme-

- Promote the use of natural resources based on integrated, sustainable and climate friendly farming practices.
- Reduce the dependence of farmers on external inputs, promotion of soil fertility, natural resource protection and nutrient recycling.
- Reduce the cost of agricultural production of farmers so that the per unit income can be increased.
- Protecting the environment from hazardous inorganic chemicals by adopting conventional techniques and farm-friendly technologies, which are cost effective.
- Empowering the farmers through cluster formation for production, processing, value addition and standardization.
- Support farmers' groups to adopt organic farming, setting up of vermi compost unit and labeling or brand marks on bio-products.
- Promotion of organic farming with the use of traditional resources, environment friendly, low cost technologies by the Government.
- Each member of the group is being provided financial assistance of Rs. 50,000 per hectare during the period

of 3 years. 10,000 organic clusters of 20 hectares each will be developed.

- Provide Rs. 1,20,000 financial assistance to each cluster for the storage of organic products and its transportation to the market.

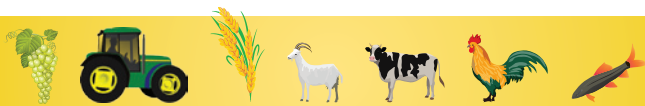
Benefits of organic farming under PKVY scheme

- 20 percent reduction in production cost in agriculture.
- Increase in total profit by 20-50% due to reduction in production cost.
- Possibilities in increase in organic cultivation in tribal, rain-fed, mountainous and remote areas.

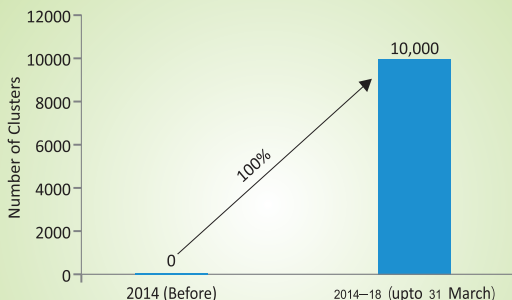
Sikkim: First Organic State of India



Hon'ble Prime Minister inaugurated National Conference on Organic Farming at Gangtok (Sikkim) on 17th January 2016.

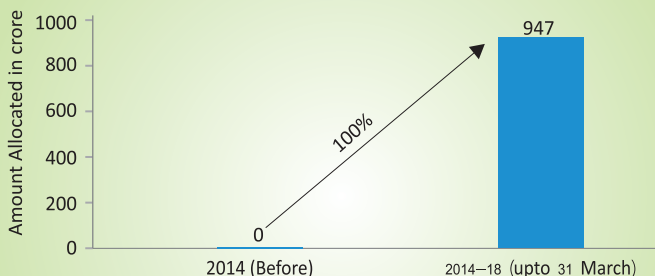


Numbers of Clusters Formed under PKVY



Paramparagat Krishi Vikas Yojna is first nationwide scheme in the country. So far, 10,000 Clusters have been approved

Funds allocated under Paramparagat Krishi Vikas Yojna



Rs. 947 crore allocated during 2014-18 for promotion of Paramparagat Krishi Vikas Yojana

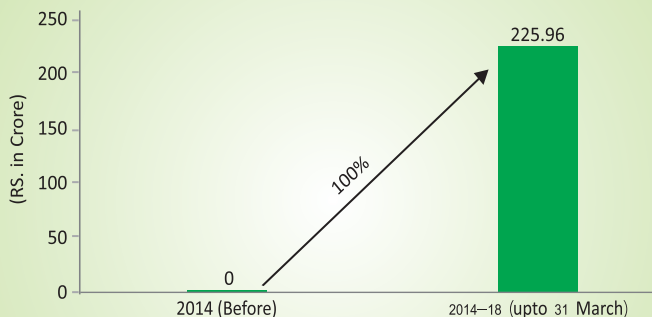
Neem-coated urea

Production of hundred percent neem coated urea for improvement in soil health, reduce the attack of pests and diseases, thereby reducing the use of plant protection chemicals, overall increase in crop yield and the reduction in use of urea for non-agricultural purposes.

MISSION ORGANIC VALUE CHAIN DEVELOPMENT FOR NORTH EASTERN REGION (MOVCDNER)

- The Central Sector Scheme was launched on 11th January, 2016 with an outlay of Rs. 400 crore for 3 years from 2015-16 to 2017-18. The scheme is being implemented in NER States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura through State Lead Agencies (SLA) to cover an area of 50,000 hectares in 3 years.

Amount Released during 2014-17 under MOVCDNER



Substantial increase in the budget under MOVCDNER during the year 2014-17

- Against the target of 50,000 hectare, 45,863 hectare area has been brought under organic farming.
- 82 FPC (Farmer Producer Company) was achieved against the target of 100 FPC
- 2429 FIGs were formed against the target of 2500 FIG and 50,000 farmers have been integrated.



NATIONAL AGRICULTURE MARKET (E-NAM)

- National Agriculture Market (e-NAM) Scheme was approved on 1st July, 2015 with an initial allocation of Rs. 200 crore to link 585 wholesale APMC mandis across the country through a common e-platform.
- So far, 585 mandis of 16 States and 02 UTs have been integrated with e-NAM.
- To facilitate assaying of commodities for trading on e-NAM, common tradable parameters have been developed for 90 commodities.
- By 31st March 2018, an amount of Rs. 170.87 crore has been released to the State.
- Upto 9 May 2018, total 98,71,956 Farmers, 1,09,725 Traders and 61,220 Commission Agents were registered on e-NAM platform.
- The portal is available in English, Hindi, Gujarati, Marathi, Telugu, Bengali, Tamil and Odia. The Mobile app also developed.
- Facility of payment and quality parameters of crops are also available through Bhim and other Mobile apps.
- During 2018-19 & 2019-20, 415 additional mandies will be linked with e-NAM platform.

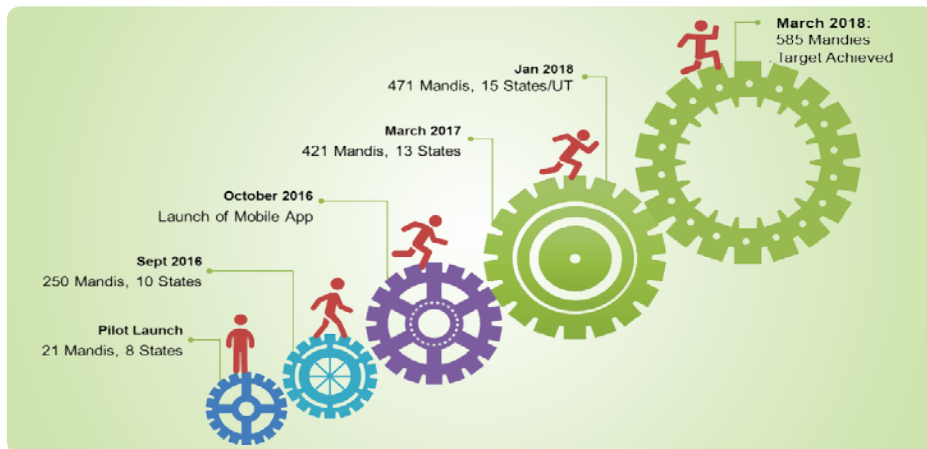
Reforms in Agricultural Marketing

- Department of Agriculture, Cooperation and Farmers Welfare (DAC&FW) has drafted a new model "Agricultural Produce and Livestock Marketing (Promotion and Facilitation) Act 2017" in place of earlier model APMC Act, 2003. The Act was released to States for adoption on 24 April 2017 by the Hon'ble Union Agriculture Minister.
- Model Contract Farming & Services act 2018 is being ready for circulation to the states & UTs for its implementation.

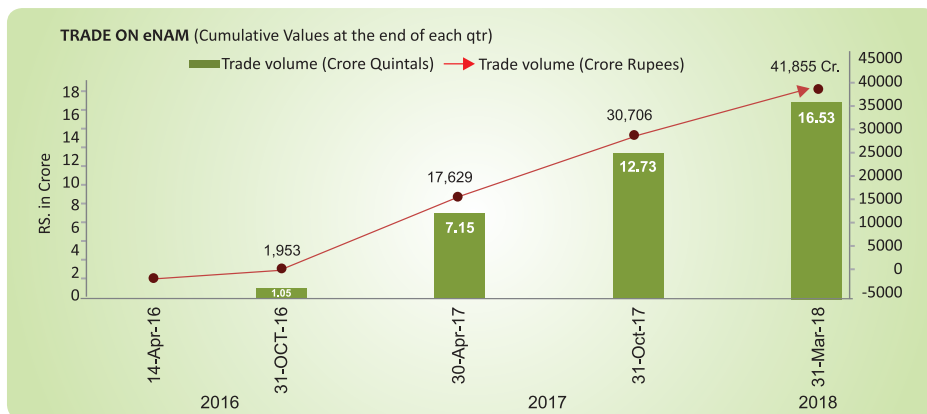


On 14th April, 2016 Hon'ble Prime Minister Sh. Narendra Modi launched the pilot of e-NAM on the 125th Birth Anniversary of Baba Saheb Dr. Bhimrao Ambedkar in 21 markets of 8 States.

Progress under National Agriculture Market (e-NAM)



Business under National Agriculture Market (e-NAM)



Business has grown steadily under e-NAM.

Development of Rural Agricultural Markets (Rural Hatts)

- NABARD has proposed Rs 2000 crores for the development of 22,000 rural agricultural markets (Rural Hatts) of the country.
- This fund will also be utilized for the development of 585 APMC in the country.
- Rural agricultural markets will be linked with e-NAM platform.
- By the establishment of Village Agricultural Mandi near the farm will reduce the losses and also benefit both farmers and buyers.

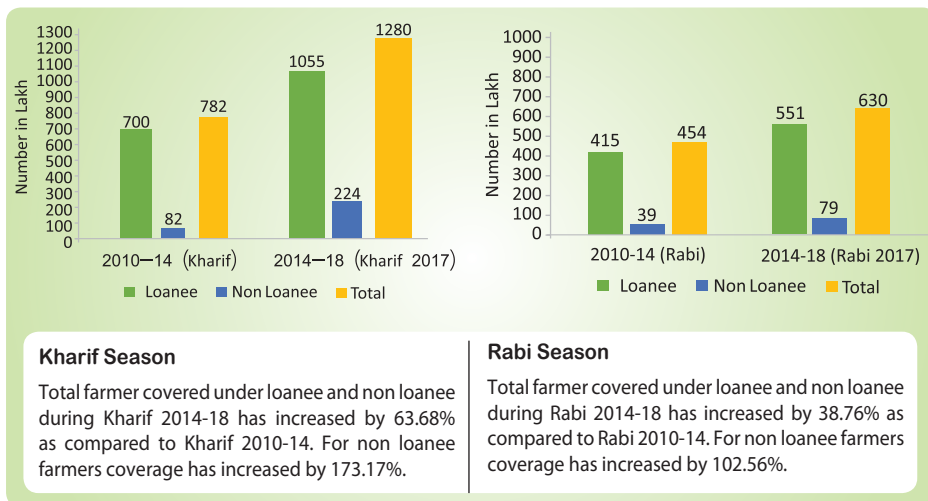


PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)

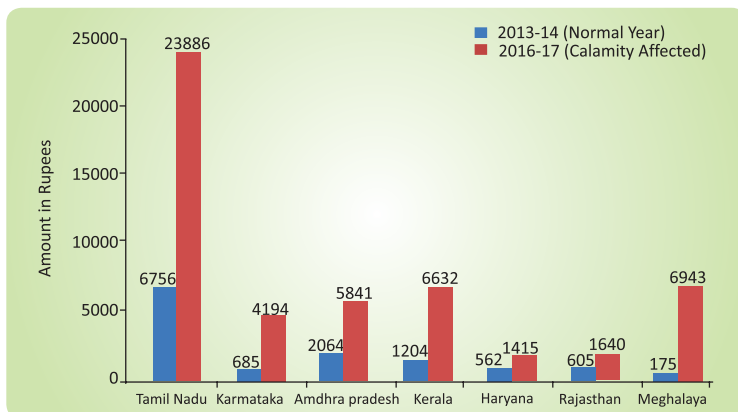


- Covers all food grains, oilseeds and annual commercial/ horticultural crops.
- One season one rate - maximum 2% for Kharif, 1.5% for Rabi and 5% for Annual Commercial/ Horticultural Crops.
- Covers all risks of crop cycle – preventive sowing; risks to standing crops and post harvest losses.
- For losses due to hailstorm, landslide and inundation and assessment of yield losses at individual field level.
- Post harvest losses for cut & spread crops on field upto 14 days due to cyclone/ cyclonic rains and unseasonal rains.
- On account payment upto 25% of sum insured due to prevented sowing or mid season adversity.

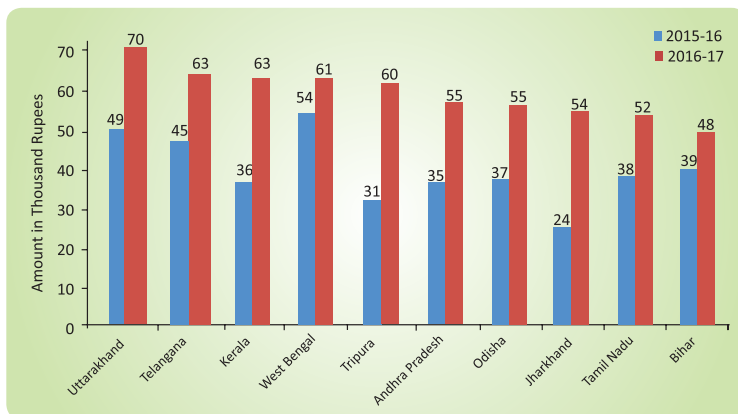
Farmer Covered Under Crop Insurance Schemes



Comparison of Per Hectare Claims to insured farmers during the year 2016-17 (Calamity year) Viz a viz 2013-14 (Normal year)

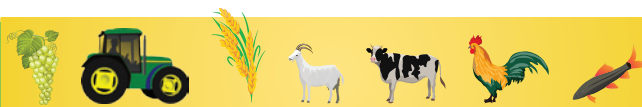


Increase in Per Hectare Sum Insured under PMFBY over Old Schemes



Beneficiaries benefited from PMFBY's assistance in the States / UTs:

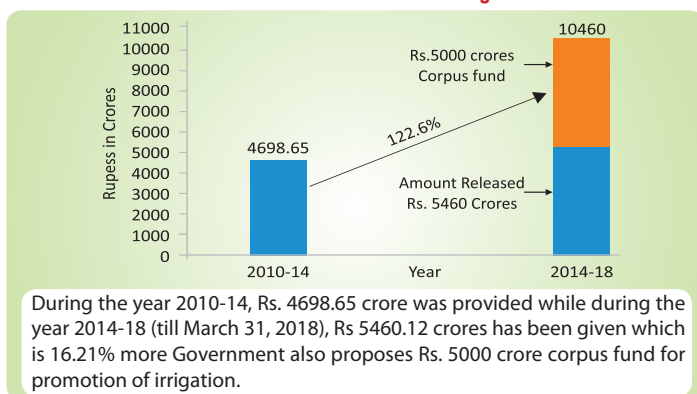
- Payment of claims on damage to protected sowing: Tamil Nadu, Uttar Pradesh.
- Claims on account of mid-seasonal calamities: Chhattisgarh, Gujarat, Haryana, Maharashtra, Madhya Pradesh, Rajasthan, Telangana, Tamilnadu and Uttar Pradesh.
- Payment of claims on post harvest loss: Manipur and Rajasthan



PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (PMKSY)-MICRO IRRIGATION

- There are two major components of the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY).
 1. To adopt and encourage use of drip and sprinkler irrigation system.
 2. Development of small water sources.
- With the mission of **PER DROP MORE CROP**, the present Government has allocated more funds to PMKSY so that more area can be covered under irrigation.

Amount Released for Micro Irrigation



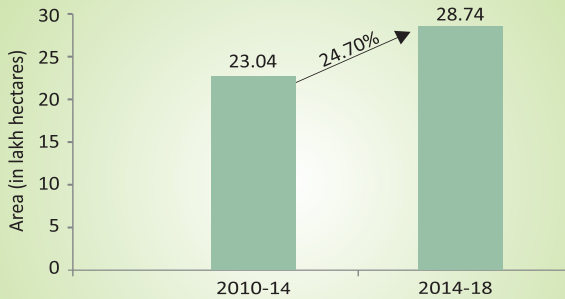
- The Government of India has announced the establishment of Rs. 5,000 crore Corpus Fund for the development of small irrigation with NABARD.
- To encourage modern irrigation methods such as sprinkler and drip irrigation through public and private investment, funds will be made available to the states on low interest.
- The process of operationalising Corpus Fund for development of small irrigation is being finalized.

Strategy for Completion of Medium and Large Irrigation Project

- PMKSY scheme is being implemented in the mission mode with the help of command area development in order to complete 99 large and medium irrigation projects with capacity of 76.03 lakh hectare by December, 2019. For this work, a Special Irrigation Fund of Rs. 40,000 crore has been created under NABARD.
- It is worth mentioning here that the work of 18 schemes has been completed till March 2018. In addition, more than 80% work of 47 schemes has been completed.

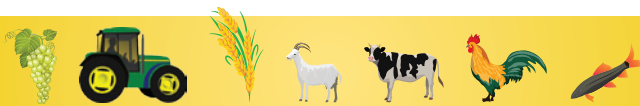
Micro-Irrigation

Maximum area under Micro Irrigation



During 2014-18, area under micro irrigation has increased 24.70% as compared to year 2010 -14.

- In the budget of 2018, under the 'Har Khet ko Pani' a component of Pradhan Mantri Krishi Sinchai Yojana (PMKSY) scheme, the ground water irrigation scheme will be implemented in 96 districts, where less than 30% land is currently getting an assured irrigation facility. For this purpose Rs. 2600 crores have been allocated.

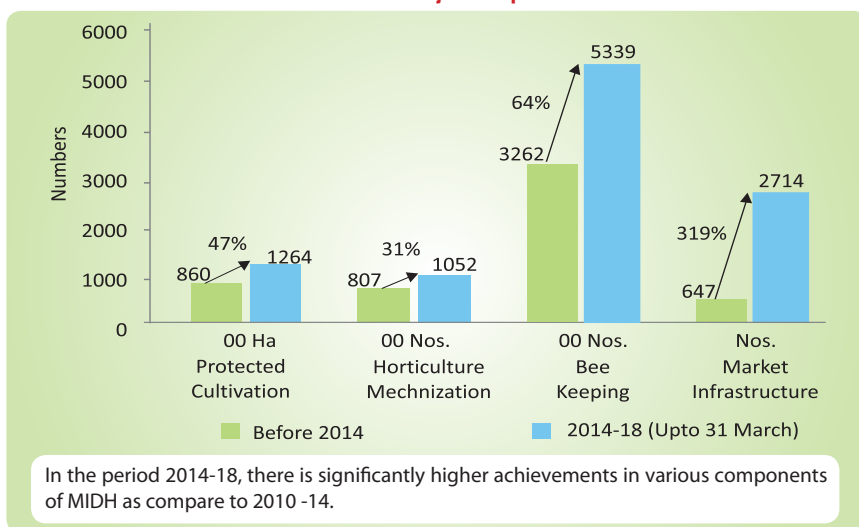


HORTICULTURE DEVELOPMENT

Horticulture Development Mission

- Supply of quality plant material, protected cultivation and proper management are the main programs and initiatives under Mission for integrated Development of Horticulture (MIDH) to double the income of the farmers. Increasing productivity through sustainable horticulture, value chain development, connecting farmers to the market and promoting the ownership of farmers over entire value chain from the fields to the market.
- Centrally Sponsored Scheme MIDH started in 2014-15 covering fruits, vegetables, roots and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashews, cocoa and bamboo, for the overall development of the horticulture sector.

Achievement under Major Component of MIDH



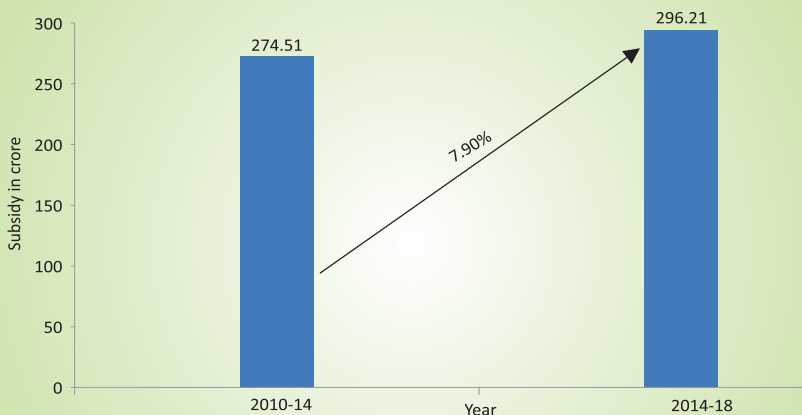
Under MIDH, 60 percent of the total outlay is borne by Government of India and 40 percent contribution of the state governments. Under the Horticulture Mission for Northeast and Himalayan states (HMNEH), 90 percent fund is given by Government of India and 10 percent contribution from the state government. Similarly, National Horticulture Board (NHB), Coconut Development Board (CDB), Central Institute of Horticulture (CIH), Nagaland and the National Level Agencies (NIA), the Government of India contributes 100 percent.

National Horticulture Board

The Board is implementing the following Schemes:

- Development of Commercial Horticulture through production and post harvest management.
- Capital Investment Subsidy Scheme for construction / extension / modernization of cold storage for Horticulture products.
- Technology development and transfer for promotion of horticulture.
- Promotion of mechanization in horticulture.
- To ensure availability of quality planting material in horticulture.

Progress Under Cold Storage



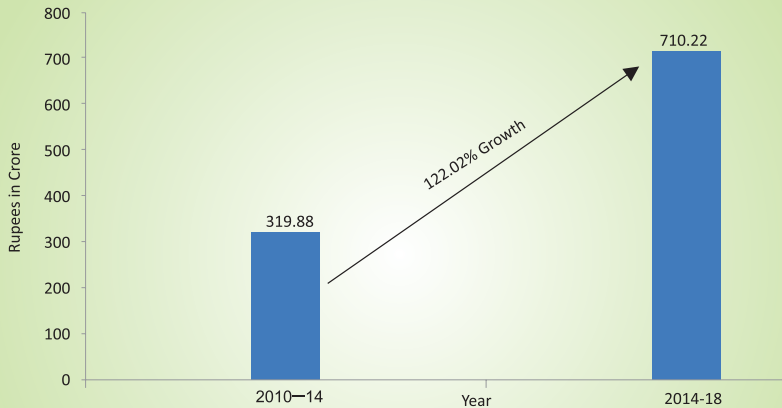
The National Horticulture Board has assisted 3120 cold storage projects across the country with storage capacity of 137.22 lakh MT.

Operation Greens

Tomato, Onion, and Potato are being consumed throughout the Year. In the past 70 years, both farmers and consumers have suffered losses. For the first time in the budget of the Government of India, it has been announced new scheme Operation Greens which will enable the farmers to get the right price for their produce and these products will be available at reasonable prices to the consumers. For this purpose, the provision of Rs. 500 crores has been made.

