Latest Agriculture Data 2019

- ❖ Total Geographical Area of the country- 329 Mha
- ❖ Net sown area of the country- 140 Mha (42.57% of total area)
- Gross sown area of the country- 195 Mha
- ❖ Barren land area in the country- 41 Mha
- ❖ Degraded land area in the country- **63.85 Mha**
- ❖ Waste land area in the country- 178 Mha
- ❖ Total Forest area in the country- 70.82 Mha (21.54% of total geographical area)
- State with highest forest area in the country is- Madhya Pradesh, followed by Arunachal Pradesh and Chhattisgarh
- ❖ For maintaining ecological balance percentage of the land area should be under forest is33
- ❖ Irrigated area in India- 64.7 Mha (2018)
- ❖ Government of India declared "2018" as- National year of Millets
- **❖** India is the largest producer of Millets in world, harvesting about 11 million tones and accounts for 40 percent of the world's output.
- Contribution of Livestock to National GDP is-4.5%
- **Contribution of Livestock to Total Agricultural GDP-27%**
- ❖ The United Nations General Assembly has declared 2019 as the-International Year of Indigenous Languages.
- **❖** Power house of Nutrients/Nutri-Cereals/Climate resilient crops are Millets
- Cropping Intensity of India is 136%
- ❖ Total number of KVKs at present is- 706 (as of MAY,2019)
- * KVKs are under the administration control of- DDG of Agricultural extension
- For effective functioning and monitoring of KVKs, KVKs are divided into- 11 ATARI
 Zones
- ❖ Highest Number of KVKs are in Zone 3 (U.P.)
- ❖ Acronym of ATARI Agricultural Technology Application Research Institutes
 (ATARIs formerly called as Zonal Project Directorates)
- ❖ Growth rate of Agriculture sector during 2017-18 is- 2.4%

- ❖ The estimated growth rate of agriculture during 2018-19 was- 2.7%
- **❖** Overall economic growth rate during 2017-18 7.2 %
- * ***Contribution of Agriculture and allied sectors to GDP is- 17.2% (2017-18)
- **❖** Contribution of Agriculture, Forestry and Fishing to GDP is- 16.0% (2018-19, 2nd Advanced estimate)
- ❖ *Total Food grain production in the country during 2017-18 was- 277.49 Mt
- ❖ *Total Food grain production in the country during 2018-19 was- 281.37 Mt (2nd Advanced Estimate)
- ❖ Government of India sets food grain production target for 2018-19 at 290.25 Mt (Kharif- 144.55 Mt; Rabi- 145.70 Mt)
- **❖** *Total Pulse production for the year 207-18 is- 23.95 Mt
- Among Pulses the crop with highest production and largest area under cultivation is Bengal gram/Chick pea/Chana/gram
- Among Oil seeds the crop with highest production and largest area under cultivation is –
 Sovabean
- **❖** International Rice Research Institute (IRRI) South Asia Regional Centre established at-Varanasi, U.P. (Dec, 2018)
- First Director of IRRI South Asia Regional Center- Dr. Arvind Kumar
- **❖** The bufferstock maintained/Procurement made by FCI is- 68.7 MT (Rice- 32.9 MT; Wheat- 35.8 MT)
- Rice Knowledge bank launched (an agriculture web portal) launched on 28 Feb, 2019 at Assam Funded by World bank for enhancing knowledge on Rice production techniques and technologies)
- ❖ World Bank assisted project State of Maharashtra's Agribusiness and Rural Transformation (SMART) launched to transform Rural Maharashtra
- Union Ministry of Agriculture and Farmers Welfare launched online software for processing applications, Agmark quality certification mark for agricultural products is-AGMARK Online system
- ❖ First SAARC Agri Cooperative Business Forum held in − 28-30 August, 2018 Kathmandu, Nepal
- **FSSAI** notifies standards for honey and its products to curb adulteration. It will help farmers to fetch better prices for their products.
- **❖** Union Ministry of Commerce & Industry launched- Coffee Connect & Coffee Krishi tharanga
- **❖** 14 products received Geographical Indication (GI) tag from Government of India, 2019.

Asian tea Alliance launchced in China on April 19, 2019 (Members of this association are India, China, Srilanka, Indonesia and Japan.

Main objective: To enhance tea trade, cultural exchanges and promoting tea.

- ❖ Annual Average rainfall of the country for the year 2018 804 mm (Avg. rainfall of the country is 890 mm)
- **The World Food Prize 2018 was awarded to- Lawrence Haddad and Dr. David Nabarro for their individual but complementary global leadership in elevating maternal and child under nutrition within food security (First World Food Prize won by- MS Swaminathan)
 - *Egg production of the country for the year 2018-19 was- 88 billion
 - ❖ Per capita availability of eggs in India is- 69 per person per year
 - ❖ Position of India in terms of Egg Production- 3rd (1-China; 2- USA)
 - **❖** *Total milk production in the year 2017-18 was- 176.35 Mt
 - ❖ Per capita availability of Milk in India- 376 gm per person per day
 - * ***India's share in World Milk production- 17%
 - Minimum Support Price recommended by Commission for Agricultural Cost and Prices (CACP)
 - MSP announced by- Government of India: MSP is calculated based on Avg. Cost of Production
 - **❖** **At present MSP is announced for − 23 crop commodities only
 - ❖ *The state that produces highest food grains is- Uttar Pradesh
 - ❖ *The State that produces highest Pulses is- Madhya Pradesh
 - ❖ The state that ranks first in Oilseed production is- Rajasthan
 - ***** 2018- National year of Millets
 - **The First Ever world Pulse Celebrated on-10 Feb,2019
 - ❖ FAO of the UN declared the annual observance of World Pulses day starting from the year-2019
 - ❖ Institutional credit for Agriculture sector for the year 2018-19- 11 lakh crore
 - **❖** Time period for achieving Sustainable Development Goals (SDG) set up by UN is-2015-2030
 - **❖** Number of Sustainable Development goals- 17
 - Main aim of Sustainable Development Goals laid by the United Nations is to ensure food security vis-à-vis nutritional security

- **United Nations Climate Change Conference ("COP24") held at- Katowice, Poland 03 Dec-14 Dec 2018.
- Concept of 'Climate smart agriculture' given by- FAO
- ❖ Share of Agriculture and allied sectors to India's national employment- 52%
- **❖** Chairman of 15th Finance Commission (2017-2022) was- NK Singh
- **❖** Total number of regulated markets in India- 7320
- **❖** Total number of APMCs (Agricultural Produce Market Committees)- 585
- **❖** Total number of GRAMs (Gramin Retail Agriculture Markets)-22,000
- ❖ Model Contract farming Act bill passed on-May, 2018
- **❖** Model Contract farming Act will provide adequate confidence to farmers and incentives to sponsors to enter into contract.
- ❖ Govt. of India Constituted **Agri export policy** for farmers on- 9 Dec, 2018 (aim: to double agri exports to 60 billion\$ by 2022)
- ❖ India's First Agromet Forecast Centre Inaugurated at- UAS, Dharwad, Karnataka.
 (Main objective is to accurate reports on weather which would enable the farmers to protect the crops and get a good yield.)
- ❖ 4th Agri Leadership Summit 2019 held at-Sonipat, Haryana. Theme: Entrepreneurship & Agri business; Agri Allied- A Promising sector and AGri Service-Direct Marketing.
- **❖** Ministry of Tribal Affiars launched **Minimum Support Price for Minor Forest produces and Value Addition as component of Van dhan Scheme.**
- ❖ India has become the fourth country in the world to Launch **Anti Satellite Missile** to Hit a Low Earth Orbit (LEO) Satellite in Space under **Mission Shakti on 28 March**, **2019**.
- ❖ India ranks in terms of Cultivation of GM Crops/Biotech crops 5th
 Nodal Agency that deals in procurement, processing, distribution, export & import of selected agricultural commodities NAFED
- Nodal agency for undertaking price support operations for pulses & oilseeds and market intervention operation for other agricultural commodities is-NAFED
- ❖ Implementing agency for National Programme for Organic Production (NPOP)- **APEDA**
- **❖** Nodal Agency for **Promoting export-oriented production and development of the Scheduled products − APEDA (1985)**
- **❖** New scheme launched by National Cooperative Development Corporation (NCDC) for giving wings to Young entrepreneurs in Cooperatives is- Yuva Sahakar Scheme
 - ❖ Yuva sahakar scheme launched in- November, 2018

Indian Food Processing Sector at a glance:

- **❖** Total number of Mega Food Parks in India- 42
- Cold storage capacity of Mega food parks- 32 Mt

India's First Aqua Mega Food Park established at-Bhimavaram mandal of West Godavari, Andhra Pradesh. (14 Feb, 2019)

- **❖** Minimum Land required for setting up a Mega Food Park is- 50 acres
- **❖** The Food Processing Industry contribution to Agricultural sector is- 9%
- **❖** The Food Processing Industry contribution to Manufacturing sector is- 11%

Schemes Regarding Food Processing Sector:

A. Gram Samridhi Yojana: "To help Unorganized Food Processing sector" concentrated in rural areas.

Funding: Rs.3,000 crore (1500 cr by World Bank, 1000 cr by Central Govt and 500 cr by State Govt.)

