# AGRICULTURE CURRENT AFFAIRS 2019-20

Third Edition

# A book for all Agricultural Competitive exams

#### **Inside:**

NABARD norms
All Schemes
Subsidies
Current affairs MCQs
NABARD Annual report
Export data

By D.K. Wadhwa

#### **INDEX**

- 1. Economic Survey 2018-19
- 2. Union Budget 2019-20
- 3. Minimum Support Price (MSP)
- 4. List of current cabinet Ministers
- 5. Top three export destination of India (Major commodities)
- 6. Top two Import destination of India (Major commodities)
- 7. NABARD Annual report (Summarized)
- 8. Subsidiaries of NABARD
- 9. 20th Livestock Census
- 10. MSME
- 11. Agriculture leadership awardees 2019
- 12. List of Padma Shri award to farmers
- 13. State wise production (Fruits)
- 14. State wise production (Vegetables)
- 15. State wise production (Flowers)
- 16. State wise production (Plantation)
- 17. State wise production (Cereals and major commodities)
- 18. International Production & India's rank (Major commodities)
- 19. Production of Food grains for 2017-18
- 20. Area and Production of Horticulture Crops
- 21. Per capita availability
- 22. All India area, production and productivity of horticulture crops
- 23. Livestock Population 2019 of Major States (List of top three)
- 24. Major schemes, launching date and fund
- 25. State wise fishing craft
- 26. GST rate on different Agricultural commodities
- 27. Food Act
- 28. Difference between FSSAI and AGMARK
- 29. Agri export zones of APEDA
- 30. Agriculture Census 2015-16
- 31. Socio Economic and Caste Census (SECC)
- 32. Forest Report-2017
- 33. Organization and chief person
- 34. India's Position in World Agriculture
- 35. Latest RBI Bank Rates
- 36. Important days
- 37. GI Tag
- 38. Millets
- 39. Crop Residue Burning

#### 40. Irrigation

#### 41. Important schemes

- i. Pradhan Mantri Matsya Sampada Yojana
- ii. Pradhan Mantri Kisan SAMPADA Yojana
- iii. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
- iv. Pradhan Mantri Shram-Yogi Maandhan
- v. PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan)
- vi. Pradhan Mantri Krishi Sinchayi Yojana
- vii. Per Drop More Crop Other Interventions (SWMA)
- viii. Soil Health Card Scheme (SHC)
  - ix. Mridpriskshk
  - x. Paramparagat Krishi Vikas Yojana (PKVY)
  - xi. National Agriculture Market (e-NAM)
- xii. Pradhan Mantri Fasal Bima Yojana (PMFBY)
- xiii. Pradhan Mantri Jan Dhan Yojana (PMJDY)
- xiv. Mega Food Parks Scheme
- xv. Kisan Credit Card (KCC) Scheme
- xvi. Pashu Kisan Credit Card
- xvii. RuPay Mudra Debit Card
- xviii. Pradhan Mantri Mudra Yojana
  - xix. 'Nal se Jal' scheme
  - xx. 'Yuva Sahakar' Scheme
  - xxi. Baroda Kisan
- xxii. Krushak Assistance for Livelihood and Income Augmentation (KALIA)
- xxiii. Odisha Government launches Saura Jalnidhi scheme
- xxiv. Agri-clinics and agri-business centres scheme (ACABC)
- xxv. Kisan Call Centres (KCC)
- xxvi. Interest Subvention Scheme (ISS)
- xxvii. Atma Yojana
- xxviii. Lead Bank scheme
- xxix. Integrated Development and Management of Fisheries
  - xxx. Pradhan Mantri Van Dhan Yojana (PMVDY)
- xxxi. Crop Residue Management Scheme
- xxxii. Krishi Dak
- xxxiii. Farmer FIRST
- xxxiv. Mera Gaon Mera Gaurav
- xxxv. Attracting and Retaining Youth in Agriculture (ARYA) Scheme
- xxxvi. STUDENT READY
- xxxvii. Gramin Agricultural Markets (GrAMs)
- xxxviii. e-Pashuhaat portal

- xxxix. Umbrella Scheme 'Green Revolution Krishonnati Yojana'
  - xl. National Food Security Mission (NFSM)
  - xli. National Mission for Sustainable Agriculture (NMSA)
  - xlii. National Oilseeds and Oil Palm Mission
  - xliii. Pradhan Mantri Kisan SAMPADA Yojana
  - xliv. Rashtriya Krishi Vvikas yojana (RKVY)
  - xlv. Gobar-DhanYojna
  - xlvi. Saffron revolution
  - xlvii. Nari tu Narayani/Women
  - xlviii. Nari Shakti Puraskar (2018)
  - xlix. Dairy Development schemes
    - 1. National Livestock Mission
    - li. National Mission on Bovine Productivity
    - lii. Rashtriya Gokul Mission
- 42. Important MCQs from important schemes
- 43. National and international organization
- 44. ICAR awards
- 45. ICAR initiative for improvement of Agriculture
- 46. Publication of ICAR
- 47. Revised names of ICAR institutes
- 48. List of important organization with their brief detail
- 49. Institutions in Agriculture their location and establishment year
- 50. National Seed Corporation (NSC)
- 51. Coconut Development Board (CDB)
- 52. Poly Houses
- 53. Farmer Producer Organizations (FPOs)
- 54. Apiculture
- 55. National bee board (NBB)
- 56. Sericulture
- 57. Central Silk Board
- **58. ZBNF**
- 59. Mobile app for farmers
- 60. Web portals developed by GOI
- 61. Natural Resource data
- 62. New varieties released by ICAR
- 63. NABARD Norms
- 64. Important Subsidies
- 65. Important one liner
- 66. Current affairs Practice set



#### **Highlights of Economic Survey 2018-19**

Contact: 9828822277

- ❖ Gross Value Added (GVA) in agriculture decreased from 6.3 percent in 2016-17 to 2.9 percent in 2018-19.
- ❖ Gross Capital Formation (GCF) in agriculture as percentage of GVA marginally declined to 15.2 per cent in 2017-18 as compared to 15.6 per cent in 2016-17.
- ❖ The public sector GCF in agriculture as a percentage of GVA increased is 2.7 per cent in 2016-17.
- ❖ Women's participation in agriculture increased to 13.9 per cent in 2015-16.
- ❖ 89% of groundwater extracted is used for irrigation and 6 and 5% for industry and housing respectively.
- ❖ Fertilizer response ratio has been declining over time. Organic and natural farming techniques including **Zero Budget Natural Farming (ZBNF)** can improve both water use efficiency and soil fertility.
- ❖ Adopting appropriate technologies through **Custom Hiring Centers** and implementation of ICT are critical to improve resource-use efficiency among small and marginal farmers.
- ❖ **Diversification of livelihoods** is critical for inclusive and sustainable development in agriculture and allied sectors.

#### **Union Budget 2019-20**

- ➤ The annual average growth rate registered at **2.88 per cent during 2014-2018** in agriculture and allied sectors. It was well below the prescribed target of 4 per cent per annum
- ➤ The Gross Value Added (GVA) of agriculture and allied sector during 2018-19 was recorded at 2.9 per cent against 6.3 per cent in 2016-17.
- ➤ The proposed Budget 2019-20 has historic allocation for the Ministry of Agriculture and Farmers' Welfare: Rs 1,30,485 crore —the highest-ever.

#### **Key Highlights**

Contact: 9828822277

#### I. Allocation to Centrally Sponsored Schemes:

➤ 2019-20 Budget allocation reduced for National Social Assistance Programme, Green Revolution and Pradhan Mantri Awas Yojana and remained constant for Pradhan Mantri Gram Sadak Yojana (PMGSY). Allocation for National Rural Drinking Water Mission, National Livelihood Mission – Ajivika (Launched in 2011 and renamed in 2015 as DAY-NRLM) and Jobs and Skill Development initiative witnessed enhancement in the BE 2019-20.

#### **II. Zero Budget Farming:**

➤ It is expected that government would devise an effective and smooth road map to cover India's 14.1 crore farmer households on the issues of organic farming and zero-budget farming.

#### **III. Promotion of FPOs:**

➤ The Budget has a 5-year long-term target to form 10,000 Farmer Producer Organisations (FPOs) to ensure economies of scale for farmers. FPOs are collectivization of producer's especially small and marginal farmers, to collectively address challenge of agriculture.

#### IV. Investment in Irrigation:

- ➤ Irrigation coverage of only 46% of net cultivated area of 141 million hectares in the country.
- ➤ Budget continued its stress on strengthening Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) which targeted to irrigate the field of every farmer and to improve water use efficiency.

#### V. Rural Drinking Water Security:

- Not only a new Ministry, i.e., Jal Shakti Mantralaya has been carved out by integrating Ministries of Water Resources, River Development and Ganga Rejuvenation and Ministry of Drinking Water and Sanitation, the Budget has also allocated Rs. 10,000 cr. to National Rural Drinking Water Mission in 2019-20 which registered a massive 43 per cent increase.
- ➤ The mandate of the Mission is to achieve the objective of **Har Ghar Jal** [piped water supply to each household].

#### VI. e-NAM & Agri-marketing

#### VII. Value Chain Finance:

➤ To boost agri-business, the government has been attempting to ensure robust modern infrastructure in the food processing sector along the entire value/supply chain of food processing through its scheme Pradhan Mantri Kisan Sampada Yojana (PMKSY).

Contact: 9828822277

➤ Budget 2019-20 expressed its will to invest widely in agri-infrastructure by supporting private entrepreneurships in driving value-addition to farmer's produce from the field and for those in the allied activities as well.

#### **Minimum Support Price:**

- ➤ MSPs are minimum prices at which govt. purchases the commodities from farmer.
- ➤ The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops.
- ➤ MSP was declared for the first time in 1965.

WI TO THE REPORT OF THE PARTY O

- ➤ MSPs are decided on their production cost plus the imputed value of family labour at prevailing wage rate(A2+FL). While the recommendation given by CACP is C2 Method.
- ➤ Government announces minimum support prices (MSPs) for 22 mandated crops and fair and remunerative price (FRP) for sugarcane on the basis of recommendations of the CACP.
- > Pricing policy for sugarcane is known as FRP (Fair and remunerative price)
- ➤ In 1975-76, the present system was evolved in which only one set of prices was

#### **Current MSP Rate:**

Commodity	2018-19	2019-20	
<b>Paddy Common</b>	1750	1815	
Paddy Grade'A'	1770	1835	
Jowar-Hybrid	2430	2550	
Jowar-Maldandi	2450	2570	
Bajra	1950	2000	
Ragi	2897	3150	
Maize	1700	1760	
Tur (Arhar)	5675	5800	
Moong	6975	7050	
Urad	5600	5700	
Groundnut	4890	5090	
Sunflower Seed	5388	5650	
Soyabean Yellow	3399	3710	
Sesamum	6249	6485	
Nigerseed	5877	5940	
Medium Staple Cotton ^	5150	5255	
<b>Long Staple Cotton</b>	5450	5550	
Rabi			
Wheat	1840	1925	
Barley	1440	1525	
Gram	4620	4875	

Lentil (Masur)	4475	4800		
Rapeseed/ mustard	4200	4425		
Safflower	4945	5215		
OTHER COMMERCIAL CROPS				
Jute	3950			
Sugarcane	275			
Copra (Milling)	9521	<b>V</b> (1)		
Copra (Ball	9920			

#### **List of current cabinet Ministers:**

Contact: 9828822277

- 1. **Shri Narendra Singh Tomar:** Ministry of Agriculture & Farmers Welfare, Ministry of Rural Development, Ministry of Panchayati Raj
- 2. Smt. Harsimrat Kaur Badal: Ministry of Food Processing Industries
- 3. Smt. Smriti Zubin Irani: Ministry of Textiles
- 4. Shri Giriraj Singh: Ministry of Animal Husbandry, Dairying and Fisheries
- 5. Shri Gajendra Singh Shekhawat: Ministry of Jal Shakti
- 6. Shri Parkash Jawedkar: Minister of environment

- 7. Shri D.V. Sadananda Gowda: Ministry of Chemicals and Fertilizers
- 8. **Shri Ramvilas Paswan:** Ministry of Consumer Affairs, Food and Public Distribution
- 9. **Shri Nitin Jairam Gadkari**: Ministry of Micro, Small and Medium Enterprises, Ministry of Road Transport and Highways
- 10. Nirmala Sitharaman: Minister of finance

#### **Top Three Export Destination Of India**

	1st	2nd	3rd
Floriculture	USA	Netherland	UK
Onions	Bangladesh	Malaysia	United Arab Emirates/Sri Lanka
Tomatoes	United Arab Emirates	Nepal	Qatar
Potatoes	Nepal	Sri Lanka	Oman
Walnuts	Germany	UK	USA
Mangoes	United Arab Emirates	UK	Oman/ Saudi Arabia
Fresh Grapes	Netherland	Russia	UK
Papaya	United Arab Emirates	Saudi Arabia	Qatar
Fresh Apple	Nepal	Bangladesh	Iran
Fresh Banana	United Arab Emirates	Oman	Iran
Fresh Oranges	Bangladesh	Nepal	United Arab Emirates
Fresh/Dried Guavas	United States	United Arab Emirates	Qatar
Litchi	Nepal	United Arab Emirates	Saudi Arabia
Cucumber and Gherkins (Prepared & Preserved)	USA	France	Russia
Pulses	Algeria	United Arab Emirates	USA
Natural Honey	USA	United Arab Emirates	Saudi Arab
Groundnuts	Indonesia	Philippines	Vietnam
Basmati Rice	Iran	Saudi Arab	Iraq
Wheat	Nepal	Bangladesh	United Arab Emirates
Maize	Nepal	Bangladesh	Vietnam
Groundnuts	Indonesia	Philippines	Vietnam
Alcoholic Beverages	United Arab Emirates	Singapore	Netherland

<b>Buffalo meat</b>	Vietnam	Malaysia	Indonesia
<b>Poultry product</b>	Oman	Maldives	Japan
<b>Dairy Products</b>	Turkey	UAE	Egypt
Non-Basmati	Nepal	Benin	Senegal
Rice			

#### Top two Import destination of India:

4623	1st	2nd
Fresh Fruits and Vegetables	USA	Afghanistan
Processed Fruits and Vegetables	Afghanistan	China
Flowers	Netherland	Thailand

#### **NABARD** Annual report:

#### > Growth rate of different sector:

	2017-18	2018-19 (PE)
<b>GVA</b> at basic prices	6.9	6.6
Agriculture	5.0	2.9
Overall GDP growth	7.2	6.8

- ➤ The low growth of agricultural sector GVA resulted in a declining share of the agriculture and allied sectors in GVA, which touched 14.3% in 2018–19, as compared to 14.9% in 2017–18.
- ➤ The annual growth rate of real gross value added at 2011–12 prices declined to **2.9% in 2018–19 from 5.0% in 2017–18**. A fall in rabi acreage affected the agricultural performance.

#### > Detail of Landholding:

Total operational holdings	145.73
(Million)	

Average holding size (Ha.)	1.08
Gross cropped area (Million Ha.)	198.36
Net sown area (Million Ha.)	140.13

#### **Gross Capital Formation (GCF):**

	2016-17	2017-18
Share of agriculture and	7.8	7.2
allied sector in total GCF	UKRY AV	
GCF in agriculture and	14	13.7
allied sector as a % of		< 623A
<b>GVA</b> of the sector		X 5 \\

- The fiscal deficit for **2018–19 stood at 3.4%**, and the central government has set a fiscal deficit target of 3.3% for 2019–20
- ➤ India's GDP growth is 7.2% in 2017-18
- > Total NPAs of 2018 In case of Scheduled commercial banks stood at 962600 crore, in this agriculture NPA is 83200 crore (8.6 % of total).-Source: RBI
- ➤ Average Rural wages ₹/day:

Year	Agri. Wages (Men)	Agri. Wages (women)	Non- Agri. Wages (Men)	Non- Agri. Wages (women)
2017-18	286	205	330	207
2018-19 (upto feb)	296	214	341	224
	34			

### **Production**

Milk: 176 MMT

Eggs: 95217 million

Fisheries: 12.6 MMT

Meat: 7.7

MMT

Poultry

Meat: 3.76

MT

- NABARD launched a pilot project for the digitization of SHGs titled 'EShakti' in March 2015 in two districts, viz., Ramgarh (Jharkhand) and Dhule (Maharashtra).
- Climate Change Performance Index 2019 places India 11th in the world in terms of climate policies
- ➤ Global Hunger Index 2019: India at **102 out of 117 countries** (Not from NABARD Report)
- A Special Report (SR-15) published by Inter Governmental Panel on Climate Change (IPCC) on 8 October 2015 highlighted that human activities have caused 1.0°C (approx.) of global warming above preindustrial levels (between 1850 and 1900) and the warming is likely to reach 1.5°C between 2030 and 2052.
- ➤ The Climate Change Centre (CCC) at BIRD, Lucknow was inaugurated on **20 July 2018**
- The first GCF project was sanctioned on 'Groundwater recharge and solar micro-irrigation to ensure food security and enhance resilience in vulnerable areas of Odisha' with a grant assistance of US\$34.35 million in April 2017.
- ➤ The project aimed at water resilience in 15 predominantly tribal districts of Odisha.
- ➤ A Producer Organisation Development Fund (PODF) with initial corpus of ₹50 crore was created by NABARD out of its operating surplus, during 2011.
- NABARD has promoted 2,154 FPOs in 29 states, of which around 70% FPOs are registered as Farmers Producer Companies (FPCs) and the remaining as Cooperatives/Societies.
- Promotion of FPOs under PRODUCE fund:

Number of FPOs mobilized/Sanctioned	2154
Number of FPOs registered	2075
Grant amount sanctioned (Crore)	208.88
Grant amount utilized (Crore)	138.43

#### The NABARD All India Financial Inclusion Survey (2015-16)

- Farm households had an average monthly income of ₹8,931 as against ₹7,269 earned by non-agriculture households.
- Cultivation was the main source (35%) of monthly income of agriculture households, followed by wage labour (34%).
- Average size of land holding was 1.08 ha.
- Incidence of indebtedness was 52.5% among agriculture households and 42.8% among non-agriculture households.