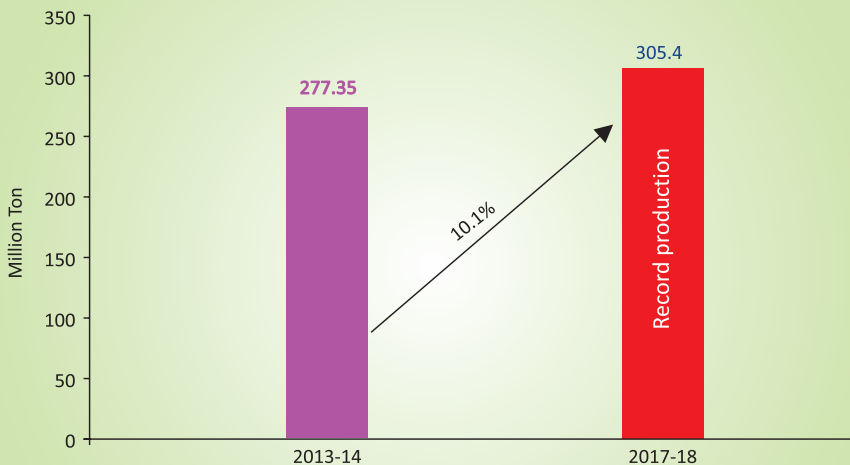


Commercial Horticulture Scheme



In the past 4 years, there is significant increase of 122.02% in allocation of funds.

Record production of Horticulture Crops



Due to the concerted efforts made by the Government of India for the development of horticulture, the production of horticultural crops has increased steadily in the last four years.

Prime Minister Package for J&K

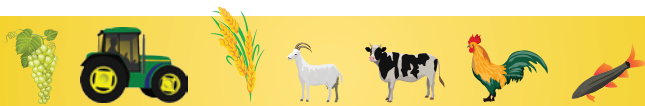
- Rs. 500 crore special package announced on 07.11.2015 towards restoration of damaged horticulture areas and development of horticulture in J&K.
- J&K Govt. submitted its 3 year Action Plan for Rs. 500 crore for 2016-17 to 2018-19.
- Cabinet Committee on Economic Affairs approved one time relaxation of MIDH cost norms for;
 - Import of planting material at the maximum cost of Rs. 460 per plant.
 - Import of four wire trellis system @ of Rs. 9.8 lakh per hectare.
 - Enhanced rate of subsidy @ 90% for provision of planting material.
- Administrative approval for implementation of CCEA's decision has been issued on 08/12/2016.
- Government of India released Rs. 75 Crores central share to state government in 2017-18.

Saffron Park

- National Horticulture Board (NHB) is setting up of Saffron Park at Pampore Pulwama (J&K) at a total cost of Rs. 37.81 crores. Park will have facility for Quality Control Lab, Export Promotion Activity and e-auction Centre.
- Civil work of park is completed. Plant & Machinery has installed and park is handed over to the state government.



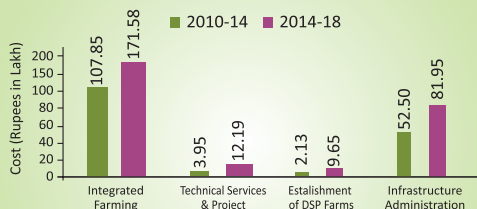
Hon'ble Union Agriculture Minister Shri Radha Mohan Singh laid the foundation stone of Saffron Park at Pampore, Pulwama, J&K on 23rd August, 2014.



COCONUT DEVELOPMENT BOARD (CDB)

- During the period 2011-14, CDB established 12 Nucleus Coconut Seed Gardens, 98 small Coconut nurseries and 295 organic manure units while in 2014-18 CDB established 16 Nucleus Coconut Seed Gardens, 116 small Coconut nurseries and 523 organic manure units.

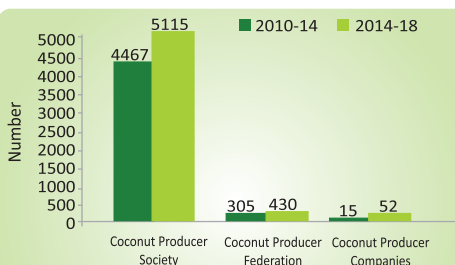
Achievement Under Various Component of Coconut Development



Substantial increase in the output under various component of Coconut Development Board.

- Trained 2637 Neera Technicians since inception in 2014-15.
- 13117 Ha has been brought under new plantation during 2014-18 as compare to 9561 hectare during 2010 -14.
- Export of various coconut products in value terms was Rs. 1602.38 crores during 2017-18 whereas imports was Rs. 259.70 crores.

Society, Federation and Coconut Producer Company Under CDB



Substantial increase in Coconut Producer Society, Federation and Producer Companies during last years.

- In the Foreign Trade Policy 2015-20 to promote export coconut products, provision is made to provide 2-7% of FOB (Free on Board) value as incentives.
- During the financial year 2016-17, India exported sizable quantity of coconut oil to Malasia, Indonesia and Sri Lanka. While during the previous year we were importing coconut oil from these countries.

- India is exporting desiccated coconut in large quantity to USA and European countries.

- Coconut Development Board (CDB) Implements Scheme such as reproduction and rejuvenation of coconut gardens. Farmers Producer Organization (FPOs) and growers are being involved in implimentation. Processing and value addition has been started by many Farmers Producer Organizations.
- A new coconut training center was established in Patna, Bihar for North and North Eastern Region, which would serve as a marketing hub for coconut products.
- Action has been initiated for establishment of Coconut Excellence Centers for capacity building of farmers, entrepreneurs and other stakeholders in the coconut area.

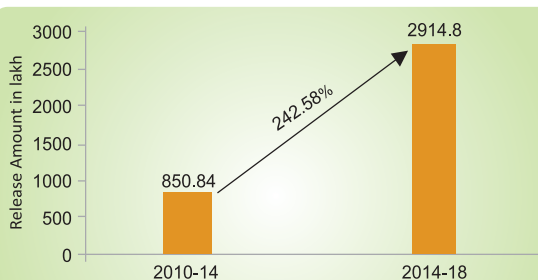
NATIONAL BEE BOARD (NBB)

BEE KEEPING

- From 2011-12 total 7726 beekeepers/beekeeping & honey bee societies/firms/companies etc. with 12.67 lakh colonies have been registered till March 2018.
- A world class honey testing laboratory is being established in Anand (Gujarat).

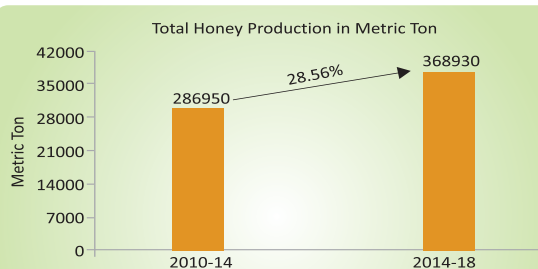
- Beekeeping is not only about earning, it is associated with whole humanity. The great scientist Albert Einstein once said that "if the bees disappear from the earth, then mankind will survive only for 4 years"
- Behind this thought, the usefulness of bees signifies in agriculture and horticulture. According to experts, 80-85 percent of crops species can not produce without bees. Bee not only helps in the pollination, but also gives nectar as honey.
- So this is the path that helps not only to increase the yield of the farmers, but also the means of earning an additional income in the form of honey. This leads us towards the "Sweet Revolution". According to an estimation, farmers can earn up to 2 to 2.5 lakh from in 50 bee boxes only.

Allocation of Budget for promotion of beekeeping



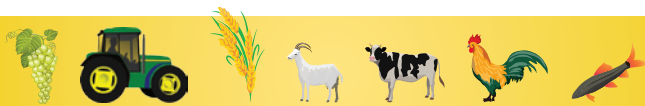
In the last four years (2014-18) there has been an increase of about 242.58 percent in the budget allocation for beekeeping as compared to 2010-14.

Total Honey Production



Growth of 28.56% recorded in the last four years (2014-18) compared to the year 2010-2014 in the production of honey due to the assistance of the beekeepers / farmers by the National Bee Board.

(Address of Hon'ble Prime Minister's during Krishi Unnati Mela at Pusa, New Delhi on 17 March 2018)

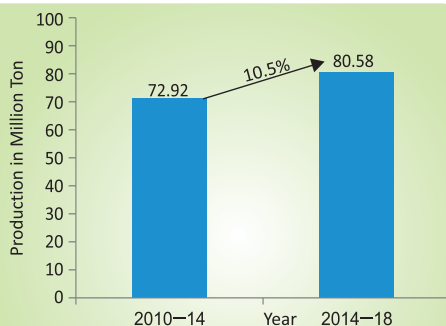


NATIONAL FOOD SECURITY MISSION (NFSM)

Steps Taken to Increase Production of Pulses:

- A special scheme under RKVY "Targeting Rice Fallow Areas in Eastern India for Pulses" has been initiated from Rabi 2016.
- Pigeonpea (Arhar) on rice bunds is being encouraged.
- 31,366 Cluster Front Line Demonstrations through 549 KVKs during 2017-18 have been conducted.
- 150 seed hubs established in SAUs/ KVKs/ICAR institutes for production of quality seeds of pulses.
- 15% allocation of pulses component of NFSM is earmarked for production of quality seeds from Kharif 2017.
- Due to concerted efforts, 36.09% increase in pulses output to 24.51 million tonnes in 2017-18 (3rd advance estimates) over 5 years average (2010-11 to 2014-15): 18.01 million tonnes.

Pulses production increases (Million tons)

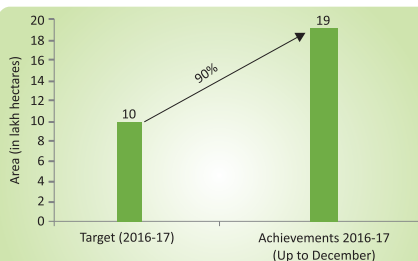


Record pulses production of 24.51 and 23.95 million tonnes respectively in the year 2016-17 and 2017-18, due to the various steps taken for increasing production of the pulses.

National Oilseeds and Oil Palm Mission

- NMOOP aims to enhance the production and productivity of Oilseeds from an average production of 29.79 million tonnes and productivity 1122kg/ha during 12th plan period to 36.10 million tonnes and 1290 kg/ha respectively by the end of 2019-20.
- Subsidy on water carrying pipes increased from Rs. 25/- per mt to Rs.50/- per mt for HDPE pipes, Rs. 35/- per mt for PVC pipes and Rs. 20 for HDPE laminated from Kharif- 2016.
- Seed subsidy for certified seed distribution of oilseeds was increased by more than 100%.
- It is proposed to establish 35 seed hubs in ICAR Institutes and State Agricultural Universities located in 14 states. It is also proposed Rs. 50.92 crore for production of 60,825 quintal of seeds during 2018-19 and 2019-20.

Promotion of Oilseeds and Pulses in Paddy Fields in Eastern States



Increase of 90 percent of the area of oilseeds and pulses in the eastern region of the country

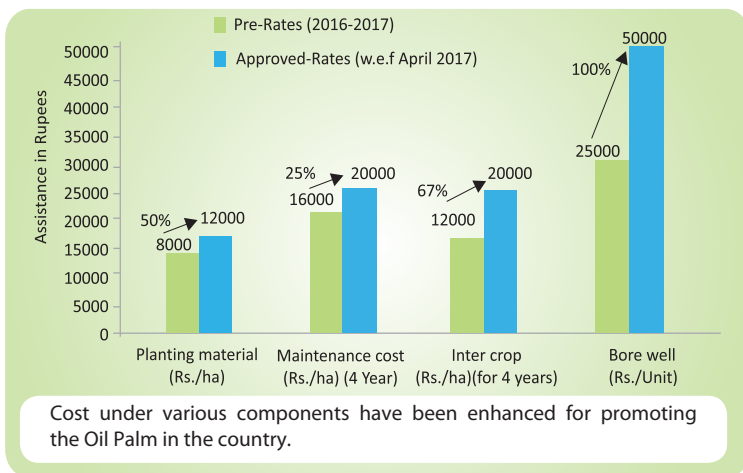
Promote the Cultivation of Oil Palm in the Country

- The objective of NMOOP is to bring an additional area of 1.25 lakh hectare under the oil palm and to improve the productivity of Fresh Fruit Bunch (FFB).
- Oil Palm Producers were given assurance that if international price of FFB prices fall below \$ 800, farmers interest will be protected through Market Intervention Scheme (MIS).

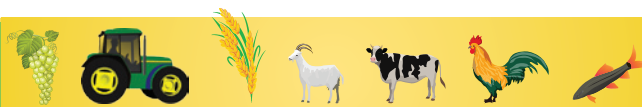
Cabinet Decision of April 12, 2017

- Decision 1: the cultivation of Oil Palm on more than 25 hectare area has been permitted.
- Decision 2: More financial help to the components of oil palm such as planting material, maintenance cost, inter cropping and bore well

Increase in Assistance for Different Components for Oil Palm



- Now, the country is self sufficient in pulses production.
- Year 2018-19 is declared as **Millet Year (Nutri-Cereals)**.



SEED

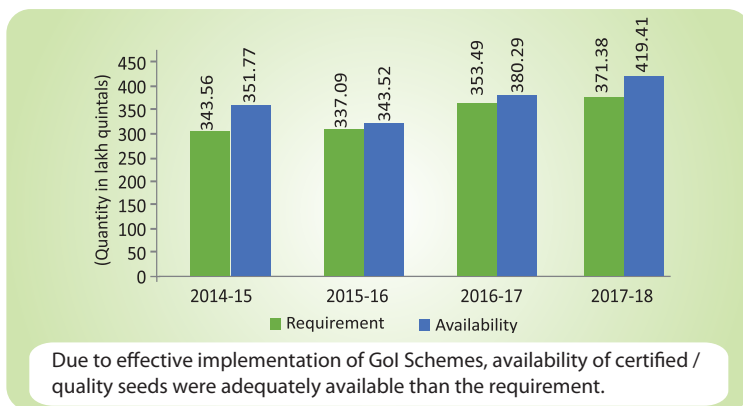
Initiatives and Achievements of the Seed Division

- The Department has issued Cotton Seed Price Control Order, 2015 under Section 3 of the Essential Commodities Act, 1955 for regulating the Maximum Sale Price (MSP) of Bt cotton hybrid seeds. The maximum sale price of Bt cotton seed decided under:

BT 1 Cotton	BT 2 Cotton
During 2015, cost of 450gm seed packet was Rs. 825 now reduced to Rs. 635 per 450gm packet seeds (Zero Trade Value).	Cost of 450gm seed packet was 1000-1500 in 2011-15 and reduced to Rs. 740 per 450gm seed packet for 2018-19.

- The same maximum sale price of Bt cotton seeds for Kharif 2018 has been retained at par with Kharif 2016 and 2017.
- In the last four years, 1,73,236 Seed Village Programmes were organised and 480.15 lakh Qtl. seed were produced involving 101.19 lakh farmers benefited under Seed Village Programme.

Initiatives and Achievements of the Seed Division



- As per decision of Union Cabinet, South Asia Centre of International Rice Research Institute has been established in the campus of National Seed Research and Training Centre, Varanasi (UP).
- In order to bring the transparency in import and export of tissue culture, seeds and plantation material, online portal (<http://seedexim.gov.in>) has been launched in April 2018.

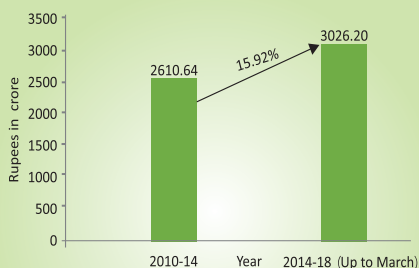


NATIONAL SEED CORPORATION (NSC)



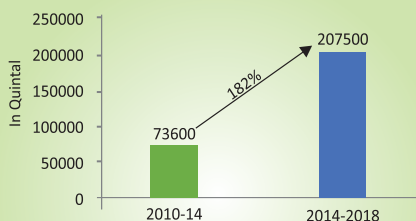
- During the period 2014-18, 661 varieties agricultural crops and 136 varieties horticulture crops were released and notified.
- 528 cases for export and 579 cases for import of seeds and planting material were recommended by the EXIM Committee during the period 2014-18.

Turnover of National Seed Corporation



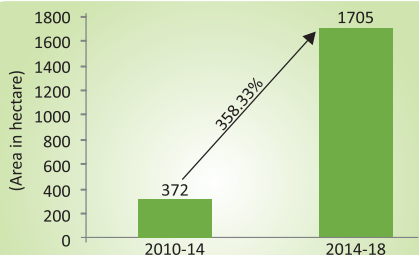
In the last 4 years (2014-18), Turnover has increased by 15.92 % due to increase in sale of various crops and vegetables seeds compared to 2010-14.

Comparative Increase in Seed Storage Capacity



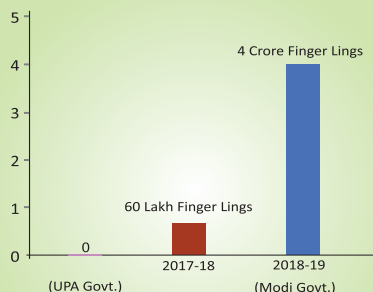
As Compared to the year 2010-2014, an increase of 182% in storage capacity has been recorded in the year 2014-18, which increased availability of seeds and the transportation of cost was reduced.

Increase in Cultivation Area

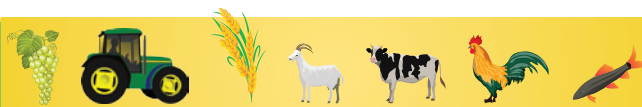


During the year 2014-18, area under cultivation has increased by 358.33% as compared to year 2010-14.

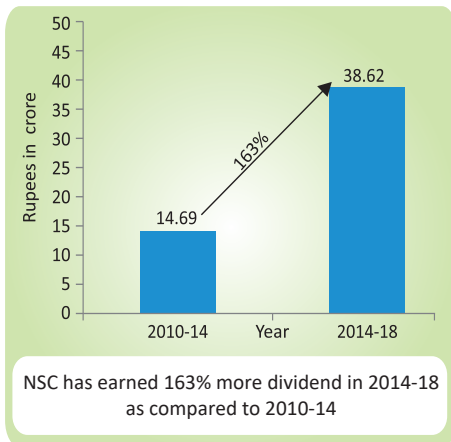
Fish Seed Production by NSC



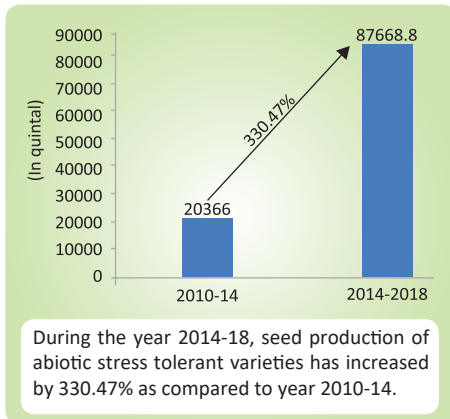
Substantial increased of fish seed production by NSC



Profit Earned NSC



Production of Abiotic Stress Tolerant Varieties of Paddy



- NSC Profit has increased 163% during the last 4 Years.
- During the Year 2016-17 Corporation has contributed the dividend of Rs. 12.03 crore to the Government of India.

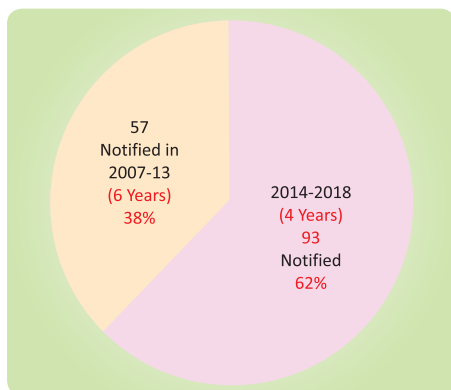


PROTECTION OF PLANT VARIETIES & FARMERS RIGHTS AUTHORITY (PPV&FRA)

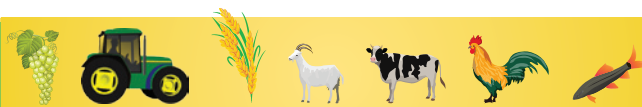
New initiative of Protection of Plant Varieties & Farmers Right for benefit of farmers

- PPV&FRA started in 2007. PPV&FRA has received 15,940 applications out of which 11,499 applications received during last 4 years alone which is 72% of total applications.
- The Authority has released 3385 Registrations. During last 4 years, alone 2785 registration certificates released, which is 82% of total released certificates applications.
- Since 2009, Authority has a provision to provide 35 Plant Genome Saviour Award to farmers & farming communities. Till now, 124 award had conferred out of which 73 of total awards conferred during last 4 years.
- During last 10 years, 156 crop species have been notified for registration out of which 75 crops varieties notified during last four years which is 52% of total registered.
- The annual fee for the registration of farmers varieties has been reduced from Rs. 2000 per year to Rs. 10 only during 2015. Renewal fees of farmers has reduced from Rs. 45,000 to zero.
- The amount of cash reward for Plant Genome Saviour Farmers Award has been enhanced from Rs. 1.00 lakh to Rs. 1.50 lakh each and the amount of award for Plant Genome Saviour Farmers Recognition has been enhanced from zero to Rs. 1.00 lakh each during 2015.

Notified Crops Varieties 150 from 2007-2018

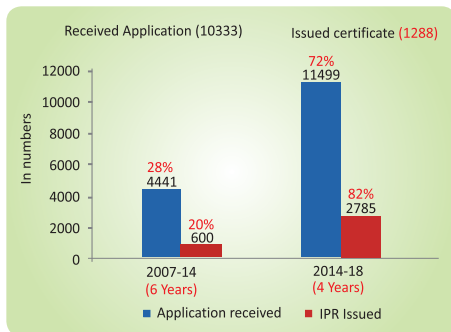


On 19th April, 2017 at Motihari, East Champaran, Bihar 5 Plant Genome Saviour Community Award, 10 Plant Genome Saviour Farmers Reward and 20 Plant Genome Saviour Farmers Recognition Award were conferred by Hon'ble Union Minister of Agriculture & Farmers Welfare Shri Radha Mohan Singh.

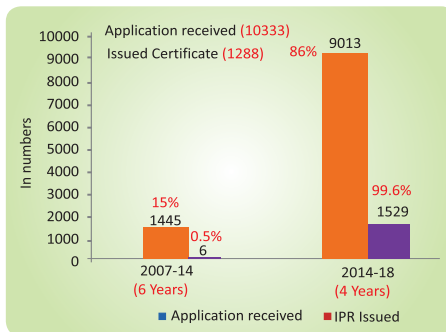


- Three New Branch Offices of PPV&FR Authority have been opened at Palampur (H.P.), Pune (Maharashtra), Shivamogga (Karnataka) to facilitate the registration of farmers varieties and also do make farmers aware about the Act.
- One could appeal against decision of Authority in High Court but now appeal may be done in tribunnal created by Authority.