Launched by: World bank +Central Govt

B. Pradhan Mantra Kisan SAMPADA Yojana- May, 2017

SAMPADA - Scheme for Agro Marine Processing and Development of Agro processing Clusters

Objective: Holistic development of the food processing sector

Other Important Snippets

- **❖** Target year fixed by Govt. of India for Doubling of Farmers Income is- 2022 (75th Independence of India)
- Govt. of India formulated point strategy to double farmers income- Seven point strategy
- All agricultural programs and policies shift their focus from-Production oriented to Income oriented approach
- **❖** Number of Insecticides/pesticides registered in India (as of Dec. 2018) is- 282
- ❖ RKVY (Rashtriya Krishi Vikas Yojana)- renamed as- Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RAFTAAR)
- **❖** Time period of RKVY- RAFTAAR increased from- 2017-2020
- **❖** To 5one55ivize states to increase allocation for agriculture and allied sector is the main objective of- RKVY
- **❖** 100% FDI is allowed in cold storage, ware houses and Food Processing sector

Prepared by

- ❖ Govt. of India has increased MSP of Kharif crops by- 1.5 times of cost of production
- ❖ The average size of land holding in India is-1.08 ha (The average size of operational holdings is highest in Nagaland (5 hectares) and lowest in Kerala (0.18 hectares).

(source: Agricultural Census 2015-16)

- ❖ Total number of operational holdings in the country according to 2015-16 census is- 146 Million
- ❖ *Nodal Agency* to *coordinate the efforts* on the Agriexport zones- **APEDA**
- ❖ Total no. of Agri Export Zones in India -60
- **❖** 10th National Conference of KVK held at- March 16-17, New Delhi
- Best KVK (pandit deendayal Krishi unnati pursakar) award 2017 awarded to- KVK Kanker, Chhattisgarh
- is the key approach for doubling farmers income by 2022 Integrated farming
 System (IFS)
- **❖** Total number of Mega food parks in India- 42
- Agricultural Mechanization for Insitu management of crop residue in-Punjab, Haryana, UP, Delhi
- **❖** Pesticide Management bill passed in- 2017
- **❖** Agricultural produce and livestock marketing promotion & Facilitation Act passed in- 2017
- **❖** NAFED procures "Oilseeds and Pulses" from state government at MSP through-Price Support Scheme (PSS)
- ❖ Portal launched by central government of India for e-marketing of Organic products is- Jaivik kheti portal
- **❖** A company owned by DARE, under Ministry of Agriculture and farmers Welfare is-Agriinnovate india
- ❖ Statutory body related to food safety and regulation, protecting and promoting public health through the regulation and supervision of food safety in India is – FSSAI (Food Safety and Standard Authority of India)

Food grain production Scenario (2018-19):

Food grains Production for the year 2018-19 (2ndAdvanced Estimates):

Food grain production includes Cereals and Pulses only	
Total Cereals Production	253.54 MT
Total Pulses Production	23.95 MT
Total Food grain Production	281.37 MT

Cereals		
**Rice	115.60 MT	
**Wheat	99.12 MT	
Nutri/Coarse cereals	42.64 MT	
Maize	27.80 MT	
Total Cereals Production	257.28 MT	
Pulses		
Gram/Bengal gram/Chickpea	10.32 MT	
Tur /Red gram/Arhar	3.68 MT	
Urad/Black gram	3.36 MT	
Total Pulses Production	24.02 MT	
Total food grain Production	281.37 MT	
(Cereals + Pulses)		
Commercial crops		
Oilseeds		
Soyabean	13.69 MT	
Groundnut	6.97 MT	
Rape seed &Mustard	8.40 MT	
Castor seed		
Castor seed	1.77 MT	
Total Oilseeds Production	1.77 MT 31.50 MT	
Total Oilseeds Production	31.50 MT	

(Source: Directorate of Economics & Statistics, 2019)

Food grain Production Scenario (2017-18) :

Crop	Production (in Million Tonnes)
Cereals	(m Minion Tonnes)
**Paddy	111.01
**Wheat	97.11
Sorghum	4.66
Maize	27.14
**Coarse cereals	45.42
	Small Millets- 0.42 Mt
Total cereals	253.54 MT
Pulses	
*Gram/Bengal gram/Chana	11.10
*Red gram/Tur/Arhar	4.02
Black gram/Urad bean	3.23
Green gram/Moong dal	1.74
Total Pulses	23.95 MT
Total Food grain production	277.49 MT

Commercial crops:

➤ Oil seeds: Includes Nine crops i.e., Ground nut, castor, Mustard and Rape seed, Niger, linseed. Saffflower, Sunflower, soyabean and Sesamum.

Crop	Production (MT)
**Soyabean	11.39
Rape seed & Mustard	7.54
Groundnut	8.21
Total Oil seeds production	29.88 MT
(9 Oilseeds)	0.74.0

> Other Commercial Crops

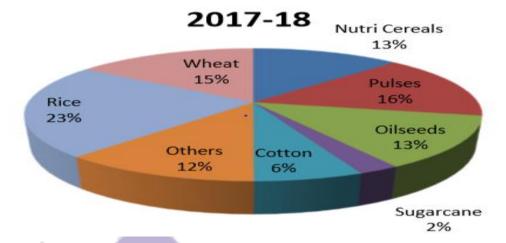
Crop	Production
**Cotton	33.9 Million bales#
Sugar cane	352.37 MT
Jute & Mesta	10.5 Million bales##

(Note: #1bale= 170 Kgs; ##1bale= 180 Kgs

- **BT cotton area in India is 11.07 Mha (96% of cotton area)
- BT cotton area is Highest in Maharastra followed by Gujarath
- Bt cotton is the only GM/Trangenic crop cultivated in India).

(Source: Directorate of Economics & Statistics, 2018-19)

Area & Production Under Major Crops: 2017-18



Crop	Area (in Mha)
Rice	43.79
Wheat	29.58
Pulses	29.99
Oilseeds	24.65
Cotton	12.43
Nutr-Cereals	24.21

Crop	Yield (quintal/ha)
Rice	25.78
Wheat	33.71
Maize	30.32
Pulses	8.41
Oilseeds	12.70
Cotton	4.77
Nutri-Cereals	19.41

Horticulture Scenario-2018-19

- Area Under Horticulture Crops, 2017-18 was 25.43 Mha
- Production of Horticulture crops, 2017-18 was- 311.7 MT
- Productivity of Horticulture crops, 2017-18 was- 12.10 tonnes/ha
- India's share in world production of Fruits is-
- India's share in world production of Vegetables- 10.7%
- Percentage of Gross Cultivated Area Utilized by Horticulture is- 16%
- Contribution of Horticulture to Gross Value Addition (GVA)/GDP of Agriculture is-38%
- Contribution of horticulture to Agriculture GVA/GDP is-38%
- **Total Fruit production in India 97.35 Mt

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- ➤ *Total Vegetable production in India- 184.3 Mt
- **Estimated Horticulture production for 2018-19 was- 314.6 MT
- India's rank in terms of Production of Fruits and Vegetables- Second (First Brazil)
- **Leading producer of Fruits in India- Andhra Pradesh (Ranks First)**
- **Leading producer of Vegetables in India- West Bengal (Ranks First)**
- The fruit crop with highest production in India-Banana
- > The fruit crop with highest area under cultivation- Mango
- The vegetable crop with highest area and production is- **Potato**
- The state with production of fruits and Vegetables is- Uttar Pradesh
- > Largest producer of Kiwi fruit in India- Manipur
- Largest producer producer of Lychee and Mesta in India-Bihar

Item	2017-18	2018-19
		(I Advanced estimate)
Total Fruits Production (mt)	97.35 mt	98.88
Total Vegetable Production (mt)	184.3 mt	187.5

Horticulture	2017-18	2018-19
Area (Milliion hectares	25.43	25.87
Production (million	311.7	314.67
10one10)		
Productivity (10one10/ha)	12.10	12.3
Spices		8.2

Top "3" cultivated Vegetables in Area & Production	Top "3" cultivated Fruits in Area	Top "3" Fruits in Production
First- Potato	Mango	Banana
Second- Onion	Banana	Mango
Third- Tomato	Citrus	Citrus

Top "3" states in Vegetable Production	Top "3" states in Fruits
	Production
West Bengal	Andhra Pradesh
Uttar Pradesh	Uttar Pradesh
Madhya Pradesh	Maharashtra

(Source: agricoop.nic.in)

Leading producers of different crops in terms of Area and Production

Crop	Area
**Paddy	Uttar Pradesh
*Wheat	Uttar Pradesh
**Cotton	Gujarath
**Ground nut	Gujarath
**Sugarcane	Uttar Pradesh
Pulses & Oilseeds	Madhya Pradesh
Onion, Chilli	Maharastra
Potato	Uttar Pradesh
Jute & Mesta	West bengal
Silk, Coffee, Sunflower,	Karnataka
Red gram,	Uttar Pradesh
Rape seed & Mustard	Rajasthan
Tea	Assam
Rubber, pepper, Cashew nut	Kerala
Total Food Grain Production	Uttar Pradesh
Total Spices	Andhra Pradesh
Total Pulses & Oilseeds	Madhya Pradesh
Total nutria-cereals	Rajasthan

India's Position in the World

India holds First rank in case of	Second rank	Third rank
Spices	Arable land	Tobacco
Ginger, Banana, Mango	Potato	Tomato
Pulses	Onion	Fertilizer
Cotton seed, sCashew nut	Tea	
Milk	Cabbage	
Millets	Cauliflower	

Mango	Sugar cane	
Spices	Rice	
Pomagranate	wheat	
Banana	Food grains	
Sapota	Ground nut	
Livestock	Cotton	
Acid lime, Aonla	Fruits & Vegetables	
Millets, Jute	Brinjal,Onion, Garlic, Silk	
Coconut		

^{*}India's Position in Egg Production-5th

Animal Husbandary, Dairy & Poultry:

- ❖ Total livestock population n India- 512.05 million
- ❖ Share of world livestock population in India 15%
- ❖ India's position in Livestock population- First (Largest Livestock Population)
- ❖ First livestock census (once 5 years) conducted in India in the year- 1919-20
- ❖ India's three largest states with highest livestock population are Uttar Pradesh
 - > Rajasthan > Andhra Pradesh (including Telangana)
- ❖ Egg production of the country for the year 2016-17 was-88.03 billion
- **❖** *Total milk production in the year 2016-17 was- 165 mt
- * ***India's share in World Milk production- 17%
- **❖** India's rank in world Milk production- First
- ❖ Per capita availability of eggs per person/annum- 69
- **❖** Contribution of Livestock to Agricultural GDP is- 25.8%
- Contribution of Livestock to Overall GDP is- 4.5%

Aquaculture Scenario-2018-19:

- ❖ Percentage of India's fish production to the global fish production is- 6.3% (2nd in World production)
- **❖** India is the second largest producer of fish and Fresh water fish in the world.