#### > Irrigation coverage:

	Area in lakh ha.
Net area under irrigation	683.83
Micro irrigation area	92.05
Drip Irrigation	42.38
Sprinkler irrigation	49.67

#### **▶** Web Portal developed by NABARD:

Web Portals	Purpose
E-Shakti	Digitization of SHG, It coveres 4.34 lakhs SHGs and 47.91 lakhs member beneficiaries in 100 districts.

Watershed development	To capture physical progress of watershed funded by NABARD using GIS technology		
Tribal Development	Data of TDF projects funded by NABARD across 220 districts benefitting 3.65 lakhs farmers		
Krishak Sarathi	For the Digitization of farmers club and their members		
NabSkill	To capture detail of various stakeholders		
Krishak Samridhi	Portal and app for data collection on pilot projects for doubling the farmers income		

#### > SUBSIDIARIES OF NABARD:

- NABCONS, New Delhi, since 2005
- NABFINS, Bengaluru
- NABKISAN, Chennai, since 1997
- NABSAMRUDDHI, Mumbai, since 1997

AMDIGES:

• **NABVENTURES**, Mumbai, since 2018

#### 20th Livestock Census

❖ The livestock census is conducted across the country periodically since 1919.

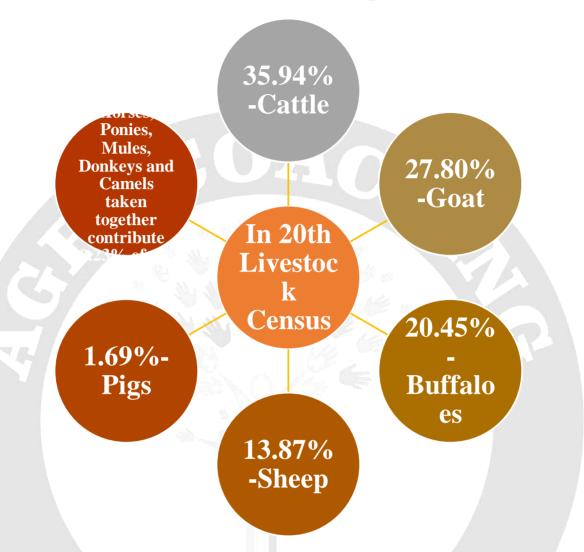
- ❖ The 20th Livestock Census was launched during the month of October, 2018.
- ❖ Various species of animals (cattle, buffalo, mithun, yak, sheep, goat, pig, horse, pony, mule, donkey, camel, dog, rabbit and elephant)/poultry birds (fowl, duck and other poultry birds) possessed by the households, household enterprises/non-household enterprises were counted at that site.
- **Another important feature of 20th Livestock Census** is it has been designed to capture Breed-wise number of animals and poultry birds.
- ❖ The National Informatics Centre, Ministry of Electronics & IT has developed Android based mobile application for data collection.
- ❖ Some of the key outcomes of the 20th Livestock Census is summarized below:
- The total Livestock population is 535.78 million (53.6 crore) in the country showing an increase of 4.6% over Livestock Census2012.
- ➤ Total Bovine population (Cattle, Buffalo, Mithun and Yak) is 302.79 Million in 2019 which shows an increase of 1.0% over the previous census.
- ➤ The total number of cattle in the country is 192.49 million in 2019 showing an increase of 0.8 % over previous Census.
- ➤ The Female Cattle (Cows population) is 145.12 million, increased by 18.0% over the previous census (2012).
- ➤ The Exotic/Crossbred and Indigenous/Non-descript Cattle population in the country is 50.42 million and 142.11 million respectively.
- ➤ The Indigenous/Non-descript female cattle population has increased by 10% in 2019 as compared to previous census.
- > The population of the total Exotic/Crossbred Cattle has increased by 26.9 % in 2019 as compared to previous census.
- ➤ There is a decline of 6 % in the total Indigenous (both descript and non-descript) Cattle population over the previous census. However, the pace of decline of Indigenous Cattle population during 2012-2019 is much lesser as compared to 2007-12 which was about 9%.
- ➤ The total buffaloes in the country is 109.85 Million showing an increase of about 1.0% over previous Census.
- ➤ The total milch animals (in-milk and dry) in cows and buffaloes is 125.34 Million, an increase of 6.0 % over the previous census.

➤ The total sheep in the country is 74.26 Million in 2019, increased by 14.1% over previous Census.

Contact: 9828822277

- ➤ The Goat population in the country in 2019 is 148.88 Million showing an increase of 10.1% over the previous census.
- ➤ The total Pigs in the country is 9.06 Million in the current Census, declined by 12.03% over the previous Census.
- ➤ The total Mithun in the country is 3.9 Lakhs in 2019, increased by 30.0% over previous Census.
- ➤ The total Yak in the country is Fifty Eight Thousand in 2019, decreased by 24.67% over previous Census.
- ➤ The total Horses and Ponies in the country is 3.4 Lakhs in 2019, decreased by 45.6% over previous Census.
- ➤ The total population of Mules in the country is Eighty Four Thousand in 2019, decreased by 57.1% over previous Census.
- ➤ The total population of Donkeys in the country is 1.2 Lakhs in 2019, decreased by 61.23% over previous Census.
- ➤ The total Camel population in the country is 2.5 Lakhs in 2019, decreased by 37.1% over previous Census.
- ➤ The total Poultry in the country is 851.81 Million in 2019, increased by 16.8% over previous Census.
- ➤ The total Backyard Poultry in the country is 317.07 Million in 2019, increased by 45.8% over previous Census.
- ➤ The total Commercial Poultry in the country is 534.74 Million in 2019, increased by 4.5% over previous Census.

#### **Distribution of Livestock Population**



- As compare to previous census the percentage share of sheep and goat population has increased whereas the percentage share of cattle, buffalo and pig has marginally declined.
  - **\*** Livestock Population Major Species

Category	Population	Population (In	% growth
	(In million) 2012	million) 2019	
Cattle	190.90	192.49	0.83
Buffalo	108.70	109.85	1.06
Sheep	65.07	74.26	14.13
Goat	135.17	148.88	10.14
Pig	10.29	9.06	-12.03

Mithun	0.30	0.38	26.66
Yak	0.08	0.06	-25.00
Horses & Pomies	0.63	0.34	-45.58
Mule	0.20	0.08	-57.09
Donkey	0.32	0.12	-61.23
Camel	0.40	0.25	37.05
Total	512.06	535.78	4.63
livestock		ARU (S)	

#### **Livestock Population, 2012 & 2019 of Major States:**

Sr. No.	States	Population (In million) 2012	Population (In million) 2019	% Change
1.	<b>Uttar Pradesh</b>	68.7	67.8	-1.35
2.	Rajasthan	57.7	56.8	-1.66
3.	Madhya	36.3	40.6	11.81
	Pradesh			

#### **❖ Poultry Population 2012 and 2019:**

	Population (In million) 2012	Population (In million) 2019	% growth
<b>Total Poultry</b>	729.21	851.81	16.81
Backyard	217.49	317.07	45.78
Poultry			
Commercial	511.72	534.74	4.50
Poultry			

- The total poultry has increased by 16.81% and the total poultry is 851.81 million during 2019.
- ➤ Over 45.78% increase in backyard poultry and total backyard poultry is 317.07 Million in 2019.
- The commercial poultry has increased by 4.5% and the total commercial poultry is 534.74 million.

#### **❖** Poultry Population, 2012 & 2019 of Major States:

Sr. No.	States	Population (In million) 2012	Population (In million) 2019	% growth
1	Tamilnadu	117.3	120.8	2.92
2	Andhra Pradesh	80.6	107.9	33.85
3	Telangana	80.6	80.0	-0.93

Contact: 9828822277

#### **\*** Cattle:

- ➤ Total Cattle Population in the country is 192.49 Million during 2019.
- Total Cattle **is increased by 0.8%** over previous Livestock Census (2012).
- Female Cattle Population increased by 18.0% whereas Male cattles decreased by 30.2% over previous census.
- ➤ About 36% of the total livestock is contributed by cattle.

#### Exotic/Crossbred and Indigenous/Non-Descript Cattle Population-Male, Female and Total

Category	Population (In million) 2012	Population (In million) 2019	% Change
<b>Total Cattle</b>	190.90	192.49	0.8
Exotic/Crossbred	and a feet of		34/
Male	5.97	3.46	-42.0
Female	33.76	46.95	39.1
Total Exotic/Crossbred	39.73	50.42	26.9
Indigenous/Non-			
Descript			
Male	61.95	43.94	-29.1
Female	89.22	98.17	10.0
Total Indigenous/Non- Descript	151.17	142.11	-6.0

#### **Cattle Population - Milch Cattle:**

Category	Population (In million) 2012	Population (In million) 2019
Cattle- milch animals (in milk+ dry)	67.54	74.18
Total Cattle – dry	23.59	22.20
<b>Total Cattle- in milk</b>	43.95	51.98

Contact: 9828822277

- > Total milch cattle in the country is 74.18 Million increased by 9.8 % over the previous census.
- ➤ Milch Cattle of Exotic-Crossbred has increased by 32.2% over previous census
- Milch Cattle of Indigenous/Non-Descript has increased marginally by 0.8%

## **❖** In-milk, Dry and Milch Cattle for Exotic/Crossbred and Indigenous/Non-Descript:

Breed Group	Category	Population (In million) 2012	Population (In million) 2019	% change
<b>Exotic/Crossbred</b>	In Milk	14.30	20.0	39.8
	Dry	5.12	5.67	10.8
	Milch	19.42	25.67	32.2
Indigenous	In milk	29.65	31.98	7.87
/Nondescript	Dry	18.48	16.53	-10.53
	Milch	48.13	48.51	0.81

#### **Cattle Population, 2012 & 2019 in Major States:**

Sr. No.	States	Population (In million) 2012	Population (In million) 2019	% growth
1	West Bengal	16.5	19.0	15.18
2	<b>Uttar Pradesh</b>	19.6	18.8	-3.93
3	Madhya Pradesh	19.6	18.7	-4.42
4	Bihar	12.2	15.3	25.18

5	Maharashtra	15.5	13.9	-10.07

#### **❖** Buffalo:

- ➤ Total Buffalo Population in the country is **109.85 Million during 2019.**
- ➤ Total Buffalo has increased by 1.1% over previous Livestock Census (2012).
- Female Buffalo Population increased by 8.61% whereas Male Buffalo is declined by 42.35% over previous census.
- About 20.5% of the total livestock is contributed by buffaloes.
- ➤ Milch buffalo population has increased marginally by 0.2% over previous census in which in-milk has increased by 4.3% whereas Dry category has declined by 10.2%.

#### **❖** Buffalo Population 2012 & 2019 of Major States:

Sr. No.	States	Population (In million) 2012	Population (In million) 2019	% growth
1	<b>Uttar Pradesh</b>	30.6	33.0	7.81
2	Rajasthan	13.0	13.7	5.53
3	Gujarat	10.4	10.5	1.52

> 2019: UP> Rajasthan > Gujrat

#### **Sheep:**

- ➤ Total Sheep Population in the country is 74.26 Million during 2019.
- ➤ Total Sheep has increased by 14.13% over previous Livestock Census (2012).
- ➤ About 13.8% of the total livestock contributed by Sheep.

#### **Sheep Population 2012 & 2019 of Major States:**

➤ 2019: Telangana > Andhra Pradesh > Karnataka

#### **\*** Goat:

➤ Total Goat Population in the country is 148.88 Million during 2019.

Total Goat has increased by 10.14% over previous Livestock Census (2012).

Contact: 9828822277

➤ About 27.8% of the total livestock is contributed by goats.

#### **Goat Population 2012 & 2019 of Major States:**

➤ 2019: Rajasthan> west Bengal >U.P.



#### **MSME**

Now **MSMEs** are defined as per the "annual turnover instead of investment in Plant Machinery.

Contact: 9828822277

- ➤ As per MSME Act-2006, The MSMEs are classified into two categories:
- **1. Manufacturing Enterprises**-The enterprises engaged in the manufacture or production of goods (as per Development and regulation Act, 1951).
- **2. Service Enterprises**: -The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

#### New definition of the MSMEs in India:

Manufacturing Sector				
Micro Enterprises	Annual turnover is less than Rs.5 cr.			
<b>Small Enterprises</b>	Annual turnover is between Rs. 5 Cr to Rs. 75 cr.			
<b>Medium Enterprises</b>	Annual turnover is between Rs. 75 Cr to Rs. 250 cr.			
	Service Sector			
Micro Enterprises	Annual turnover is less than Rs.5 cr.			
Small Enterprises	Annual turnover is between Rs. 5 Cr to Rs. 75 cr.			
<b>Medium Enterprises</b>	Annual turnover is between Rs. 75 Cr to Rs. 250 cr.			

#### **Important Findings:**

- 1. At present, approximately **36.1 million units of Micro, Small and Medium Enterprises** are engaged in production in India.
- 2. MSMEs provide employment to around 120 million people in India.

- 3. MSMEs are responsible for 45% share of India's total export.
- 4. MSMEs contribute around **6.11%** of the manufacturing GDP and **24.63%** of the GDP from service activities.

- 5. The contribution of this sector to the country's Gross Domestic Product is about 8%.
- 6. GST registered MSMEs can get **2% interest subvention** from Government for incremental loans of **Rs 1 crores** under the MSME Credit Scheme.
- 7. The MSME became operational on October 02, 2006.
- RBI gives relief to the MSME sector: RBI allowed a one-time restructuring of existing debt of up to 25 crore rupees for the MSMEs which have defaulted on payment of loans. The restructuring of loans will be implemented by 31 March 2020. It will help the Micro, Small and Medium Enterprises which are facing cash crunch due to demonetization and GST implementation.

#### Agriculture leadership awardees 2019:

S. No.	Category	Name
1.	Farming Leadership	Sh. OP Dhankar, Agriculture Minister of Haryana
2.	Young Scientist	Dr. Shravan M Haldhar, Scientist, Central Institute for Arid Horticulture, Bikaner
3.	ICT Leadership	Dr. M. Moni, Chairman, ICFA Working Group on ICT and Former Director General, NIC
4.	Research Leadership	Dr. Renu Swarup, Secretary, Department of Biotechnology, Government of India
5.	Academic Leadership	Amity University
6.	Development Leadership	NASSCOM

7.	Technology Leadership	MicroAlgae Solutions India Private Limited
_		
8.	Entrepreneur Leadership	Mr. R Tamilselvan, Chairman – RR Group, Chennai
9.	Industry Leadership	EID Parry (I) Limited
10.	Agribusiness Leadership	Ascen HyVeg Private Limited
11.	Innovations Leadership	Sonalika Group
12.	Corporate Leadership	FMC India Private Limited
13.	CSR Leadership	ITC Limited – Agri Business Division
14.	Best Agriculture State	The State of Bihar
15.	Best Animal Husbandry State	The State of Gujarat
16.	Best Horticulture State	The State of Mizoram
17.	<b>Best Fisheries State</b>	The State of Odisha
18.	Policy Leadership	Dr. Ashok Dalwai, CEO, NRAA and Chairman, PM's Task Force on Doubling Farmer Incomes
19.	Lifetime Achievements	Dr. Panjab Singh, President, National Academy of Agricultural Sciences
20.	International Leadership	Sh. Suresh Prabhu, MP and PM's Sherpa for G20

#### Padma Shri award to farmers:

Contact: 9828822277

Out of 12, four are farmers who used traditional methods of farming to bring change.