Receipt of Applications and Issuing of Registration Certificate



Receipt of Application Farmer Varieties and Issuing of Certificate

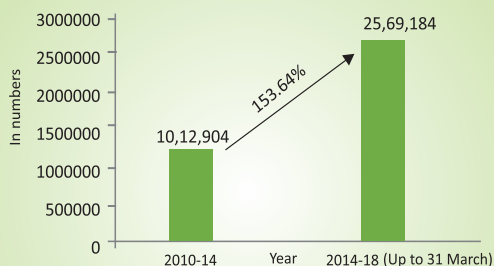


During the National Workshop organized by PPV & FRA on February 23, 2018, Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers Welfare in Varanasi (Uttar Pradesh)

AGRICULTURAL MECHANIZATION

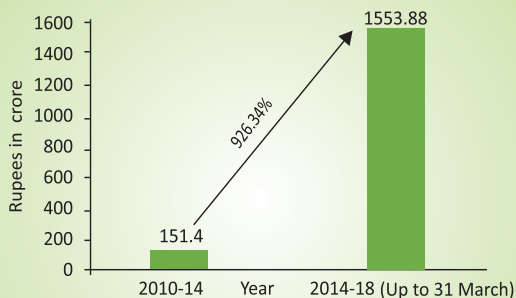
- Considering the need for mechanization of marginal and small farmers and for the overall development of agriculture sector in the country, Submission on Agricultural Mechanization was started in the year 2014-15.

Numbers of Machinery Distributed to Farmers



An increase of 153.64% in number of machineries distributed to farmers under various schemes during 2014-18 as compared to the number of machinery distributed during 2010-14.

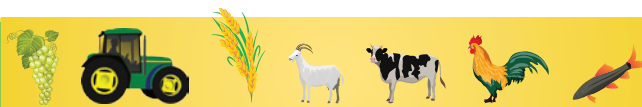
Allocation of Funds



Allocation of funds increased almost by 926.34% in 2014-18, under Agriculture Mechanization as compared to allocation of funds during 2010-14.

For Residual Management New Mechanization Scheme

New Central Sector Scheme for Mechanization for Management of residue of crops in Haryana, Punjab, Uttar Pradesh and Delhi adjoining areas. It is being initiated from 2018-19 to 2020, with Rs. 1151.80 crore budget allocation. Through the scheme 100% amount has been given to States by Centre.



PLANT PROTECTION

- There is a scheme under the Green Revolution (Krishonnati Yojana) under the Sub Mission for Plant Protection and Plant Quarantine. The primary goal of this submissions is to minimize the loss of quality and yield of agricultural crops from insects, diseases, weeds, nematodes, etc. and save agricultural biosafety from foreign species invasion. The aim of this sub-mission is to facilitate the export of Indian agricultural commodities in world markets and to promote good agricultural practices in relation to plant protection strategies and technologies globally.

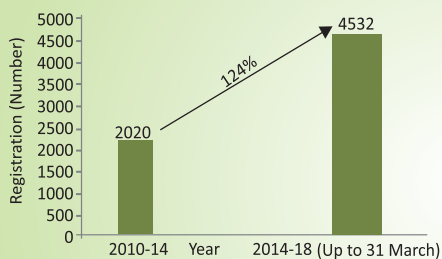
Improvements done in four years:

- Four new Plant Quarantine Stations have been started in Lucknow, Bagdogra, Goa and Port Blair.
- The export of insecticides was prohibited by Chennai and Mumbai Sea-Port and by Delhi Airport.
- Mango exports have increased by 15,000 tonnes compared to the last three years. Ecuador, Chile and Japan have provided market access to the Indian mango.
- Korea market accessed for mango export. A total of 453.99 tonnes of mangoes have been exported in the current financial year.
- On the basis of the test, 10 containers of grapes have been successfully shipped to Canada. This will enable the exporter to export the grapes from India in the next season.
- The European Union has revived market access to Indian mangoes, besides the approval of the European Union for export of fresh vegetables.
- China market accessed for export of basmati rice and registration of 14 rice mills has been completed.

Use of Information Technology (IT) in Plant Protection

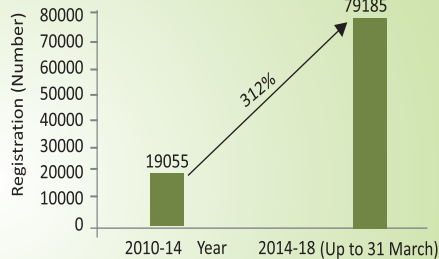
- under the single window system, the integration of customs EDI system (ICEGATE) with PQIS at 51 PQ stations at national level has been implemented through on line message exchange system for import clearance.
- Issue of plant Health Certificates online was started from July 15, 2017.
- Registration of insecticide is made completely online.

Plant Protection Pesticides Export Registration



Plant Protection Pesticides export registration increased by 124% in 2014-18 over 2010-14.

Plant Protection Pesticides Registration



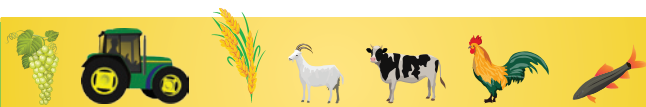
The number of Pesticide Registration has been increased by 312% on account of better monitoring and use of technology.



Hon'ble Union Minister for Agriculture and Farmers Welfare Shri Radha Mohan Singh visited the IPM Center.



Hon'ble Minister of State for Agriculture and Farmers Welfare Shri Parshottam Rupala inspecting the IPM exhibition stall.



SMALL FARMERS AGRIBUSINESS CONSORTIUM (SFAC)

Venture Capital Scheme (VCA)

- Venture Capital Assistance scheme is being implemented for agribusiness development to catalyze private investment in setting up agribusiness projects for increasing rural income and employment. Rs. 344.51 crore allocated for Venture Capital Assistance scheme (VCA) during 2014-18.

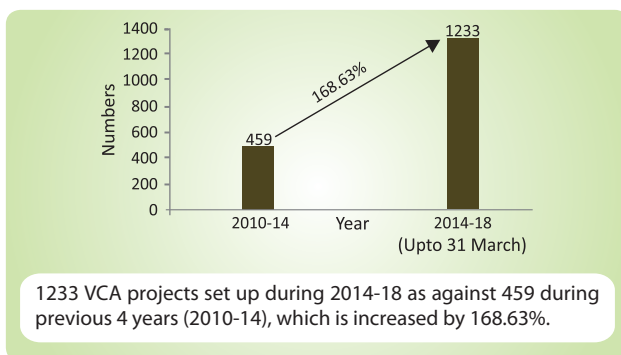
Equity Grant Scheme (EGS)

- In order to support the equity base of Farmer Producer Companies (FPCs), a matching Equity Grant upto a maximum of Rs 10 lakh is given to FPCs. During 2014-18, equity grants have been sanctioned to 254 Farmer Producer Companies (FPCs).

Credit Guarantee Fund Scheme (CGFS)

- The Credit Guarantee Fund offers a cover of 85% of loans extended by banks to FPCs without collateral. During 2014-18, a total of 30 FPCs have taken benefit under the scheme.

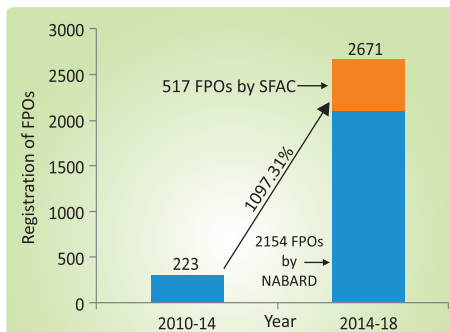
Projects Established under Venture Capital Scheme (VCA)



In the budget of 2018-19, the Government has announced that 'Farmer Producer Organisation (FPOs)' will be exempted from income tax like Cooperative Societies.

Hon'ble Prime Minister's address during Krishi Unnati Mela Pusa, New Delhi (17 March 2018)

Registration of Farmer Producer Organizations (FPOs) by NABARD and SFAC

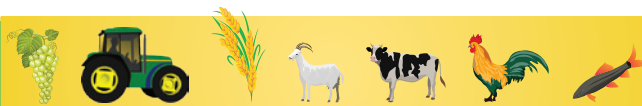


2617 Farmers producer were registered during the year 2014-18 by NABARD (2154) and SFAC (516). Which increased 1097.31 percent against the year 2010-2014 (223).

Farmer Producer Organization (FPO)

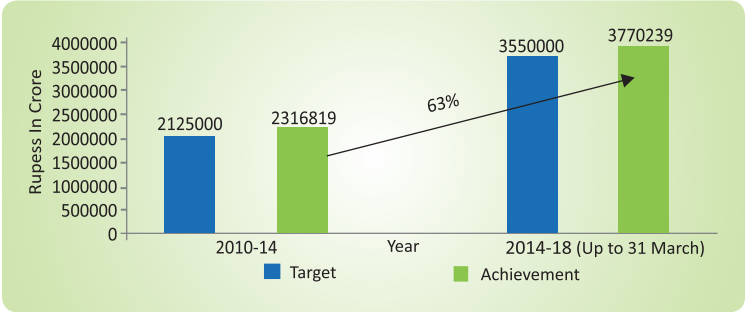
The concept involves grouping, particularly small and marginal farmers, which is an effective tool to find a solutions to new challenges in agriculture such as investment, technology, inputs and markets.

In order to make the right use of farmers' aggregated products and marketing arrangements, the policy framework for setting up a friendly environment for investment in the FPO is being decided.



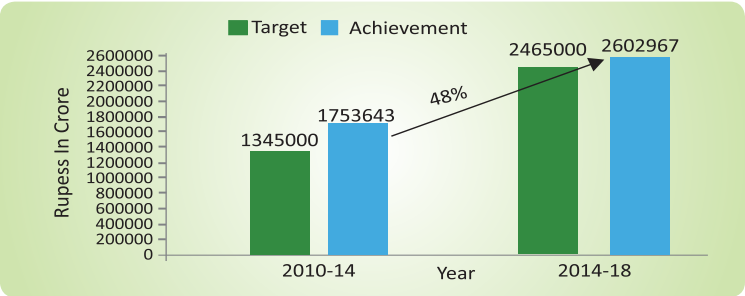
FLOW OF AGRICULTURAL CREDIT

(a) Agriculture Credit Ground Level Credit Flow (Short Term Loan and Term Loan)



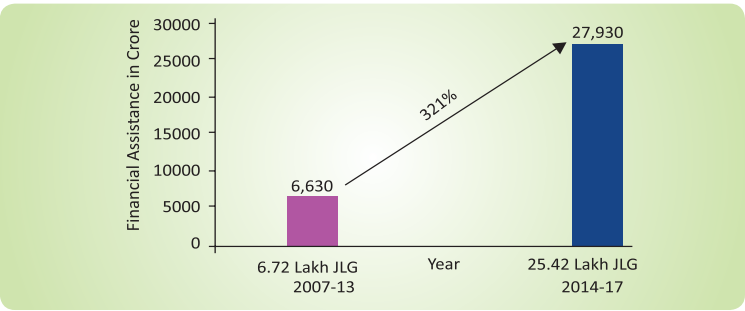
There was 63% increase in ground level agriculture credit flow during the year 2014-18 as compared to 2010-14.

Agricultural Credit: Short Term Crop Loan



Short term credit exceeded by 48% during 2014-18 as against the 2010-14.

Formation of Joint Liability Group (JLG)

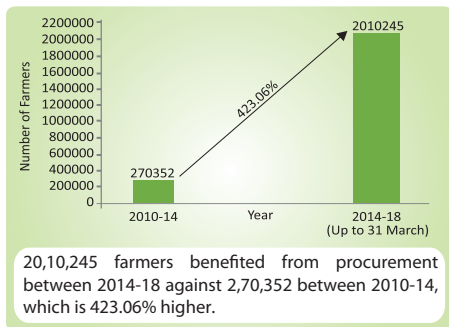


In the seven years from 2007-14 only 6.72 lakh JLG were formed and Rs. 6630 crore given to JLG while during 2014-18 total 25.42 lakh JLG formed and Rs. 27930 crore given.

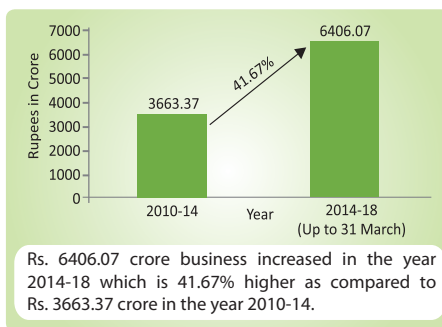
NAFED ACHIEVEMENTS

- NAFED is one of the Central Nodal Agencies for procurement of 16 notified agricultural commodities.
- During the year 2017-18, NAFED procured record quantity of 31.88 lakh MT Pulses and recorded the highest gross Profit of Rs 250.69 crore in last two decades.
- Procurement of Pulses, Oilseeds and other commodities by NAFED improved significantly in 2014-18 against the performance during 2011-14.
- Earlier, minimum level of government guarantee of Rs 261 crore was available to NAFED. It has now been given a guarantee of Rs.19000 crore, which is now being enhanced to Rs. 42000 crore. Due to this, Nafed could purchase most of the pulses and oilseeds as compared to the previous years and millions of farmers have benefited.
- During the financial year 2017-18, NAFED on a one-time debt settlement solution with its creditors and on 27.03.2018, signed a Memorandum of Understanding (MOU) with lending banks. After that, NAFED will be free from debt problems and will be ready to continue the service of farmers.

Farmers Benefited from Procurement of NAFED



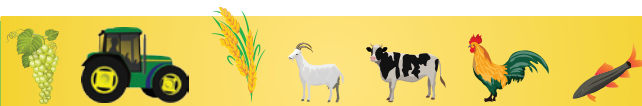
Increase in Business of NAFED



The Union Agriculture and Farmers Welfare Minister, Shri Radha Mohan Singh addressed the Thanksgiving Function organized in NAFED on April 25, 2018.



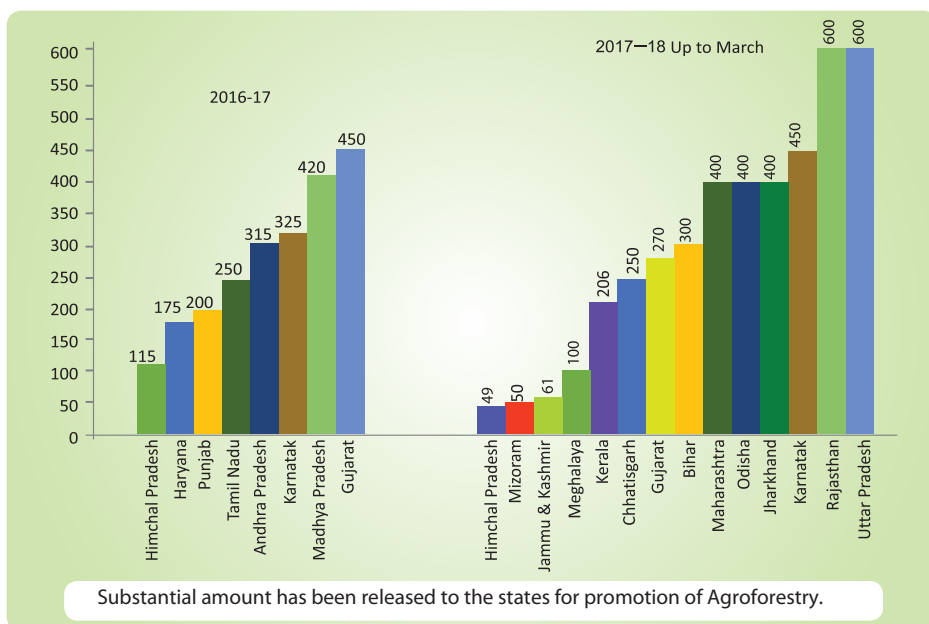
Union Minister of Agriculture and Farmers Welfare, Shri Radha Mohan Singh and Minister of State for Agriculture and Farmers Welfare and Panchayati Raj, Shri Parshotam Rupala launched new flavors of Nafed Tea at a function in New Delhi on December 16, 2016.



SUB MISSION ON AGROFORESTRY

- National Agroforestry Policy 2014 formulated recognising the significant potential of agroforestry in both irrigated and rainfed areas for meeting the needs of the communities, enhance climate resilience of agriculture lands, provide raw material for industry and contribute to the national target of 33% of forest and tree cover as well as other ecosystem services.
- The Sub-Mission on Agroforestry (SMAF) was started in 2016-17 to encourage tree plantation on farm land with the objective of “*Har Med Par Ped*”.
- Relaxation of transit regulations for selected agroforestry species is the mandatory pre-requisite for assistance under SMAF. So far, 21 States have removed this requirement of transit permits, thus incentivising farmers to plant trees on their farm lands.
- Multipurpose tree species, fruits, fodder, medicinal and aromatics, small timber and long rotation timbers are encouraged for providing periodic returns to the farmers.
- More than one crore trees have been planted over 21,000 ha and 146 nurseries established for quality planting material.

Fund Released for Promotion of Agroforestry (Rs. Lakh)

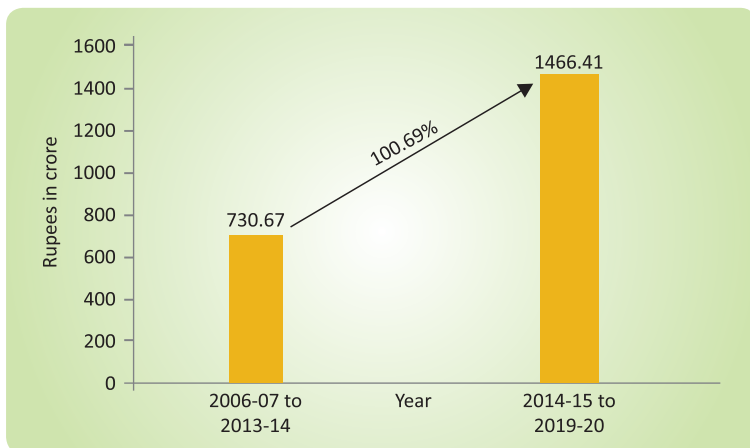


NATIONAL BAMBOO MISSION

Cabinet has sanctioned Rs. 1290 crores on April 25, 2018 for 2018-19 and 2019-20 for coordination between the industries & farmers and necessary value chain for implementation of restructured National Bamboo Mission for bamboo development in the country.

- Department of Agriculture, Cooperation and Farmers Welfare will act as the nodal department for implementing the revamped National Bamboo Mission.
- Under restructured National Bamboo Mission farmers will work on bamboo planting, primary processing & treatment, micro, small & medium enterprises, product development, skill development, value addition along with complete value chain.
- Under the mission, emphasis will be laid the States Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala and especially in the North Eastern Region where bamboo has special status in the social, commercial and economic sectors.
- To encourage bamboo plantation, Union Government has promulgated the Indian Forest (Amendments) Ordinance, 2017. The bamboo in non-forest area was removed from the category of tree and will be treated as grass. With this decision of the government, farmers will be encouraged to cultivate bamboo and it will not have to take permits for cutting and transport.

Allocation of funds under National Bamboo Mission



For the period of 6 years (2014-15 to 2019-20) Rs 1466.41 crore has been proposed for bamboo development. This amount is 104.15% more as compared to last 8 years (2006-07 to 2013-14).



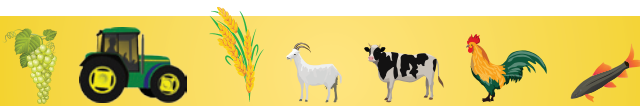
MODEL CONTRACT FARMING ACT 2018

- Farmers and agriculture based industries has been linked for the first time by Government of India.
- Farmers will fetch better price for agriculture commodities and post harvest losses will be minimized due to this act. This act will create avenues for new employment in rural areas.
- Permanent structures could not be constructed in the land of farmers.
- Farmers Producer Organization (FPO) / Farmers Producer Companies (FPC) would be promoted so that farmers can be organized.
- If authorized by farmers then FPO/FPC can be a contract party.
- Contract farming sponsors will not have rights to transfer and dispossess possession of land, title & owners.
- According to the contract, the purchase of whole quantity of one or more agricultural produce, livestock or contract agricultural product, at the pre-agreed rate is ensured.
- Provision of Contract Farming Facility (CFF) has been made to promote contract farming and services at the village / Panchayat level.
- The provision of dispute settlement has been done at the lowest level so that it may be possible to reach there and the disputes can be handled as early as possible.



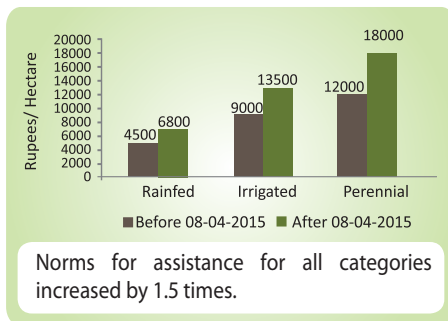
MODEL AGRICULTURE LAND LEASING ACT 2016

- This is very important step for land reforms through which needs of landlord as well as lease holder have been taken care.
- Through this act, the landlord can legally lease the land with mutual consent for agriculture and allied activities. In this act, it has been taken care that in any circumstances the leased holders' claim on land will not be valid.
- Lease holder may receive institutional loan, insurance and disaster relief so that he may invest more and more in agriculture.
- In order to resolve the dispute between the landlord and lease holder, the provision of "Special Land Tribunal" has been made in the Civil Court.

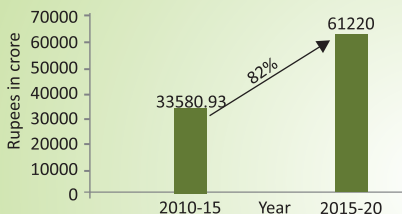


DROUGHT MANAGEMENT– CHANGES IN NORMS FOR ASSISTANCE

- The Department of Agriculture, Cooperation and Farmers Welfare has been entrusted with the task of coordinating relief measures in the situations arising out of drought, exacerbation, insect attack, frost / cold wave.
- Norms for assistance for all categories increased by 1.5 times.
- The threshold for eligibility for assistance due to crop loss lowered to 33% from 50%.
- The admissibility for assistance raised from 1 ha. to 2 ha. in all cases.
- The financial assistance is given to the family members of deceased farmers in the event of death increased to Rs. 4 lakh from Rs. 1.5 lakh.
- First time, UT-DRF fund has been created with an allocation of Rs. 50 crore to execute relief assistance to the affected persons due to natural calamities.
- The Drought Management Manual 2009 has been amended in 2016 through consultative process by involving concerned Central Ministries / Departments, State Governments, Scientists, Scientific Institutions etc.

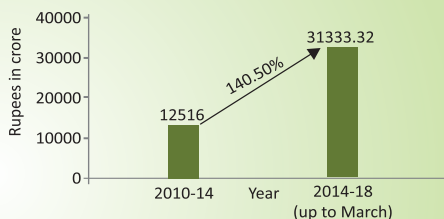


Allocation of the Funds to States under State Disaster Response Fund (SDRF)



Allocation of Funds to states under SDRF has increased by 82% during 2015-20 as compared to 2010-15.