- ❖ Total Fish production in India- 12.60 million tonne13 (Includes Inland and Marine)
- ❖ World Fish Centre headquarter located at- Penang, Malaysia
- **❖** Central Marine Fisheries Research Institute- Kochin, Kerala
- **❖** Central Inland Fisheries Research Institute- Barrack pore, West Bengal
- **❖** Central Institute of Fisheries Education (CIFE)- Mumbai, Maharashtra
- Central Institute of Brackish water Aquaculture- Chennai
- Central Government Launched "Blue revolution scheme" to increase production and productivity of fisheries in- 2015
- ❖ The main aim of Blue revolution is to augment Fish production to about- 20 MT by 2022-23.
- **❖ National Fisheries Development Board (NFDB)** Headquarter- **Hyderabad**
- **❖** Contribution of fisheries to Agricultural exports- 20%

Global position	2 nd in Fisheries 2 nd in
	Aquaculture
*Contribution of Fisheries to	0.91
GDP (%)	
*Contribution to Agril. GDP	5.23
(%)	
Per capita fish availability (Kg.)	9.0
Present fish Production	12.60 mmt
Inland	7.4 mmt
Marine	5.2 mmt

(Source: http://nfdb.gov.in)

Minimum Support Prices (MSP) for 2018-19 Season

Kharif Crops		
Commodity	PP-	MSP (Rs./Quintal)
**Paddy	Common	1750
	Grade A	1770
	Hybrid	2430
Jowar	Maldandi	2450
Bajra		1950
Maize		1700
**Redgram/ Tur (Arhar)		5675
Moong/Green gram		6975

Urad/Black gram		5600
Groundnut-in-shell		4890
Soyabean		3399
Sunflower Seed		5388
Jute		3950
***Cotton	Medium Staple (Staple length (mm) 24.5- 25.5	5150
	Long staple length (mm) 29.5- 30.5	5450

Rabi crops		
Commodity	MSP (Rs./Quintal)	
**Wheat	1840	
Gram/Bengal gram/Chana	4620	
Rape seed/Mustard	4200	
Safflower	4945	
Barley	1440	

(Govt.of India provided 50% return over cost of production

**MSP of Milling Copra- 9521

**MSP of Raw copra - 9920

NOTE:

Cotton: Medium Staple length (mm) of 24.5-25.5 and micronaire value of 4.3-5.1 → Cotton:

:Long Staple length (mm) of 29.5-30.5 and micronaire value of 3.5-4.3

- ➤ Sugarcane prices are based on a basic recovery rate of 10 percent
- **❖** Government announces minimum support prices (MSPs) for 22 mandated crops and fair and remunerative price (FRP) for sugarcane. Total= 23 (22 mandated crops+ FRP for Sugar cane)
- ❖ The mandated crops are 14 crops of the kharif season viz. paddy, jowar, bajra, maize, ragi, arhar, moong, urad, groundnut-in-shell, soyabean, sunflower, sesamum, nigerseed and cotton; 6 rabi crops viz. wheat, barley, gram, masur(lentil), rapeseed/mustard and safflower and two other commercial crops viz. jute and copr
- **❖** Pricing policy for sugarcane is known as FRP (Fair and remunerative price)

Chairman's/Heads/Presidents of different Institutes

Institute	Year of establishment	Chairman /Head/president	Headquarter
**ICAR	16 th July,1929	President- Radha	New Delhi
TCAK	10 July,1929	Mohan Singh	New Dellii
		DG - Trilochan	
	- Marie 19	Mahopatra Triochan	
**NITI Ayog	1 Jan, 2015	Chairperson- Narendra	New Delhi
MIII Ayog	1 Jan, 2013	Modi	New Delli
		Vice Chairperson-	
		Rajiv Kumar	
40		CEO- Amitabh kanth	
**ASRB	1 November,	Aditya Kumar Misra	New Delhi
110111	1973	(A.K. Mishra)	
❖ NABARD	12 th July, 1982	Harsh Kumar bhanwala	Mumbai
**ASCI	2015	Sanjeev Asthana	Gurugram,
(Agriculture Skill			Haryana
Council of India)			
❖ FCI	1965	D.V.Prasad	New Delhi
❖ APEDA	1986	Paban Kumar Borthakur	New Delhi
***CACP	1965	Vijay paul sharma	New Delhi
United Nations	1945,	Antonio Guterres	Newyork
* ICRISAT	1972	Dr. David bergvinson	Hyderabad
❖ PPV&FR	**2001	Dr.K.V.Prabhu	New Delhi
❖ MANAGE	**1986	Usha Rani	Hyderabad
* FAO	Oct 24, 1945	General Jose	Rome, Italy
-		Graziano da Silva	
* *NAFED	**Oct 2, 1958	Bijender Singh	New Delhi
❖ FICCI	1927	Pankaj patel	New Delhi
❖ CCI	2003	Devendra Kumar	New Delhi
		Sikri	
❖ NDDB	1965	Dilip rath	Anand, Gujarath
❖ RBI	**1 April, 1935	Shaktikanta Das	Mumbai
❖ IARI	*1905	AK Singh	New Delhi

❖ World bank	1945	David Malpass	Washington
* IFFCO	1967	Balvinder Singh Nakai	Newdelhi
❖ GST council	2015	Arun Jaitley	Newdelhi
* IMF	1945	Christine Lagarde	Washington
❖ FSSAI	2011	Ashish Bahuguna	Newdelhi
❖ IRRI	1960	Matthew Morell	Manila

Note: CCI- Competition Commission of India

***APEDA- Agricultural and Processed Food Products Export Development Authority

FICCI- Federation of Indian Chambers of Commerce & Industry

PPV&FR- Protection of Plant varieties and Farmers Right Act

NAFED- National Agricultural Marketing Cooperative Federation

FSSAI- Food Safety and Standards Authority of India

Percapita Availability of Food grains-2017-18:

Commodity	PCA of food grains per
	day (gm/day)
Rice	186.2
Wheat	174.4
**Pulses	54.5
Cereals	429.8
Total food grains	484.3
Nutri/Coarse cereals	81.5
*Milk	376
*Eggs	69 eggs/Annum

- ❖ Agriculture contributes at least- 10% of GHG emissions
- ❖ Contribution of agriculture to GDP (2017-18)- 17.2%
- ❖ Sector that contributes highest to GDP is-Service sector followed by Industrial sector

Indias Rank in Different Indices-2018

Index	Rank
***Human Development Index	130 (First rank- Norway)
Global Innovation Index	57
(Switzerland-First rank)	
Global Hunger Index	103
***Gender Gap Index	108 (Iceland- First rank)
***Gender Inequality Index	108 (out of 159)
Global entrepreneur Index	68

Organic Farming Statistics:

- Total area under organic certification in India is- 1.5 million ha
- Total Organic production in India- 1.35 Million tones
- Total number of organic producers in India- 8.35 lakh
- The state with largest area under organic certification is- Madhya Pradesh>
 Himachal Pradesh> Rajasthan
- India's First organic state- Sikkim (Declared on Jan 18,2016); Second organic state-Uttarakhand
- The country with largest area under organic farming Australia (27.15 Mha)
- The country with highest number of organic producers in the world –
 India (More than 30 per cent of world's organic producers are in India)
- India's rank in terms of organically cultivated area is- 9th
- Govt. of India setting up of National Organic Farming Research Institute (NOFRI) in-Sikkim
- India's First Organic farming University going to be set up in- Vadodara, Gujarath
- Largest exported organic product in India- Oilseeds (50%)> Processed food products>Cereals & millets> Tea>Pulses>Spices

KVK *Information*:

- > 10th National Conference of KVK held on- March 16-17,2018, New Delhi
- (theme: Technologies for doubling farmers income)
- ****Total number of KVKs at present is- 706** (as of May,2019)
- ➤ KVKs are under the administration control of- **DDG** of Agricultural extension
- ➤ Present DDG of Agricultural Extension- AK Singh
- ➤ For effective functioning and monitoring of KVKs, KVKs are divided into- 11 ATARI Zones
- ➤ Acronym of ATARI **Agricultural Technology Application Research Institutes**(ATARIs formerly called as Zonal Project Directorates)
- > Highest number of KVKs are in- Uttar Pradesh
- > Zone with highest number of KVKs is- Zone VIII
- > KVKs 100% fully funded by- ICAR
- Pandit Deendayal Upadhyaya Krishi Vigyan Puraskar (Best KVK) award given to-KVK, Kanker (Chattisgarh)