- 1. Kamala Pujhari got for **conserved hundreds of local varieties of paddy** and promotes organic farming.
- 2. Rajkumari Devi, has been popular for her **expertise in assessing the soil quality** to ensure successful harvest. She is popularly known as '**Kisan** Chachi', and hails from Muzzaffarpur district in Bihar.
- 3. Babulal Dahiyaa, a farmer from Madhya Pradesh's Pithaurabad village and one of the awardees, has been **growing 110 traditional varieties of crops** within two acres of land.
- 4. Hukumchand Patidar from Rajasthan is a farmer who has been **practicing organic farming on a 40 acre piece of land.** His produce is exported to over seven countries.
- 5. Venkateswara Rao Yadlapalli, who has been awarded for using technology mixed with other farming methods, has developed an **app** called Rythunestham.
- 6. Ram Sharan Verma, who has been awarded a Padma Shri for introducing 'hi-tech agriculture' in Uttar Pradesh's Barabanki district.
- 7. Bharat Bhushan Tyagi from Uttar Pradesh has also been awarded a Padma Shri under the **same category.**
- 8. Vallabhbhai Vasrambhai Marvaniya, who was reportedly the first person to **sell carrots in Gujarat in 1943**, when he was just 13 years old. He later found a variety, known as the madhuvangajar, which he started cultivating in 1985.
- 9. Kanwal Singh Chauhan from Haryana was awarded for **innovation in babycorn** and **mushroom**.
- 10. Jagdish Prasad Parikh was awarded for growing **jumbo variety of cauliflowers**.

Under the animal husbandry sector, Sultan Singh and Narendra Singh from Haryana were awarded for their work in fisheries and dairy breeding respectively.

# State wise production (Highest): Fruits (2017-18)

Sr No.	State		Production Share (%)
Almond	3(0)/4/2		
1	Jammu & Kashmir	12.93	94.45
2	Himachal Pradesh	0.76	5.55
Apple			
1	Jammu & Kashmir	1,808.33	77.71
2	Himachal Pradesh	446.57	19.19
Banana	130 - C		193
1	Andhra Pradesh	5,003.07	16.27
2	Gujarat	4,472.32	14.54
Guava	10 0 10-6		
1	Uttar Pradesh	928.44	22.93
2	Madhya Pradesh	686.70	16.96
AONLA/ GOOSEBERRY			7
1	Uttar Pradesh	384.32	35.79
2	Madhya Pradesh	302.18	28.14
PEAR		119	
1	Jammu & Kashmir	94.42	29.23
2	Uttarakhand	78.78	24.39
WALNUT		1	1
1	Jammu & Kashmir	275.45	91.91
2	Uttarakhand	21.17	7.06
KIWI			
1	Arunachal Pradesh	6.05	56.83

2	Nagaland	2.44	22.92
BAEL			
1	Orissa	48.56	56.57
2	Jharkhand	35.59	41.46
LITCHI	100		
1	Bihar	198.00	35.43
2	West Bengal	75.28	13.47
PINEAPPLE	* * * * * * * * * * * * * * * * * * * *		
1	West Bengal	345.15	20.30
2	Assam	296.52	17.44
LIME/LEMON	D MARKE		T(A)
1	Gujarat	605.62	19.24
2	Andhra Pradesh	562.01	17.85
MANDARIN	20/0-6		
(M.ORANG,KINNOW, ORANGE			
(M.ORANG,KINNOW, ORANGE	Madhya Pradesh	2,103.64	41.24
ORANGE	Madhya Pradesh Punjab	2,103.64 1,208.42	41.24 23.69
ORANGE  1  2  SWEET ORANGE	•		A
ORANGE 1 2	•		A
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)	Punjab	1,208.42	23.69
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1	Punjab  Andhra Pradesh	2,003.11	23.69
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1  2	Punjab  Andhra Pradesh	2,003.11	23.69
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1  2  MANGO	Punjab  Andhra Pradesh  Maharashtra	1,208.42 2,003.11 684.80	23.69 61.34 20.97
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1  2  MANGO  1	Punjab  Andhra Pradesh  Maharashtra  Uttar Pradesh	1,208.42 2,003.11 684.80 4,551.83	23.69 61.34 20.97
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1  2  MANGO  1  2	Punjab  Andhra Pradesh  Maharashtra  Uttar Pradesh	1,208.42 2,003.11 684.80 4,551.83	23.69 61.34 20.97
ORANGE  1  2  SWEET ORANGE (MALTA, MOSAMBI)  1  2  MANGO  1  2  PAPAYA	Punjab  Andhra Pradesh  Maharashtra  Uttar Pradesh  Andhra Pradesh	1,208.42 2,003.11 684.80 4,551.83 4,373.61	23.69 61.34 20.97 20.89 20.07

1	Maharashtra	1,789.46	62.91
2	Gujarat	461.75	16.23
CUSTARD APPLE			
1	Maharashtra	92.32	30.98
2	Gujarat	61.18	20.53
GRAPES	9001	77	
1	Maharashtra	2,286.44	78.30
2	Karnataka	524.20	17.95
SAPOTA	N. S. W. W. W. P.		
1	Gujarat	326.36	28.19
2	Karnataka		\A

#### **Vegetable Production(2017-18)**

Sr No.	State	Share(%)
Onion		
1	Maharashtra	38.09
2	Madhya Pradesh	15.92
CAULIFLOWER		
1	West Bengal	22.51
2	Madhya Pradesh	11.70
CABBAGE		
1	West Bengal	25.32
2	Orissa	
Potato		
1	Uttar Pradesh	30.33
2	West Bengal	24.92
MUSHROOM		
1	Uttar Pradesh	81.84
2	Tripura	6.1
TOMATO		
1	Andhra Pradesh	13.90
2	Madhya Pradesh	12.25
CAPSICUM		
1	Karnataka	20.04

2	Himachal Pradesh	17.74
CHILLIES (GREEN)		
1	Karnataka	18.77
2	Madhya Pradesh	18.64
Carrot		
1	Haryana	27.42
2	Punjab	12.12
OKRA/ LADYFINGER	VALUE VALV	
1	Gujarat	15.17
2	West Bengal	15.06
PEAS		
1	Uttar Pradesh	46.37
2	Madhya Pradesh	17.76
BRINJAL		
1	West Bengal	23.69
2	Orissa	15.75
BEANS		
1	Gujarat	28.35
2	Jharkhand	8.40
MUSKMELON	3 0 10 6	
1	Uttar Pradesh	44.60
2	Andhra Pradesh	25.55
WATERMELON		
1	Uttar Pradesh	24.60
2	Andhra Pradesh	14.30
CUCUMBER		
1	Haryana	22.01
2	Madhya Pradesh	12.39

#### Floriculture (2015-16)

Sr No.	State
Rose	
1	West Bengal
2	Karnataka
Jasmine	
1	Tamil Nadu
2	Karnataka

Chrysanthemum	
1	Tamil Nadu
2	Karnataka
Orchids	
1	Assam
Marigold	
1	Madhya Pradesh
2	Karnataka
Gladiolus	
1 73/ 8 8 8 8 8 8 8 8	West Bengal
2	Madhya Pradesh
Carnation	925 B
1	Assam
2	Himachal Pradesh
Tube Rose	
1	West Bengal
2	Tamil Nadu

#### Plantation Crop (2017-18)

Sr No.	State	Share(%)			
Arecanut	Arecanut				
1	Karnataka	63.16			
2	Kerala	15.88			
CASHEWNUT					
1	Maharashtra	32.22			
2	Andhra Pradesh	13.98			
COCOA					
1	Andhra Pradesh	40.71			
2	Kerala	37.80			
Coconut					
1	Kerala	35.14			

2	Karnataka	26.08
	Ramataka	20.00

#### **AGRI (2017-18)**

Sr No.	State	Share (%)		
Total food grain				
1	Uttar Pradesh			
2	Madhya Pradesh			
Oilseed				
1	Madhya Pradesh			
2	Rajasthan			
Cotton				
1 / ( 4, 3 / )	Gujarat			
2	Maharashtra			
Wheat	VANAARE	A COLUMN TO THE SECOND TO THE		
1	Uttar Pradesh	31.98		
2	Punjab	17.90		
Rice				
1	West Bengal	13.26		
2	Punjab	11.85		
Bajra	<u> </u>			
1	Rajasthan	41.03		
2	Uttar Pradesh	19.69		
Maize				
1	Karnataka	12.36		
2	Madhya Pradesh/	12.33		
	Maharashtra			
Jowar				
1	Maharashtra	36.57		
2	Karnataka	22.83		
Pulses				
1	Madhya Pradesh	33.92		
2	Rajasthan	14.18		
Soybean				
1	Madhya Pradesh	48.90		
2	Maharashtra	35.75		
Gram	I			
1	Madhya Pradesh	40.93		
2	Maharashtra	15.84		
Tur (Arhar)				

1	Maharashtra	25.18		
2	Madhya Pradesh	19.76		
Lentil (Masur)				
1	Madhya Pradesh	42.50		
2	Uttar Pradesh	31.25		
Rapeseed & Mustard				
1	Rajasthan	40.82		
2	Haryana	13.33		
Sunflower				
1	Karnataka	50.00		
2	Bihar	10.00		
Groundnut				
1	Gujarat	42.92		
2	Rajasthan	13.73		
Sugarcane				
1	Uttar Pradesh	46.98		
2	Maharashtra	22.06		
Tobacco		£ 6 (1)		
1	Gujarat	46.55		
2	Andhra Pradesh	21.97		

#### **LIVESTOCK (2016-17)**

Sr No.	State	Share (%)		
Buffalo Meat				
1	Uttar Pradesh	47.87		
2	Maharashtra	11.40		
Goat Meat				
1	West Bengal	22.29		
2	Uttar Pradesh	13.79		
Milk				
1	Uttar Pradesh	16.83		
2	Rajasthan	11.83		
Sheep Meat				
1	Andhra Pradesh	31.98		
2	Telangana	26.15		
Cattle Meat				
1	Kerala	43.22		
2	Tamil Nadu	12.77		
Meat				

1	Uttar Pradesh	18.23
2	Maharashtra	11.44
Poultry Meat		
1	Maharashtra	14.94
2	Tamil Nadu	12.34
<b>Swine Meat</b>		
1	Uttar Pradesh	29.24
2	Bihar	16.93
Egg		
1	Tamil Nadu	18.93
2	Andhra Pradesh	17.96

## **International Production**

## Fruits (2017) Production in (000) MT:

Sr No.	Country	Share (%)
Mangoes, Mangosteens, Guavas		
1	India	38.51
2	China	9.4
Orange		
1	Brazil	23.82
2	China	11.68
3	India	10.43
Grapes		48.3
1	China	17.62
2	Italy	9.66
7	India	3.94
Papayas	VAVAAATE	
1	India	45.64
2	Brazil	8.12
<b>Lemons and Limes</b>		
1	Mexico	14.69
2	India	13.74
Pineapples		
1	Costa Rica	11.15
2	Philippines	9.75
5	India	6.79

Banana		
1	India	26.75
2	China	9.81
Apples		
1	China	49.78
2	USA	6.22
5	India	2.72
Cashew apple		
1	Brazil	87.77
2	Mali	6.87
Avocados		VAN
1	Mexico	34.27
2	Dominic Rep	10.76
Gooseberries	312 M	
1	Germany	51.06
2	Russia	34.57
Watermelons		
1	China	66.96
2	Iran #	3.43
25	India	0.36
Kiwi Fruit		
1	China	50.13
2	Italy	13.40
Apricots	•	
1\	Turkey	23.14
2	Uzbekistan	12.51
35	India	0.36

## Vegetables (2017):

Sr No.	Country	Share(%)	
Vegetables-Fresh			
1	China	58.70	
2	India	11.43	
Onions, Shallots, Gree	Onions, Shallots, Green		
1	China	18.50	
2	Niger	13.06	
Carrots And Turnips			
1	China	47.34	
2	Uzbekistan	5.25	

10	T 1	1.20		
13	India	1.29		
Cabbages And Other Brassicas				
1	China	46.80		
2	India	12.33		
Tomatoes				
1	China	32.69		
2	India	11.37		
Okra				
1	India	62.28		
2	Nigeria	21.37		
<b>Pumpkins, Squash And</b>	Gourds			
1	China	29.18		
2	India	18.77		
Maize-Green				
1/	USA	34.23		
2	Mexico	8.53		
<b>Mushrooms and Truffl</b>	We the transfer of the transfe			
1	China	76.70		
2	USA	4.11		
9	India	0.96		
<b>Cucumbers and Gherk</b>	The second of th			
1	China	77.56		
2	Iran	2.37		
26	India	0.19		
<b>Eggplants</b> (aubergines)				
1	China	62.93		
2	India	23.94		
Cauliflowers and Broco		23.7		
1	China	39.92		
2	India	32.96		
Garlic		32.70		
1	China P	78.69		
2	India	6.01		
Sorghum	mura	0.01		
1	USA	16.04		
2		12.05		
5	Nigeria			
	India	7.93		
Wheat	China	17 41		
1	China	17.41		
Dia Dalla	India	12.77		
Rice, Paddy				

	1		
1	China	27.63	
2	India	21.89	
Barley			
1	Russia	13.98	
2	Australia	9.16	
20	India	1.19	
Millet			
1	India	40.62	
2	Niger	13.32	
Maize		27 6	
1	USA	32.69	
2	China	22.83	
5	India	2.53	
Oats			
1	Russia	21.01	
2	Canada	14.39	
QUINOA			
1	Peru	53.61	
2	Bolivia	45.52	
Buckwheat			
1	Russia	39.82	
2	China	37.81	
Chick Peas			
1	India	61.42	
2	Australia	13.56	
Pigeon Peas			
1	India	71.54	
2	Myanmar	11.73	
Lentils			
1	Canada	49.18	
2	India	16.07	

## **Livestock Products (2017):**

Eggs Primary		
1	China	41.91
2	USA	7.19
3	India	5.57
Meat-Goat		
1	China	39.16
2	India	8.54

<b>Meat-Pig</b>		
1	China	45.47
2	USA	9.69
35	India	0.25
Meat-Horse		
1	China	24.80
2	Kazakhstan	16.03
Meat-Sheep	4 64 6 74	
1	China	25.13
2	Australia	7.06
9 <sup>th</sup> rank	India	2.47
Meat-Buffalo		.,, ,
1	India	42.60
2	Pakistan	24.20
Meat-Cattle		
1	USA	17.98
2	Brazil	14.42
14 <sup>th</sup>	India	1.34
<b>Meat-Turkey</b>		
1	USA	45.61
2	Brazil	9.85
<b>Meat-Chicken</b>		
1	USA	17.56
2	Brazil	12.48
5	India	3.23
Milk-total		
1	India	21.91
2	USA	12.15

## **Agricultural Production (India)**

Largest producer of milk.
Largest producer of <b>millets</b> in the world
Largest producer of <b>jute</b> .
Largest producer of <b>ginger</b> .
Largest producer of <b>bananas</b> .
Largest producer of castor oil seeds.
Largest producer of mangoes.

Largest producer of safflower oil seeds.

Largest producer of **cottonseed** and second in **cotton**.

Largest producer of **papayas**.

Largest producer of Pulses

Largest producer of Spices

Second largest producer of tea, the first position being held by China.

Contact: 9828822277

Second largest producer of **sugarcane**, the first position being held by **Brazil**.

Second largest producer of wheat, the first position being held by China.

Second largest producer of **onions**, the first position being held by **China**.

Second largest producer of **potatoes**, the first position being held by **China**.

Second largest producer of garlic, the first position being held by China.

Second largest producer of rice, the first position being held by China.

Second largest producer of **silk**, the first position being held by **China**.

Third largest producer of tobacco

#### **Production of Food grains for 2017-18**

CROPS	PRODUCTION (MT)
RICE	112.76
WHEAT	99.87
NUTRI CEREALS	16.44
COARSE CEREALS	46.97
CEREALS	259.60
PULSES	25.42
TOTAL FOOD GRAINS	285.01
OILSEEDS	31.459
SUGARCANE	379.905
COTTON	32.805
JUTE	9.591
MESTA	0.442

JUTE & MESTA	10.033

#### **Area and Production of Horticulture Crops - All India:**

HORTICULTURE CROPS	AREA (000 Ha)	PRODUCTION (000 MT)
FRUITS	6506	97358
VEGETABLES	10259	184394
AROMATICS	720	866
&MEDICINAL		
HONEY		105
TOTAL FLOWERS	324	2785
PLANTATION CROPS	3744	18082
SPICES	3878	8124
TOTAL	25431	311714

#### PER CAPITA AVAILABILITY:

PRODUCTS	AVAILABILITY
MILK	376
EGG	74
FRUITS	201.50
VEGETABLES	388.72
FISH	9.8
PADDY	183
WHEAT	182
CEREALS	434
OTHER CEREALS	80
PULSES	54.7
FOODGRAINS	488.7

#### Per capita availability state wise (2017-18)

- 1. **Milk** Punjab > Haryana > Rajasthan
- 2. Egg Andhra Pradesh > Tamil Nadu > A&N island

# **❖** All India area, production and productivity of horticulture crops

➤ Area: vegetables > fruits >Spices > Plantations > Aromatic and Medicinal > Flowers

Contact: 9828822277

- ➤ **Productions:** Vegetables > Fruits > Plantations > Spices > Flowers > Aromatic and Medicinal > Honey
- ➤ **Productivity:** Vegetables > Fruits > Flowers > Plantations > Spices > Aromatic and Medicinal.