Central Assistance Approved to States by Gov. for National Calamities (Drought, hailstorms, pest infestation, cold waves/frost)



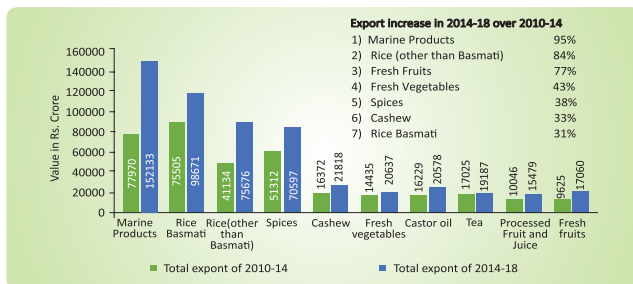
Assistance of Fund to states as increased 140.50% during 2014-18 (Rs. 31333.32 crore) as compared to year 2010-14 (Rs. 12516 crore)

AGRICULTURE TRADE

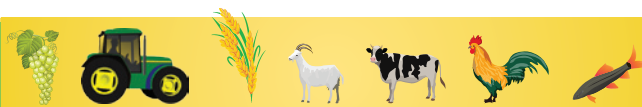
Trade related policies augmentation to assist farmers & reduce dependency on imported agricultural products.

- Import duty on wheat has been raised from 10% to 20%. Under Foreign Trade Policy 2015-20, rates of reward under Merchandise Exports from India (MEIS) have been enhanced on export of various agriculture items. From 01st November, 2017 upto 30th June, 2018 to offset high transit cost and promote export from country.
- Import duty on tur raised from zero to 10%. Quantitative restrictions of 2 lakh tons per year on import of tur (pigeon pea) and 3 lakh tons on urad & moong per year imposed. Import duty on peas raised from 0% to 50%. Import duty on chickpeas (gram) raised from 40% to 60%. Import duty on lentil (masur) raised from zero to 30%.
- Export of all pulses (except Kabuli chana) was prohibited earlier. Now, export of all varieties of pulses including organic pulses has been permitted without any quantitative restriction.
- Export of all varieties of edible oils (except mustard oil) have been permitted without any quantitative restrictions. However, export of mustard oil in branded consumer packs of upto 5 kgs will continue to be permitted for export with a Minimum Export Price of USD 900 / MT.
- Import of Peas (matar) has been restricted from 1st April to 30th June, 2018 with QRs of 1 lakh MT.
- Prior to 2015, the import duty on crude palm oil and refined palm oil was 12.5% and 20% respectively. Now, on 1st March, 2018 import duty has been raised on crude oil to 44% and refined palm oil to 54%.
- Impacts: Imports of pulses in 2017-18 was 56.5 lakhs tonnes which is 10 lakhs tonnes less as compared to 66 lakhs tonnes in 2016-17. This has resulted in saving of Rs. 9775 crores.

Export of Major Agri-Item from 2010-14 to 2014-18



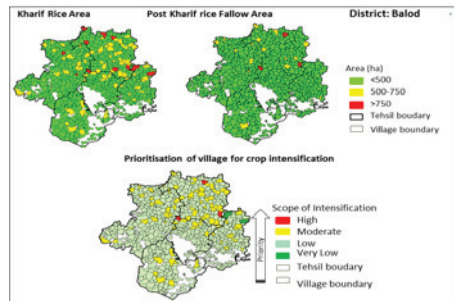
There has been substantial increase in export of marine products, Fresh fruits, Fresh vegetables, Rice (non-Basmati), Rice (Basmati) etc., in 2014-18 over 2010-14, due to export oriented policies of Government.



MAHALANOBIS NATIONAL CROP FORECAST CENTRE (MNCFC)

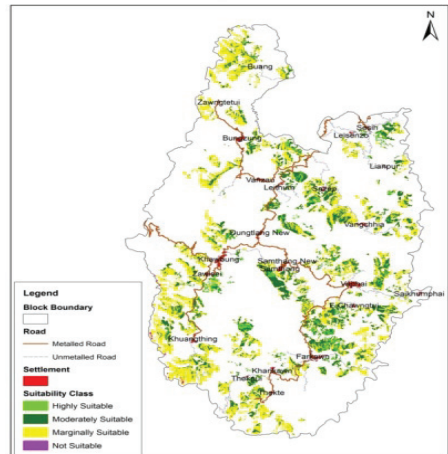
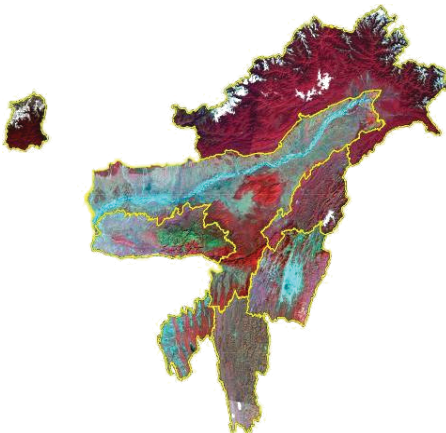
- Under CHAMAN (Coordinated Horticulture Assessment and Management using Geo-iNformatics) project, crop inventory was carried out for 7 crops in 170 districts of 12 states and site-suitability assessment in jhum lands for horticultural area expansion in 1 district each of 8 North eastern states
- Under FASAL (Forecasting Agricultural output using Space, Agro-meteorology & Land based observations) project pre-harvest crop production forecasts were issued for 8 major crops.
- Under NADAMS (National Agricultural Drought Assessment and Monitoring System) project periodic agricultural drought monitoring was carried out using satellite data, as per new drought manual, 2016.
- Satellite Remote sensing was used for area discrepancy, loss assessment, yield dispute resolution and clustering for Pradhan Mantri Fasal Bima Yojana.
- Post Kharif Rice Fallow Area suitability mapping was carried out in Chhattisgarh & Odisha for crop intensification for pulses.

Prioritization of Villages for Crop Intensification



Suitable sites for Grapes in Khawbung block, Mizoram

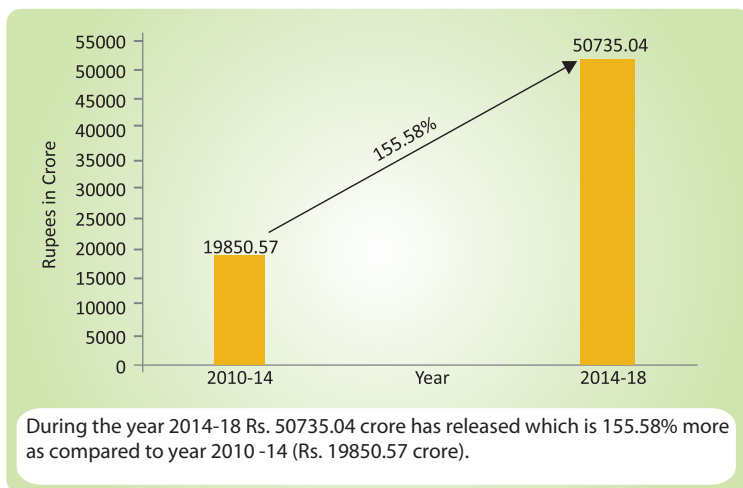
Satellite Image of Jhum Area



NATIONAL COOPERATIVE DEVELOPMENT CORPORATION (NCDC)

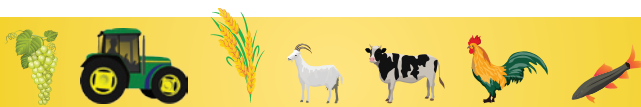
- National Cooperative Development Corporation (NCDC) gives comprehensive support to cooperative sector in terms of government grant and loan.

Disbursement of amount by NCDC



Primary Agricultural Co-operative Society (PACS) - Computerization

PACS / LSPS / FSCS these institutions are the lower level of the short-term co-operative credit structure employed at the village level. Department of Agriculture, Cooperation and Farmers Welfare will assist for computerization and unification of all 63000 functional primary agricultural co-operative societies of District Central Co-operative Bank and banking system. This project will be done in three years with the participation of State Governments at an estimated cost of Rs. 1900 crores. The project will be implemented from 2017-18 to 2020-21.



INFORMATION TECHNOLOGY

Mobile app for farmers

KISAN SUVIDHA MOBILE APP



PUSA KRISHI MOBILE APP



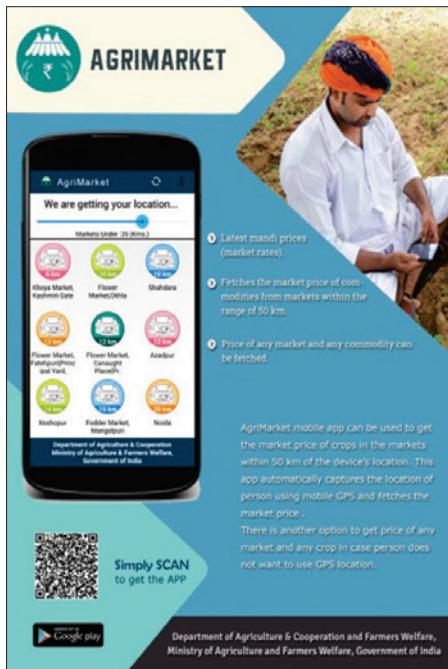
- To provide information to the farmers on sensitive parameters such as climate, plant conservation, exchange dealers, agricultural consultations and market value etc., Hon'ble Prime Minister Shri Narendra Modi launched Kisan Suvidha Mobile App on 19 March, 2016.
- Hon'ble Union Minister of Agriculture has launched PUSA Mobile App for farmers for realizing the dream of the Prime Minister's Lab to Land Programme. Farmers can get information from the technologies developed by IARI.

CROP INSURANCE MOBILE APP



- Crop Insurance Mobile App has been started for the calculation of insurance premium for notified crops based on area coverage amount and loan amount in case of debtor farmers. From this, we get details about general, insured amount, premium details and state notices of any notified crop in any notified area.

AGRIMARKET MOBILE APP



- Agri Mobile App can be used to get the market price of crops in the markets within 50 km of the device location. This app automatically capture at location of the person using mobile GPS and fetches the market price. There is another option to get price of any market and any crop in case person does not want to use GPS location.

- In collaboration with National Information Center, the IT department has developed 80 portals, applications and websites. Important portals include M-Kisan, Seednet, Agri Market, RKVY, ATMA, NHM and NFSM etc.
- To provide computerization at the block level, funds are provided to the states and UTs.

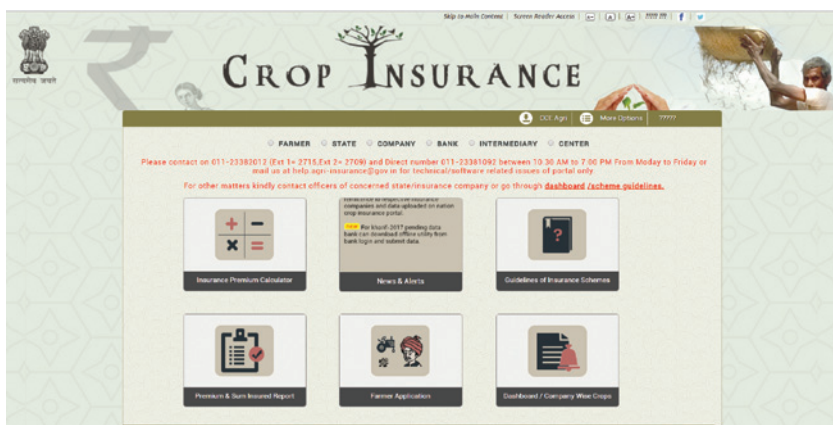


CCE AGRI - MOBILE APP

- CCE Agriculture Mobile App has been developed to digitally disseminate information on the field after harvesting.
- The GPS location automatically takes the place of the field.
- Web server accelerated transfers to photographs and data taken through the app.
- Reduces claim settling time and achieved level of transparency.

CROP INSURANCE PORTAL

- One portal for all stake-holders including farmers, states, insurance companies and banks.
- Both insurance schemes, such as PMFBY and WBCIS covered.
- Company contacts premiums, farmers for their crop and location.
- Creation of insurance premium calculator and notified databases
- Applications of farmers for credit / insurance and their consolidation with banks.



KISAN CALL CENTER (KCC)

- Kisan Call Center provides information to farmers free through toll free number 1800-180-1551. There are 14 KCCs in the country. Total 2.64 crore farmers questions were replied from 2014-18 (till May 10, 2018)

AGRICULTURAL EXTENSION AND KAUSHAL VIKAS IN AGRICULTURE

Skill Development in Agriculture

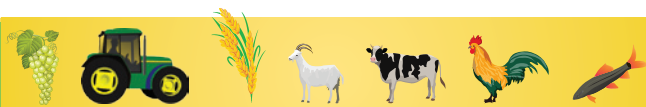
- First time during 2016-17, skill training programme conducted by DAC&FW from RKVY funds in collaboration with Extension Division of ICAR and Agriculture Skill Council of India (ASCI).
- Accredited 100 KVKs and 8 Training Institutes by Agriculture Skill Council of India (ASCI) for skill training during 2016-17.
- Rs. 3.52 crores sanctioned for conducting 216 skill training during 2016-17; 206 training programmes were organised.
- During 2017-18, 116 skill training courses (200 hrs) were planned through 94 identified Institutes. Rs. 2 crore has been allocated from RKVY.
- One National Level Skill Development Workshop in New Delhi and 4 Regional Skilled Development Workshops at MANAGE (Hyderabad), Kolkata, Jaipur and Chandigarh were organized to orient various stakeholders.



- National Skill Development Workshop, "Kaushal Vikas Se Krishi Vikas" organised by DAC&FW on January 5, 2017 at New Delhi.



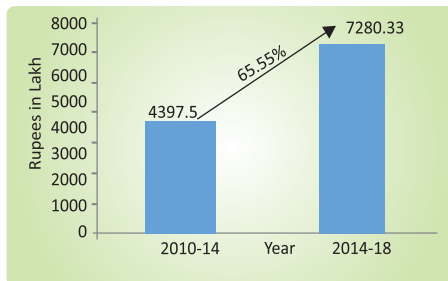
MoU was signed by the Ministry of Agriculture, Cooperation and Farmers Welfare and Ministry of Skill Development and Entrepreneurship on March 20, 2018.



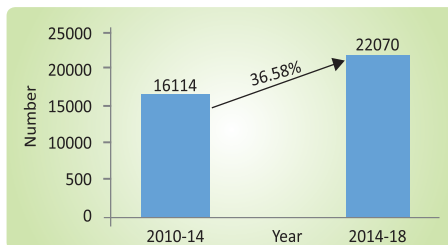
AGRI-CLINICS AND AGRI-BUSINESS CENTRES SCHEME (ACABC)

- To create gainful self-employment opportunities to unemployed Agricultural Graduates, Agricultural Diploma holders, Intermediate in Agriculture and Science Graduates with PG in Agri related subjects.
- To support Agriculture development; and to supplement the efforts of public extension.
- Direct Benefit Transfer/Public Financial Management System (DBT/ PFMS) implementation in the Agri-Clinics and Agri- Business Centres Scheme.
- Inclusion of MUDRA loan under Pradhan Mantri MUDRA Yojana (PMMY) for Agri-Clinics and Agri-Business Centres Scheme.
- MANAGE-ACABC Incubation center established to build an ecosystem in which startups can innovate and excel.
- Bio-matric Attendance, Weekly SKYPE for effective monitoring of AC&ABC Scheme.
- Free helpline no. /Daily Updation of training status on social media.
- Conducting theme based Refresher Training Programmes (RTPs) for successfully established Agripreneurs (April-2017 onwards).
- Bankers –Agripreneurs interface meet in collaboration with the State Level Bankers Committee (SLBC).
- Third Party Annual Verification of the Established Agri-Ventures.

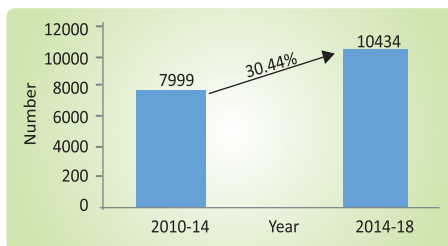
Funds Released under AC&ABC Scheme



Trained Candidates under AC&ABC Scheme



Growth Rate of Agri-ventures Established by Candidates under AC&ABC Scheme



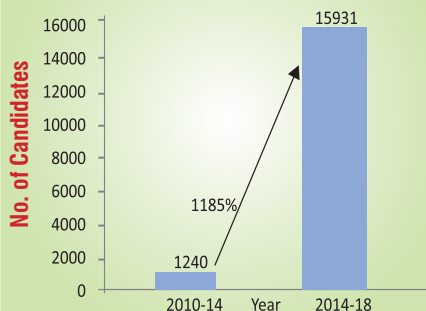
DIPLOMA IN AGRICULTURAL EXTENSION SERVICES FOR INPUT DEALERS (DAESI)

Objectives of the Scheme (DAESI)

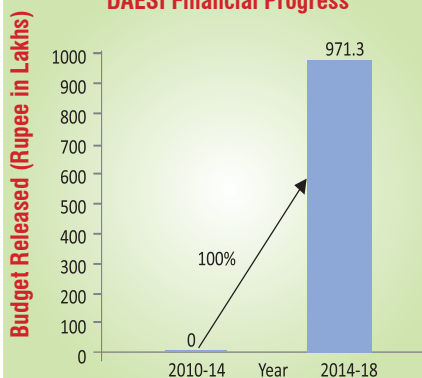
- To orient the input dealers on location-specific crop production technologies of broad-based agriculture with reference to field problems.
- To build the capacity of input dealers in efficient handling of Inputs .
- To impart knowledge about the laws governing regulation of agricultural Inputs.
- To make input dealers an effective source of farm information at the village level (one stop shop) for the farmers.

Physical progress under Diploma in Agricultural Extension Services for Input dealers (DAESI)

DAESI Physical Progress



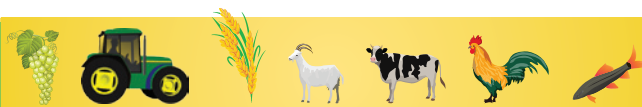
DAESI Financial Progress



Started own business and guidance center by trained youths under Agri Clinic and Agri Business Centers Scheme (ACABC).



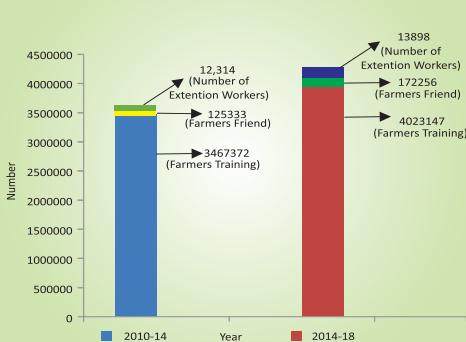
Trained input dealers under DAESI is giving proper guidance to the farmers.



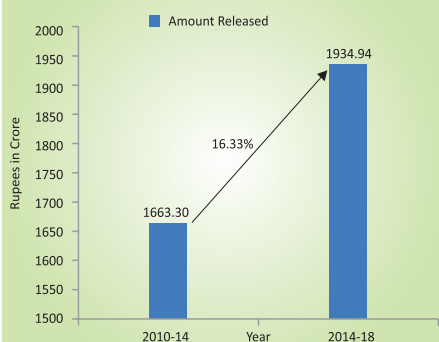
ATMA YOJANA

- Providing agricultural extension services based on their requirement to the farmers.
- Arrangement of research on various subjects through research institutes.
- Provision of 24,000 block level extension personnel for implementation of effective extension services.
- one 'farmer friend' from every two villages to establish synergy between farmers and extension workers.

Progress of ATMA Yojana



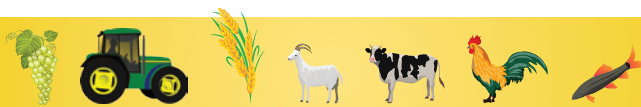
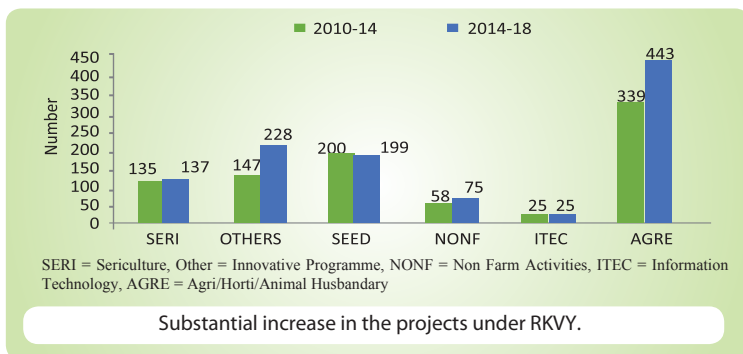
Amount Released under ATMA Yojana



RASHTRIYA KRISHI VIKAS YOJANA (RKVY)

- Government launched revised RKVY Scheme in 2014-15 to provide more flexibility to the States for boosting investment and enhancing productivity in agriculture and allied sector.
- Sub-scheme on Targeting Rice Fallow for Pulses & Oilseeds was introduced under RKVY as special scheme during 2016-17. The Allocation of Sub-scheme was Rs. 50 crore.
- In order to address the problem of soil acidity, alkalinity and salinity, a sub scheme of Reclamation of Problematic Soils was introduced under RKVY in 2016-17.
- During 2014-18, Maharashtra, Karnataka and Odisha have taken up 34 projects under Public Private Partnership for Integrated Development of Agriculture (PPPIAD).
- During 2014-15, Additional Fodder Development Programme was initiated under RKVY to address the fodder needs of cattle in drought affected states. During 2014-18, an amount of Rs 78.14 crores was released to the States.
- Geo-tagging of assets created under RKVY has been initiated with technical support from National Remote Sensing Center. More than 75,000 assets geo-tagged.
- The Central share Rs. 4750 crore released for implementation of the scheme during the current year (2017-18).
- The cabinet on 1st November 2017 has approved continuation of the ongoing centrally sponsored scheme (State Plan)-Rashtriya Krishi Remunerative Approaches for Agricultural and Allied Sector Rejuvenation (RKVY-RAFTAAR) for 3 years (2017-20) with allocation Rs. 15,722 crore.

Project Taken by States Under RKVY in Various Sector



SWACHHTA PAKHWADA



One more step towards Swachhta.

- During year 2017, Swachhta Pakhwada from 16th to 31st May and "Swachhta Hi Sewa Abhiyan" from 15th September to 2nd October have been observed in this Department. In which 321 Agriculture markets, 35 Central Integrated Pest management Centers and 357 Plant Protection Quarantine Stations were covered and cleaning drives were also undertaken in Premises as well as surrounding areas.
- All the Ministers and Officers led by Hon'ble A&FW Minister Sh. Radha Mohan Singh participated in the Abhiyan at various places across the country.
- During the "Swachhta Hi Sewa Abhiyan", National Centre of Organic Farming had participated in Pandit Deendayal Upadhyay Krishi Unnati Mela and demonstrated Waste Decomposer technique and Organic Farming to Farmers.
- Provisions are being made of Rs. 5 lakh each mandi under e-NAM Scheme for setting up waste management plants.
- Rs. 689.94 lakhs has been released to states under sub-scheme of Rashtriya Krishi Vikas Yojana (RKVY) for solid & Liquid Waste management.