Varieties released by ICAR; Biofortified and other Imp. Varieties

- > ** Climate- Smart developed by NRRI, Cuttack CR Dhan 801 & CR Dhan 802 (which are tolerant to both submergence and drought and few biotic stresses to face the challenges of climate change.)
 - > ** Protein rich rice varieties CR Dhan 310 & CR Dhan 311
- > Pigeon pea -PUSA Arhar 16 (determinate, extra early maturity, 120 days)
- ➤ Sugarcane –C0-0238 (Wonder variety of sugarcane)
- > BT cotton: F1861, PAU Bt 1 and RS2013 for cultivation in Punjab, Haryana and Rajasthan
- ➤ Quality Protein Maize (QPM) -PUSA Breakfast Cereal
- ➤ World's first cytoplasmic male sterility based pigeon pea hybrid-GTH ➤ Low neuro toxin varieties of grass pea-rattan, nirmal, prateek
- ➤ Marigold-PusaBahar
- Spineless variety of Safflower- NARI-6

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- ➤ First ever short duration Moong (< 60 days)-Virat (IPM 205-7)
- ➤ BLB of rice disease resistant variety-PUSA 1592, Punjab Basmati-3
 - ➤ Blast disease resistant rice variety-PUSA 109
 - > Nematode resistant variety of papaya- Pusa Majesty
 - > Day neutral and spineless variety of Okra- Pusa Sawani
 - ➤ Black Variety of Carrot- Pusa Asita
 - ➤ World earliest maturity variety of cotton genotype was identified by CICR scientist (2017) variety name: Yugank

Crop	Variety	
**Rice	CR Dhan 310 –protein rich variety)	
	DRR Dhan 45 –zinc rich variety)	
Wheat	WB 02 (Zinc & Iron rich variety)	
	HPBW 01 (Iron & Zinc rich variety)	
Maize	**Pusa Vivek QPM9 – Provitamin-A, lysine &	
	tryptophan rich hybrid)	
	Pusa HM8 Improved (lysine & tryptophan rich hybrid)	
	Pusa HM9 Improved (lysine & tryptophan rich hybrid)	
Pearl millet	HHB 299 (iron & zinc rich hybrid)	
	AHB 1200 (iron rich hybrid)	
Lentil	Pusa Ageti Masoor (iron rich variety)	
**Mustard	**Pusa Mustard 30- low erucic acid variety; (<2% erucic acid)	
~~	**Pusa Double Zero Mustard 31- low erucic acid &	
	low glucosinolate variety	
Cauliflower	Pusa Beta Kesari 1 (β-carotene rich variety)	
**Sweet Potato	Bhu Krishna (anthocyanin rich variety)	
Potato	Bhu Sona (β-carotene rich variety)	
Pomegranate	Solapur Lal (iron, zinc & vitamin-C rich variety)	
Tomato	**Arka Rakshak- India's first Triple disease resistant	
	(Leaf curl, Bacterial wilt & early blight) F1 Hybrid	

(Note: Cereals are deficient in "Lysine" amino acid, Pulses are deficient in "Methionine")

- **Swarna Vaideh** first ever variety of Makhana was developed and released by ICAR.
- **❖ Virat-** Early maturing Summer Mungbean
- ❖ Pusa Arhar 16- dwarf pigeon pea, Short duration (120 day redgram variety

(Miracle red gram variety)

- **Co-0238** (Karan 4) Wonder variety of sugar cane, released by Sugarcane Breeding Institute, Regional Centre, Karnal.
- **❖ Pusa rudhira** is an improved variety of-Carrot

Agricultural Exports and Imports:

- **Share of Agriculture exports in the total exports of the country- 12.28% (fourth largest commodity in terms of exports)
- **Share of Agriculture imports in the total imports of the country- 4.09%
- *India's largest exported agricultural commodity in terms of its value- Basmati Rice (Rs.28,598 cr)
- ➤ Highest exported: Cereals
- ➤ Highest imported: **Edible oil and pulses**
- ➤ Share of India's Agriculture exports in the world exports 2.5%
- ➤ Share of India's Agriculture Imports in the world Imports 1.5%
- ➤ India's total agricultural exports accounts for- 1.18 lakh crore
- ➤ India's total agricultural imports accounts for- 1.51 lakh crore
- **India's top Agricultural Export commodities in terms of value areBasmati Rice> Buffalo Meat > Non basmati rice> Fresh vegetables> Fresh Fruits
- ➤ **India's top Agricultural Imports in terms of value are-

Vegetable oils> **Pulses**> **Fresh fruits**> Cashew > Spices

(Source: http://apeda.gov.in)

National Food Security Mission (NFSM)-2007

- ➤ National Food security Mission (NFSM) launched in the year- 2007. The main objective is to increase production of Rice by 10 MT, Wheat by 8 MT and Pulses by 2 MT by the end of 11 FYP.
- ➤ Revised Target of NFSM during 12 FYP is to increase food grain production by 25 MT i.e., 10 Mt of Rice, 8Mt of Wheat, 4Mt of Pulses, 3Mt of Coarse cereals.
- > NFSM at present covers 7 crops i.e., Rice, Wheat, Pulses, Coarse Cereals, Sugarcane, Cotton, Jute.

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New Initiatives in NFSM: from 2018 onwards focusing on Nutri-cereals

- **Breeder seed production of Nutri cereals
- ** Publicity of Nutri cereals
- ** Seed Minikits allocation free of cost to farmers

National Food security Act/bill - 2013

- ➤ National Food Security Act/bill passed in the year- July, 2013
- ➤ As per Food Security Ordinance (2013) or Food security bill, food grain's planned to distribute among household is/are **Rice, wheat and coarse grains**
- ➤ Amount of rice, wheat and coarse grain decided to distributed per households under Food Security Ordinance (2013) Rs. 3:2:1 kg per month.
- ➤ Under Food Security Ordinance (2013), amount of foodgrain decided to distributed per household per month is 5 kg, amount of food grain distributed per family living BPL is-35 Kg

NITI Ayog: 2015 (policy think tank of GOI)

- > Acronym for NITI Ayog- National Institution for Transforming India
- > Policy making body of Govt.of India- NITI Avog
- > NITI Ayog formed in the year- Jan.1, 2015
- > First CEO of NITI Avog- Sindhu Sree Kullar
- > Present CEO of NITI Ayog- Amitabh Kanth
- Governing council of NITI Ayog consists of- Chief ministers of all states
- Chairman of NITI Ayog- Prime Minister
- > NITI Ayog vice chairman- Rajiv Kumar
- Full time members of NITI Ayog-Bibek Debroy and V.K.Saraswat
- > Agricultural economist of NITI Ayog- Ramesh Chand

"NITI Aayog developed Agricultural Marketing and Farmer Friendly Reforms Index to comparing states on implementation of farm sector reforms "

Ranks: Maharashtra-1st, Gujarat 2nd, Rajasthan 3rd

GST: Goods & Service Tax

**Goods and Service Tax is an- Indirect tax

- ➤ The genesis of the introduction of **GST** in the country was laid down in the historic Budget Speech of 28th February 2006
- **❖** Amendment bill- 122
- **❖** Amendment Act- 101
- **ST Council Headquarter- New Delhi**
- **❖** 1st state to ratify the GST bill- Assam
- **Lesson Services Zero GST- for Food grains**
- **❖** GST threshold limit for Normal states- 20 lakhs
- **❖** GST threshold limit for NE states- 10 lakhs
- **❖** 1st state to pass GST bill- Telangana
- **❖** GST came into effect in India from- 1 July, 2017
- **❖** Highest tax contribution to Indian economy is from- GST
- **GST** council is the governing body of GST
- **❖** GST Council Chairman Finance Minsiter (ARun jaitley)
- ❖ GST Council formation based on ARTICLE- 279A.
- ❖ GST was first introduced by- France, 1954
- **❖** GST implemented in India through- 4 tier structure (5%, 12%, 18%, 28%)
- **\$ 28% GST for- Luxury goods**
- **❖** GSTN-Goods & Service Tax Network.

GST on agriCulture products

Commodities	GST Rate
Organic Manure	0%
Frozen vegetables and fruits, Dry flower, plants	5%
and roots, preserved vegetables, fruits and nuts.	
Fertilizers, Dry Fruits fresh or dried, Fruits and	12%
vegetable juices	
Tractors	12%
Pesticides, Tractor wheel, Tractor parts	18%
Rubber, Fruits, vegetables, nuts and other plants	18%
preserved by vinegar or acetic acid or sugar,	
Preserved Tomatoes, mushrooms or other	
vegetables, Fruit jam, jellies, pastes or nut puree.	
Plastic pipes	28%

<u>List of awardees in agriculture sector 2018:</u>

The First World Agriculture Prize (2018) awarded to- Dr. M.S.Swaminathan for his contributions to Indian Agriculture

(Instituted by Indian Council of Food & Agriculture)

- ➤ World food prize 2018- won by- The World Food Prize 2018 was awarded to-Lawrence Haddad and Dr. David Nabarro for their individual but complementary global leadership in elevating maternal and child under nutrition within food security.
- ➤ Best Horticulture state awarded to- Nagaland

Krihi Karman Awards:

- ➤ Krishi Karman awards were instituted in the year -2010-11
- To reward the best performing States in food grains and individual crops of Rice, Wheat, Pulses, Coarse Cereals and Oil s Krishi Karman Award in Rice CategoryJharkhand
- **Krishi Karman Award for the highest production of food grain (>10 mt) awarded to- Tamil Nadu

ICAR Awards:

- The Punjab Agricultural University (PAU) has been adjudged as Sardar Patel Outstanding ICAR Institution Award 2017
 ICAR- IIPR, Kanpur bagged Sardar Patel Outstanding ICAR Institution Award 2017
 among the ICAR institutes of "Major Institutes' Category".
- ❖ ICAR-Indian Institute of Water Management (IIWM), Bhubaneswar bagged the Sardar Patel Outstanding ICAR Institution Award - 2017 among the ICAR institutes of "Small Institutes' Category".
- ❖ ICAR- National Dairy Research Institute, Karnal has been ranked first among 72 Agricultural Universities of India.