#### **All India area and production of fruit crops:**

- ➤ Area: Mango > Total citrus > Banana
- > **Production:** Banana > Mango > Citrus

## All India area and production of vegetable crops:

- > Area: Potato > onion > Tomato
- **Production:** Potato > onion > Tomato

#### **State-wise area and production of fruit crops:**

- ➤ **Area:** Maharashtra > Andhra Pradesh > Uttar Pradesh
- **Production:** Andhra Pradesh > Maharashtra > Uttar Pradesh.

#### **State-wise area, production and productivity of Mango:**

- > Area: Andhra Pradesh > Uttar Pradesh > Odisha
- **Production:** Uttar Pradesh > Andhra Pradesh > Bihar
- > **Productivity:** Rajasthan > Uttar Pradesh > Punjab.

#### **State-wise area, production and productivity of Banana:**

- ➤ **Area:** Karnataka > Kerala > Andhra Pradesh
- ➤ **Production:** Andhra Pradesh > Gujrat > Maharashtra

- Productivity: Madhya Pradesh > Gujrat > Punjab
- **State-wise area, production and productivity of Sweet orange:**

- ➤ **Area:** Andhra Pradesh > Maharashtra > Telangana
- **Production:** Andhra Pradesh > Maharashtra > Telangana
- ➤ **Productivity:** Andhra Pradesh > Madhya Pradesh > Karnataka
- **State-wise area, production and productivity of Apple:**
- ➤ Area: J& K > Himachal Pradesh > Uttarakhand
- ➤ **Production:** J& K > Himachal Pradesh > Uttarakhand
- ➤ **Productivity:** J& K > Nagaland > Himachal Pradesh
- **State-wise area, production and productivity of Papaya:**
- ➤ Area: Gujrat > Andhra Pradesh > Kerala
- ➤ **Production**: Andhra Pradesh > Gujrat > Karnataka
- ➤ **Productivity:** Andhra Pradesh > Tamil Nadu > Karnataka
- **State-wise area and production of vegetables:**
- ➤ Area: Uttar Pradesh > West Bengal > Madhya Pradesh
- ➤ **Production:** Uttar Pradesh > West Bengal > Bihar
- **State-wise area, production and productivity of Potato:**
- ➤ **Area:** Uttar Pradesh > West Bengal > Bihar
- ➤ **Production:** Uttar Pradesh > West Bengal > Bihar
- ➤ **Productivity:** West Bengal > Gujrat > Haryana
- **State-wise area, production and productivity of Onion:**

- ➤ **Area:** Maharashtra > Karnataka > Madhya Pradesh
- ➤ **Production:** Maharashtra > Madhya Pradesh > Karnataka
- ➤ **Productivity:** Sikkim > Madhya Pradesh > Gujrat
- **State-wise area, production and productivity of Tomato:**

- ➤ Area: Odisha > Madhya Pradesh > Karnataka
- ➤ **Production:** Andhra Pradesh > Madhya Pradesh > Karnataka
- ➤ **Productivity:** Andhra Pradesh > Himachal Pradesh > Uttar Pradesh
- **State-wise area and production of flowers (loose):**
- ➤ **Production:** Tamil Nadu > Andhra Pradesh > Madhya Pradesh
- **State-wise area and production of major spices in India:**
- > Area: Rajasthan> Gujrat > Madhya Pradesh
- ➤ **Production:** Madhya Pradesh > Rajasthan> Andhra Pradesh
- **State-wise area, production and productivity of plantation crops:**
- > Area: Kerala > Karnataka > Tamil Nadu
- > **Production:** Kerala > Karnataka > Tamil Nadu
- ➤ **Productivity:** Telangana > Kerala > West Bengal
- **State-wise area and production of aromatics & medicinal plants:**
- ightharpoonup Area: Rajasthan > U.P. > M.P.
- **▶ Production:** Rajasthan > Tamil Nadu > M.P.
- **Livestock Population 2019 of Major States:**

- ► **Highest:** U.P.> Rajasthan > Madhya Pradesh
- **Poultry Population 2019 of Major States:**
- ➤ **Highest:** Tamil Nadu > Andhra Pradesh > Telangana

- **Cattle Population 2019 in Major States:**
- ➤ **Highest:** West Bengal > U.P. > Madhya Pradesh
- **Buffalo Population 2019 of Major States:**
- ➤ **Highest:** UP> Rajasthan > Gujrat
- **Sheep Population 2019 of Major States:**
- ➤ **Highest:** Telangana > Andhra Pradesh > Karnataka
- **Goat Population 2019 of Major States:**
- ➤ **Highest:** Rajasthan> West Bengal >U.P.
- **❖** Pig Population 2019 of Major states:
- ➤ **Highest:** Assam > Jharkhand > Meghalaya
- **Camel Population 2019 of Major States:**
- ➤ **Highest:** Rajasthan > Gujrat> Haryana > U.P.

**\*** Horses & Ponies Population 2019 of Major States:

Contact: 9828822277

- ➤ **Highest:** U.P. > Jammu & Kashmir > Rajasthan
- **\*** Mules Population 2019 of Major States:
- ➤ **Highest:** Uttarakhand > Himachal > Jammu & Kashmir
- **Donkey Population 2019 of Major States:**
- ➤ **Highest:** Rajasthan > Maharashtra > U.P.
- **Mithun Population 2019 of Major States:**
- ➤ **Highest:** Arunachal Pradesh > Nagaland > Manipur
- **\*** Yak Population 2019 of Major States:
- ➤ **Highest:** Jammu & Kashmir > Arunachal Pradesh > Sikkim

## Major schemes, launching date and fund:

S. No.	Scheme Name	Launched on	Funding with year
1.	SOIL HEALTH CARD (SHC)	19 FEB 2015	568.54 CRORE FOR 3 YEARS (2015-16 TO 2017-18)
2.	RASHTRIYA KRISHI VIKAS YOJANA (RKVY)	2007	TOTAL OUTLAY – 31730.13 CRORE (12 <sup>TH</sup> FIVE YEAR PLAN) CURRENT – 3600 CRORE FOR 2018-19
3.	GREEN REVOLUTION – KRISHONNATI YOJANA	2017	33269.976 CRORE FOR 3 YEARS (2017-18 TO 2019-20)

4.	MISSION	2014	2209.57 CRORE (2019-
	INTEGRATED		20)
	DEVELOPMENT OF		2546 CRORE (2018-19)
	HORTICULTURE		
	(MIDH)		
<b>5.</b>	NATIONAL FOOD	OCTOBER	1700 CRORE (2018-19)
	SEQURITY MISSION	2007	
	(NFSM)		
6.	PARAMPARAGAT	2015	1307 CRORE from 2015-
	KRISHI VIKAS		16 TO 2018-19
	YOJANA (PKVY)		
7.	PRADHAN MANTRI	2016	6000 CRORE FOR 2016-
	KISAN SAMPADA	RENAMED	20
	YOJANA	- 2017	
8.	MISSION ORGANIC	11 JAN	400 CRORE FOR 3
	VALUE CHAIN	2016	YEARS 2015-16 TO
	DEVELOPMENT	1/4/2	2017-18
	FOR NORTH		
	<b>EASTERN REGION</b>		
	(MOVCDNER)		
9.	NATIONAL DAIRY	2011-12 TO	TOTAL OUTLAY –
	PLAN PHASE 1 (NDP	2018-19	2242 CRORE
	1)		324.91 CRORE FOR
			2018-19
10.	RASHTRIYA	2014	TOTAL OUTLAY –
	<b>GOKUL MISSION</b>		2025 CRORE
			750 CRORE FOR 2019
11.	NATIONAL	2014	OUTLAY – 2800
	LIVESTOCK		CRORE
	MISSION		
<b>12.</b>	DAIRY	SEPT 2010	325 CRORE FOR 2019-
	ENTREPRENEURSH		20
	IP DEVELOPMENT		
	SCHEME		
13.	DAIRY	DEC 2017	10881 CRORE
	PROCESSING &		
	INFRASTUCTURE		
	DEVELOPMENT		
	FUND		
14.	FISHERIES AND	2018	7522 CRORE
	AQUACULTURE		
	INFRASTRUCTURE		

	DEVELOPMENT			
	FUND (FIDF)			
15.	ANIMAL	2018	2477 CRORE	
	HUSBANDRY			
	INFRASTRUCTURE			
	DEVELOPMENT			
	FUND (AHIDF)			
16.	e-NAM	14 APRIL	423.23 CRORE (2015-16	
	<b>ELECTRONIC-</b>	2016	TO 2018-19)	
	NATIONAL			
	AGRICULTURE			
	MARKET			
17.	BLUE REVOLUTION	2015	3000 CRORE FOR 5	
	SCHEME		YEARS (2015-16 TO	
			2019-20)	
18.	PM AASHA	2018	TOTAL BUDGET –	
	77 3399		15053	
			1500 CRORE FOR 2019-	
			20	
19.	PM KISAN	2019	FY 2018-19 – 20000	
			CRORE	
			FY 2019-20 – 75000	
			CRORE	
20.	KUSUM KISAN	FEB 2019	34422 CRORE	
	URJA SURAKSHA		/	
	<b>EVAM UTTHAN</b>		/	
	MAHAABHIYAN			
21	AGRICULTURE	Target of	10,00,000 crores	
	CREDIT	year 2017-	11,00,000 crores	
		18		
		2018-19		

## State wise fishing craft (as on 20-03-18)

- **Total** Tamil Nadu > Andhra Pradesh > Kerala
- **Traditional Craf**t Andhra Pradesh > Odisha > Kerala
- **Motorized** Tamil Nadu > Kerala > Andhra Pradesh
- **Mechanized** Maharashtra > Gujrat > Tamil Nadu

## **GST** rate on different Agricultural commodities:

Items	IGST Rate
Ultra-High Temperature (UHT) milk	5
Pasteurized milk, Butter milk, Fresh milk	0
Live bovine animals, Live fish	0
Milk and cream, concentrated or containing added sugar or other sweetening matter	5
Cream, yogurt and other fermented or acidified milk, Chena or paneer	5
Condensed milk & Cheese	12
Butter and other fats (i.e. ghee, butter oil, etc.) and oils derived from milk; dairy spreads	12
Natural honey	5
Fresh Fruits	0
Cashew nuts, whether shelled or peeled	5
Mangoes sliced, dried. Grapes, dried, and raisins	5
Coffee, Copra	5
Tea other than unprocessed green leaves of tea	5
Chemical fertilizers	-5
Micronutrients Fertilizers	12
Pesticides	18
Bio- Pesticides	12
Organic Manure	0
Organic fertilizer	5
Wool and fine or coarse animal hair, carded or combed, Animals Leather	5
Renewable energy devices & parts	5
Vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar or acetic acid	12

Mushrooms and truffles, prepared or preserved otherwise than by vinegar or acetic acid	12
Jam, Jelly, Squash, Ketchup, Fruit juice & Vegetable juice	12
Agricultural, horticultural or forestry machinery for soil preparation	12
Sprinklers; drip irrigation system including laterals; mechanical sprayers, Nozzles for drip irrigation equipment or nozzles for sprinklers	12
Milking machines and dairy machinery	12
Tractors (except road tractors for semi-trailers of engine capacity more than 1800 cc)	12
<ul> <li>Following parts of tractors namely:</li> <li>a. Rear Tractor wheel rim</li> <li>b. tractor centre housing</li> <li>c. tractor housing transmission</li> <li>d. tractor support front axle</li> <li>✓ Tyre, Gear boxes, Hydraulic Pump for tractors, Tube for tractor tyres</li> <li>✓ Agricultural Diesel Engine of cylinder capacity exceeding 250 cc for Tractor</li> </ul>	18
Cocoa butter, fat and oil	18

- ➤ Items excluded (0%) from GST: Fresh or chilled vegetables, roots and tubers, Fresh fruits and nuts
- > Chairman of GST council is finance minister of India.

## **Food Act:**

Name of acts	Launched on

Prevention of food adulteration act (PFA)	1954
Food product order (FPO)	1955
Meat product order (MPO)	1973
Food safety and standard act (FSSAI)	2006
Milk and milk products order	1992
Edible oil packaging order	1998
Vegetable oil products order	1947

## Difference between FSSAI and AGMARK

S. NO.	AGMARK	FSSAI
1	AGMARK is an acronym for Agricultural Mark	FSSAI stands for the Food Safety and Standards Authority of India.
2	AGMARK is a certification given by DMI	FSSAI is an autonomous body established under the Ministry of Health & Family Welfare
3	It is legally enforced by Agricultural Produce (Grading and Marking) Act of 1937	FSSAI is an Independent Authority created in 2008 under the Food Safety and Standards Act, 2006
4	AGMARK is a certification provided for all agricultural products by DMI	FSSAI primary objective is to certify or to provide for a base covering all food items and also ensures that the food items are safe
5	AGMARK is a certification	FSSAI is a government agency.

6	AGMARK is an inspection seal provided for quality of Agricultural Products.	FSSAI Licensing covers every food item whether agricultural or non-agricultural.
7	AGMARK is a certification for DMI products and does not provide any license.	FSSAI License is allotted based on turnover and activity but for a particular Establishment.

## **APEDA:**

- ➤ **APEDA** Act passed by the Parliament in December 1985. The Act (2 of 1986) came into effect from 13th February 1986.
- > Agri export zones of APEDA:

S.No.	State	134	AEZ Project
1.	West Bengal (6)	1 /	Pineapple
		2	Lychee
717		3	Potatoes
		4	Mango
V		5	Vegetables
		6	Darjeeling Tea
2	Karnataka (4)	7	Gherkins
		8	Rose Onion
1	7 AV 3	9	Flowers
		10	Vanilla
3	Uttarakhand (4)	11	Lychees
	700	12	Flowers
		13	Basmati Rice
		14	Medicinal & Aromatic Plants
4	Punjab (3)	15	Vegetables (Cabbage Broccoli,
			Okra, Peas, Carrot, Baby Corn,
			Green Chillies, Green Beans,
			Tomato)
		16	Potatoes
		17	Basmati Rice

5	Uttar Pradesh(4)	18	Potatoes
		19	Mangoes and Vegetables
		20	Mangoes
		21	Basmati Rice
6	Maharashtra(8)	22	Grape & Grapevine
· ·	Widiai desirei d(0)	23	Mangoes
		24	Kesar mango
		25	Flowers
		26	Onion
		27	Pomegranate
		28	Banana
		29	Oranges
7	Andhra Pradesh(5)	30	Mango Pulp & Fresh Vegetables
	Anuma i raucsii(3)	31	Mango & Grapes
	4 3 3	32	Mangoes Mangoes
11 1		33	Gherkins
		34	Chilli
8	Jammu & Kashmir	35	POLICE STATE OF THE PROPERTY O
0	(2)	33	Apples
N. N.		36	Walnut
9	Tripura (1)	37	Pineapple
10	Madhya Pradesh	38	Potatoes, Onion and Garlic
	(5)		Totalogs, Ghion and Garne
\ \		39	Seed Spices
***		40	Wheat (including sharbati wheat
			for Bhopal Zone)
	3/2 )	41	Lentil and Grams
		42	Oranges
11	Tamil Nadu (4)	43	Cut Flowers
		44	Flowers
	TAND.	45	Mangoes
		46	Cashewnut
12	Bihar(1)	47	Lychee, Vegetables & Honey
13	Gujarat (3)	48	Mangoes & Vegetables
		49	Value Added Onion
		50	Sesame Seeds
14	Sikkim (2)	51	Flowers (Orchids)& Cherry
			Pepper

15	Himachal Pradesh	53	Apples
	(1)		
16	Orissa (1)	54	Ginger and Turmeric
17	Jharkhand(1)	55	Vegetables
18	Kerala (2)	56	Horticulture Products
		57	Medicinal Plant
19	Assam (1)	58	Fresh and Processed Ginger
20	Rajasthan (2)	59	Coriander
		60	Cumin

## **Agriculture Census 2015-16:**

- ➤ 10th Agriculture Census 2015-16 was released by the Agriculture Ministry.
- The first comprehensive Agriculture Census in the country was conducted with reference year 1970-71. The current Agriculture Census with reference year 2015-16 is tenth in the series.
- The reference period for Agriculture Census is the Agricultural year (July-June).
- Agriculture Census in India is conducted at five-year intervals to collect data on structural aspects of farm holdings. World Census of Agriculture is carried out decennially i.e. at ten yearly intervals.
- 2.471 acre = 1 hectare or 1 acre = 0.405 hectare, 1 Kanal = 0.051 ha., 1
   Malla = 0.002 ha. etc.