Honorable Shri Radha Mohan Singh, joined the campaign for Agriculture and Farmers Welfare, to raise awareness and encourage others to cleanliness.



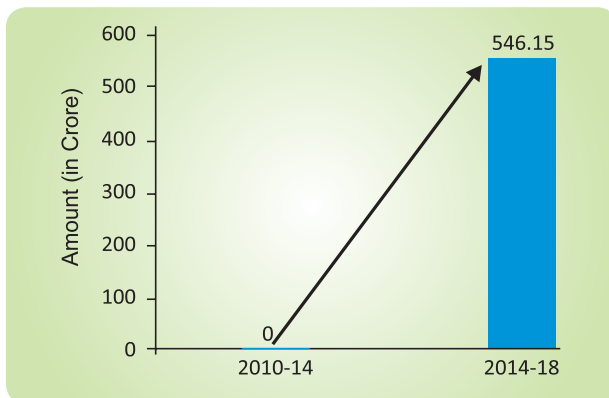
DEPARTMENT OF ANIMAL HUSBANDRY DAIRYING & FISHERIES



DAIRY DEVELOPMENT: RASHTRIYA GOKUL MISSION AND NATIONAL MISSION ON BOVINE PRODUCTIVITY

- Rashtriya Gokul Mission has been started with manifold increase in budget allocation for Development and Conservation of Indigenous breeds in Scientific and holistic manner. The objective of the scheme is to provide breeding services at the farmers' doorstep for genetic improvement of Cattle and Buffaloes in the country, Establishment of Multi-Purpose AI Technicians for Rural India (MAITRIs) and streamlining of Liquid Nitrogen Storage & Distribution System.

Fund released under Rashtriya Gokul Mission

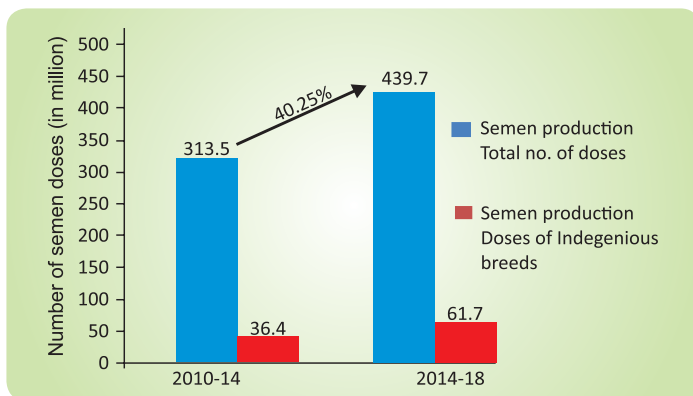


- Two New National Kamdhenu Breeding Center (one in north India in Madhya Pradesh and one in south India in Andhra Pradesh) has been established for which an amount of Rs. 50 Crore has been released.
- For the first time in the country 20 Gokul Grams were approved with a financial allocation of 196 crores for development and conservation of Indigenous Bovine Breeds.
- A new Frozen Semen Centre with a capacity of 50 lakh doses per annum is being established (At Maranga, Purnia District, Bihar). Along with this, 28 Semen centres were strengthened all over the country under National Dairy Plan - I (NDP-I).
- In June 2017 the National Gopal Ratna and National Kamdhenu Awards has been initiated and 10 farmers were given National Gopal Ratna award and 12 Institutes were given National Kamdhenu Award.

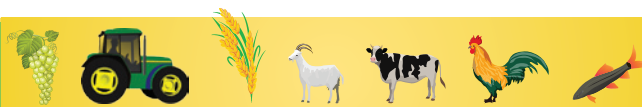
National Mission on Bovine Productivity:

- In order to increase the milk production and productivity and to make dairying more remunerative to farmers Government of India has initiated National Mission on Bovine Productivity scheme in 2016-17 for a period of 3 years with a financial allocation of Rs. 825 crore. The scheme has been currently subsumed under the umbrella scheme Rashtriya Gokul Mission. The scheme aims towards faster genetic improvement of Bovines for Milk Production in the country by use of Advanced Breeding Techniques. The components of the schemes are as under:
 1. Pashu Sanjivni: Under the component 9 crore milch animals will be identified and Helath Card (*Nakul Swasthya Patra*) is being issued with an effort towards ensuring good health of Bovines. Till date 10.8 million animals have been identified.
 2. Implementation of Advanced Breeding Techniques through establishment of Embryo Transfer Technology Laboratories in the country. Project proposals of 15 ETT has been prepared and are under consideration by the department.
 3. Sex sorted semen production in 10 Semen Station in the country is being established for which Global EOI has been floated and proposals from 2 semen station are under active consideration by the department.
 4. Establishment of E-pashuhaat portal for connecting the best breeders for the Indigenous Bovine Breeds and creation of e-market for Bovine Germplasm
 5. Establishment of National Bovine Genomic Center for Indigenous Breeds for faster genetic gain to enhance the milk production and productivity in Bovines. For establishing National Bovine Genomic Centre, nodal agency has been selected.

Significant increase in semen production

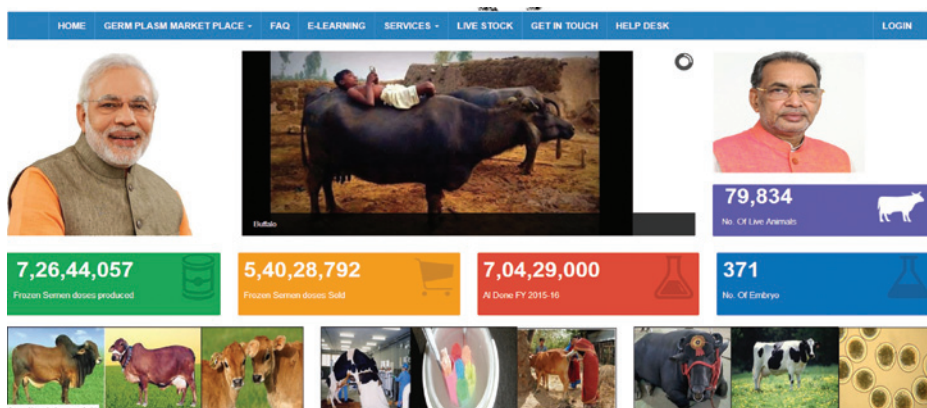


Semen production has increased by 40.25 % in 2014-18 as compared to that of 2010-14.



Benefits of E-pashuhaat:

- Through the portal farmers get breed wise information regarding Indigenous Bovine Breeds. The farmers can also perform sale and purchase through the portal. Information on all types of germplasm is made available in the portal. The use of portal by the farmers is fast trending and till date information of 6.6 crore frozen semen doses, 372 embryos and 795334 live animals is made available.
- Through the portal effort has been made to remove the involvement of middlemen in the sale and purchase of the germplasm. Such portal with information on all types of breeds of animals is even not available even in advanced countries.



e-Pashuhaat Web Portal



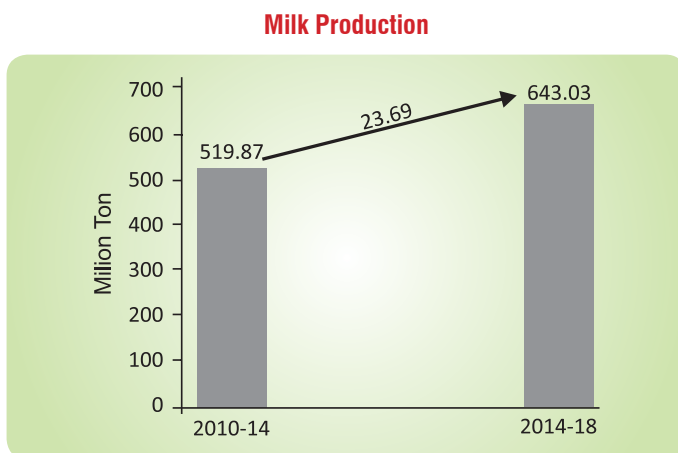
DAIRY DEVELOPMENT

Dairy Processing and Infrastructure Development Fund

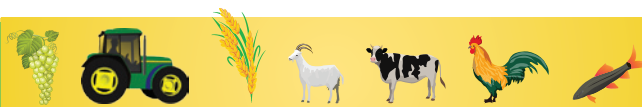
- In the year 2017-18, an ambitious scheme namely Dairy Processing and Infrastructure Development Fund (DIDF) has been initiated with the aim of doubling the income of dairy farmers and accelerating the efforts made under the white revolution. Under this scheme, Dairy Processing and Infrastructure Development Fund (DIDF) of Rs.10,881 crores has been set up. Under this scheme, loan assistance is provided through NABARD at the subsidised rate of 6.5% per annum to the milk co-operative institutions. The benefit of the scheme will be provided in 3 years (2017-18 to 2019-20). Under this scheme, 95 lakh dairy farmers will be benefited from additional milk procurement. A target of establishing 28,000 Bulk Milk Cooler (BMC) in 50,000 villages has been envisaged. Additional milk chilling capacity of 140 lakh liters per day and additional milk processing capacity of 126 lakh liters per day will be set up. 59.78 lakh liters per day capacity will also be set up for the production of value-added milk products, which will ensure better remuneration to farmers.

Milk Production

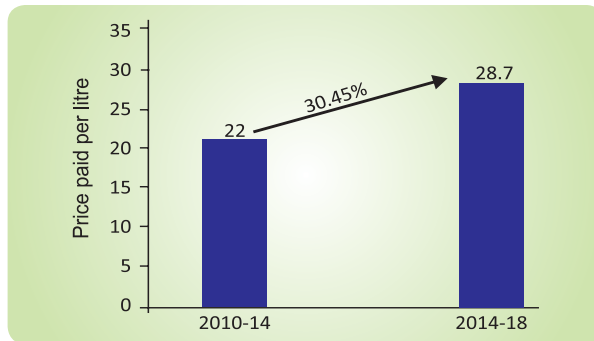
- India is the largest producer of milk in the world and contributes about 19% of total milk production.
- Income of dairy farmers has increased by 30.45% in the last four years.



Milk production increases by 23.69% in 2014 - 18 as compared to that in 2010 - 14. (Data of 2017 - 18 is awaited from States. Therefore, projected data of 2017 - 18 is used).

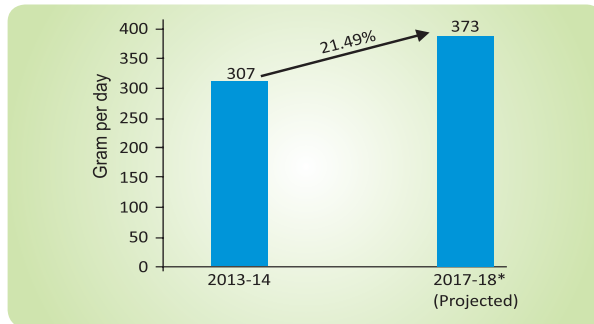


Increase in average price provided to farmers



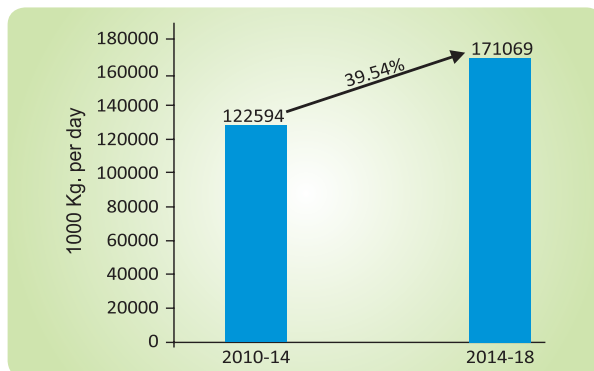
Income of dairy farmers has increased by 30.45% in 2014 - 18 as compared to that in 2010 - 2014.

Per capita availability of milk (Gram/day)



Per capita availability of milk has increased by 21.49% in 2017 - 18 as compared to that of 2013 - 14.

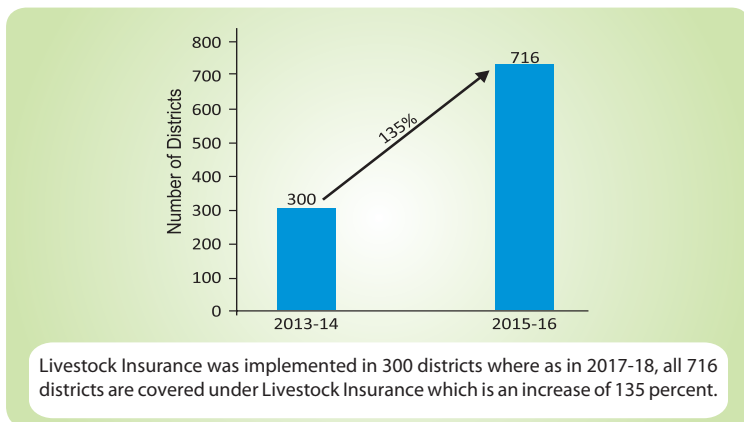
Increase in purchase of milk by dairy cooperatives



Purchase of milk by dairy cooperatives has increased by 39.54 % in 2014-18 as compared to that of 2010-14.

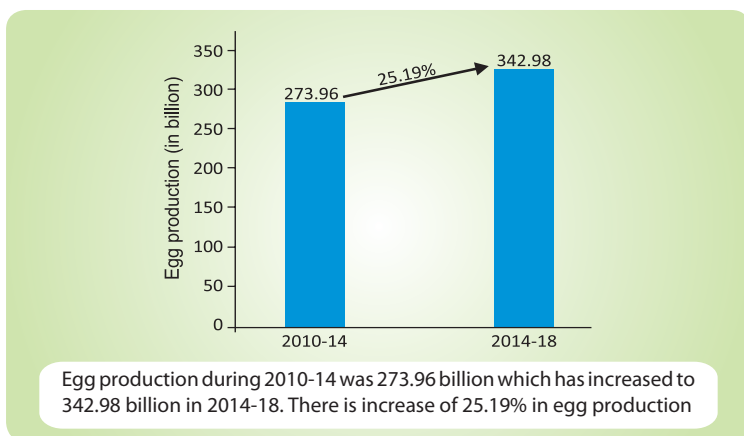
NATIONAL LIVESTOCK MISSION

- The scope and coverage of Livestock Insurance has been increased from 300 districts to all 716 districts. Coverage of livestock insurance has been extended from only 2 milch animals to 5 milch animals/ other animals or 50 small animals.

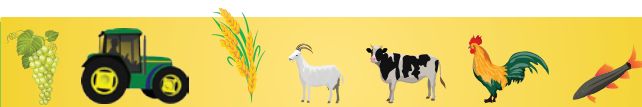


- The annual growth rate of egg production is 6.3%.
- Per capita availability has increased to 69 eggs per annum

Egg Production



* 2017-18 data is awaited from States. Thus 2017-18 data is used projected



ANIMAL HUSBANDRY INFRASTRUCTURE DEVELOPMENT FUND

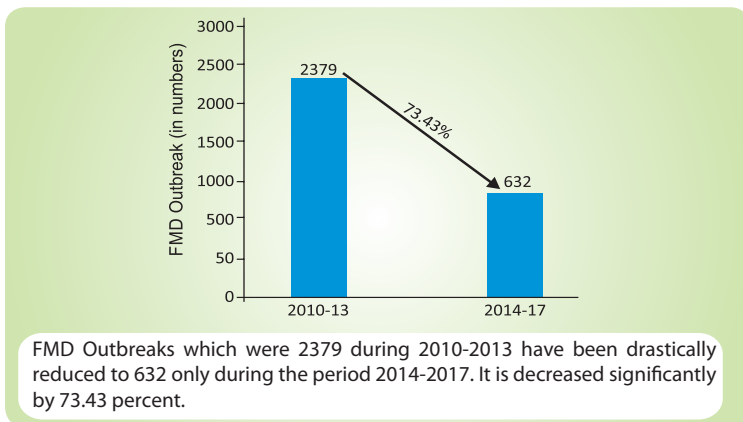
- Hon'ble Prime Minister in Union Budget 2018 has made provision for around Rs. 2450 crore for establishment of Animal Husbandry Infrastructure Development Fund (AHIDF). This is a unique initiative. This fund will enable the small & poor farmers and entrepreneurs, especially women, self Help groups weaker sections to avail latest infrastructure facilities and to get better remuneration for their produce. A provision of around Rs. 2450 crore corpus is made to meet the demands of basic infrastructure.
- Financial assistance under AHIDF will ensure development of infrastructure in animal husbandry sector. Promotion of entrepreneurship largely for small animals & poultry will help to realize the vision of Hon'ble Prime Minister to double the income of farmers.



LIVESTOCK HEALTH

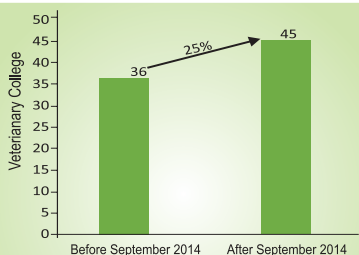
- Based on effective implementation of FMD control programme, three zones have also been established as FMD free zones with vaccination.

Reduction in Foot and Mouth Disease Outbreaks



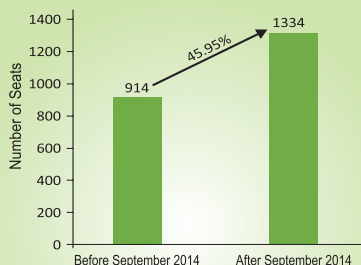
VETERINARY EDUCATION

Increase in Veterinary Colleges



During the period of 2011-14 total number of Veterinary Colleges in the first schedule was 36. During 2014 to 2017 the total number of veterinary colleges has been increased to 46 which is an increase of 25 percent.

Increase in seats of Veterinary Colleges

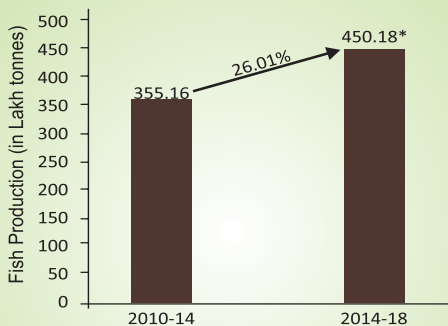


In order to meet the shortage of trained veterinary manpower, intake of students in various Veterinary Colleges was enhanced from 60 to 100 seats. Total number of seats has been increased to 1,334 from 914 in 17 Veterinary Colleges which is an increase of 45.95 percent.

- Due to increase in the number of colleges in the first schedule, total number of veterinary graduates increased to 3440 each year during 2017-18 which was 2311 during 2013-14. In addition, 9 colleges have been permitted for 660 seats for various graduate years.
- The VCI has amended the existing MSVE Regulations, 2008 and now MSVE Regulations, 2016 has been notified on 8.07.2016. The salient features in the Revised MSVE are as under:
 - a) Increase in annual admissions in B.V.Sc and AH course to 80 from 60 in the present MSVE.
 - b) Increased in time for B.V.Sc & A.H. courses from 5 years to 5 and half years with enhance internship programme from six months to one year and course work for four and half years.
 - c) Introduction of reservation policy for SC, ST, OBC and Physically Handicapped which was not in the earlier MSVE.
 - d) The credit hours for B.V. Sc & A.H. courses have been reduced from 179 hr to 81 hr. and the courses will be of annual basis instead of semester.
 - e) Introduction of Additional courses / Syllabus such as Animal Welfare, Hazard Analysis and critical control points, Risk Analysis, sanitary and phytosanitary measures etc.

FISHERIES - BLUE REVOLUTION

Fish Production



The Fish Production during 2010-14 was 355.16 lakh tonnes which increased to 447.55* lakh tonnes during 2014-18 which is an increase of 26.01 percent.

*Projected data of 2017-18

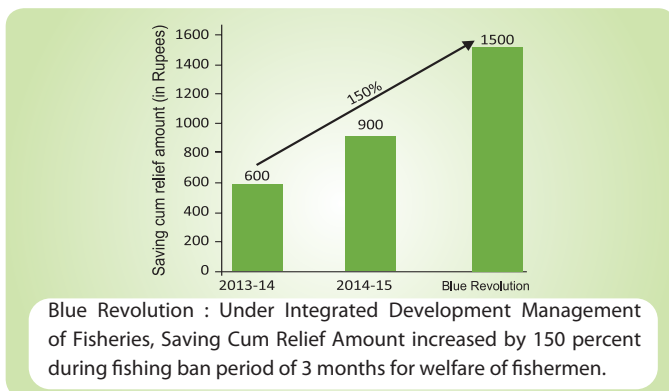
ASSISTANCE FOR DEEP SEA FISHING

- This Department, on 09 March, 2017 has introduced a sub component namely, "ASSISTANCE FOR DEEP SEA FISHING" under the existing component 'Development of Marine Fisheries, Infrastructure and Post Harvest Operations' of Blue Revolution Scheme. This will promote capacity building in traditional fishermen to venture into deep sea fishing and to support their livelihood with comparatively higher income generation. The sub-component aims to introduce intermediate size of modern deep sea fishing vessels (DSFVs) to the traditional fishermen for operating in the Indian Exclusive Economic Zone (EEZ), beyond territorial waters to enable our fishers to harness fishery resources in the deep sea. Hon'ble Prime Minister of India on 27.07.2018 inaugurated this scheme by distributing work order to 5 beneficiaries. During the financial year 2017-18 Government of India has released Rs 300 crores to Government of Tamil Nadu, Andhra Pradesh and Gujarat.



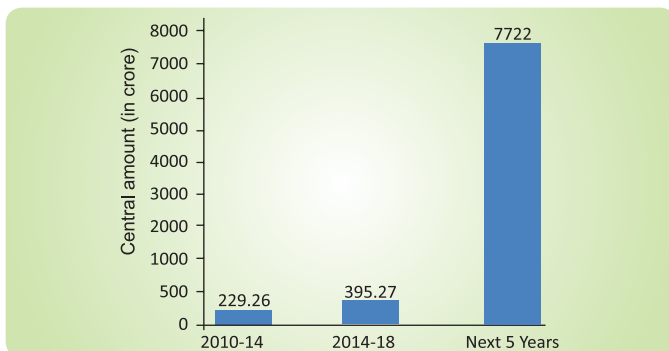
WELFARE OF FISHERMEN

Saving-cum-relief



- The Annual Insurance premium for fisher folk was Rs. 29.00 which is brought down to Rs. 20.34. Further the Insurance premium has been fixed to Rs. 12 after integration with PRADHAN MANTRI SURAKSHA BIMA YOJANA
- Insurance cover increased to Rs. 2.00 lakh from Rs. 1.00 lakh for accidental death and permanent disability.

Fisheries Infrastructure Development



Central amount released for fishing infrastructure development has increased by 72.41 percent. Estimated expenditure in the next five years (including 2018-19) is Rs. 7722 crores, of which 7522 crores will be under the Fisheries Infrastructure Development Fund.