Fertilizer Scenario (2017-18):

- > Total consumption of fertilizers in India in 2017-18 is- 26.79 million metric tone (MMT)
- > NPK use ratio in India in 2017-18 is- 6.2:2.5:1
- > Optimum use of NPK ratio is- 4: 2:1
- > Total production of NP fertilizers in India during 2016-17- 18.14 MMT (N fert- 13.42, P fert- 4.72 MMT)
- Production of Urea in India- 24.03 MMT; DAP- 4.65 MMT, SSP-3.91 MMT
- > Total Import of fertilizers during 2017-18- 15.44 mmt (Urea- 5.98 mmt, DAP-4.22 mt, NP/NPK- 0.5 mt & MOP-4.74 mt)
- Mostly Imported fertilizer-Potash from Jordan and Tunesia
- > India is third in fertilizer production and second in consumption (China is first in fertilizer consumption)
- Per hectare consumption of fertilizers in India during 2016-17 is-135 kg/ha
- > Per ha consumption of fertilizers highest in Punjab
- Fertilizer Control order- 1985
 Neem Coated Urea (45 Kg bag)- incorporated as regular fertilizer in 2010
 - **❖** Indigenous manufacturing of Neem coated Urea started in -2014
 - ❖ Neem coated Urea is sold at- 5% above the MRP to recover the cost of coating
 - **❖** Neem coated urea save urea by-20-30%

New Urea policy-2015: the government allowed the urea producers to produce up to 100% of production as Neem coated urea.

❖ 100 % Neem Coated production of urea made mandatory on − 2015.

Nutrient Based Subsidy: scheme started in the Year- 2010-11

❖ Where a fixed rate of subsidy is announced on nutrients. The NBS covers three macro nutrients (Nitrogen, Phosphorus and Potassium) and two micro nutrients (Zinc and Boron).

Pesticide consumption scenario (2017-18):

- **❖** Total registered pesticides in India (2018)- 287
- Total banned pesticides in India- 28
- ❖ Central Insecticides Board and Registration Committee (CIB & RC) –To facilitate the registration of safe, efficacious and quality pesticides for domestic use and export
- The major pesticides applications are found in- Rice and Cotton crops (1st Paddy, 2nd Cotton)
- Andhra Pradesh, Maharashtra and Punjab are top three states contributing to 45% of pesticide consumption in India.

(source: cibrc.nic.in)

Genetically Modified crops/Transgenic crops/Biotech crops:

- Total area in world under GM crops is- 189.8 million hectares in 26 countries
- Area under transgenic plants in India (2018) 11.07 Mha
- India's rank in Cultivation of GM crops- 5th
- Bt-Cotton is the only GM crop Cultivated in India
- The country with highest area under GM crops- USA (75 Mha)
- Leading countries in transgenic use USA>Brazil > Argentina>Canada> India (5th)
- The crop with highest area under GM crops in world is Soyabean>Maize> Cotton
- Apex body/Regulatory/Statutory body for approval of proposals relating to release of GM crops in India-
- Genetic Engineering Approval Committee (GEAC), 1989
- GEAC works under Ministry of Environment and Forest
- The first commercially grown genetically engineered food was-Flavr Savr, Tomato
- First cultivated GM crop in the world Soyabean

Climate & Environment:

- **Full form of IPCC is Inter-governmental Panel on Climate Change
- ➤ United Nations Conference on Environment and Development (UNCED), also known as the "Rio de Janeiro Earth Summit" held on- June, 1992

Prepared by

- ➤ **Kyoto protocol** (The international treaty that Committed to reduce Greenhouse gas emissions) held on- Dec, 1997
- **➤** Full form of UNFCCC is United Nations Framework Convention on Climate Change
- ➤ Full form of NAPCC is National Action Plan on Climate Change
- ➤ Full form of SAPCC is -State Action Plans on Climate Change
- **➤** Full form of UNEP is United Nations Environment Programme
- > **UNFCCC was set up in 1992.
- ➤ **United Nations *Climate Change Conference* ("COP24") held at- 3-14 Dec, 2018

 Katowice, Poland (Recent Climate change conference)

Public Distribution System (PDS):

- Central government has decided to distribute millets such as "Jowar and Bajra through Public distribution system to improve nutrition security of the poor.
- **❖** Total number of Beneficiaries in India under PDS system are-81 crore
- ❖ Major commodities distributed in PDS system are- Rice (Rs.3/kg), Wheat (Rs.2/Kg) & coarse cereals (Rs.1/kg)
- ❖ The Revamped Public Distribution System (RPDS) was launched in- 1992
- ❖ The Targeted Public Distribution System (TPDS) was introduced with effect from-June 1997

Other Miscellaneous points:

- ➤ Radio programme hosted by P.M. of India is- Mann ki Baat (started on Oct.3, 2014)
- ➤ Highest Gross Sown Area- U.P.>M.P.>MH
- Highest Net Sown Area- MH& M.P.
- Barren and uncultivated land highest in- Rajasthan
- Largest state in terms of Geographical area-Rajasthan
- ➤ Government of India Formulated "7 point strategy for Doubling of Farmers Income by 2022"
- > Cluster bean- becomes the first agricultural product to enter commodities market.

Some Important International Years:

2004	International year of rice
2005	International year of micro credit
2006-	International year of desert and desertification
*2007	International year of water (theme-more crop per drop)
2008	International year of potato
2009	-International year of fiber
*2010	International year of Biodiversity
2011	International Year of Forests and International Year of Youth
2012	International Year of Cooperatives and International Year of
	Sustainable Energy for All
2013-	International Year of Water Cooperation
2014	International year of Family farming & Farmer Producer organizations
**2015	International Year of Soil
**2016	International Year of pulses
2017-	International Year of sustainable tourism for development
2019	International Year of Indigenous Languages
2020	International Year of Plant Health
2023	International Year of Millets (Proposed by Govt.of India to FAO)

	Project/Mission	Initiated in
AICRP on Maize		1957
National Agricultural	1979	
Technology Mission or	1986	
National Agricultural	1998	
National Agricultural	July, 2006	
National Horticultural	2005-06	
Mission for Integrated	2014-15	
National Food Security	2007	

National Food Security Act or Ordinance	July, 2013
National Innovations on Climate Resilient Agriculture	Feb 2011
(NICRA)	
Agricultural Management Agency	1998
National Agriculture Higher Education Project (NAHEP)	Sep, 2017

ICAR Programmes:

- National Innovations on Climate Resilient Agriculture (NICRA), 2011- is a network project of the Indian Council of Agricultural Research (ICAR) launched in - February, 2011.
- 2. AGRI UDAAN, 2017- Food and agribusiness Accelerator Start up Programme 2.0, launched by ICAR's NAARM in collaboration with IIM-Ahmadabad in-August, 2017
- 3. ARYA- Attracting and Retaining Youth in Agriculture, July, 2015
 - To attract and empower the Youth in Rural Areas and to prevent migration of youth from rural to urban areas, to take up various Agriculture, allied sector enterprises for sustainable income and gainful employment in agriculture.
- 4. READY- Rural and Entrepreneurship Awareness Development Yojana"- July, 2015.
 #To promote entrepreneurial skills among agril.students.
 It will provide an opportunity for the students to learn and understand agricultural practices in collaboration with farmers.

5. Mera Gaon-Mera Gaurav, July,2015:

- ✓ To enhance the direct interface of scientists with farmers which will hasten the lab to land approach.
- ✓ Under this scheme, groups of scientists will select villages and will remain in touch with that village and provide required information, knowledge and advisories to farmers on regular basis.
- Farmer FIRST: Farmer's Farm, Innovations, Resources, Science and Technology (FIRST), July, 2015
 - ✓ 'Farmer FIRST' is an ICAR initiative "to move beyond the production and productivity and to privilege the complex, diverse & risk prone realities of majority of the farmers through enhancing farmers-scientists contact with multi stake holders-participation.
 - The focus is on Farmer's Farm, Innovations, Resources, Science and Technology (FIRST).

7. National Agriculture Higher Education Project- Sep, 2017

Funded by: World Bank, Implemented by: ICAR

To provide relevant and better quality higher education to students.

8. Mridaparikshak- July, 2015

A Mobile mini soil testing lab for distributing Soil health cards to farmers.

9. KIRAN (Knowledge Innovation Repository of Agriculture in North East)- 2012

Farmer FIRST, ARYA, Mera Gaon-Mera Gaurav, Mridaparikshak programmes implemented through KVKs

Major Flagship programmes Launched by Central Government in

Agriculture and allied Sectors

Programmes launched during 2018-19 to 2019-20

PM-JIVAN: Prime Minister- Jaiv Indan Vatavaran Anukool Fasal Awasesh Nivaran- Feb 28, 2019

- > To provide financial support to Integrated Bio ethanol project using biomass & crop residues.
- > 1969 cr for a period of 2018-19 to 2023-24

Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA)- Sep, 2018

To provide MSP assurance to the farmers

Sub components of PM-AASHA:

- a) Price Support Scheme: procurement of Oilseeds, pulses & Copra to be done by central nodal agencies along with state govts. Central govt. to bear procurement expenditure and losses due to procurement upto 25% of production.
- b) Price Deficiency Payment Scheme (PDPS): will cover all oilseeds.

Farmers will get direct payment of the difference between the MSP and the Selling price.

C) Pilot of Private Procurement & Stockist Scheme: Participation of private sector in procurement operations to be piloted.