#### **Census highlights:**

- The percentage of **female operational land holders** increased from 12.79% in 2010-11 to **13.87% in 2015-16**.
- ➤ It also showed a decline of 1.53% of total operated area to 157.14 million hectare as compared to 159.59 million ha in 2010-11 data. And in terms of operated area women participation increased from previous 10.36% to 11.57%
- > By the number of people tilling the land, Uttar Pradesh topped the chart followed by Bihar and Maharashtra.
- In terms of total operated area: Rajasthan comes first followed by Maharashtra, Uttar Pradesh, Madhya Pradesh and Karnataka.
- Among the states, the highest increase in number of operational holdings is topped by Madhya Pradesh followed by Andhra Pradesh, Rajasthan, Kerala, Meghalaya, Karnataka and Nagaland.

In terms of area 14 states account for 88.08% of operational holdings. They are: West Bengal, Madhya Pradesh, Andhra Pradesh, Maharashtra, Uttar Pradesh, Odisha, Rajasthan, Tamil Nadu, Telangana, Karnataka, Bihar, Chhattisgarh, Gujarat, Kerala.

Contact: 9828822277

- Around **86.21%** of India's cultivated and uncultivated land is under the small and marginal **farmers holding less than 2 hectares of land**. They have a **share of 47.34%** from previous have 44.31% five years earlier.
- The average size of agriculture landholding declined to 1.08 hectare in 2015-16 from 1.15 hectare in 2010-11.
- The average size of farm holding was the highest in Nagaland at 5.06 hectares and the lowest in Kerala at 0.18 hectare.
- The total number of operational holdings in the country has increased from 138 million in 2010-11 to 146 million 2015-16 i.e. an increase of 5.33%.
- ➤ Decline in number of operational holdings. The sharpest fall has been in Goa (28.17%) and lowest in Manipur (0.09%).
- ➤ **Highest number of operational holders:** UP>Bihar>Maharashtra
- ➤ **Highest operated area:** Rajasthan> Maharashtra>UP
- ➤ **Highest increase in holdings:** MP>Andhra Pradesh> Maharashtra
- ➤ Increase in number of operational holdings: MP>Andhra Pradesh> Rajasthan.
- The percentage share of female operational holders has increased from 12.79% in 2010-11 to 13.87% in 2015-16 with the corresponding figures of 10.36% and 11.57% in the operated area.

#### Size classes and Size groups of Holdings:

5-20 0-30 0-10 5-20 8- 00 Po 01 2-20-30-30			
Sr. No	Group	Sr. No.	Classes (in ha.)
I.	Marginal	1.	Below 0.5 ha.
		2.	0.5 < 1.0 ha.
II.	Small	3.	1.0 < 2.0 ha.
III.	Semi-medium	4.	2.0 < 3.0ha.
		5.	3.0 < 4.0ha.
IV.	Medium	6.	4.0 < 5.0ha.
		7.	5.0 < 7.5ha.
		8.	7.5 < 10.0 ha.

#### Percentagewise holding in different categories:

Sr.	Size classes	Land Holdings (%)	Operated area(%)

No.					
		2010-11	2015-16	2010-11	2015-16
1	Small and Marginal (0-2 ha)	84.97%	86.21	44.31	47.34
2	Semi-medium and Medium (2- 10 ha)	14.29	13.22	44.82	43.61
3	Large (>10 ha)	0.71	0.57	10.59	9.04

## Share of Rural and Semi-urban Households by State (In percentage): Highest:

State	Rural	Semi Urban
Bihar	95	5
Odisa/Tripura	94	6

#### **Lowest:**

State	Rural	Urban
Goa/kerala	43	57
Tamil Nadu	60	40
Total(All state)	84	16

## Type of households agricultural vs. Non-agricultural Households: Highest:

State	Agricultural household	Non-Agricultural household
Meghalaya	78	22
Jammu/Mizoram	77	23
Himachal Pradesh	70	30

#### Lowest:

State	Agricultural household	Non-Agricultural household
Goa	3	97
Kerala/Tamil Nadu	13	87

India (All state)	48	52

- When compared across states, the highest proportion of agricultural households reporting **ownership of tractors** was found in **Punjab** (31%), followed by the agricultural households in **Gujarat** (14%).
- Power tillers were found to be more common in the States of **Andhra Pradesh** (15%) and **Telangana** (7%), while the average ownership for the country was 1.8%.

#### **OWNERSHIP OF LIVESTOCK**

- India is endowed with the largest livestock population in the world. It accounts for about 57.3 % of the world's buffalo population and 14.7 % of the cattle population.
- There are about **71.6 million sheep**, **140.5 million goats** and about **11.1 million pigs** in the country.

#### Distribution of households by monthly income:

- ➤ 20 percent of households earned Rs- 2,500 or lesser per month which appears insufficient to meet the bare necessities of life.
- Average Monthly Household Income by States (in Rupees per month per household):- India=8059 Rupees per month.

States	Highest average monthly household income((in Rupees)	Lowest average monthly household income((in Rupees)
$1^{\mathbf{st}}$	Punjab(16020)	Andhra Pradesh(5842)
2 <sup>nd</sup>	Kerala(15130)	Jharkhand(5854)
3 <sup>rd</sup>	Haryana(12072)	Utter Pradesh(6257)

#### **Indebtedness:**

Total indebtedness among agricultural households is **52.5%** 

Incidence of Indebtedness among Households by States (in percentage)			
Highest Lowest			
Telangana	Telangana Gujarat /Jammu		
Andhra Pradesh Nagaland			
Karnataka Chhattisgarh			

Availability of KCC among Agricultural Households –only 10.5 households have valid KCC.

Contact: 9828822277

### Socio Economic and Caste Census (SECC):

**Conducted in**: 2011

**Published in:** July, 2015

➤ Ministry: Ministry of rural development

#### **Key Findings:**

1.	Total Households in the country (Rural + Urban)	24.39 Crore
2.	Total Rural Households	17.91 Crore

- ➤ Only 30% of rural households depend on cultivation as their main source of income. Whereas, 51.14% derive sustenance from manual casual labour (MCL).
- > 56.25% of rural households hold no agricultural land.
- ➤ In nearly **75 per cent** of the rural households, the main earning family member makes **less than Rs 5,000 per month**
- > 8% households does the main earning member makes more than Rs 10,000 per month.

#### **Forest Report-2017**

Contact: 9828822277

- ➤ Name of the report- **State of forest report-2017**
- Prepared by- The Forest Survey of India (FSI)
- > Released by- The Ministry of Environment, Forest and climate change.
- > ISFR 2017 is the 15th in the series since 1987

#### **Important Points of ISFR 2017**

- ➤ India's total forest cover increased by 0.94 per cent in the last two years
- ➤ In terms of forest area rank of India in the world is 10th. It is 8th in terms of annual forest gain.
- At present India's total forest cover is **708,273 sq.km** (about 21.54% of India's total GA) Tree cover is **93,815 sq.km** (about 2.85% of the total GA).
- Classification of forest: Forest cover is defined as an area more than 1 ha in extent and having tree canopy density of 10% or above irrespective of land use, ownership and legal status.

Very Dense Forest	Canopy density 70-100 % (Including mangrove cover)	
<b>Moderately Dense</b>	Canopy density 40-70 % (Including	
Forest	mangrove cover)	
Open Forest	Canopy density 10-40 % (Including mangrove cover)	
Scurb	All forest land with poor tree growth and canopy density less than 10 %	
Non- Forest	Any are which can not be covered in all these classes	

#### ISFR 2017-States & UTs

➤ The total forest and tree cover is **24.39 per cent** of the geographical area of the country

## Top two States with highest forest cover are:

Contact: 9828822277

Rank in forest	Name of	Area
cover	the state	
1	Madhya	77, 414 sq.
	Pradesh	km
2	Arunachal	66,964 sq. km
	Pradesh	

### Top two states where forest cover grew:

	Name of the state	3/6	Forest grew by	
1.	Andhra Pradesh		2,141 sq.km	
	2. Karnataka		1,101 sq.km	

# Top two states/UTs with highest forest cover in terms of % of geographical area:

Name of the state/UT	%forest cover
Lakshadweep	90.33%
Mizoram	86.27%

#### **Category wise top states:**

Category	State Name
Highest Dense Forest	Arunachal Pradesh
Highest Moderately Dense Forest	Madhya Pradesh

Highest Open Forest	Madhya Pradesh

#### Top two states where forest cover has decreased

State	Area
Mizoram	531 sq km
Nagaland	450 sq km

The main reasons for decrease in forest area are shifting cultivation, rotational felling, other biotic pressures, diversion of forest lands for developmental activities, submergence of forest cover, agriculture expansion and natural disasters.

## Mangrove cover

- According to ISFR 2017, total mangrove cover stands at **4,921 sq km and** has increased by **181 sq kms**.
- Maharashtra (82 sq kms), Andhra Pradesh (37 sq kms) and Gujarat (33 sq kms) are top three gainers in terms of mangrove cover.

Top two states showing increase in water bodies within forest areas are:

State	Area
Maharashtra	432 sq.km
Gujarat	428 sq.km

#### Bamboo (Green Gold) Cover

- ➤ The extent of bamboo-bearing area in country is estimated at **15.69 million** ha.
- There has been an increase of **1.73 million ha** in bamboo area in comparison to last assessment done in 2011.

There is increase of **19 million tonnes** in bamboo-growing stock as compared to last assessment done in 2011.

Contact: 9828822277

➤ The growing stock of bamboo in forest has been estimated to be **189 million** tonnes.

#### Carbon Sink

As per present assessment total carbon stock in forest is estimated to be **7,082** million tonnes. There is an increase of **38 million tonnes** in the carbon stock of country as compared to the last assessment.

#### **Forest Fires**

- > Northeastern states have reported the highest number of forest fire incidents in the country and northern states the lowest.
- Shifting cultivation is the main reason for fire incidents in NE.

## Organization and chief person:

Institute	Year of establish ment	Chairman /Head/president	Headqu arter
ICAR	16 July192 9	President-Narendar singh tomar	New Delhi
	3/	<b>DG</b> -Trilochan Mahopatra	
IARI	1905	Dr. A K Singh	New Delhi
NITI Ayog	1-Jan,-2015	<b>Chairperson</b> - Narendra Modi	New Delhi
		<b>Vice Chairperson</b> - Rajiv Kumar	

		CEO- Amitabh	
		Kanth	
ASRB	1-	Aditya Kumar Mishra	New
	November-		Delhi
	1973		
NABARD	12 <sup>m</sup> –July-	Harsh Kumar Bhanwala	Mumbai
	1982	UZAVAZA	
ASCI	2015	Sanjeev Asthana	Gurugram,
(Agricultur			Haryana
e Skill	× 31		
<b>Council of</b>		WAN A WIN GO OF	
India)			
FCI	1965	D.V. Parsad	New
	Ede Co		Delhi
APEDA	1986	Paban K. Borthakur	New
			Delhi
CACP	1965	Vijay Paul Sharma New	
		De	
ICRISAT	1972	Dr. Paco sereme	Hyderaba
PPV&FR	2001	Dr. K.V. Prabhu New	
			Delhi
MANAGE	1986	Smt. G. Jayalakshmi	Hyderaba
		**************************************	
FAO	16-Oct -	Qu dongyo Rome	
	1945	Ita	
NAFED	Oct 2-1958	Brijendar Singh New	
		Delhi	
FICCI	1927	Sandeep Somany New	
			Delhi
CCI	1970	Dr. P. Alli Rani Mumba	

#### **India's Position in World Agriculture:**

Item	India's Rank	Next to
1. Total Area (Million	Seventh	Russian Federation,
Hectares)		Canada, U.S.A.,
Land Area	Seventh	Russian Federation,
		China, U.S.A.,
Arable Land	Second	U.S.A.
2. Population		
Total	Second	China
Rural	First	
3. Crop Production		
(A): Total Cereals	Third	China, U.S.A
Wheat	Second	China
Rice (Paddy)	Second	China
(B): Total Pulses	First	

(C) : Oilseeds		
Groundnut (in shell)	Second	China
Rapeseed	Third	Canada, China
(D): Commercial Crops		
Sugarcane	Second	Brazil
Tea	Second	China
Coffee (green)	Seventh	Brazil, Vietnam,
		Columbia,
Jute & Jute like Fibres	First	
Cotton (lint)	Second	China
Tobacco	Second	China, Brazil
Unmanufactured	The West Constitution	
4. Fruits & Vegetables		
Production	W W W	
(A):Vegetables&	Second	China
Melons	<u>Maakb</u>	
(B): Fruits excluding	Second	China
Melons		
(C) : Potatoes	Second	China
(D): Onion (Dry)	Second	China
5. Livestock		
(A) : Cattle	Second	Brazil
(B): Buffaloes	First	
(C) : Camels	Sixteenth	Somalia, Sudan,
		Kenya, Niger,
(D) : Sheep	Third	China, Australia
(E): Goats	Second	China
(F): Chicken	Sixth	China, U.S.A,
		Indonesia, Brazil,
V 6/4/5 V		Iran
6. Animal Products	MATTE	432/
(A) : Milk Total	First	
(B) : Eggs (Primary)	Third	China, U.S.A
Total		
(C): Meat Total	Sixth	China, U.S.A,
		Brazil, Russian

## Latest RBI Bank Rates (As on 17 december, 2019)

Contact: 9828822277

SLR Rate	CRR	MSF	Repo Rate	Reverse Repo Rate	Base Rate
18.75%	4%	5.4%	5.15%	4.9%	8.95% - 9.40%

## Important days of last one year:

Important Days	Date	
WTO Foundation Day	1 <sup>st</sup> January	
National Girl Child Day	24 January	
International Day Women and Girls in Science	11 February	
National Productivity Day	12 February	
International Women's Day	8 March	
International Day of Forests	21 March	
World Water Day	22 March	
World Meteorological Day	23 March	
National Panchayati Raj Day	24 April	
World Tuna Day	2 May	
International Tea Day	21 May	
World Milk Day	1 June	
World Environment Day	5 June	
World food safety day	7 June	
World Day to Combat Desertification	17 June	
National Fish Husbandry Day	10 July	
NABARD Foundation Day	12 July	
ICAR Foundation Day	16 July	

International Day for the Conservation of the Mangrove Ecosystem	26 july	
World Honey Day	20 August	
World Coconut Day	2 September	
World Bamboo Day	18 September	
World Coffee Day	1 October	
World Egg Day	2 <sup>nd</sup> Friday of October (12 <sup>th</sup> October 2019)	
World Animal Day	4 October	
International Day of Rural Women/national Women Farmer Day	15 October	
World Food Day	16 October	
World Fish Day	21 November	
National Milk Day	26 November	
National Agriculture Education Day (Dr Rajendra prasad Birthday)	3 December	
Agriculture Women Day	4 December	
World Soil Day	5 December	
Kisan Divas (Farmer's Day)	23 December	

#### **GI Tag**

➤ GI status is an indication that identifies goods **as produced from a particular area**, which has special quality or reputation attributable to its geographical origin.

- ➤ The first product to get a GI tag in India was the Darjeeling Tea in 2004. There are a total of 344 products from India that carry this indication.
- ➤ Under **Paris Convention** for the Protection of Industrial Property, GIs are covered as an element of **IPRs**. GI is governed by WTO's Agreement on **Trade-Related Aspects of Intellectual Property Rights (TRIPS).**
- In India, GI tag is governed by **Geographical Indications of Goods** (**Registration and Protection Act**), 1999 with effect from 15th September 2003.
- ➤ GIs have great potential to play a major role in trade between countries.
- ➤ Darjeeling Tea was the first Indian product to get the geographical indication tag. In 2004, the famous beverage got the recognition.
- > 17 products from different States accorded GI tags so far this year:
  - Himachali Kala Zeera
  - Jeeraphool from Chhattisgarh
  - Kandhamal Haldi from Odisha
  - Coorg Arabica coffee from Karnataka
  - Wayanad Robusta coffee from Kerala
  - Araku Valley Arabica from Andhra Pradesh
  - Chikmagalur Arabica Coffee from Chikmagalur district, Karnataka
  - Bababudangiri Arabica Coffee from Bababudangiri region of Karnataka
  - Araku Valley Arabica Coffee from Andhra Pradesh
  - Sirisi Supari from Karnataka
  - Himachali Chulli oil
  - Erode Turmeric from Tamilnadu
  - Marayur Jaggery from Kerala
  - Palani Panchamirtham from Tamil Nadu
  - Tawlhlohpuan, is a fine quality fabric woven in Mizoram
  - Mizo Puanchei, a colourful Mizo shawl/textile, from Mizoram
  - Tirur betel vine, cultivated in Malappuram district of Kerala, is valued for its medicinal and cultural usages.

#### **Millets**

➤ Millets are small grained cereals, staple food in drier regions of the developing countries are called 'millets'. They are also annual grasses of the group cereals.