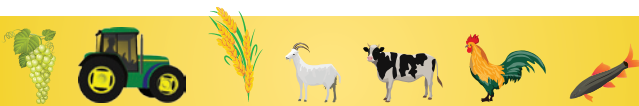
Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

The Union Government in its Budget 2018 has set aside Rs.7,550 crore for setting up of a dedicated Fisheries and Aquaculture Infrastructure Development Fund (FIDF). The fund has the potential to benefit over 40 lakh marine and inland fishers especially women, SHGs, weaker sections, due to availability of modern infrastructure and added value of produce. FIDF will provide concessional finance to the State Governments/ Union Territories, State entities, cooperatives, individual entrepreneurs, etc. for development of fisheries infrastructure facilities both in marine and inland fisheries sector. The fund would :

- Fill the large infrastructure gaps in fisheries sector,
- Create employment opportunity to the rural population in fishing and allied activities,
- Contributes towards enhancement of fish production and productivity,
- Offers manifold benefits and
- Fulfill the requirements of tapping the full fisheries potential and achieving the vision given by the Hon'ble Prime Minister for doubling farmers' income.

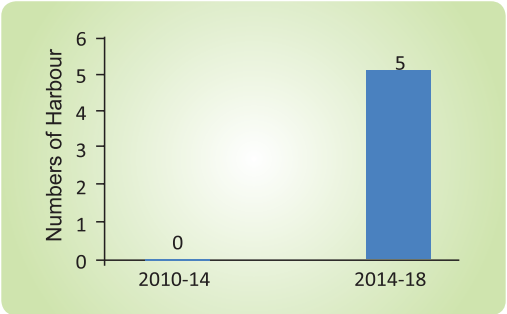
Steps taken to resolve the Fishermen issues between India & Sri Lanka

A Ministerial level Meeting between India and Sri Lanka was held on 5 November 2016. It was agreed between the two Ministers on setting up of a Joint Working Group (JWG) on Fisheries which would meet once in every three months and for holding a meeting between Fisheries Ministers in every six months. It emerged from the deliberation that end of bottom trawling by Tamil Nadu fishermen in the Palk Bay is one of the permanent solution to the problem of the fishermen between India and Sri Lanka. In order to replace bottom trawlers in Palk Bay with Tuna long liner and for providing financial assistance to Tamil Nadu for this purpose, This Department has introduced a sub component namely, "ASSISTANCE FOR DEEP SEA FISHING" under the existing component 'Development of Marine Fisheries, Infrastructure and Post Harvest Operations' of Blue Revolution Scheme. A number of steps have been taken by DADF and Government of Tamil Nadu to effectively implement the scheme for early resolution of fishermen issues between two countries.



During the past two financial year (2016-17 and 2017-18), four new fishing harbour projects and modernisation of one existing fishing harbour at Sassoon Dock, Mumbai at a total cost of Rs 642.75 crore with central liability of Rs 337.67 crore have been taken up for implementation in a convergence mode of implementation by co-funding between the Centrally Sponsored Scheme on Blue Revolution of Ministry of Agriculture & Farmers Welfare and Sagarmala of Ministry of Shipping.

Co-funding for four new fishing harbour projects and modernisation of one existing fishing harbour



(Projects under Blue Revolution and Sagarmal)



TRADE - OUR PRIORITY

- Implementation of Single Window System for on-line clearance of livestock and livestock products by all six Animal Quarantine & Certification Services Stations at Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bengaluru.
- Sanitary Import Permit(SIP) website for online receipt and processing of SIP applications for import of livestock products fully implemented since 01.10.2016 and 5545 SIP have already issued till date.
- 18 new additional entry points notified for the import / export of livestock and livestock products.
- AQCS office at Petrapole ICP, West Bengal has been inaugurated to facilitate export/import of livestock and livestock products from Bangladesh.



KRISHI UNNATI MELA

The KRISHI UNNATI MELA is being organized every year from 2016 in which Government organizations, private companies and state governments related to agriculture and animal husbandry participated through stalls and theme area. Farmers participated from every corners of India. During Krishi Unnati Mela-2018, farmers demonstrated the Integrated Model related to poultry, Shrimp farming, Sea weed culture, Recirculating Aquaculture system model related to fishery before the Hon'ble Prime Minister.

Apart from this, frozen semen-related techniques, fishery related techniques and equipment, embryo transfer technology and trout farming etc. were demonstrated during the mela.

(Women farmer explaining integrated model related to poultry to Hon'ble Prime Minister)





**DEPARTMENT OF AGRICULTURAL
RESEARCH AND EDUCATION
INDIAN COUNCIL OF AGRICULTURAL RESEARCH**



During 69th Republic Day of the Country the tableau of Indian Council of Agricultural Research on display at Rajpath for the first time

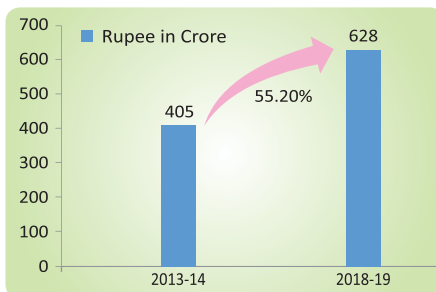


His Excellency the President of India, the Vice President of India and Hon'ble Agriculture and Farmers Welfare Minister, Govt. of India honouring the artists and the officials of ICAR

REFORMING HIGHER AGRICULTURAL EDUCATION

The budgetary provision for higher agricultural education enhanced

- Compared to the year 2013-14, in the year 2018-19 the budgetary allocation in the field of higher education has increased by 55.20 percent.



National Agricultural Higher Education Project

- Proposed with an outlay of USD 165.0 million (Rs. 1100 crores)
- Funded by the World Bank and Government of India on 50:50 cost sharing basis
- Duration of the Scheme: four years (2016-17 to 2020-21)

*National Agricultural Higher Education Project

Recommendations of Vth Deans' Committee implemented in all Agricultural Universities from 2016-17 and new degree programmes introduced.

- B. Tech (Biotechnology)
- B.Sc. Community Science
- B.Sc. Food Nutrition & Dietetics
- B.Sc. Sericulture

Degrees in Agricultural Sciences declared as professional degrees.

Holistic distribution of courses

- Traditional Courses in I Year
- Technology based Courses in II Year
- Talent based Courses in III Year
- Trade based Courses in IV Year



Release of Fifth Deans Committee Report on 29th June 2016



Compulsory common courses introduced

The committee report implemented in all the agricultural universities which enabled uniformity in the syllabi for the graduate students in the country

Financial Support provided to New Universities

- Funds worth Rs. 135.0 Crores each released to Acharya NG Ranga Agricultural University (ANGRAU), Andhra Pradesh & Sri Konda Laxman Telangana State Horticultural University (SKLTSHU), Telangana



- Financial support of Rs. 5.00 crore extended to Govt. of Haryana during 2016-17 for the newly established Maharana Partap Horticultural University at Karnal



Prime Minister's package for North eastern states

- A new Institute, Indian Institute of Plant Biotechnology, established at Ranchi
- Establishment of two new Institutes on the line of Indian Agricultural Research Institute (IARI), Pusa, New Delhi:
 - IARI, Jharkhand
 - IARI, Assam.
- A new Regional Center for Coconut Development Board and a Regional Station of National Center for Organic Farming established at Patna
- National Research Centre for Integrated farming established at Motihari (Bihar)
- A new horticulture college established in Piprakoti, Motihari
- Establishment of four (04) new Krishi Vigyan Kendra (01 at Ramgarh, Jharkhand and 03 in Assam)
- International Centre on Foot & Mouth Disease established in Bhuvaneshwar, Odisha.
- A regional research centre of IISWR, Dehradun established at Koraput, Odisha
- Establishment of 2 Agricultural Technology Application Research Institutes (ATARIs) at Patna & Guwahati
- The Rajendra Prasad Agricultural University upgraded as Dr. Rajendra Prasad Central Agricultural University
- Establishment of Second Green Revolution Cell at ICAR-RCER, Patna



Developed technology inventories for Eastern Region

Varieties/breed	275
Production Technologies	20
Management Practices	40
IFS/RCT/Cropping Systems	21
Product/Process/ Models	59
Standardization of Technologies	38

To give impetus to higher agricultural education in North East Region

Six new colleges opened under CAU, Imphal, raising the total number of colleges from existing 7 to 13.

- Two Agricultural colleges one each in the state of Arunachal and Meghalaya.
- One Horticulture college each in Mizoram and Sikkim,
- One college of Veterinary and Animal Husbandry in Nagaland.
- One college of Food Science and Technology in Imphal, Manipur.



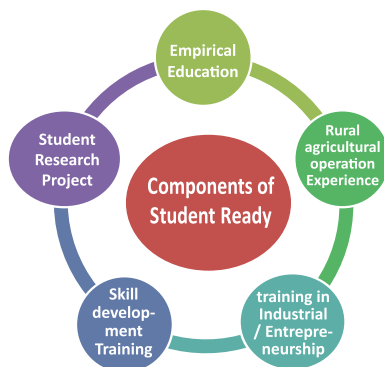
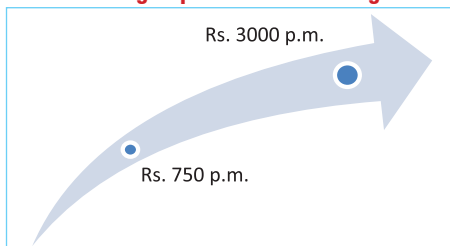
- In addition, two new colleges, College of Horticulture and College of Forestry started in Rani Laxmi Bai CAU, Jhansi from 2016-17.

Student Ready

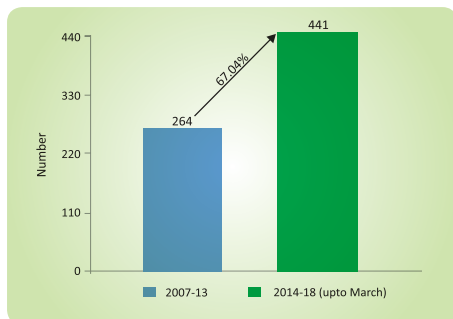
In Student Ready Scheme, started by Hon'ble Prime Minister on 25 th July 2015, the fellowship for working experience to the students has been revised to Rs. 3000pm from Rs. 750 pm.



Increase in fellowship of students given during experimental training

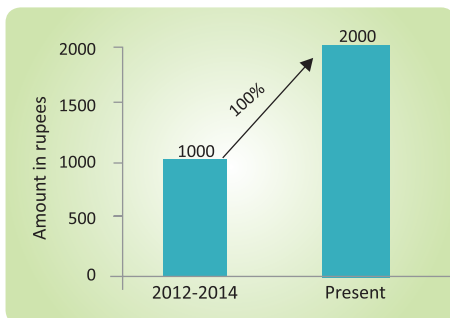


New experimental learning units opened in agricultural universities



New experiemental learning units provide actual working experience besides providing training to the students

National Talent Scholarship to graduate students doubled

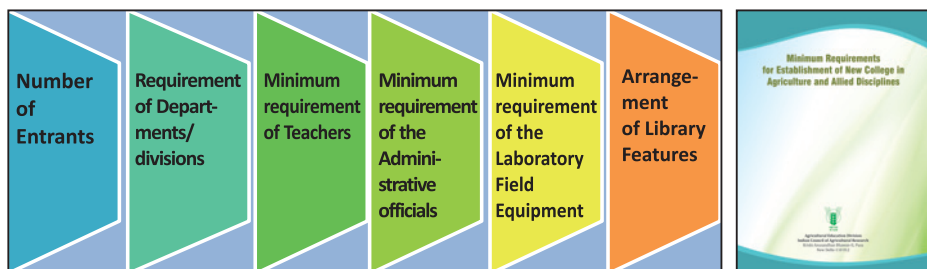


The scholarship amount raised from Rs. 1000 to Rs. 2000/month

Minimum Standards for establishment of New College

To decide the eligibility for opening up of a new Agricultural University/College, ICAR established Minimum Standards for Higher Agricultural Education for different disciplines of agricultural sciences.





Ranking of Agricultural Universities

- In line with the National Initiative on Ranking of Indian Institutions, ranking of Agricultural Universities has been done. Based on the evaluation, 57 agricultural universities have been ranked with a larger objective of improving the ranking of Indian universities in World University Rankings. The following top three universities in these rankings were honoured on ICAR Foundation Day Award Ceremony held on 16 July 2017.

ICAR-National Dairy Research Institute, Karnal

ICAR-Indian Agricultural Research Institute, New Delhi

Punjab Agricultural University, Ludhiana



Introducing Agricultural Courses (Syllabus) at School level:

- In order to attract young talent in agriculture DARE/ICAR has developed a syllabus for introduction at higher secondary level in schools. Following the recommendation of the Cabinet to this effect in 2015, DARE/ICAR is continuously raising the issue of introduction of agriculture in curricula at school level with the HRD ministry.



Pt. Deendayal Upadhyay Unnat Krishi Shiksha Yojana

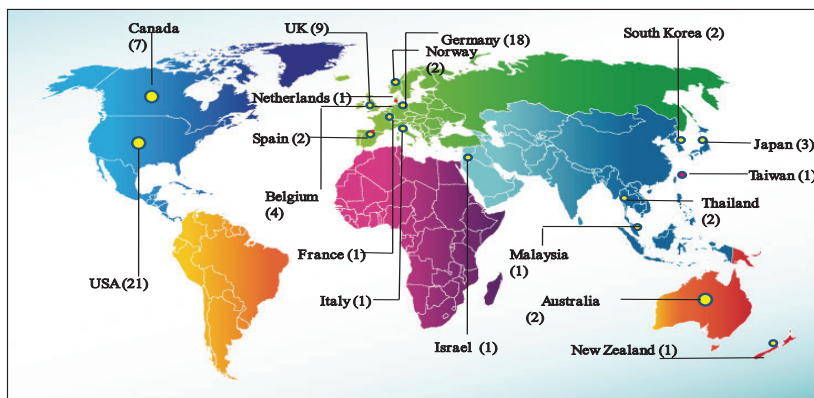
- 130 training programmes organized on Organic Farming/ Natural Farming and Cow based Economy in 32 SAUs
- Identified 100 Centers with budget- Rs. 5.35 crores
- Organized 5 regional workshops cum- training (Lucknow, Kolhapur, Avikanagar, Amritsar and Jhansi)

Netaji Subhas – ICAR International Fellowships

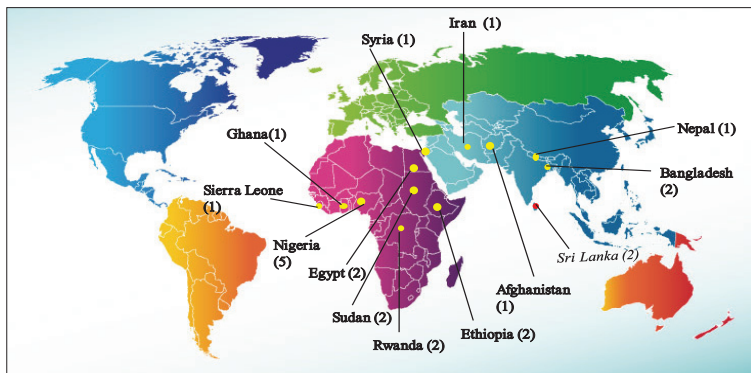
- To develop competent human resources that are trained in the world's best identified laboratories (for Indian candidates) –105 students benefited.
- To expose overseas candidates to the best Indian Agricultural Universities (AUs) and research institutes to facilitate experimental training work experience – 28 students.
- Under this scheme 30 fellowships are awarded every year. Fellowship of US \$2000 pm each for Indian candidates going abroad and Rs 40,000 pm for overseas scholars coming to India are being awarded by ICAR. Both the fresh and the serving persons in ICAR and Agricultural Universities are eligible for this fellowship.



Placement of Indian Students under Netaji Subhas ICAR International Fellowships

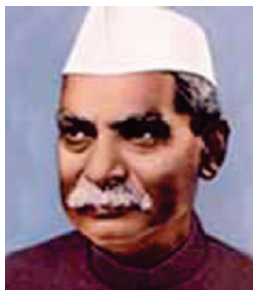


Placement of Overseas Students under Netaji Subhas ICAR International Fellowships

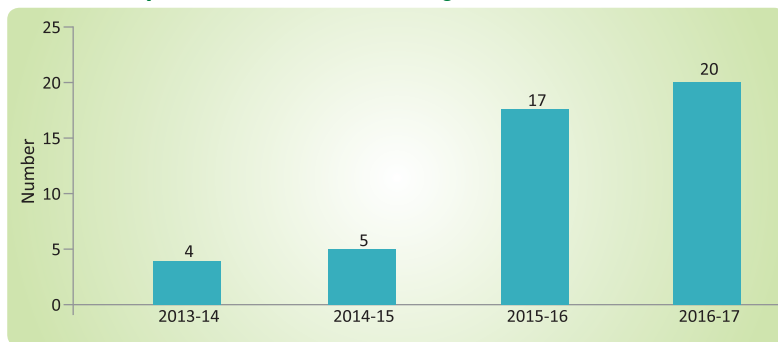


National Agricultural Education Day

For creating awareness about agriculture and agricultural education among school children, the Govt. has declared 3rd December as National Agricultural Education Day in the memory of First Food and Agriculture Minister of the country, Dr. Rajendra Prasad



Emphasis on Accreditation of Agricultural Universities



New guidelines namely, "Guidelines for Accreditation of Higher Agricultural Educational Institutions in India" developed and published.

NEW INITIATIVES TAKEN BY THE ICAR TO DOUBLE THE FARMERS' INCOME

New Crop Varieties Developed

During the last four years, a total of 795 varieties were released as against a total of 448 varieties during the previous 4-year period. Important milestones include the following

- **Development of biofortified varieties:** ICAR developed 20 bio-fortified varieties of field and horticulture crops for the first time during this period.
- **Climate resilient crop varieties:** A total of 495 varieties were released during 2014-18 till date as against a total of 289 varieties during the previous 4 years.
- **Development of Bt cotton varieties:** For the very first time, ICAR developed eight GM Bt cotton varieties tolerant to cotton boll worm for commercial cultivation for which seeds will be available for farmers @ Rs. 200/kg. Seed of these varieties can be used by farmers for 2-3 years which is not possible in case of Bt cotton hybrids where costly seed has to be purchased every year.
- **Extra early maturing variety:** IPM 205-7 (Virat)], an extra-early (52-55 days) and high protein variety of mungbean and Pusa Ageti Masoor (L 4717), short duration (100 days) and Iron rich variety of Lentil are the first of their kind in

respective crops.

- **Varieties suitable for conservation agriculture:** Wheat variety, HD CSW 18 is the first variety specifically bred for Conservation Agriculture which will reduce water requirement, less input and will help in residue management. Another such variety HD 3117 has also been released for late sown situation under conservation agriculture system.
- **Use of molecular tools in crop improvement:** ICAR developed 24 varieties using Marker Assisted Selection (MAS) during the last 4 years as compared to only two varieties during the preceding 4-year period.

Technologies developed to create wealth from waste

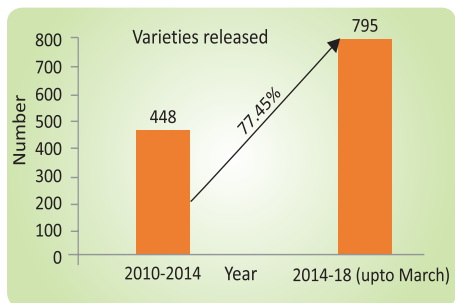
ICAR institutions have developed more than 30 technologies to create wealth from agricultural wastes. These include the production of high value products from the use of banana stems, water hyacinth, coconut fiber and husk, bamboo waste, residue of cotton, production of chitin and chitosan from lobster shell, nutraceutical products from seaweed, Alcoholic drink with medicinal properties from kinnow peels, partial board from jute sticks etc.

State specific documents in relation to doubling the income of farmers by year 2022

In order to strengthen the government's efforts in doubling the income of the farmers, ICAR developed State Specific Strategy Documents while focusing on technology delivery for all the states. These documents have been released during the ICAR-Director's Conference on March 8, 2018. For their implementation in all the agro-ecologies of the concerned states, these documents have been presented to Chief Ministers as well as Chief Secretaries of all the states.



New crop varieties for increasing productivity and income

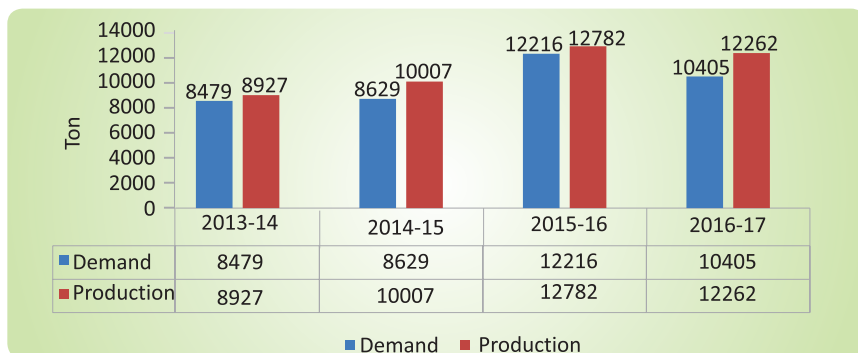


Crop group	March 2010 to April 2014	March 2014 to April 2018
Cereals	255	437
Pulses	63	112
Oilseeds	70	116
Others	60	130
Total	448	795

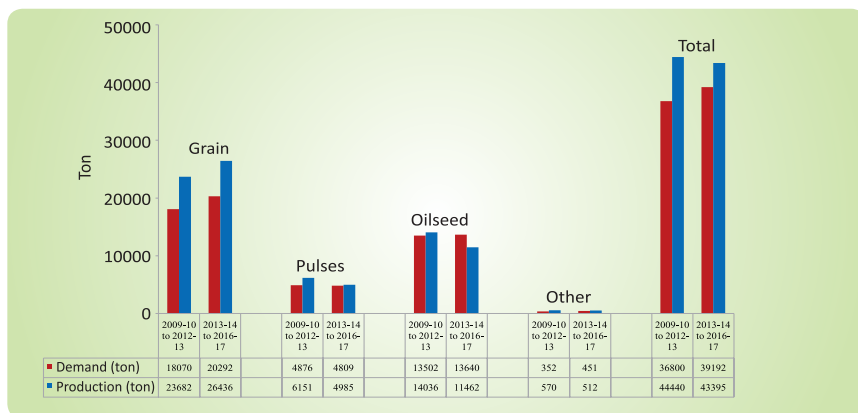
Crop varieties released during the 4 years (2014 to 2018) and previous 4 years (2010 to 2014)

Breeder Seed Production

Breeder seed production was higher than indent in most of the crops



Crop wise Breeder seed indent and production during present four years and previous four years



Varieties developed by use of molecular tools in crop improvement

May 2010 to April 2014	May 2014 to April 2018
2 varieties developed <ul style="list-style-type: none"> • Pusa Basmati 1 (rice) • HBB 67 Improved (Pearl millet) 	24 varieties developed <ul style="list-style-type: none"> • 19 varieties of rice • 1 variety of bread wheat • 4 varieties of Maize

Development of Bio-fortified varieties as a solution to fight against malnutrition

Paddy: CR Dhan 310: Protein 10.3 percent

Paddy: DRR Dhan 45: Zinc 22.6 ppm

Paddy: GN R-4: High Iron (91ppm), dietary fibres (2.87%) & beta- carotene (0.53ppm)

Paddy: DRR Dhan 48: High Zinc (22ppm)

Paddy: DRR Dhan 49: High Zinc (25.2 ppm)

Wheat: WB 02: high Zinc (42.0 ppm) & Iron (40.0 ppm)

Wheat: HBPW 01: Iron (40.0 ppm) and Zinc (40.6 ppm)

Maize: Pusa Vivek QPM 9 Unnat: Pro-vitamin- A (8.15 ppm), Lysine (2.67%) & Tryptophan (0.74%)

Maize: Pusa HM 4 Unnat: Tryptophan 0.91% and Lysine 3.62 %

Maize: Pusa HM 8 Unnat: Tryptophan (1.06 %) and lysine (4.18 %)

Maize: Pusa HM 9 Unnat: Tryptophan (0.68%) and lysine (2.97%).