***3. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN): Feb, 2019

- > Direct income support of Rs.6,000 per annum to Small and marginal farm families having cultivable land upto 2ha.
- > Farmer will get Rs.6000 in three installments (4 months once, effective from 01.12.2018)
- > The Scheme was formally launched at national level by the Hon'ble Prime Minister on the 24th February, 2019 at Gorakhpur, UP.

3. Har Medh Par Pedh: Dec, 2018

- **Establishing New Forward linkages for Agroforestry produce**
- > Promotion of tree based oil seeds for production of biofuel.

Kisan Urja Suruksha evam Utthaan Mahabhiyan (KUSUM): Feb, 2019

- * ****Formulated by ministry of New and Renewable Energy
- * ** Installation of Grid connected Solar power plants each of capacity Upto 2MW in rural areas
- * ***Installation of Solar water pumps
- **Solarisation of existing grid connected agricultural pumps to make farmers independent of grid supply and also enable them to sell surplus solar power to DISCOM.
- 5. Yuva Sahakar Scheme: November, 2018

Launched by: NCDC

Objective: To give wings to Young entrepreneurs in Cooperatives

The scheme will be linked to Rs.1000 cr Cooperative Start up- and Innovation Fund (CSIF) created by the NCDC.

- 6. GOBAR DHAN: Galvanizing Organic Bio-Agro Resources, February, 2018
 - Main focus on converting cattle dung, solid waste into compost, biogas and bio-CNG.
- 7. Agrimarket Infrastructure Fund: March, 2019

Corpus fund of Rs.2000 cr to NABARD towards soft loan to states/UTs for developing Marketing infrastructure.

Programmes launched during 2014-15 to 2017-18

8. Pradhan Mantra Kisan SAMPADA Yojana - May, 2017

SAMPADA - Scheme for Agro Marine Processing and Development of Agro processing

Clusters

Objective: Holistic development of the food processing sector

- Promotion of Value addition through food processing
- > Integrated cold chain and value addition infrastructure
- > Total number of Mega food parks- 42
- > Infrastructure facilities creation through Mega food parks
- ➤ Budget: Allocation of 6,000 cr for a period of 2016-20
- 9. Dairy Processing & Infrastructure Development Fund (DIDF): Sep. 2017

Budget: Allocation of Rs. 10,881 crore during the period from 2017-18 to 2028-29.

Objective: To create infrastructure facilities in dairy sector

Implementing Agency: National Dairy Development Board (NDDB) and National

Cooperative Development Cooperation (NCDC)

Sponsoring Agency: NABARD

- 10. E-Pasuhaat Portal: 2016
 - **❖** For connecting breeders and farmers of indigenous breeds of cow
- 11. ***Pradhan Mantri Fasal Bima Yojana: Jan 14, 2016
 - under this scheme farmers will pay
 - *2% premium fixed by insurance firms for Kharif crops
 - *1.5% for Rabi crops
 - *5% for Commercial & Horticultural crops
- 12. e- National Agricultural Market (e-NAM): April 14, 2016- "One nation-One Market"
 - ***** Electronic trading portal designed to create a unified national market for agricultural commodities.
 - **❖** Farmer can display their produce online from their nearest market and traders can quote price from anywhere.
 - ***** It will ensure open price discovery and better returns to farmer and eliminate Middle men.
 - **❖** All 585 APMC (Agriculture Produce Market Committees) connected to e-NAM by March 31, 2018.
 - **❖** Agricultural commodities valued at about Rs.36,000 traded on e-NAM
- 13. Parampraghat Krishi Vikas Yojana: 2015- Cluster Approach
 - Launched to support and promote organic farming and there by improving soil health.
 - To bring 5 lakh acres under OF by 10,000 organic clusters
- 14. Soil Health Card Scheme; Feb. 2015
 - To issue soil health cards to farmers which will carry crop wise recommendations of nutrients
- 15.DD kisan channel-24 hr television channel 26 May, 2015
- 16. Pradhan Mantri Krishi Sinchayi Yojana- 1st July, 2015
 - To attract investments in irrigation system at field level, develop and expand cultivable land in the country
 - Per drop more crop
- 17. Swachh Bharat Mission: October 2, 2014
 - -To make India Open Defeacation Free (ODF) by 2019.

Prepared by

- Cess on swachh bharat services: 0.5%

18. National Livestock Mission: 2014-15

• Intensive development of livestock, especially small livestock (sheep/goat/poultry) along with adequate availability of quality feed and fodder.

19. National Mission on Oilseeds and Oil palm (NMOOP): 2014-15

• For increasing production of oilseeds and Oil palm

20. Mission for Integrated Development of Horticulture (MIDH): 2014-15

High growth rate of horticultural crops

21. ***RKVY (Rashtriya Krishi Vikas Yojana) – 2007

- Renamed as Rashtriya Krishi Vikas Yojana Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RKVY-RAFTAAR)
 - To increase annual agricultural growth rate by- 4%
 - To incentivise states to increase allocation for agriculture and allied sector
 - To make forming remunerative economic activity by strengthening farmers effort, risk mitigation and promoting agribusiness entrepreneurship.
 - Share of stake holders: 60:40 grants between centre and state government while 90:10 for North Eastern and Himalayan States.
 - **Sub-schemes**: Accelerated Fodder Development Programme (AFDP), Saffron Mission, Crop Diversification Programme (CDP) etc.,

22. START UP INDIA, STAND UP INDIA - Jan 16, 2016

❖ To promote entrepreneurial skills that will lead to job creation

Stand Up India: (April, 2016): to support entrepreneurship among women and SC & ST communities.

23. AGRI-CLINIC AND AGRI-BUSINESS CENTRES: 2002

- Self-employment venture
- Two months Training provided by MANAGE through identified nodal training institutions.
- Launched by: Govt. of India
- ACABC run and Formulated by: MANAGE

Prepared by

- Funding by: **NABARD**
- Subsidy rate: 36% for general, 44% for SC, ST, Women and persons from North East
- Minimum number of members required: **05**
- Maximum ceiling cost for Individual- 20 lakhs, for a group of five is One crore
- Toll free number- 1556 (Timing: 9AM to 5.30 PM)
- First ACABC established at- Vapi, Bulsar (Dist), Gujarath by Sunil Kumar

24. ***KISAN CALL CENTRES (KCC): Jan 21, 2004

- To provide information to farming community through toll free telephone number
- ** Toll free number: 1800 180 1551
- Timings: 06.00 AM to 10.00 PM.
- Operation: 3 levels- First Level- Agricultural Graduate
 - Second level- Subject Matter Specialist/Expert
 - o Third level- The management group

25. MOVCDNER: Mission organic value chain development for North Eastern region- 2017

 For developing Model Organic Cluster Demonstration and Model Organic Farm under Paramparagat Krishi Vikas Yojana (PKVY) scheme

26. SFAC: Small Farmer's Agribusiness Consortium- 1994

❖ To link the small farmers to agricultural value chain, which includes investments, technology and markets in association with private, corporate or cooperative sector.

27. DEEN DAYAL UPADHYAYA GRAM JYOTHI YOJANA -2015

• Rural power supply mission, providing 24X7 uninterrupted power supply to all homes in rural india

28. DIGITAL INDIA: July 1, 2015

• Aims to ensure that govt. services are available to citizens electronically and people get latest information

29. MAKE IN INDIA: 2014.

To attract capital and technological investment in India

• The scheme focuses on job creation and skill enhancement in 25 sectors of the economy.

30. SKILL INDIA: March, 2015

• To create opportunities, space, scope for the development of the talents of the Indian youth.

31. MUDRA Yojana: (Mico units Development and Refinancing Agency)- 2015, April

- For providing loans up to Rs.10 lakh to the non-corporate, non-farm **small/micro enterprises**
- 32. **OPERATION GREEN- Feb, 2018. (To augment Food processing in TOP)
 - To promote FPOs, agrilogistics and processing in Tomato, Onion, Potato (TOP)
 - Operation Green operating on the lines of Operation Flood
 - **▶** **For enhancing the production of Tomato, Onion and Potato (TOP)
 - ➤ Funding: 500 cr
- 33. Green Revolution-Krishonnati Yojana- 2017-2020

Total Funding: Rs. 33,269 crore.

Umbrella scheme comprises of 11 Schemes/Mission

- a. Mission for Integrated Development of Horticulture (MIDH)-2014
- b. National Food Security Mission (NFSM) 2007
- c. National Mission for Sustainable Agriculture (NMSA)
- d. Submission on Agriculture Extension (SMAE) 2010
- e. Sub-Mission on Seeds and Planting Material (SMSP)-2010
- f. Sub-Mission on Agricultural Mechanisation (SMAM)-2010
- g. Sub Mission on Plant Protection and Plan Quarantine (SMPPQ)- 2010
- h. Integrated Scheme on Agricultural Cooperation (ISAC)- Dec, 2013
- i. Integrated Scheme on Agricultural Marketing (ISAM)- 01. 04. 2014
- j. National e-Governance Plan in Agriculture (NeGP-A)- 2014
- 34. National Mission on Agricultural Extension and Technology (NMAET)- 2010

NMAET otherwise called as Modified reforms of ATMA

Other Imp. Schemes:

- **CHAMAN- Coordinated Horticulture Assessment and Management using Geoinformatics 2016
- **FASAL Forecasting Agricultural output using Space, Agro meteorological and Land based observations (FASAL) 2010
 - Aim was to collect Monsoon data through remote sensing, economic data and monitoring of crops when growing.