Contact: 9828822277

- India's proposal to observe an **International Year of Millets in 2023** has been approved at the by the **Food and Agriculture Organisation (FAO).** India is celebrating 2018 as the national year of millets.
- ➤ **Millets** are also rich in calcium and magnesium. For example, **Ragi** is known to have the **highest calcium** content among all the food grains.
- These are also staple food for people of poor countries.
- ➤ In India, pearl millet is a staple food in Rajasthan. Highest Production of Pearl millet in India: **Rajasthan>Uttar Pradesh**
- ➤ **Millets** are **Photo-insensitive** (do not require a specific photoperiod for flowering) & resilient to climate change. Millets can grow on poor soils with little or no external inputs.
- ➤ Millets are broadly classified in to two, 1) Major millets and 2) Minor millets.
- > Major millets:
- 1. Sorghum /Jowar/Cholam Sorghum bicolor
- 2. Pearl millet /Bajra/Cumbu Pennisetum glaucum
- 3. Finger millet or Ragi Eleusine coracona
- > Minor millets:
- 1. Foxtail millet / Thenai Setaria italica
- 2. Little millet / Samai Panicum miliare
- 3. Common millet / Panivaraugu Panicum miliaceum
- 4. Barnyard millet / Kudiraivali Echinchloa colona var frumentaceae
- 5. Kodo millet / Varagu Paspalum scrobiculatum

#### **Economic Importance of Pearl millet:**

- > Pearl millet is one of the **major coarse grain** crops and is considered to be a **poor man's food**.
- It is staple food in a short period in the relatively dry tracts of the country. It is the most drought tolerant crop among cereals and millets. The grain of pearl millet is superior in nutritive value to sorghum grain but inferior in feeding value. Grain contains 12.4% of moisture, 11.6% of protein, 5% of fat, 67% of carbohydrates and 2.7% of minerals. Pearl millet grains are eaten cooked like rice or 'chapatis' are prepared. It is also used as feed for poultry industry and green fodder or dry fodder for cattle.

#### **Special characters:**

- I. Finger millet Ragi, Highly tolerant to alkalinity
- II. Foxtail millet Kangni, Susceptible to both drought & water logging
- III. Kodo millet Kodra, Highly drought resistant
- IV. Little millet Kutki, Highly drought resistant & tolerant to water logging

Contact: 9828822277

- V. Proso /Common millet- Cheena, Highly drought resistant
- VI. Barn yard millet Sawan, Highly drought resistant & tolerant to water logging.

### **Crop Residue Burning**

- ➤ Paddy Stubble burning is mainly practiced in Indo-gangetic plains of the States of Punjab, Haryana and Uttar Pradesh to clear the fields for Rabi Crop sowing.
- ➤ National Policy for Management of Crop Residues (NPMCR) came into effect from 2014
- In 2018, a new Central Sector Scheme on 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' has been launched with the total outgo from the Central funds of Rs. 1151.80 crore.
- ➤ Burning crop residue is a crime under Section 188 of the IPC and under the Air and Pollution Control Act of 1981.
- Crop residue burning released carbon dioxide (CO2), carbon monoxide (CO), oxides of sulphur (SOX) and black carbon.
- ➤ Burning of crop residue causes damage to other micro-organisms present in the upper layer of the soil as well as its organic quality. one tonne stubble burning leads to a loss of 5.5 kilogram nitrogen, 2.3 kg phosphorus, 25 kg potassium and more than 1 kg of sulfur all soil nutrients, besides organic carbon.
- Crop residues produced by major crops: Rice>Wheat>Maize
- Crop residue in different crop: Cereals>Fibers>Oilseed
- > Generation of crop residues: Uttar Pradesh>Punjab>Maharashtra
- > Burning of crop residue: Uttar Pradesh>Punjab>Haryana
- Farmers can also manage crop residues effectively by employing agricultural machines like:
  - Happy Seeder(used for sowing of crop in standing stubble)
  - Rotavator (used for land preparation and incorporation of crop stubble in the soil)
  - Zero till seed drill (used for land preparations directly sowing of seeds in the previous crop stubble)

 Baler (used for collection of straw and making bales of the paddy stubble)

Contact: 9828822277

- Paddy Straw Chopper (cutting of paddy stubble for easily mixing with the soil)
- Reaper Binder (used for harvesting paddy stubble and making into bundles)
- Punjab government announces rupees 2500 per acre compensation for farmers not burning stubble.
- > Subsidies are added in subsidies part.

# **Irrigation**

- > Irrigation is the application of controlled amounts of water to plants at needed intervals.
- The **Economic Survey 2018-19** suggests that "focus should shift from 'land productivity' to 'irrigation water productivity'.
- In India according to the Asian Water Development Outlook, 2016, almost 89% of groundwater extracted is used for irrigation and crops such as paddy and sugarcane consume more than 60% of irrigation water.
- ➤ On a average rice crop takes **5600 liter** water for 1 kg production and daily consumption of rice **is 6-10 mm.**
- ➤ Major source of irrigation is **tube well** and second rank is occupied by **canals**.
- ➤ India has the largest area under rice crop and **second** in **production**.
- > Efficiency of major irrigation system:
  - Surface irrigation: 50-60%
  - Sprinkler irrigation: 65-75%
  - Surge Irrigation: 85-90%
  - Drip Irrigation: 90-95%
- Even in drought-hit region of Latur in Maharashtra, there was hardly any mention of humanitarian crisis caused by drought. Parts of Gujarat, Karnataka, Odisha, Andhra Pradesh and Rajasthan are also reeling under drought due to deficient rainfall in 2018.
- India is one of the **world's biggest users** of ground water and its depleting levels are the main reason for the country's severe shortages.
- About **600 million Indians** are facing high-to-extreme water stress and the situation is set to worsen as water requirements rise, according to a 2018 report by NITI Aayog.

➤ About **75% of the households** in the country do not have drinking water.

Contact: 9828822277

# List of major irrigation projects:

Name	River	State
Bhakra Nangal Project	Sutlej	Punjab and Himachal Pradesh
Beas Project	Beas River	Punjab, Haryana and Rajasthan
Indira Gandhi Canal	Harike (Satlej and Beas)	Punjab
Koshi Project	Kosi River	Bihar and Nepal
<b>Hirakund Project</b>	Mahanadi	Odisha
Tungabhadra project	Tungbhadra -Krishna	AP-Karnataka
Nagarjuna Sagar Project	Krishna	AP
Chambal Project	Chambal	Rajasthan and Madhya Pradesh
Damodar valley project	Damodar	Jharkhand, West Bengal
Gandak project	Gandak	Bihar-UP
Kakrapar project	Tapti	Gujarat
Koyna Project	Koyna- krishna	Maharashtra
Malprabha project	Malprabha	Karnataka
Mayurakshi Project	Mayurakshi	West Bengal
Kangsabati project	Kangsabati and Kumari river	West Bengal

# Important schemes

Contact: 9828822277

# **Important schemes:**

Contact: 9828822277

# 1. Pradhan Mantri Matsya Sampada Yojana

- **Launched:** 5th July 2019
- ➤ **Aim:** To increase the fish and aquatic products
- ➤ It includes MoFPI's schemes such as Food Parks, Food Safety and Infrastructure.
- Last year, the Cabinet had set up Rs 7,522 crore special Fisheries and Aquaculture Infrastructure Development Fund (FIDF).
- ➤ The government has set a target for fish production and that is to achieve the target of 15 million tonne by 2020 under the Blue Revolution and raise it to about 20 million tonnes by 2022-23.

#### **Indian Fish Market**

- India's fish production is estimated at around 12 million tonnes annually.
- ➤ India has become the **second largest fish** producing and aquaculture industry in the world.
- ➤ In aquaculture, India is second to china with a share of 6% in global aquaculture.
- The fisheries sector employed over 14.5 million people directly and many more indirectly.
- At present, Fish production contributes to around 1% to GDP of country and 5% to agricultural GDP of country.
- > India exports one tenth of its Fish produced.

# 2. Pradhan Mantri Kisan SAMPADA Yojana:

- Launched: 2016
- ➤ Ministry: Ministry of Food Processing and Industries (MoFPI)
- **Fund**: 6,000 crore for the period of 2016-20.
- > Renamed in: 2017
- ➤ Objective: To supplement agriculture, modernize processing and decrease Agri-Waste.

# The PMKSY has seven component schemes:

- Mega Food Parks,
- > Integrated Cold Chain and Value Addition Infrastructure,
- ➤ Infrastructure for Agro-Processing Clusters,
- > Creation of Backward and Forward Linkages,
- ➤ Creation/Expansion of Food Processing & Preservation Capacities,
- ➤ Food Safety and Quality Assurance Infrastructure, and
- > Human Resources and Institutions.

#### Other steps taken for Food Processing Sector:

- > 100% Foreign Direct Investment (FDI)
- A special fund of **Rs.2000 crore** has been created with the NABARD to provide affordable credit to food processing projects/units.

Contact: 9828822277

- ➤ Food & agro-based processing units and cold chain infrastructure has been classified as agriculture activity for **Priority Sector Lending** (**PSL**).
- ➤ 100 % income tax exemption from profit derived by Farmers Producers Organizations (FPOs) having annual turnover of Rs.100 crore have been allowed for activities such as post-harvest value addition to agriculture.
- ➤ Operation green for TOP with 500 crore fund

#### Other fund by GOI:

- The government has proposed to increase budget allocation for the Ministry of Agriculture and Farmers Welfare by over 78 % to 39 lakh crore rupees for the current fiscal. out of the total amount, 75,000 crore rupees will be for the Pradhan Mantri Kisan Samman Nidhi.
- ➤ Besides PM-KISAN, the government has proposed to increase the allocation for the **Pradhan Mantri Fasal Bima Yojana** (**PMFBY**) to 14,000 crore rupees for the current fiscal.
- ➤ To ensure Minimum Support Price (MSP) in times of steep fall in rates, the government has proposed to increase the allocation to **3,000 crore rupees** for intervening in the market in such times under the **Market Intervention Scheme and Price Support Scheme (MIS-PSS)**
- ➤ She also proposed setting up of 10,000 new Farmer Producer Organisations (FPOs) to ensure economies of scale for farmers over the next five years.

# 3. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):

- > Started: 01.02.2019 namely, the Pradhan Mantri Kisan SAmman Nidhi, Announced in December, 2018
- > Launched at: Gorakhpur, UP
- ➤ **Objective:** To augment the income of farmers
- **Covered:** All farmer with land
- ➤ **Not Covered:** Landless labour
- ➤ Under the programme, vulnerable landholding farm families with cultivate land upto two hectares, would be provided direct income support at the rate of 6000 rupees per year.
- > The scheme is being implemented with effect from **December 2018.**

Around 12 crore/14.5 crore small and marginal farmer families are likely to benefit from this. The programme would be **implemented from**December 1, 2018 and the first tranche for the span upto March 31, 2019 would be paid during the current fiscal year itself.

Contact: 9828822277

- ➤ This income support will be transferred directly into the bank accounts of beneficiary farmers, in three equal installments of Rs. 2,000 each.
- ➤ However *Landless labourers are not being covered* under PM-KISAN.
- ➤ The complete expenditure of Rs 75000 crore for the scheme will borne by the Union Government in 2019-20.
- ➤ *The Rythu Bandhu scheme* of the Telangana government provides ₹4,000 per acre for every season to all the farmers of the state. Similar initiatives have also be framed in Jharkhand and Odisha.
- In December 2018, Odisha launched the *Krushak Assistance for Livelihood and Income augmentation (KALIA)*. KALIA is more complicated in design and implementation. It commits to give Rs 5,000 per SMF, twice a year, that is Rs 10,000 a year.

#### 4. Pradhan Mantri Shram-Yogi Maandhan:

- Pradhan Mantri Shram-Yogi Maandhan" is launched for the unorganized workers with monthly income upto 15,000 rupees. This pension yojana would give them an assured monthly pension of 3,000 rupees from the age of 60 years on a monthly contribution of a small affordable premium during the working age.
- > PM- SYM which was recently announced in the Interim Budget-2019 will be implemented from February 15, 2019 by the **Ministry** of Labour and Employment through Life Insurance Corporation of India.
- This scheme seeks to benefit around 42 crore workers from the **unorganized sector** of the country.
- To avail of the scheme, workers will have to contribute a **Rs. 55-200 (Age based)** month per month.
- The unorganized sector workers, with income of less than Rs 15,000 per month and who belong to the entry age group of **18-40 years**, will be eligible for the scheme.
- **Benefits**: **Minimum Assured Pension:** Each subscriber under the scheme will receive minimum assured pension of Rs 3000 per month after attaining the age of 60 years.
- ➤ In case of death during receipt of pension: If the subscriber dies during the receipt of pension, his or her spouse will be entitled to

receive 50 percent of the pension as family pension. This family pension is applicable only to spouse.

Contact: 9828822277

- ➤ In case of death before the age of 60 years: If a beneficiary has given regular contribution and dies before attaining the age of 60 years, his or her spouse will be entitled to continue the scheme subsequently by payment of regular contribution or may even exit the scheme.
- ➤ Under the PM-SYM, the prescribed age-specific contribution by the beneficiary and the matching contribution by the Central Government will be made on a '50:50 basis'.

#### 5. PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan):

- The umbrella scheme **PM-AASHA** provides for a holistic arrangement for assurance of a remunerative and stable price environment four growers/farmers to increase agricultural production and productivity.
- This umbrella scheme comprises the price support scheme for pulses & oilseeds, Price Deficiency Payment Scheme & Pilot of private procurement and stockiest scheme for oilseeds to ensure MSP to the farmers.
- The Government has approved a new umbrella scheme "Pradhan Mantri Annadata Aay Sanrakshan Abhiyan" (PM-AASHA) which will provide Minimum Support Price (MSP) assurance to farmers.
- The Scheme is aimed at ensuring remunerative prices to the farmers for their produce as announced in the Union Budget for 2018.
- The increase in MSP can improve farmer's income by strengthening procurement mechanism in coordination with the State Governments.

# **Components of PM-AASHA:**

- 1. Price Support Scheme (PSS): Oilseed, pulses & Copra
- 2. Price Deficiency Payment Scheme (PDPS): Oilseed
- 3. Pilot of Private Procurement & Stockist Scheme (PPPS)

# 6. Pradhan Mantri Krishi Sinchayi Yojana

**Launched** on July, 2015

Accelerated Irrigation Benefits
Programme and Command Area
Development (ABP-CAD)

Minor Irrigation (Har Khet Ko
Pani),

Watershed Development

Micro Irrigation (Per Drop
More Crop)

With the objectives of **1.86 lakh Ha** of additional area to be brought under irrigation **during 2018-19**, PMKSY-Watershed Development has been provided **Rs. 2146.00 crore.** 

Contact: 9828822277

- The Water Use Efficiency (WUE) in Indian agriculture, at about 30-40 per cent
- Micro irrigation saves irrigation water from 40 to 70 % (Mo Agri & FW, 2004), conserves energy from 10-17percent, reduces fertilizers consumption from 15 to 50%, and decreases labour cost of about 30-40 % FICCI(Federation of Indian Chambers of Commerce &Industry ,2016).
- If micro irrigation is applied at its full potential, the average increase in farmer's income at all India level will be 42 %.
- Recognizing the importance of micro irrigation in the contemporary agriculture, the government has provided **Rs. 5000 crore** for the water saving induced technology adaptation under "**Per Drop More Crop**".
- ➤ The Government of India has announced the establishment of Rs. 50,000 crore Corpus Fund for the development of small irrigation with NABARD within 5 years. (Asked in Assistant manager NABARD-2018)
- ➤ 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. 2,6,00 crores have been allocated.

- A mobile smart phone application (Drishti) has been developed for field data collection. It is developed in 2015 by NRSC (National remote sensing centre)
- ▶ **BhuvanGeo-Portal**: Bhuvan, an Indian Geo-Platform, of ISRO, provides a host of services covering satellite data visualization, free data download, thematic map display, download and analysis, timely information on disaster and project specific GIS applications since August 2009.

#### 6.1 Per Drop More Crop - (SWMA):

- **Physical achievement:** 16 lakh hectare (2018-19).
- **Coverage under drip and sprinkler in 2018-19:**
- **❖ Physical achievement area (total micro irrigation):** 11.58 lakh hectare area.
- **❖ Drip irrigation :**5.75 lakh hectare (49.65 %)
- **Sprinkler irrigation:** 5.83 lakh hectare (50.36 %)
- ❖ Potential Created For Protective Irrigation: 1.30 Lakh Ha
- **❖ Total physical achievement area from 2005-06 to 2018-19**:82.89 Lakh hectare.

#### 7. SOIL HEALTH CARD SCHEME (SHC)

- > Theme: "SwasthDharaa. Khet Haraa." Healthy Earth. Green Farm.
- **Launched:** 19 feb,2015 at Suratgarh, Rajasthan
- ➤ Soil health card is prepared in 14 local languages.
- Soil Health card Mobile app languages: 10 (23 languages in soil health card portal)
  - ➤ It will contain the status of his soil with respect to 12 parameters, namely N,P,K (Macro-nutrients); S (Secondary- nutrient); Zn, Fe, Cu, Mn, Bo (Micro nutrients); and pH, EC, OC (Physical parameters).
  - Soil samples will be drawn in a grid of 2.5 ha in irrigated area and 10
     ha in rain-fed area with the help of GPS tools and revenue maps.
  - Soil Samples are taken generally **two times in a year**, after harvesting of Rabi and Kharif Crop respectively or when there is **no standing crop in the field.**



Contact: 9828822277

स्वस्थ धरा. खेत ह

A sum of **Rs. 190 per soil sample** is provided to State Governments. This covers the cost of collection of soil sample, its test, generation and distribution of soil health card to the farmer.