Bajara: HHB 299: Iron (73.0 ppm) and Zinc (41.0 ppm)

Bajara: AHB 1200: Iron (73.0 ppm)

Masoor: Pusa Ageti Masoor: Iron (65.0 ppm)

Mustard: Pusa Double Zero Sarson 31: Erucic acid <2.0 percent and glucosinolate<3.0 ppm

Mustard: Pusa Mustard 30: Erucic acid < 2.0 percent

Cauliflower: Pusa Beta Kesari 1: Beta Carotene 8.0 - 10.0 ppm

Sugarbeet: BhuSona: high beta carotene (14.0 mg/100g)

Sugarbeet: Bhu Krishna: Anthocyanin (90.0 mg/100g)

Pomegranate: Solapur Lal: High Iron (5.6- 6.1mg/100g), Zinc (0.64-0.69 mg/100g) and Vitamin C (19.4-19.8 mg/100g)



Higher revenue earned from the Mega Crop Varieties

- Sugarcane variety Co-238, which has an average sugar recovery of upto 12% has achieved a coverage of more than 14.75 lakh hectares in UP and adjoining states. This variety gives 1.5 to 2 % more sugar as compared to other popular varieties. During the last four years this variety alone has given the farmers and sugarcane millers an additional income of over Rs. 6550.00 crores as compared to the popular varieties.
- Wheat flagship variety HD 2967, has currently occupying about 10 million ha area across the country and unprecedented breeder seed demand has been witnessed which has touched 3600 quintals during 2017-18, highest ever demand of a single variety in the history of Indian agriculture
- Basmati rice variety, PUSA Basmati 1121, a landmark variety developed by Indian Agricultural Research Institute, New Delhi has earned the country foreign exchange equivalent to Rs. 71900 crores during 2014-17 which was 9100 crores (14.5%) higher than the foreign exchange earned by the variety during 2011- 2014 (Rs. 62800 crores).
- The Tomato variety, Arka Rakshak, developed by Indian Institute of Horticultural Research, Bangaluru, having resistance to leaf curl virus, bacterial wilt and early blight has out-performed all the commercial hybrids available in the market with yield potential of 120 tonnes per hectare. The variety has spread across the country currently occupying over 20,000 acres in 27 states and has generated revenue worth over 400 crores to the farmers during the last 4 years.



New Varieties of Horticultural Crops Developed

S. N.	Crops	No. of Varieties Developed
1	Fruits	10
2	Vegetables	78
3	Flowers	3
4	Potato	2
5	Onion	11
6	Garlic	8
7	Spices	14
8	Coconut	7
9	Tubers	2
10	Cashew	1
Total		136

High Density Planting for More Productivity of Apple

Implantation: High density (2.5mX 2.5m)

Pruning: Regular annual pruning and sorting along with Modified Central Leader system

Drip irrigation and recommended fertilizers application and plant protection measures.

The Technology has Potential for increasing the productivity upto - 30-35 tons / ha from existing 7.5 tons / ha.



Some of the new varieties of horticulture crops



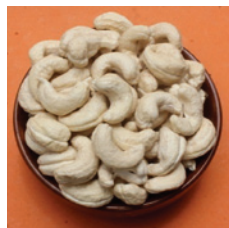
Medika : Grapes full of Anti-oxidants

Grape variety Medika is best for high juice and anti-oxidant level.



Guava: Hybrid Arka Kiran

Fruit weight: 200-220 gm
High level of Lycopene: 6-7 mg/100gm
Soft seed productivity: 30-35 ton/ha



Hybrid Cashew (H-126)

jumbo nut (11-12gm/nut). Good for export purpose due to big nut size.



Ajmer Coriander - 1

Good for seed production and green vegetable
High seed productivity: 12.5 quintal/ ha
Duration: 150-152 days. Stem gall resistant

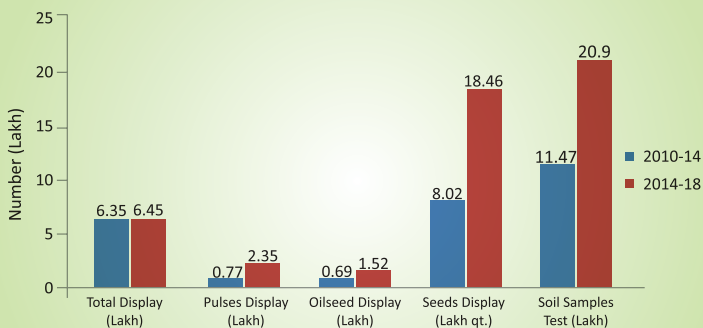


LAB TO LAND: IMPORTANT INITIATIVES

Establishment of KVKs for farmers



Technology demonstration, seed production and soil testing





Extending training and technology support to the farmers for Quality seed, planting material and animal/fish seed production



On farm trials conducted by KVKs

1.32 lakh

Front line Demonstrations conducted by KVKs

5.04 lakh

Farmers trained

53.96 lakh

Agricultural Extension Personnel trained

5.62 lakh



participation of 540.04 lakh farmers in extension activities





Quality seeds produced and distributed by KVKs

184600 tonnes

Plantation material produced and distributed by KVKs

1711.91 lakhs

Production of livestock/ fish strains/ fingerlings

950.22 lakhs

Analysis of soil nutrient status and water samples

20.90 lakhs



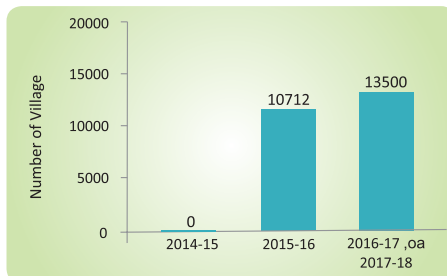
Mobile Agro Advisory provided to the farmers 1022.67 lakhs

We are committed to doubling of farmers' income by 2022.

Mera Gaon Mera Gaurav

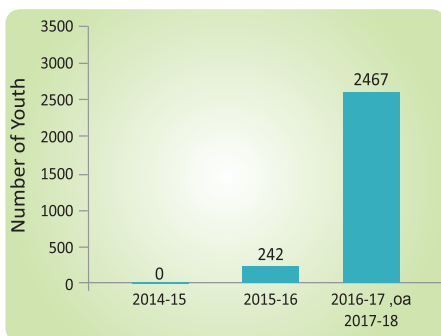


- Under this programme a group of 4 Agricultural Scientists (Multi-disciplinary) from ICAR institutes and State Agricultural Universities work with 5 identified villages and share their experiences on agriculture, horticulture, animal husbandry, fisheries, apiculture and other agriculture technologies to solve the problems of farmers and hence increase their income.
- Facilitation of knowledge, skill and information to farmers
- Issuing timely alerts and advisories
- Providing information on inputs, service providers etc.



- Develop convergence with different departments and organizations for the development of villages
- Scientists have started working in 13500 villages

Attracting and Retaining Youth in Agriculture (ARYA)



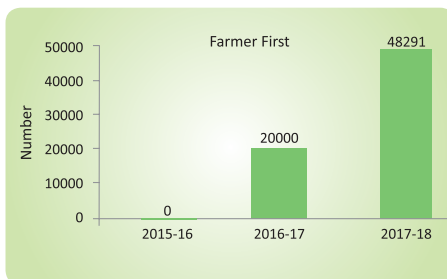
- Attract and empower the youth in rural areas for various agriculture, allied and service sector enterprises
- Emphasis on processing, value addition, marketing and networking
- Entrepreneurship development and value chain management
- Implemented through 25 KVKs in 25 States
- 930 units established giving benefits to 2467 village youths

- 97 KVKs trained 3318 rural youth in various employment related activities/projects by organizing 190 training courses in collaboration with Indian Agricultural Skills Council and RKVY during 2016-17.



Farmers First

- Under this scheme the scientists are working with more than 48291 farm families directly under this project through 51 centres operational at various ICAR institutes /Agriculture Universities all over the country.
- Enriching Farmers –Scientist interface.
- Application of technology and feedback according to the local conditions.
- Work on farmers participation and group formation.
- Compilation of experiences gained from this scheme and its popularization.



Awareness programme on Crop Insurance Scheme and World Soil Day

Programmes on Prime Minister Crop Insurance Scheme, World Soil Day and Sankalp Se Siddhi were organized by KVKs. Sankalp Se Siddhi programmes organised at 562 locations in all parts of the country using KVK platforms.

In this awareness programme more than 10 lakh farmers, more than 50 central and state ministers, 300 MPs, 500 MLAs and higher officials of state and central government participated.

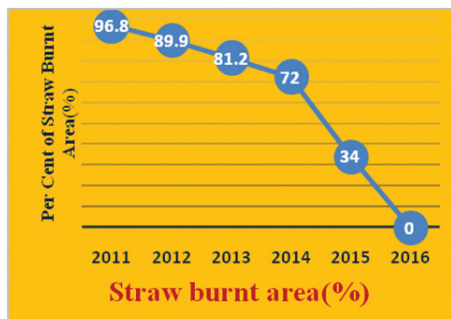
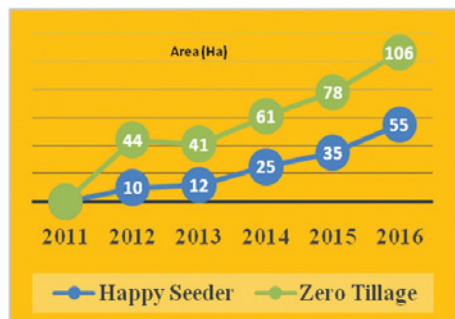


KVKs Initiatives to prevent burning of straws and stovers in fields by farmers

ICAR and DAC&FW worked in close cooperation to minimize this malpractice among farmers



- Massive campaign by 35 KVKs
- 45000 farmers motivated
- Special Vad-Samvad programmes organized on DD Kisan Channel
- 1200 live demonstrations conducted in 4708 ha area on Happy Seeder, Zero till machine, Baler cum knotter and other residue management practices

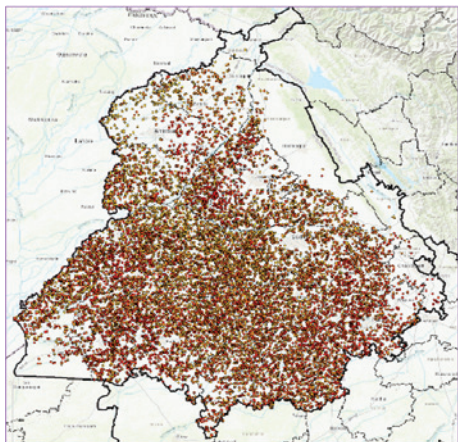


Strategy on crop residue management prepared by ICAR

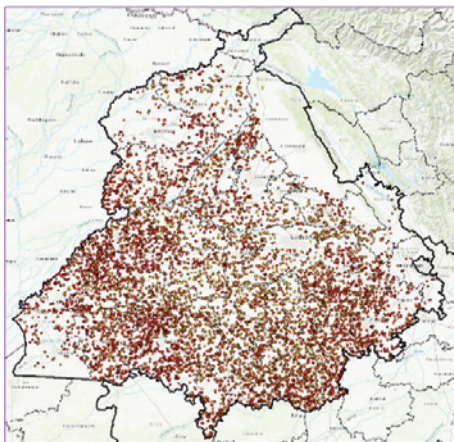


Monitoring of activities of burning of crop residue during last two years in Punjab and Haryana fields through satellite

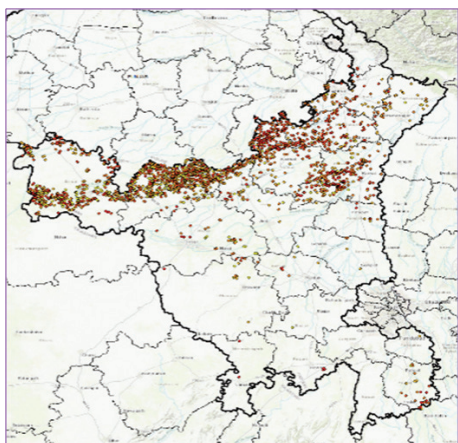
Punjab 2016



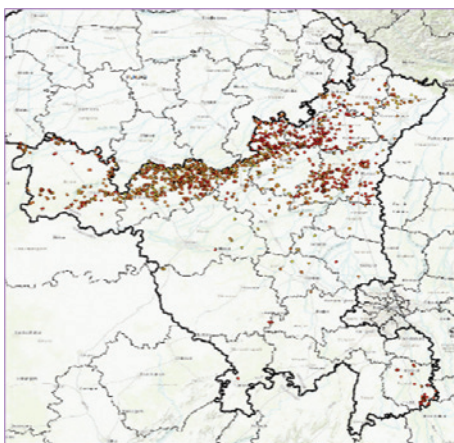
Punjab 2017



Haryana 2016



Haryana 2017



Monitoring period 10th October – 10th November

Krishi Unnati Mela



The Prime Minister, Sri Narendra Modi lays Foundation Stone for 25 Krishi Vigyan Kendras at Krishi Unnati Mela, in Delhi on March 17, 2018.

The Krishi Unnati Mela, is being organized in the Indian Agricultural Research Institute, Pusa, New Delhi, regularly since 2016 with the objective of providing information about new technologies developed by our scientists on agriculture, horticulture, animal husbandry, fisheries, beekeeping etc. and ensure that the advanced agricultural technologies reach the farmers in all nooks and corners of the country, to enable establishment of agriculture as a profitable business to increase the income of farmers. The fairs were very successful and more than 5 lakh farmers participated in the event every year. During the year 2018, the Krishi Unnati Mela was organized during March 16-18.

- Hon'ble Prime Minister addressed farmers, inaugurated the Jaivik Kheti portal and laid the foundation stone of 25 KVKs on March 17, 2018.
- Krishi Karman Award & Pandit Deen Dayal Upadhyaya Krishi Vigyan Protsahan Puruskar were conferred by the Prime Minister.
- Display of agri and allied sector technologies, live demo, theme pavilion etc.

Major highlights of the mela:

- More than 800 stalls



The Prime Minister, Sri Narendra Modi addressing the audience at Krishi Unnati Mela 2018 at IARI Mela ground on 17.03. 2018.

- Display of latest Agri & allied sector technologies through 800 stalls.
- Live Demonstrations on Micro-Irrigation, waste water utilization, Animal Husbandry (Pashudhan) and Fisheries etc.
- Seminars, conferences and question answer sessions on various contemporary topics in agriculture and allied fields held to solve the problems of the farmers/ agricultural entrepreneurs.

Pavilions with following themes created:

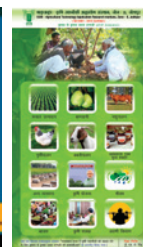
- Dedicated stall for Doubling Farmers income by 2022
- Stall for Jaivik Maha Kumbh on organic farming
- Stall dedicated to Sahkar Sammelan (Cooperatives)
- Pavilion for inputs (seeds, fertilizers, pesticides supplying agencies)
- Pavilion for Horticulture/ Dairy, Animal Husbandry, Fisheries
- Dedicate Pavilion highlighting Agricultural research and extension activities of ICAR
- Special stalls of Ministry of Textile, Ministry of Food Processing and Industry, Ministry of Commerce and North East Council



New ICT (Information and Communication Technology) Apps and Portals

Web Portal – Krishi Vigyan Kendra Knowledge Network

- Pusa Krishi- Technology Mobile App
- Mobile App “riceXpert”
- e-Kapas Network and Technology Documentation
- Pulse Expert for diseases and pests
- e-Pest Surveillance and Advisory System for horticultural crops
- Online Pest Monitoring and Advisory Service
- Pest Forewarning application
- Krishi-Digital data portal
- During the last 4 years the ICAR research institutes have developed more than 130 technology apps on various agricultural and allied sector technologies.

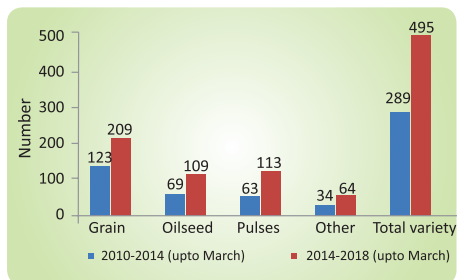


Four new ICAR awards established

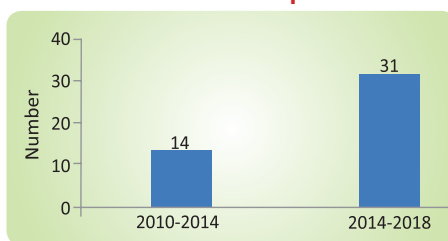
Name of Award (Numbers)	Year of Institution	Value of the Award
1) ICAR Administrative Awards (3 awards one each in Technical, Administrative & Supporting categories)	2014	Rs. 51,000/- each
2) Haldhar Organic Farmer Award (1)	2015	Rs. 1,00,000/-
3) Pandit Deendayal Antyodaya Krishi Puruskar (1 National & 11 Zonal Awards)	2016	National: Rs. 1,00,000/- Zonal Rs. 51,000/- each
4) Pandit Deendayal Rashtriya Krishi Vigyan Protsahan Puruskar (1 National & 11 Zonal Awards)	2016	National: Rs. 25,00,000/- Zonal: Rs. 2,25,000/- each

New initiatives on development of climate resilient and sustainable production system

Abiotic stress tolerance varieties of crops released



Number of Integrated Farmers Systems Models Developed



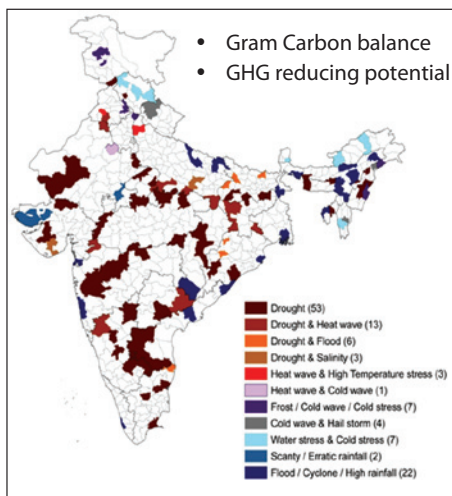
- During the period 31 multi-enterprise IFS models encompassing field and horticultural crops, agroforestry, livestock, fisheries suiting to small and marginal farmers of different agro-ecological regions of the country have been developed to enhance farm productivity and profitability.
- IFS linked to profitability, livelihood generation and risk minimization. IFS models are useful in doubling farmers' income if implemented through dedicated schemes.
- IFS intervention can increase Farmers' income to the tune of Rs. 1.5 -3.6 lakhs per annum.
- Kerala government sanctioned Rs 1470 lakhs (2017-18 to 2018-19) to establish 2300 models (@2 in each Panchayat).
- IFS provide more stable incomes even during years of extreme weather events.
- Net Profit (mean of 3 years): Rs 2.5 lakhs.

These models are being promoted across the country in order to reach the farmers through different ICAR institutes, Agricultural Universities and KVKs.



151 Climate Resilient Villages Established by KVKs

ICAR and DAC&FW departments are working together to demonstrate 100 climate-resilient and integrated farmers' systems technologies at the farmers' fields.



NICRA-NMSA interface workshop

- 5000 villages in Maharashtra included with the support of World Bank
- Odisha has also signed MoU with ICAR
- Concept note ready for J&K

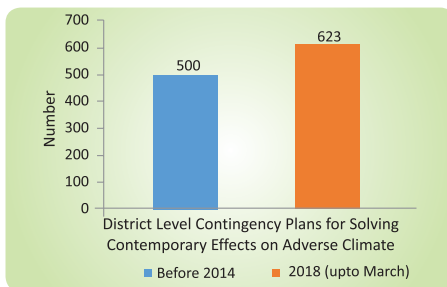
Considering the climate sensitivity Agriculture Contingency Plans were prepared

Under this scheme, the following activities have been undertaken by ICAR

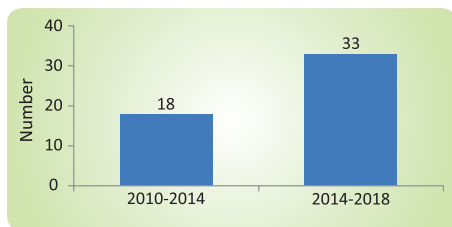
- Custom hiring of farm machinery for the benefit of small & marginal farmers
- Demonstrations in 6803 farmers' fields covering 3431 ha
- 722 training programs organized covering 27887 farmers
- Smart farmer certificates awarded to 4605 NICRA farmers
- Identified 27 climate resilient practices for up-scaling under NMSA

District Contingency Plans

- Developed contingent crop plans for 623 districts which includes technological solutions to overcome weather disasters in horticulture, animal husbandry, poultry farming, fisheries and other fields.
- These contingency plans contain information on alternate crop varieties/crops to be chosen and agronomic measures to be taken up in case of weather related extreme events.
- Further, strategies for contingency situations in livestock, poultry and fisheries have also been included.
- The contingency plans are available at ICAR / DAC websites [http:// farmer.gov. in/](http://farmer.gov.in/), and <http://agricoop.nic.in/acp.html>, <http://crida.in/> and circulated to all state agriculture departments.



Package of practices for Organic Farming Developed



Organic farming package of practices for 33 crops/cropping systems have been developed by ICAR which are being promoted in 20 states including north eastern states through NCOF/PKVY/ NHM.

National Phenomics Facility at Indian Agricultural Research Institute, Pusa (New Delhi)

Honourable Prime Minister dedicated the Nanaji Deshmukh National Phenomics Facility to the Nation. This facility besides promoting state of the art research in Agriculture including crop sciences, will prove a boon to overcome the adverse effects of the changing climate on various agricultural crops.