❖ National Mission for Sustainable Agriculture (NMSA)- 2014 Sub components of NMSA:

- Rain fed Area Development (RAD)
- Soil Health Management (SHM)
- Sub Mission on Agro forestry (SMAF)
- Climate Change and Sustainable Agriculture, Monitoring, Modeling and Networking (CCSAMMN)
- **❖** National Mission on Micro Irrigation (NMMI)- 2010
- **❖ Bringing Green Revolution to Eastern India** (BGREI)- 2010
- **❖** Kisan Credit Card Scheme- 1998-99
- **❖** First Kisan Credit Card Issued by- SBI
- **❖** National Agricultural Insurance Scheme- 1999
- ***** Weather Based Crop Insurance Scheme- 1985

**National Bamboo Mission restructured on 25 April, 2018.

Important Days in Agriculture & Allied Sciences for JRF & SRF		
2 February	World Wet land day/ Ramsers day	
**10 February	World Pulses Day	
13 February	World Radio Day (for Social sciences)	
3 March	World wild life day	
**8 March	International women's day	
11 March	Water resource day	
**15 March	World consumer day	
21 March	World forest day	
**22 March	World Water day	
23 March	World Meteorological day	
7 April	World Health day	
**22 April	World Earth day	
26 April	World intellectual property day	
Last Saturday of April	World veterinary day	
11 May	National Technology day	
**20 May	World Honey day	
31 May	World Anti- Tobacco day	
1 June	World Milk day	

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7 June	World Food safety Day
**5 June	World Environment day
10 July	National Fish Husbandry day
11 July	World Population day
**16 July	ICAR day
8 Sep	World Literacy day
August 19	World honey day
16 Sep	World Ozone day
1 Oct	World Habitat day/Vegetarian day
**1 Oct	World Coffee Day
2 Oct	National Women Literacy day
4 Oct	World Animal Welfare day
11 Oct	International day of Girl Child
13 Oct	World Egg day/ UN International day for Natural
	Disaster Reduction
**15 Oct	Mahila Kisan Diwas (Women in Agriculture
	day)/International Day of Rural Women
16 Oct	World Food day
24 Oct	UN day
16 Nov	National Press day
21 Nov	World Fish day
26 Nov	National Milk day
**3 Dec	National Agriculture Education day (Babu
	Rajendra Prasad birthday)
**5 Dec	World Soil day
10 Dec	Human Right's day
14 Dec	National Energy conservation day
11100 7	
**23 Dec	Farmers day (Kisan Diwas)
Ch.Charan Singh birthday	Farmers awareness week (Dec 23-29)

ICAR Awards:

Swami Sahajanand Saraswati	Extension work
**NASI-ICAR	Farm implements
**Haldhar award-	Organic Farming
Lalbahadur sastry Award	Young scientist award

Rafi Ahmad Kidwai	Outstanding Research in Agril. & allied
	sciences
Fakruddin ali ahmed-	Outstanding research in Tribal areas
Chaudhary devi lal	Outstanding AICRP award
Sardar Vallabhai Patel award	Outstanding ICAR institute award
**Punjab rao deshmukh	Outstanding woman scientist award
Pandit deen dayal upadhyay Krishi Vigyan puraskar	Best KVK
*King Baudoin International Prize	Green Revolution
Jawaharlal Nehru Award	Outstanding Doctoral thesis research in
4 / 1 / 1	agricultural and allied sciences
Dr. Rajendra puraskar	Technical bulletins in Hindi
NG Ranga Award	Diversified agriculture
Jagjivan ram Puraskar	Innovative farmer
C. Subramanyam award	Outstanding teacher
Chaudhary Charan Singh Award	Excellence in Journalism in Agricultural
	Research and Development
Vasantrao Naik award	Outstanding research and application in
	Dry land farming

ICAR NEWS:

- ➤ The theme of ICAR tableau at its first ever participation in the republic day parade on 2018 is- Integrated Farming System for doubling farmers income
- > The ICAR was awarded First Prize for its Tableau, 'Kisan Gandhi' in the Republic Day Parade 2019. The ICAR tableau displayed the importance of dairy farming, use of indigenous breeds and livestock based organic agriculture for rural prosperity.
- > Krishi Unnati Mela (farmers fair) held at- March 16-17, 2018. New delhi.
- National conference on Agriculture- Doubling farmers income was held at- NASC complex, New Delhi
- ➤ IRRI South Asia regional centre set up at- Varanasi (Dec, 2018)
- The amount of National Talent scholarship for UG and PG students has been increased to Rs.3000 and Rs. 5000 per month
- ➤ ICAR launched Deen Dayal Upadhyay Unnat Krishi Siksha Yojana (PDDUUKSY) to train farmers in Organic farming, natural farming and cow based economy.
- ➤ Icar launched the Agricultural Education Portal for Centralised uniform solution called-EKTA portal (Ekikrit Krishi Shiksha TankiAyaam)

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Downloaded From 'IARI Toppers' Android App

- ➤ ICAR launched NAHEP (National Agriculture Higher Education Portal) sponsored by World bank and Govt. of India for- Attracting talent and further strengthening of higher agriculture education.
- > Developed Raid detection Kit for detecting the presence of 'Ammonia and Formalin' in Fish
- Present DDG of Agricultural Education- Narendra Singh Rathore
- ➤ National Phenomics Research Center established at- New Delhi
- ➤ Number of KVKs conducted exclusive Front line demonstrations on Pulses- 549
- > Number of KVKs conducted exclusive Front line demonstrations on Oilseeds-516
- "Lipoxygenase-2 free Soyabean" with reduced Off-flavour developed by ICAR was-NRC 109
- ➤ Genetically Modified Cotton variety developed by Punjab Agricultural University (PAU), Ludhiana is—PAU Bt 1 and F1861
- Genetically Modified Cotton variety developed by Rajasthan Agriculture University is- RS 2013
- > 4th ASEAN inter ministerial meeting on Agriculture and Forestry held on- 2017, New Delhi
- International Horticulture Innovation and Training Centre is located in Jaipur, Rajasthan
- ➤ Livestock Disease Forewarning Mobile App developed by- ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (ICAR-NIVEDI)
- ➤ ICAR- Central Institute for Women in Agriculture is located at Bhubaneshwar, Odisha. launched following Schemes for women development: 1. Ujjawala 2. Beti Bachao Beti Padhao 3. One Stop Centre 4. STEP 5. SWADHAR
- ➤ IARI has developed 'Pusa Soil Testing and Fertilizer Recommendation Meter' for facilitating the reach of soil testing at the farmers' doorstep.
- ➤ 4th Agriculture Leadership Summit held at- 19 Feb, 2019 at Sonipat, Haryana. (theme: ENtrepreneurhsip & Agribusiness; Agri Allied- A Promising Sector and Agri service-Direct marketing.)
- ➤ 14th Agriculture Science Congress held at- Feb 20-23, New Delhi. (theme: Innovations for Agricultural Transformation)
- ➤ ICAR-IVRI in collaboration with IASRI developed IVRI vaccination Guide App.

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➤ KVK Mobile App developed by- ICAR-IASRI

ICAR PUBLICATIONS:

English	Hindi
1. Indian Journal of Agricultural Sciences	Kheti (monthly)
(Monthly)	
2. Indian Journal of Animal Sciences (Monthly)	Phal Phool(Bi Monthly)
3. Indian Farming (Monthly)	Krishi Chayanika
4. ICAR News (Quarterly)	r
5. ICAR Reporter (Quarterly)	
6. Indian Horticulture (Bi Monthly)	,
7. ARIS (Quarterly1. Kheti(Monthly)	

➤ LDF (Livestock Disease Forewarning) mobile app developed by – ICAR, NIVEDI (National Institute of veterinary Epidemiology and Disease Informatics), Bangalore

New Schemes of KVK (2018-19)

- > NARI- Nutrisensitive Agricultural Resources and Innovations
- > KSHAMTA- Knowledge Systems and Homestead Agriculture Management in Tribal Areas
- **VATICA-** Value Addition and Technology Incubation Centres in Agriculture
- **FIRM-** Farm Innovation Resources Management

Apps developed by ICAR: Kisan Suvidha, Pusa Krishi (IARI), Info equine, pasuprajanan, Agri market, Crop insurance, MKisan application

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Five Year Plans (Concept taken from Russia)

FYP	Priority Area
**I FYP (1951-56)	Famous called as "Harrod Domar" model, priority to
Harrod-Domar model	agriculture and allied sectors
II FYP (1956-61)	Famously called as Mahalanobis Model, Priority to
Mahalanobis Model	Industry or manufacturing sector
**III FYP (1961-66)	Agriculture registered Negative Growth rate, priority
	to achieve Self sufficiency in food grain production and to stop
	import of food grains from USA
IV FYP (1969-74)	Growth and Justice
***V FYP (1974-79)	Removal of poverty and self reliance
VI FYP (1980-85)	Family planning
Rolling plan	
VII FYP (1985-90)	Food Production, Employment, Productivity
**VIII FYP (1992-97)	Famously called as "Indicative planning",
Indicative planning	Employment Generation, Control of Population and
	Economic reforms
IX FYP (1997-2002)	Growth Rate of 7 percent
XFYP (2002-2007)	Self employment and resources and development
XI FYP (2007-2012)	Improvement of Health, Education and Sanitation.
XII FYP (2012-17)	Faster, Sustainable & more inclusive growth".