Contact: 9828822277

- ➤ The second cycle started from 1st May, 2017.
- ➤ Total 14.20 Cr Soil Health Cards have been distributed till 31 March 2018 in both cycles.
- State wise card distributed (Cycle I and II): Uttar Pradesh> Maharashtra > Madhya Pradesh
- 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.
- ➤ In the year 2010-14 there were only 43 **soil testing laboratories** sanctioned which has increased to **9243 during 2014-18**.

#### 8. Mridpriskshk

- Launched: 18<sup>th</sup> feb, 2015
- Mridaparikshak determines all the important **15 soil parameters** (Previously 10) viz., pH, EC, organic carbon, available nitrogen, phosphorus, potassium, sulphur, zinc, iron, manganese, boron, copper, gypsum requirement, lime requirement, and calcareousness.
- The price of `Mridaparikshak' for sale in India is fixed at **Rs. 86,000/**-(local taxes extra) and the price of `Refilling' for 100 samples is fixed at Rs. 17,000/- (local taxes extra).
- ➤ It also provides crop and soil specific fertilizer recommendations directly to farmer's mobile through SMS.

# 11. PARAMPARAGAT KRISHI VIKAS YOJANA (PKVY):

- ➤ The PMKSY was launched in April, 2015.
- > The main objective was to promote organic farming in the country.
- Every farmer will be provided **Rs. 20,000 per acre** in three years for seed to harvesting of crops and to transport produce to the market.
- Fifty or more farmers will form a cluster having 50 acre land to take up the organic farming under the scheme. In this way during three years 10,000 clusters will be formed covering 5.0 lakh acre of area under organic farming.

Each member of the group is being provided financial assistance of **Rs. 50,000 per hectare** during the period of **3 years**. (out of which 62% i.e., Rs. 31,000 is given as incentives to a farmer for organic conversion, organic inputs, on farm inputs, production infrastructure, etc.) **10,000 organic clusters** of **20 hectares** each will be developed.

Contact: 9828822277

- > Sikkim: First Organic State of India
- Area wise Madhya Pradesh has first rank in organic certification. (MP> Rajasthan > Maharshtra)
- FUND: The scheme is implemented with a 90:10 (GoI: State Govt.) funding pattern in 8 NE states and 3 hilly states of J&K, Himachal Pradesh and Uttarakhand, 100% in Union Territory and 60:40 funding pattern in remaining states of the country.

#### 10. NATIONAL AGRICULTURE MARKET (E-NAM)

- Launched on: 14 April 2016
- 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. During 2018-19 & 2019-20, 415 additional mandies will be linked with e-NAM platform.
- > According to latest data over 1 crore 65 lakhs farmers registered on e-NAM.
- The **21 mandis** where NAM is being formally launched would offer trading in commodities such as chana, castor seed, paddy, wheat, maize, onion, mustard and tamarind. **25 commodities** including onion, potato, apple, wheat, pulses, coarse grains and cotton, have been identified for online trading.
- ➤ To integrate a wholesale mandis across the country with the online platform, the state governments have to amend their Agriculture Produce Market Committee (APMC) Act.
- ➤ 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 **150 commodities**.
- ➤ The portal is available in **English**, **Hindi**, **Gujarati**, **Marathi**, **Telugu**, **Bengali**, **Tamil**, **Odiya and Punjabi** (**Total 9**). The Mobile app also developed and has 6 languages.
- Currently 826 FPOs have been onboarded on e-NAM portal.
- ➤ Number of APMCs: Uttar Pradesh> Gujarat> Maharashtra

➤ Lowest: Odisha> Pondichery> Chandigarh (Chandigarh's Mandi are not in trading but registerd under e-NAM)

Contact: 9828822277

#### 11. PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)

- ➤ It was launched on: 18 February 2016 (Kharif 2016)
- > 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 (Cotton/Sugarcane)/ Horticultural Crops.(Asked in AFO-2018)
- ➤ Covers all risks of crop cycle preventive sowing; risks to standing crops and post-harvest losses. 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.
- Scheme has been received very well and has been opted for by 27 States and Union Territories in one or more seasons since inception.
- ➤ Unique feature of PMFBY has been that there would be **no upper limit on government subsidy** provided by centre and state governments. "Even if the balance premium (after farmers contribution) is 90%, it will be borne by the- government,"
- ➤ In the first year of implementation of PMFBY/RWBCIS, 23 States implemented the schemes during kharif 2016 and 25 States and 3 UTs during rabi 2016-17
- ➤ NAIS and MNAIS have been discontinued from Kharif 2016, but the Weather Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS) would continue to operate while premium to be paid under WBCIS has been brought on a par with PMFBY.
- Upto Rabi 2017 farmers covered: Maharashtra> Rajasthan> Madhya Pradesh
- > Number of farmers benefited: Maharashtra> Rajasthan> Tamil Nadu
- > Area Insured: Madhya Pradesh> Rajasthan> Maharashtra
- ➤ Claim Reported: Madhya Pradesh> Tamil Nadu> Maharashtra
- Claim Paid: Madhya Pradesh> Maharashtra> Tamil Nadu

# 12. PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

- ➤ **Launched**: 28 August 2014
- ➤ **Objectives**: This scheme was launched to provide basic banking accounts to 7.5 crore unbanked people with **RuPay debit card** and overdraft facility (after six months).

#### **Facilities:**

- ❖ A bank account with no minimum balance; and interests on deposits
- ❖ Accidental Insurance Cover of **Rs. 1 Lakh**; **life cover of Rs.30000/**payable on death of beneficiary.

Contact: 9828822277

- ❖ Overdraft facility up to **Rs.5000/- on satisfactory operation of 6 months.**
- Easy transfer of money across India.
- ❖ Transfer of benefits under **DBT** in these accounts.
- \* Access to pension and insurance products.

#### 13. MEGA FOOD PARKS SCHEME

- ➤ Mega Food Parks Scheme (MFPS) was launched in 2008.
- Sovernment provides **Financial Assistance up to Rs. 50 Crore** to set up modern infrastructure facilities for food processing called Mega Food Parks. (50% in general states and 75% in in difficult and hilly areas)
- ➤ It is a scheme of the Ministry of Food Processing Industry (MOFPI).
- > Srini mega Food Park at Chittoor in Andhra Pradesh is the first Mega food park of India.
- ➤ Maharashtra's first Mega Food Park inaugurated at Satara. (NABARD-2019).
- Punjab's first Mega International Food Park was inaugurated at Dabwala Kalan, in Fazilka District Punjab under the aegis of Mega Food Park Scheme.
- ➤ Indus mega Food Park the **first Mega Food Park** (**MFP**) **of Madhya Pradesh** inaugurated at Panwa village in Kasarwad tehsil of Khargone district. Recently Avantee Mega Food Park was inaugurated at Dewas MP. (Second of MP)
- First mega food park of Himachal Pradesh "Cremica food park" is inaugurated at Una.
- First mega food park of Gujarat "Gujarat Agro mega food park" is inaugurated at Surat.
- ➤ Telangana's first Mega Food Park promoted by smart Agro Food Park setup at Nizamabad Telangana
- > First aqua mega food park inaugurated at Godavari, Andhra Pradesh.
- A Rs 396 crore animal husbandry park will come up at Salem, Tamil Nadu.
- ➤ Allocation of Ministry of Food is Rs.1400 crore in 2018-19.
- ➤ World Bank sanctioned rupees 3000 crore for Food Food Park
- ➤ The total outlay for the Ministry of Food Processing Industries is Rs. 1,196 crore in 2019-20. The government has allocated of Rs. 1.92 lakh crore for

the Food Ministry, out of which Rs. 1.84 lakh crore has been set aside for food subsidy.

Contact: 9828822277

- ➤ Objective was to raise processing of food items from 6% to 20%
- ➤ Under the scheme, the government of India provides financial assistance upto Rs 50 crore per mega food park project.
- > Operational: 17 (MoFPI Website)
- **➤ Targeted:** 40/42

#### 14. Kisan Credit Card (KCC) Scheme

- ➤ The Kisan Credit Card (KCC) scheme was introduced in August 1998
- ➤ Eligiblity: Minimum age: 18 years, Maximum age: 75 years
- ➤ Card valid for 3-5 years subject to annual review. As incentive for good performance, credit limits could be enhanced to take care of increase in costs, change in cropping pattern, etc.
- **Each drawl** to be **repaid** within a **maximum period of 12 months**.
- Security, margin, rate of interest, etc. as per RBI norms. RBI has decided to raise the limit for collateral-free agriculture loans from **Rs. 1 lakh to Rs. 1.6 lakh.**
- ➤ The Kisan Credit Card also provides personal accident insurance that farmers can opt for. Under the insurance, they will get coverage of up to Rs.50,000 in the event of death while Rs.25,000 in the event of an accident resulting in disability.
- ➤ Crop loans disbursed under KCC Scheme for notified crops are covered under Crop Insurance Scheme, to protect the interest of the farmer against loss of crop yield caused by natural calamities, pest attacks etc.
- ➤ RuPayKisan Credit Card: RuPay is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India (NPCI).
- ➤ RuPay **facilitates electronic payment** at all Indian banks and financial institutions, and competes with Master Card and Visa in India. NPCI started Rupay card in 2012.
- ➤ NABARD, in January, 2013 set up Special Project Unit- Kisan Credit Card (SPU-KCC) with a mandate for encouraging cooperative banks and Regional Rural Banks across the country to issue Rupay KCC debit cards.
- The farmers get the **short term crop loans up to Rs. 3 lakh** at reduced **rate of interest at 7%**. If the farmers deposit the loan amount on the due date; they get another 3% rebate in the interest rate. So the **effective rate of interest would be only 4%**.

The facility of **Kisan Credit Cards** has been **extended to fisheries and animal husbandry (including poultry) farmers (in 2018-19 budget)** to help them meet their working capital needs.

Contact: 9828822277

- According to an announcement made on 26 August 2019, the Reserve Bank of India (RBI) will be providing a 2% subsidy on the rate of interest for any short-term loans of **Rs.2 lakh** that have been availed by farmers who are engaged in animal husbandry and fisheries via the **Kisan Credit Card (KCC).**
- Famers will be able to avail loans of up to Rs.2 lakh with a concessional interest rate of 7%. The reduction of interest will be applicable for all loans that have been availed during 2018-2019 and 2019-2020. An extra 3% discount on the interest rate will be provided to farmers who have been promptly paying their loans.
- ➤ Number of KCC issued: Uttar Pardesh> Andhra Pradesh> Madhya Pradesh
- > Documents required to get KCC:
  - 1. Duly **filled application form**
  - 2. **Identity proof** Voter ID card/PAN card/Passport/ Aadhaar card,/Driving License etc.
  - 3. **Address proof**: Voter ID card/Passport/Aadhaar card/Driving license etc.

#### 15. Pashu Kisan Credit Card:

- Launched: 6 December, 2019 in Haryana
- The card is along lines of the Kisan credit card scheme and will allot credit according to the animal you own. For a Murrah Buffalo, a credit limit of Rs.76,300 will be given. If you own an indigenous cow, the credit limit will be Rs.70,825 and Rs.71,325 for an exotic cow.
- Similarly, if you own shrimp, brackish water shrimp specifically, the credit limit which will be offered is **Rs.92,800 and Rs.1,11,200** for freshwater shrimp. This scale of finance has been decided after the recurring costs towards feeding, veterinary aid, water, labour, and electricity supply have been added.
- For any person who has cattle or freshwater shrimp more than a value of **Rs.1.6 lakh, collateral** will need to be given to the bank.
- According to the government, an owner can purchase anything and everything with the credit limit. However, he or she must repay the amount within 1 year to get an interest rate of 4%. The interest rate increases, and they become defaulters if the money is not repaid within a year.

#### 16. RuPay Mudra Debit Card

➤ Government of India's initiative towards the beneficiaries of MUDRA Loans under Pradhan Mantri Mudra Yojana Scheme.

Contact: 9828822277

- ➤ **RuPay Mudra Debit Card** is issued with account opened under Pradhan Mantri Mudra Yojana.
- An innovative product which provides working capital facility as cash credit arrangement. The cardholder can make use of **MUDRA Card** in multiple withdrawal and credit, so as to manage the working capital limit in a most efficient manner and keep the interest burden minimum.

# 17. Pradhan Mantri Mudra Yojana

- ➤ Pradhan Mantri MUDRA Yojana (PMMY) launched in 2015 aims to provide loans up to 10 lakh to the non-corporate, non-farm small/micro enterprises.
- The loans are provided through Commercial Banks, RRBs, Small Finance Banks, Cooperative Banks, MFIs and NBFCs.

#### The Mudra loans are provided under three categories:

- 1. Under Shishu up to Rs 50,000 under.
- 2. Under Kishore for loans between Rs 50,001-Rs 5 lakh.
- 3. Under Tarun for loans between Rs 5,00,001 and Rs 10 lakh category.

#### 18. 'Nal se Jal' scheme

- **Launch year:** July 2019
- ➤ 'Nal se Jal' scheme, water and sanitation sector is likely to attract investment worth Rs 6.3 lakh crore in the next five years.
- ➤ **AIM:** the government's new 'Nal se Jal' scheme, which aims to provide piped water connection to every household by 2024, will likely lead to a massive jump in the investment in water and sanitation.
- Nodal Agency: Ministry of Jal Shakti
- ➤ It is a component of the government's Jal Jivan Mission.
- ➤ The Ministry of Drinking Water and Sanitation and Ministry of Water Resources and Ganga Rejuvenation have been merged into the Jal Shakti Ministry

#### 19. 'Yuva Sahakar' Scheme

> NCDC's new scheme 'Yuva Sahakar' was launched in November 2018 for giving wings to young entrepreneurs in cooperatives.

Contact: 9828822277

- ➤ The scheme will be linked to **Rs 1000 crore 'Cooperative Start-up and Innovation Fund (CSIF)'** created by the NCDC.
- ➤ The funding for the project will be up to 80 percent of the project cost for these special categories against 70 percent for others.

#### 20. Baroda Kisan:

- ➤ Baroda Kisan initiative is part of the Bank of Baroda's initiative to keep up with the use of technology in the field of agriculture.
- ➤ Baroda Kisan aims to provide a dedicated platform for farmers to ease their requirements.
- ➤ The project aims to provide a holistic approach towards solving agricultural plights by means of providing reliable and customised information, inputs for use, the convenience of renting farm equipment and market linkage for sale of agri-produce.
- The agri-digital platform will be executed by **Bank of Baroda in partnership with IBM India.**

# 21. Krushak Assistance for Livelihood and Income Augmentation (KALIA):

- ➤ Krushak Assistance for Livelihood and Income Augmentation (KALIA) is a support scheme of Odisha whose primary targets are small farmers, cultivators and landless agricultural labourers.
- > The scheme involves payments to encourage cultivation and associated activities.

#### **Features of the Scheme:**

- ➤ Under the Scheme, Odisha would spend **Rs10,180** crore over three years until 2020-21 benefitting 92% of the cultivators in the state and including every category from big farmers to landless cultivators.
- ➤ The government would provide Rs10, 000 per family as assistance for cultivation, Rs.5, 000 each in the Kharif and Rabi seasons, for five cropping seasons between 2018-19 and 2021-22.
- ➤ The scheme also targets landless households, specifically SC and ST families; they will be supported with a unit cost of **Rs. 12,500** for activities like goat rearing, mushroom cultivation, beekeeping, poultry farming and fishery.

#### 22. Odisha Government launches Saura Jalnidhi scheme

The scheme was launched as part of state government's endeavour to increase the use of solar photovoltaic pump sets in those areas so that

- irrigation facilities can be provided where power system is bad.
- ➤ Odisha Government has launched Saura Jalnidhi scheme to encourage use of solar energy in irrigation by farmers.

Contact: 9828822277

- ➤ Under this scheme, farmers will be given 90% subsidy and 5,000 solar pumps.
- The beneficiary of this scheme will be farmers who have valid farmer identity cards and have **minimum 0.5** acres of agricultural land.
- It will promote the use of green energy and reduce pollution.