Digital portable soil test kit cum mini Lab (Mrida Parikshak)

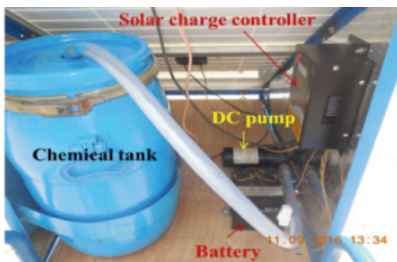
- Capable of measuring all the 12 soil parameters of Soil Health Card (pH, EC, OC, available N, P, K, S and Fe, Zn, Cu, Mn&B).
- The kit is equipped with GPS, Shaker and balance. The kit is complementary to soil testing labs
- The Kit is useful for rapid analysis of soil samples for generating soil health cards along with the crop and soil specific fertilizer nutrient recommendations, monitoring of soil fertility and preparation of geo-referenced soil fertility maps at block/village level. Validated using different soil types revealed about 90% accuracy of STL
- Area of operation : Village/Panchayat level, KVKs and STLs
- More than 1096 units already sold



Multipurpose, inflatable, flexi Rubber Dam for watershed

- Developed multipurpose rubber dam for watershed to reduce soil erosion, create water storage facility, enhance ground water recharge and quick & safe disposal of sediments. It can store 20-25% additional water in comparison to traditional checkdam to provide irrigation in critical stage and to facilitate ground water recharging with yield advantage by 62% in Kharif rice and 47% in vegetables during Rabi. This technology has a potential to benefit farmers in rainfed agro-ecosystems by providing irrigation. This can also be used in coastal creeks, estuaries, streams and channels to restrict the inflow of sea water into land mass during cyclone, tsunami & high tides.
- Cost : Nearly Rs. 8 lakhs (width 5 m x 1.5 m height)
- The investment on rubber dam can be recovered within a span of three years.
- Installed 43 rubber dams in 6 states (Orissa, Uttarakhand, Maharashtra, Madhya Pradesh, Gujarat and Jharkhand)



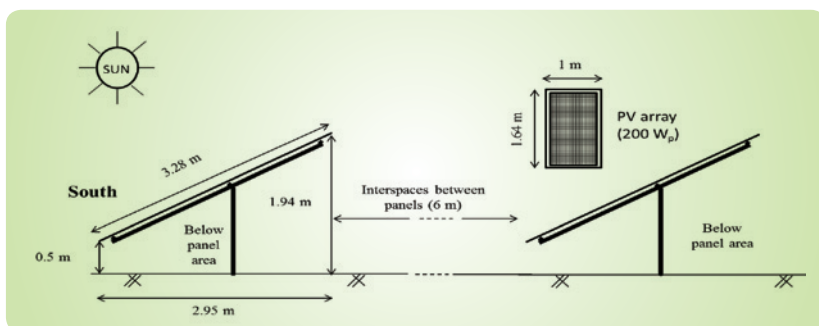


Solar PV Sprayers for spraying Agro-Chemicals under Solar Farming System developed

Agri- Voltaic System/ Solar Farming

Agri-Voltaic System

Crop cultivation together with electricity generation through Photo Voltaic (PV) module on a single piece of land.



Model Area: 1 hectare

- Solar PV generation efficiency : 0.5 Mega Watt
- Daily electricity generation : 2500 Kilo Watt per hour
- Investment : Rs 2.5 Crore
- Income generated through electricity : Approximately Rs. 45 lakhs annually.
- Age of system : 25 years
- Payback period : 7 years.
- Green gram productivity : 4.0 q/ ha

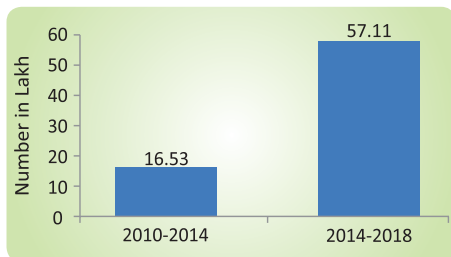
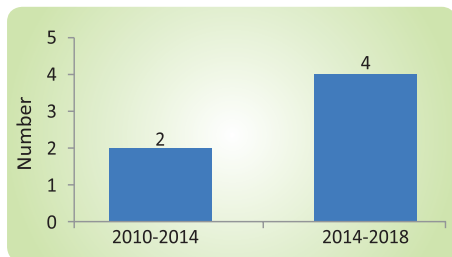
Ridge furrow seed drill for In-situ moisture conservation under Solar Farming System



Agricultural Technologies for Income and Nutritional Security

Developed and released 4 backyard poultry varieties having double the egg production (50-70 eggs/annum) compare to local / native variety

Poultry Seed Provisioned to farmers and development agencies



JHARSIM - Multi-Coloured rural bird for Jharkhand and Bihar (Annual egg production - Under rural / backyard system: 120-130 eggs)

NARMADA NIDHI – Dual purpose coloured rural poultry bird for the state of Madhya Pradesh (Annual egg production - Under rural / backyard system: 180 eggs)

KAMRUPA - Multi-Coloured bird for rural poultry for the State of Assam (Annual egg production - Under rural / backyard system: 118-130 eggs)

HIMSAMRIDHI- Location specific rural variety for Himachal Pradesh (Annual Egg Production: Under rural / backyard system: 140-150 eggs)

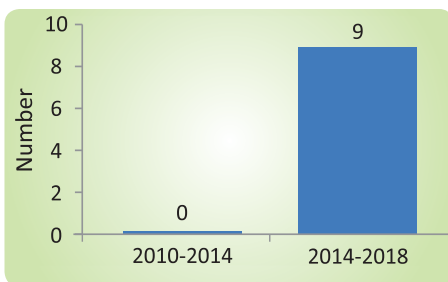


Seed provisioned to more than 5,000 farmer families benefited in various states of the country (including North Eastern Region)

In addition, during this period, a new advanced breed of sheep 'Abhishan' has been developed by ICAR for dry areas of the country which is capable of raising the income of sheep farmers

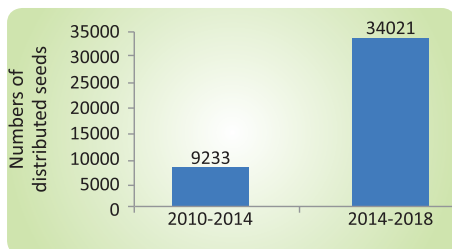
New Pig Varieties Developed

Developed and released 9 pig varieties. These improved crossbred varieties attain body weight more than 75 kg as compared to local variety weighing around 35-40 kg, thus providing double the income through sale on live weight basis at 8 months of age (slaughter age). The litter size is more than 8 as compared to around 5 in local variety.



HD-K75, Rani & Asha in Assam; Jharsuk in Jharkhand; Mannuthy White in Kerala; Lumsniang in Meghalaya; TANUVAS KPM Gold Crossbred Pig (Large White Yorkshire x Desi) in Tamil Nadu and "SVVU-T 17 Crossbred Pig", (Large White Yorkshire x Desi) in Telangana and Landly crossbred pig

Pig Seed provisioned to farmers and development agencies

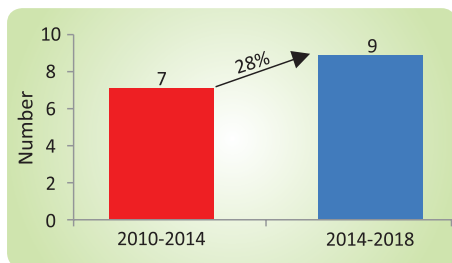


Seed provisioned to more than 3,000 farmer families benefitted in North Eastern Region and the state of Tamil Nadu, Andhra Pradesh and Jharkhand.



Vaccines against livestock diseases developed

Vaccine Developed



Vaccines developed against PPR, Sheep pox, Equiherpabort, Updated equine influenza, Classical swine fever and Johne's disease.



Diagnostic kits developed for animal diseases

The diagnostics are for: Japanese Encephalitis (JE), Brucellosis, FMD, Theileriosis, Listeriosis, Avian Influenza, E.coli in neo-natal kids, type-specific ELISA kit for differentiation of EHV1 & 4 Infection, Equine piroplasmosis, Sandwich ELISA for PPR antigen.



ICAR-NIVEDI conferred DBT Biotech Produce Award for development of Elisa Kit against Brucellosis

Fish breeding technologies

Developed breeding and seed production technologies for commercially-important species.

Marine

- Cobia (*Rachycentron canadum*)
- Silver pompano (*Trachinotus blochii*)
- Indian Pompano (*Trachinotus mookalee*)
- Orange-spotted grouper (*Epinephelus coioides*)

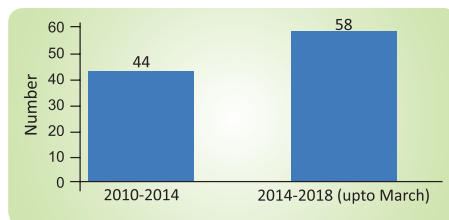
Brackishwater: Crescent Perch (*Terapon jarbua*)

Coldwater: Indian Trout (*Raiamas bola*)



Indian Pompano (*Trachinotus mookalee*)

Developed fish breeding technology



Cobia



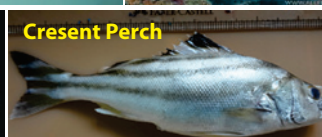
Pink Ear



Pompano



Grouper

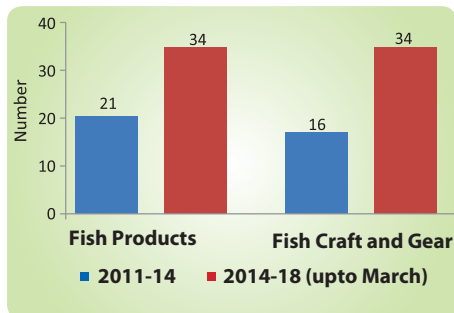


Crescent Perch

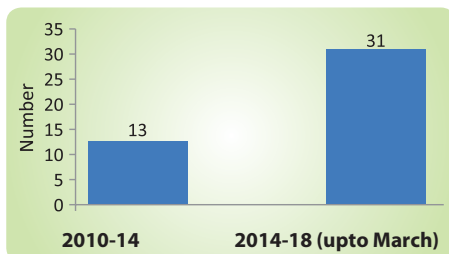


Indian Trout

Fish Products and Fishing Craft and Gear Designed



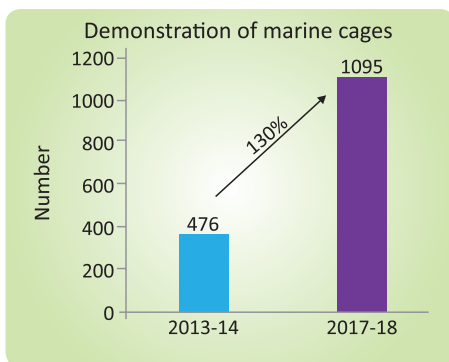
Fish Feed Developed



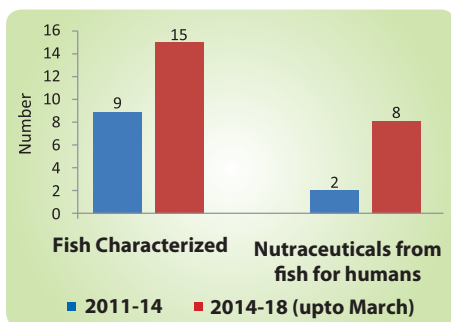
Open-Sea Cage Aquaculture – A New Paradigm



- Marine cage culture of *Cobia (Rachycentron canadum)* and Silver Pompano (*Trachinotus blochii*) - technology demonstration
- Demonstrated average production levels of 3.0 tonnes in 6 months (6 m dia x 6 m depth) 25-30 kg/ m³
- Cost of production Rs. 180/kg for Cobia and Pompano. Farm gate price - Rs. 350/kg (Cobia) & Rs. 300/kg (Silver pompano)
- 1095 cages installed all along the coast of India with the technical support of ICAR-CMFRI, Kochi



Fish Species Discovered & Characterized and nutraceuticals developed from fish for human health



Indigenous fish feed formulation for enhancing efficiency & cutting cost developed



Nutraceuticals from Aquatic Organisms

Development of different high –value compounds and nutraceuticals for human health including

- Green mussel extract (Cadamin™ GMe), Green algal extract (Cadamin™ GAe)- for pain & arthritis
- Seaweed antidiabetic extract (Cadamin™ ADE) - a green remedy for type-2 diabetes
- Seaweed anti-obesity extract (Cadamin™ ACE) – a nutraceutical product to combat obesity/ dyslipidemia
- Seaweed nutraceutical drink 'Nutridrink' – for enhancing micronutrients



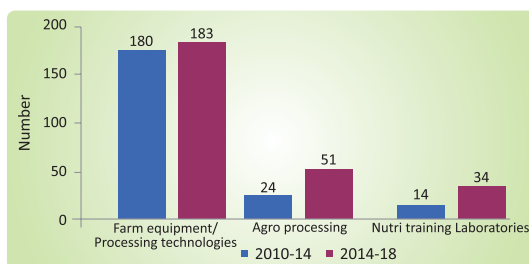
Development of New-Generation fishing vessels

Design of a new-generation, fuel-efficient and multi-purpose fishing vessel developed and commissioned.

Multipurpose fishing vessel for Trawling, Gill-netting and Long-lining



Engineering technologies for reducing production costs, improving agricultural income and reducing drudgery



N.	Particulars	2010-14	2014-18
1.	No. of farm implements/ processing technologies developed	180	183
2.	Number of technologies commercialized/ license agreement signed with firms	51	68
3.	No. of rural youth trained for establishment of custom hiring centres	255	885
4.	Number of EDPs trainings conducted	97	113
5.	Agro-processing centres established	24	51

Assistance for start-up / agricultural entrepreneurs

ICAR has developed a strong support mechanism to facilitate technology incubation activities and techno-entrepreneurs through a network of agri-business incubation centers established in 25 institutes. Under this initiative, ICAR is helping 194 start-ups/ agricultural entrepreneurs across the country to setup their own enterprises. Out of these agro-entrepreneurs/start-up companies, 17 companies displayed their products in full cooperation with ICAR institutes at the Innovation and Entrepreneurship (FINE) exhibition organized at Rashtrapati Bhavan on March 19, 2018. This function was inaugurated by Hon'ble President of India Shri Ramnath Kovind.

The Start-up entrepreneur, Dr. Chaitra Narayanan, M/s Codagu Agritech from Kushal Nagar, Karnataka; a team of Drs M Anandaraj, R Dinesh and Y K Bini of ICAR-Indian Institute of Spices Research and 15 other agriprenures presented a brief summary about their initiatives.



Inauguration of Innovation and Entrepreneurship exhibition by the Hon'ble President of India



Start-up entrepreneurs presenting their technologies



Fourth ASEAN–India Ministerial level meet on Agriculture and Forestry



Fourth ASEAN-India Ministerial level meet on Agriculture and Forestry was held on 12 January, 2018 at New Delhi, India in which the ways and means for taking continued efforts for future initiatives in the areas of agriculture and forestry were discussed. The meeting was co-chaired by, Hon'ble Agriculture and Cooperative Minister of Thailand Mr. Grisada Bunrech and Hon'ble Union Minister of Agriculture and Farmers Welfare, Govt. of India, Shri Radha Mohan Singh.

The meeting highlighted the need for taking fresh initiatives towards further strengthening the collaboration in the area of agriculture and forestry between ASEAN and India and deliberated on developing a strong roadmap in this

regard.

The agenda was accepted and the report and recommendations of the ASEAN working group and Co-Chairs on Agriculture and Forestry were accepted. In this meeting the progress on medium-term plan of ASEAN-India cooperation in agriculture and forestry (2011-15) were noted. It was agreed that by increasing ASEAN-India collaboration, the solution for various problems confronting agriculture and forestry, especially the challenges of food security and climate change, that have become international issues, can be resolved by means of collaborative efforts in capacity building, agricultural education, research and development.



DOUBLING OF FARMERS' INCOME

SEVEN POINTS STRATEGY

The Hon'ble Prime Minister has set a target before all of us, viz. "Doubling of Farmers' income by 2022". To achieve this target, the Hon'ble Prime Minister has also advocated a Seven Points Strategy:

1. Special focus on irrigation with sufficient budget, with the aim of "Per Drop More Crop".
2. Provision of quality seeds and nutrients based on soil health of each field.
3. Large investments in Warehousing and Cold Chains to prevent post-harvest crop losses.
4. Promotion of value addition through food processing.
5. Creation of a National Farm Market, removing distortions and e-platform across 585 Stations.

6. Introduction of a New Crop Insurance Scheme to mitigate risks at affordable cost.

7. Promotion of ancillary activities like poultry, beekeeping and fisheries.

At present, the Government is following various schemes to synchronise with higher gains for the farmers:

I For higher production through productivity gains:

- ♦ National Food Security Mission (NFSM)- for cereals, pulses, oilseeds, nutri-rich cereals, commercial crops
- ♦ Mission for Integrated Development of Horticulture (MIDH) for high growth rate of horticulture crops.
- ♦ National Mission on Oilseeds and Oil Palm (NMOOP) launched in 2014-15 for increasing production of oilseeds and Oil Palm.
- ♦ Rashtriya Gokul Mission launched



in December 2014 for gene pool of indigenous cattle and buffaloes

- ♦ National Livestock Mission launched in 2014-15 to ensure intensive development of livestock especially small livestock (sheep/goat, poultry, etc.) along with adequate availability of quality feed and fodder.
- ♦ Blue Revolution- in December, 2015 Hon'ble Prime Minister announced "Blue Revolution" scheme for the fisheries development, by enhancing production and productivity of Integrated Inland and Marine Fisheries resources

II For reduction in cost of cultivation:

- ♦ Soil Health Card (SHC) (2 year cycle) - ensure judicious and optimal use of fertilizer application.
- ♦ Neem Coated Urea (NCU) is being promoted to regulate use of urea, enhance availability of nitrogen to the crop and reduce cost of superfluous fertilizer application
- ♦ Pradhan Mantri Krishi Sinchai Yojana (PMKSY) micro irrigation component (1.2 million ha/yr target)- with the motto of 'Har Khet Ko Paani' for providing end-to-end solutions in irrigation supply chain, comprising water sources, distribution network and farm level applications.
- ♦ Paramparagat Krishi Vikas Yojana (PKVY) to promote organic agriculture. This will improve soil health and organic matter content and increase net income of the farmer so as to realise premium prices.

III To ensure remunerative returns:

- ♦ National Agriculture Market Scheme (E-NAM) is an innovative market process to revolutionize agrimarkets by ensuring real-time better price discovery, bringing in transparency and competition to enable farmers to get improved remuneration for their produce, moving towards 'One Nation One Market'.
- ♦ "The Agricultural Produce and Livestock Marketing Promotion & Facilitation) Act, 2017" has been released on 24th April, 2017 for its adoption by States/UTs, with provisions includes setting up of private markets, direct marketing, farmer-consumer markets, special commodity markets, declaring warehouses/silos/cold storages or such structures as market sub yards.
- ♦ Warehousing and post-harvest loans at concessional rate of interest so as to discourage distress sale by farmers and to encourage them to store their produce in warehouses against negotiable receipts.
- ♦ Minimum Support Price (MSP) notified for certain crops.
- ♦ Procurement of oilseeds, pulses and cotton are undertaken by central agencies at MSP under Price Support Scheme (PSS) at the request of the State Government concerned.
- ♦ Market Intervention Scheme (MIS) for procurement of agriculture & horticulture products, which are perishable in nature and are not covered under PSS



IV For risk management and sustainable practices:

- ♦ Pradhan Mantri Fasal Bima Yojana (PMFBY) & Restructured Weather Based Crop Insurance Scheme (RWCIS) provides insurance cover at all stages of the crop cycle including post-harvest risks in specified instances and available to the farmers at very low rates of premium.
- ♦ Mission Organic Farming in North-East- MoVCD (NE)- for realizing the potential of organic farming in the North Eastern Region of the country

V Allied activities:

- ♦ “Har Medh Par Ped” launched during 2016-17 to encourage tree plantation on farm land along with crops/ cropping system. The scheme is being implemented in the states those have notified/liberalized transit regulations for transport of timber.
- ♦ National Bamboo Mission has been announced in the Union Budget 2018-19 for value chain based holistic development of this sector as a supplement to farm income.
- ♦ Bee-Keeping to increase the productivity of crops through pollination, and honey production to supplement the income of farmers.
- ♦ Dairying: There are three important schemes for dairy development: National Dairy Plan-1 (NDP-1), National Dairy Development Program (NPDD) and Dairy Entrepreneurship Development



Scheme

- ♦ Fisheries: Foreseeing high potential in fisheries sector, a Blue Revolution with multi dimensional activities mainly focusing on fisheries production, both inland and marine is being implemented.

VI For investment in agriculture:

- ♦ Rashtriya Krishi Vikas Yojana (RKVY) scheme has been approved for continuation for three years as Remunerative Approaches for Agriculture & Allied Sector Rejuvenation i.e. (RKVY-RAFTAAR) which aims at making the farming as a remunerative economic activity through multi pronged approach along with holistic development of agriculture and allied sector. The new Guidelines provide for major allocation for creation of production and post-production infrastructure, beside promoting agri-enterprises and incubation facilities

VII Operation Greens

- ♦ Tomato, Onion and Potato (TOP) are basic vegetables consumed throughout the year. However, seasonal and regional production of these perishable commodities pose a challenge in connecting farmers and consumers in a manner that satisfies both.
- ♦ The government proposes to launch an Operation Greens on the lines of Operation Flood. Operation Greens shall promote Farmer Producers Organizations (FPOs), agri-logistics, processing facilities and professional management. The Government

allocated a sum of Rs. 500 crore for this purpose.

VIII Pradhan Mantri Kisan SAMPADA Yojana

- ♦ Government of India (GOI) has approved a new Central Sector Scheme – Pradhan Mantri Kisan SAMPADA Yojana (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) with an allocation of Rs. 6,000 crore for the period 2016-20 on 3 May 2017 coterminous with the 14th Finance Commission cycle. The scheme is being implemented by Ministry of Food Processing Industries (MoFPI).
- ♦ PM Kisan SAMPADA Yojana is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.
- ♦ Components under PM Kisan SAMPADA Yojana are:
 - ♦ Mega Food Parks.
 - ♦ Integrated cold chain and value addition infrastructure.
 - ♦ Creation / expansion of food processing & preservation capacities.
 - ♦ Infrastructure for agro-processing clusters.
 - ♦ Creation of backward and forward linkages.
 - ♦ Food safety and quality assurance infrastructure.
 - ♦ Human resources and institutions strengthening.

IX Capital Investment in Agriculture

Various corpus funds for promotion of

agriculture & allied sectors:

- i. Agri-Market Infrastructure Fund (AMIF) is proposed for development of 22,000 rural hatts in to Grameen Agricultural Markets.
- ii. Micro Irrigation Fund to provide impetus to micro irrigation in the country.
- iii. Fisheries and Aquaculture Infrastructure Development Fund (FIDF) to provide concessional finance to the State Govt, Cooperatives, individual entrepreneurs for the development of fisheries infrastructure facilities both in Marine and Inland fisheries sector.
- iv. Dairy Processing & Infrastructure Development Fund (DIDF) for building an efficient milk procurement system and setting up of processing and chilling infrastructure at village level.
- v. Fund For Integrated Development of Sheep, Goat, Piggery & Poultry to encourage entrepreneurship, modernization of poultry farms and establishment or strengthening of district level semen station for goat, sheep and pig.



Fourth ASEAN – India Ministerial level Meet on Agriculture and Forestry



Fourth ASEAN-India Ministerial level meet on Agriculture and Forestry was held on 12 January, 2018 at New Delhi, India in which the ways and means for taking continued efforts for future initiatives in the areas of agriculture and forestry were discussed.



Ministry of Agriculture & Farmers' Welfare
Government of India