International Agricultural institutions

CATIE (Tropical Agricultural Research and Higher Education Centre)	Turrialbas, Cartago Costa Rica
CIAT (International Center for Agricultural Research)	Cali.,Columbia
**CIMMYT (International Maize and Wheat Improvement Center).	Mexico City, Mexico
CIP (International Potato Center)	Lima, Peru

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IFPRI (International Food Policy Research Institute)-	Washington D.C. United States
ICRAF (World Agroforestry Centre formerly International Center	Nairobi, Kenya
for Research in Agroforestry)	
**ILRI (International Livestock Research Institute)	Nairobi, Kenya
IITA (International Institute of Tropical Agriculture)	Ibadan, Nigeria
CIFOR (Center for International Forestry Research)	Bogor Barat, Indonesia
ICRISAT (International Crops Research Institute for the Semi-Arid Tropics).	Patanchcheru, Hyderabad, India
IRRI - (International Rice Research Institute)	Los Banos, Philippines
IWMI- (International Water management Institute)	Colombo, Sri Lanka
Biodiversity International.	Rome. Italy
CGIAR- ('Consultative Group for International Agricultural Research)	Montpellier –France
ICARDA- (International Center for Agricultural Research in the Dry Areas)	Beirut, Syria
WARDA- (West African Rice Development Association)	Costa rica
ISNAR - (International. Service for National Agricultural Research	Netherlands, Hague
International Agronomical research Center	Montpellier, France
World Fish Center	Penang, Malaysia
International Water Management Institute (IWMI)	Colombo, Srilanka
Food and Agriculture organization (FAO)-	Rome
Asian Vegetable Research and Development Centre (AVRDC)	Taiwan
International Centre for Foot and Mouth Disease- (ICFMD)	Arugal, Odisha, India
Asia Pacific Association Of Agricultural Research Institute (APAARI)	Thailand
**International Horticulture Innovation And Training Center	Jaipur, Rajasthan
World Meteorological Organization	Geneva
IPGRI-International Plant Genetic Resources Institute	Rome, Italy

1. CGIAR:

- **❖** Famously called as "Partnership of funders and international agricultural research centers"
- Objectives: To reduce poverty and hunger, improve human health and nutrition, and enhance ecosystem resilience through high-quality international agricultural research, partnership and leadership.
- **❖** Total number of CGIAR institutions- 15
- **Funding:** from various institutes and countries FAO, UNDP, Ford foundation, World Bank, IFAD, Asian development bank, African development bank, OPEC.
- 2. Food and Agriculture organization (FAO)- Rome

Parental organization: UN Social and economic council

Funding: Multilateral institutions such as the World Bank, regional development banks and international funds as well as FAO resources.

Organizations:

- (a). BRICS- Brazil Russia India China South Africa (05)
 - **❖** Term coined by Jim O Neill
 - **❖** Founded in − **2009**
 - Headquarters of BRICS development bank- Shanghai
 - **BRICS** headquarters- Shanghai
 - 9th BRICS summit (recent) happened at- Xiamen, China
 - **❖** Chairman of BRICS development bank: KV Kamath
- (b). **SAARC:** South Asian Association for Regional Cooperation, 1985
 - * Headquarter: Kathmandu, Nepal
 - ***** Founder Members: 6
 - ❖ Present Members: 8 (Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka)
 - ❖ 20th SAARC summit will be held in- Srilanka, 2018
 - **SAARC** secretary general- **Arjun Bahadur Thapa**
 - **❖** SAARC Agriculture Centre located at- Bangladesh
- (C). Organization of the Petroleum Exporting Countries (OPEC):

Headquarter: Vienna

Member countries: 14

- "India is a member country of: SAARC, G-20, G-77, WTO, IMF, World bank & BRICS, BIMSTEC".
- > India is not a member country of ASEAN, G-7, OPEC.

(d). <u>Bay of Bengal Initiative for Multisectoral Technical and Economic Cooperation</u> (BIMSTEC)

Founded: 1997

Headquarter: Dhaka, Bangladesh Member

countries: 07

(e). World Trade Organization: (India is Founder Member country)

Founded: 1 Jan, 1995

Headquarter: Geneva, Switzerland

Member countries: 193

Director General: Robert Azevedo

Organization	Number of Member	Year of Establishment
	Countries	
WTO	164	01.01.1995
UNO	193	24.10.1945
IMF	189	27.12.1945
SAARC	08	1985
BRICS	05	2009

Some Important Policies/Commissions on Agriculture	
*NATIONAL AGRICULTURAL POLICY	2000
*National Commission on Farmers (NCF)	2004
(Chairman: MS Swaminathan)	
**National Commission on Agriculture	Initiated in 1970
(Chairman: MS Randhwa)	Submitted its report: 1976
*National Agricultural Development	2007
Programme	
*National Policy for Farmers	2007

Revolutions related to agriculture

❖ Green Revolution	Over all crop production
❖ White Revolution	Milk production

* Black Revolution	Petroleum Production/crude oil production
❖ Brown Revolution	Leather/Cocoa production
❖ Golden Fibre Revolution	Jute Production
❖ Golden Revolution	Fruits/Overall Horticulture development/Honey Production
❖ Grey Revolution	Fertilizer
❖ Brown Revolution	Leather/Cocoa production
Yellow Revolution	Oil Seeds
❖ Round Revolution	Potato
❖ Silver Fiber Revolution	Cotton
❖ Silver Revolution	Egg/Poultry
❖ Evergreen/Rainbow revolution	Overall development of Agriculture
❖ Sweet Revolution	Honey Production

Some Important National Institutes:

INSTITUTE	Location
National Research Centre on Integrated	Motihar, Bihar
Farming System (ICAR-NRCIF)	
IRRI South Asia Regional Centre	Varanasi, U.P.
*Indian Institute of Farming Systems Research	Meerut, UP
(IIFSR)	
**IIRS – Indian Institute of Remote Sensing,	Dehradun, Uttarakhand
**CIRCOT - Central Institute for Research on	Mumbai, Maharashtra
Cotton Technology,	
CIRG - Central Institute for Research on Goats,	Makhdoom, Farah, Uttar Pradesh
*Indian Institute of Agricultural Biotechnology	Ranchi, Jharkhand
(IIAB)	
*National Institute of Biotic Stresses	Raipur, Chhattisgarh
Management (NIBSM)-	OTC
*National Institute of Abiotic Stress	Malegaon, Maharastra
Management (NIASM) -	
CISTH – Central Institute of Sub-Tropical	Lucknow, Uttar Pradesh
Horticulture	
CITH - Central Institute of Temperate	Srinagar, Jammu & Kashmir
Horticulture	
central Institute of Arid Horticulture	Bikaner, rajasthan
Central Seed Testing Referral Laboratory	Varanasi
**CIWA - Central Institute for Women in Agriculture	Bhubaneshwar, Odisha

CMFRI – Central Marine Fisheries Research	Cochin, Kerala
Institute	
CPCRI – Central Plantation Crops Research	Kasargod, Kerala
Institute	
CPPTI – Central Plant Protection Training	Hyderabad
Institute	
CPRI – Central Potato Research Institute,	Shimla, Himachal Pradesh
CRIDA - Central Research Institute for	Hyderabad, Telangana
Dryland Agriculture	
CRIJAF – Central Research Institute for Jute	Barrackpore, West Bengal
and Allied Fibres	
Directorate of Knowledge Management in	New Delhi
Agriculture	/
CSSRI – Central Soil Salinity Research Institute	Karnal, Haryana
CIFA - Central Institute of Freshwater	Bhubaneshwar, Odisha
Aquaculture	
CIFRI – Central Inland Fisheries Research	Barrackpore, West Bengal
Institute	
CIFT – Central Institute of Fisheries Technolgy	Cochin, Kerala
IGFRI – Indian Grassland and Fodder Research	Jhansi, UP
Institute	
CIMAP – Central Institute of Medicinal and	Lucknow, Uttar Pradesh
Aromatic Plants	
CIPHET – Central Institute of Post-harvest	Ludhiana, Punjab
Engineering and Technology,	
IIAB - Indian Institute of Agricultural	Ranchi, Jharkhand
Biotechnology,	
IIFSR - Indian Institute of Farming Systems	Modipuram, UP
Research	
IIHR – Indian Institute of Horticultural	Bangalore, Karnataka
Research,	Arc
**IIMR - Indian Institute of Maize Research,	Ludhiana, Punjab
IIMR - Indian Institute of Millets Research,	Hyderabad, Telangana
IINRG – Indian Institute of Natural Resins and	Ranchi, Jharkhand
Gums	
IIWBR- Indian Institute of Wheat and Barley	Karnal, Haryana
Research	
IIOR - Indian Institute of Oilseeds Research	Hyderabad, Telangana
IIPR – Indian Institute of Pulses Research	Kanpur, Uttar Pradesh
**IIRR - Indian Institute of Rice Research	Hyderabad, Telangana

IISR – Indian Institute of Spices Research, ,	Calicut, Kerala
**IISR - Indian Institute of Seed Research,	Mau, Uttar Pradesh
Indian Vegetable Research institute	Varanasi, UP
National Research Centre for Citrus (NRCC)	Nagpur,MH

NATIONAL BUREAUS-06

NBAGR – National Bureau of Animal Genetic Resources	Karnal, Haryana
NBAII – National Bureau of Agriculturally Important Insects	Hebbal, Bengaluru, Karnataka
NBAIMO – National Bureau of Agriculturally Important Micro-Organisms	Mau Nath Bhanjan, Uttar Pradesh
NBFGR – National Bureau of Fish Genetic Resources	Lucknow, Uttar Pradesh
NBPGR – National Bureau of Plant Genetic Resources	New Delhi
NBSS & LUP – National Bureau of Soil Survey and Land-Use Planning	Nagpur, Maharashtra

Deemed Universities- 04

IARI - Indian Agricultural Research Institute	New Delhi
NDRI - National Dairy Research Institute	Karnal, Haryana
IVRI - Indian Veterinary Research Institute	Izatnagar, Uttar Pradesh
CIFE - Central Institute on Fisheries Education	Mumbai, Maharshtra