# 23. Agri-clinics and agri-business centres scheme (ACABC)

- Launched on: April, 2002
- ➤ Ceiling of project cost for subsidy has been enhanced to **Rs.20 lakh** for an **individual project** (Rs. 25 lakh in case of extremely successful individual projects) and to **Rs.100 lakh** for a **group project** (established by a group comprising at least **five trained persons** under the Scheme, out of which one could be from Management background).
- Subsidy pattern has been revised from "capital and interest subsidy" to "Composite Subsidy" which will be back-ended in nature. It will be 44% of project cost for women, SC/ST & all categories of candidates from NE and Hill states and 36% of project cost for all others. Interest subsidy scheme is replaced with enhanced quantum of back-ended subsidy.
- ➤ Minimum number of members required: 05
- ➤ Toll free number- 1556(Timing: 9AM to 5.30 PM)
- First ACABC established at- Vapi, Bulsar (Distt), Gujarat by Sunil Kumar
- National Institute of Agricultural Extension Management (MANAGE) will be responsible for **providing training** to eligible candidates.
- ➤ Inclusion of MUDRA loan under Pradhan Mantri MUDRA Yojana (PMMY) for Agri-Clinics and Agri-Business Centres Scheme.

# 24. Kisan Call Centres (KCC)

- ➤ Launched on: **Jan 21, 2004**
- > Toll free number: **1800 180 1551**
- > Timings: **06.00 AM to 10.00 PM.**
- **Operation:** 3 levels
- > Total KCC: 21
- ➤ Total languages in which KCC operates: 22
- ➤ KISAN CALL CENTER (KCC):Kisan Call Center provides information to farmers free through toll free number 1800-180-1551.

Total 2.64 crore farmers questions were replied from 2014-18 (till May 10, 2018).

Contact: 9828822277

# 25. Interest Subvention on Loan of Farmers/ Interest Subvention Scheme (ISS)

- ➤ The Government of India (GoI) has been implementing the Interest Subvention Scheme (ISS) since 2006-07 under which short term crop loans upto Rs. 3.00 lakh are made available to farmers at subvented interest rate of 7% per annum. Further from 2009-10 GOI has made a provision to give extra 3% subvention if the loan is upto 3 years and paid within the due date (Max duration 1 year). After total subvention (2%+3%) effective interest rate will be 4%. (Asked in AFO-2018)
- The interest subvention will be given to Public Sector Banks (PSBs), Private Sector Banks, Cooperative Banks and Regional Rural Banks (RRBs) on use of own funds and to **NABARD for refinance** to RRBs and Cooperative Banks.

#### 26. ATMA YOJANA

- Launched during 2005-06
- At present, the Scheme is under implementation in **684 districts in 28 States and 3 UTs** in the country.
- ➤ **Funding:** The scheme is supported by the Central Government. The funding pattern is 90% by the central Government and 10% by the state government. The 10% state's share shall consist of cash contribution of the State, beneficiary contribution or the contribution of other non-governmental organizations.

#### 27. Lead Bank scheme:

- ➤ The Lead Bank Scheme was launched by the RBI in 1969.
- ➤ Under LBS, every district across the country would be assigned to a commercial bank.
- ➤ The bank should have major presence in that district to do the work of the Lead Bank.
- ➤ The lead bank makes surveys and makes loan facility to various sectors.
- > Twenty public sector banks and one private sector bank have been assigned Lead Bank responsibility in 714 districts across the country.

# 28. Integrated Development and Management of Fisheries - a Central Sector Scheme on Blue Revolution

Contact: 9828822277

Integrated Development and Management of Fisheries (Blue Revolution) is the name of an integrated / umbrella scheme covering all existing schemes related to fisheries.

- ➤ This scheme was approved by Union Cabinet in December 2015 and the total outlay is of Rs. 3000 Crore for five years.
- ➤ Components: The IDMF scheme covers inland fisheries, aquaculture, marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development Board (NFDB) towards realizing "Blue Revolution".
- > The scheme has the following six broad components:
- \* National Fisheries Development Board (NFDB) and its activities,
- Development of Inland Fisheries and Aquaculture,
- ❖ Development of Marine Fisheries, Infrastructure and Post-Harvest Operations,
- Strengthening of Database & Geographical Information System of the Fisheries Sector,
- Institutional Arrangement for Fisheries Sector and
- ❖ Monitoring, Control and Surveillance (MCS) and other need-based Interventions.

# **Funding and Implementation**

- ❖ IDMF is a central sector scheme which provides 100% funding for the above components.
- ❖ Further, it also provides suitable linkages and convergence with Sagarmala Project of the Ministry of Shipping, MGNREGA, RKVY, NRLM etc.
- ❖ The overall objective is to ensure a sustained annual growth rate of 6% 8% as against an overall annual growth rate of about 4%.
- ❖ The scheme with its multi-dimensional activities, focuses mainly on increasing production and productivity from aquaculture and fisheries resources, both inland and marine.
- ❖ The scheme is intended to utilize most of the unutilized fisheries resources keeping in view the overall sustainability, biosecurity and environmental concerns.

# 29. Pradhan Mantri Van Dhan Yojana (PMVDY)

- **Launched:** 14th April 2018
- ➤ Ministry: Ministry of Tribal Affairs and TRIFED

Aim: The programme aims at empowering the tribal community. TRIFED will establish **3,000 VDVKs** each year till 2024 and will cover around 2 crore tribal beneficiaries. The programme also aims to cover 117 tribes in the country. It has also partnered with UNICEF to promote tribal craft, cuisine, culture and commerce.

Contact: 9828822277

#### 30. Crop Residue Management Scheme:

In pursuance to Budget 2018 announcement a new Central Sector Scheme on 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' for the period from 2018-19 to 2019-20. (100% Central Share)

The Scheme has the following components:

- 1. Establish Farm Machinery Banks for Custom *Hiring* of in-situ crop residue management machinery- Financial assistance @ 80% of the project cost is provided to the Co-operative Societies of farmers, FPOs, Self-Help Groups, registered Farmers Societies / farmers groups, Private Entrepreneurs, Group of women farmers or self-help groups for establishment of farm machinery banks or custom hiring centres of in-situ crop residue management machinery.
- 2. Financial Assistance to farmers for Procurement of Agriculture Machinery and Equipment for in-situ crop residue management-Financial assistance @ 50% of the cost of machinery/equipment is provided to individual farmers for purchase of machinery/equipment for crop residue management.
- 3. **Information, Education and Communication for awareness on in-situ crop residue management** Financial assistance is provided to the State Governments, KVKs, ICAR Institutions, Central Government Institutions, PSUs etc. for the activities to be undertaken towards Information, Education and Communication (IEC).

#### 31. Krishi Dak

- **Launched:** 2015
- ➤ Indian Agricultural Research Institute (IARI) has initiated a novel scheme Krishi Dak in 20 districts in which postmen supplies seeds of improved varieties of crops to the farmers in remote areas.
- ➤ Due to its success and popularity, this scheme is being extended in 100 districts of 14 states with the association of Krishi Vigyan Kendras.
- ➤ This will provide improved seed to farmers at their doorsteps.

#### 32. Farmer FIRST

- **Launched:** 2015
- ➤ It is an ICAR initiative to enhance farmers-scientists contact with multi stake holders-participation.

Contact: 9828822277

- > FIRST refers to Farm, Innovations, Resources, Science and Technology.
- The project focuses on enabling interaction of scientists with farm conditions and problems; exchange of knowledge between farmers and other stakeholders; integration of technology with different agro-systems; development of rural based institutions; and using the platform of the project having commodity institutions as partners to develop commodity specific contents for e-enabled knowledge sharing.

#### 33. Mera Gaon – Mera Gaurav

- > Launched: 2015
- ➤ It is launched by ICAR to provide farmers with required information, knowledge and advisories on regular basis.
- ➤ Under this scheme, groups of scientists will select villages and will remain in touch with that village and provide information to farmers on technical and other related aspects through personal visits or through telecommunication.
- ➤ The scheme enables 20,000 scientists of National Agricultural Research and Education System (NARES) to work directly in villages.

# 34. Attracting and Retaining Youth in Agriculture (ARYA) Scheme

- **Launched:** 2015
- ➤ ICAR has initiated a programme on "Attracting and Retaining Youth in Agriculture" to empower youth in rural areas to take up agriculture, allied and service sector enterprises for sustainable income and gainful employment in selected districts.
- > ARYA project is implemented in 25 States through KVKs, one district from each State.

#### 35. STUDENT READY

➤ **READY** refers to "Rural and Entrepreneurship Awareness Development Yojana" by ICAR.

> Student **READY** is a skill development initiative to strengthen students with skills to take up global challenges and to improve both their employability as well as ability to set up a venture.

Contact: 9828822277

#### 36. Gramin Agricultural Markets (GrAMs)

- Sovernment announced in the Union Budget, **2018-19** to develop and upgrade existing approximately 22,000 rural haats into **Gramin Agricultural Markets (GrAMs).**
- ➤ In these GrAMs, physical infrastructure to be strengthened using MGNREGS and other Government Schemes; and
- An Agri-Market Infrastructure Fund (AMIF) with a corpus of Rs. 2000 crore is also to be set up for developing and upgrading agricultural marketing infrastructure in the 22,000 Gramin Agricultural Markets (GrAMs) and 585 Agriculture Produce Market Committee (APMC) Markets.
- The GrAMs are to be linked to electronic **National Agricultural Market** (e-NAM).

# 37. e-Pashuhaat portal

- **Launched:** 2016
- ➤ Government launches **e-Pashuhaat portal** to connect farmers and breeders of bovine animals
- The portal will act as a single online e-trading market platform, including availability of bovine germplasm. It will enable the farmers **to buy bovine** animals, frozen semen and embryo.
- e-pashuhaat portal will connect farmers with breeders- State, Central, Cooperative, Milk Federations, and private agencies.
- ➤ It will provide information related to certification of the animal, breeding, its picture, volume of milk given by the cow etc.
- ➤ It will facilitate farmers to purchase advanced breed of bovine animals at a reasonable price as per as their requirements.
- ➤ It will provide, certified picture of animals, its parents information, breeding, volume of milk given by bovine animal information.

# 38. Umbrella Scheme 'Green Revolution — Krishonnati Yojana'

- ➤ Umbrella scheme comprises of 12 Schemes/Missions:
  - (1) Mission for Integrated Development of Horticulture (MIDH);

(2) National Mission on Oil Seeds and Oil Palm (NMOOP);

Contact: 9828822277

- (3) National Food Security Mission (NFSM)
- (4) National Mission for Sustainable Agriculture (NMSA);
- (5) Sub-Mission on Agriculture Extension (SMAE);
- (6) Sub-Mission on Seeds & Planting Material (SMSP);
- (7) Sub-Mission on Agricultural Mechanisation (SMAM);
- (8) Sub-Mission on Plant Protection and Plant Quarantine (SMPPQ);
- (9) Integrated Scheme on Agricultural Census, Economics and Statistics;
- (10) Integrated Scheme on Agricultural Cooperation;
- (11) Integrated Scheme on Agricultural Marketing (ISAM);
- (12) National e-Governance Plan in Agriculture (NeGP-A)
- These schemes look to develop the agriculture and allied sector in a holistic and scientific manner to increase the income of farmers by enhancing production, productivity and better returns on produce.
- The Schemes will be continued with an expenditure of Rs.33,269.976 crore for three financial years, i.e., 2017-18, 2018-19 and 2019-20.

#### **❖** Mission for Integrated Development of Horticulture (MIDH)

- > Total central share of Rs. 7533.04 Cr for current year it is 2209 crore for 2019-20
- **Launched: 2014-15**
- ➤ MIDH aims to promote holistic growth of horticulture sector; to enhance horticulture production, improve nutritional security and income support to farm Households.
- ➤ Under MIDH, Government of India (GOI) contributes 60%, of total outlay for developmental programmes in all the states except states in North East and Himalayas, 40% share is contributed by State Governments.
- ➤ In the case of North Eastern States and Himalayan States, GOI contributes 90% And 10% share is contributed by State.
- > These include following sub schemes
  - a) National Horticulture Mission,
  - b) Horticulture Mission for North East & Himalayan States,
  - c) National agro forestry & Bamboo Mission,
  - d) National Horticulture Board,
  - e) Coconut Development Board and
  - f) Central Institute for Horticulture, Nagaland.

#### **❖** National Horticulture Mission

- ➤ It is a centrally sponsored scheme launched in 2005-06.
- ➤ Under National Horticulture Mission (NHM) are covered in 23 States/UTs(18 States And 5 UTs).

Contact: 9828822277

 $\triangleright$  Share – 60: 40 (Central : State)

#### **❖** Horticulture Mission for North East & Himalayan States

- In order to improve livelihood opportunities and to bring prosperity to the North Eastern Region (NER) including Sikkim, Government of India launched a Technology Mission for North East for integrated Development of Horticulture in 2001-02.
- From 2014-15, HMNEH scheme has been subsumed under (MIDH).
- ➤ Share- 85:15 (Central: state)

#### **❖** National Agroforestry & Bamboo Mission

- The National Bamboo Mission (NBM) was launched as a Centrally Sponsored Scheme in 2006-07.
- ➤ It was subsumed under Mission for Integrated Development of Horticulture (MIDH) during 2014-15.
- National Bamboo Mission renamed as *National Agro-Forestry & Bamboo Mission* (NABM) in 2017 (Now it is Restructured National Bamboo Mission, approved by CCEA on 24<sup>th</sup> April 2018)
- **Expenditure**: An outlay of **Rs.1290 crore** (with Rs. 950 crore as Central share) is provisioned for implementation of the Mission during the remaining period of 14th Finance Commission (2018-19 and 2019-20).
- India has 19 per cent share of the world's area under bamboo cultivation, its market share in the sector is only 6 per cent.
- Budget allocation for National Bamboo mission is 194.89 crore for 2018-19

#### National Horticulture Board

- National Horticulture Board (NHB) was set up by Government of India in April 1984 on the basis of recommendations of the "Group on Perishable Agricultural Commodities" (GPAC), headed by Dr M. S. Swaminathan.
- Headquarter- Gurugram.
- ➤ 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.
- ➤ The National Horticulture Board has assisted 3120 cold storage projects across the country with storage capacity of 137.22 lakh MT.

Contact: 9828822277

#### Central Institute of Horticulture (CIH), Nagaland

- ➤ Central Institute of Horticulture was inaugurated in the year 2006 by our hon'ble Union Agriculture Minister, Govt. of India Shri Sharad Pawar.
- The institute was set up in an area of 43.5 ha.
- > Headquarter in Medziphema, Nagaland

# 39. National Food Security Mission (NFSM)

- ➤ It is including National Mission on Oil Seeds and Oil Palm (NMOOP), with a total central share of **Rs.6893.38 crore**.
- National food security act: 2013
- Launched in: October, 2007
- Centrally Sponsored Scheme, 'National Food Security Mission' (NFSM), was launched in October 2007.
- ➤ NFSM-Rice, NFSM-Wheat and NFSM-Pulses will be implemented in 194, 126 and 638 identified districts of different states, respectively.
- Now, NFSM-Coarse Cereals will be divided into two parts i.e. NFSM-Coarse Cereals (Maize & Barlay) and Sub Mission on Nutri-Cereals.
- ➤ NFSM-Coarse Cereals (Maize & Barlay) will be implemented in 271 districts of 27 States and Sub Mission on Nutri-Cereals will be implemented in 202 districts of 14 States, 8 North Eastern States and 2 Hilly States.
- National Food Security Mission was **launched in 2007-08** to increase the production of rice, wheat and pulses by 10, 8 and 2 million tonnes, respectively by the end of **XI Plan**.
- ➤ NFSM continued during 12th Five Year Plan with the target of additional production of 25 million tonnes of food grains. The programme is being continued **upto 2019-20**, which is co-terminus with Fourteenth Finance Commission (FFC) period. The targets to achieve are 13 million tonnes of additional foodgrains production comprising of Rice − 5 million tonnes, Wheat- 3 million tonnes, Pulses- 3 million tonnes and Coarse Cereals- 2 million tonnes.
- ➤ During XI Plan, NFSM-Rice was implemented in 144 districts of 16 states, NFSM Wheat in 142 districts of 9 states and NFSM-Pulses in 468 districts of 16 states.

Funding pattern: From the year 2015-16, the mission is being implemented on 60:40 sharing pattern between Centre and State Governments and on 90:10 sharing pattern between Centre and Northeastern & 3 Hill states.

Contact: 9828822277

- ➤ The National Food Security Mission (NFSM) during the 12th Five Year Plan will have five components:
  - 1) National Food Security Mission Rice (NFSM-Rice)
  - 2) National Food Security Mission Wheat (NFSM-Wheat)
  - 3) National Food Security Mission Pulses (NFSM-Pulses)
  - 4) National food Security Mission Coarse cereals (NFSM-Coarse cereals)
  - 5) National Food Security Mission Nutri cereals (NFSM- Nutri cereals)
  - 6) National Food Security Mission Commercial crops (NFSM-Commercial crops)
  - 7) National Food Security Mission Oilseeds and Oilpalm (NFSM-Oilseeds)
  - 8) National Food Security Mission Seed village programme

# 40. National Mission for Sustainable Agriculture (NMSA)

- Total central share of Rs.3980.82 Cr.
- **Launched in:** 2014-15
- It has four subcomponents:
  - 1. Rainfed area development
  - 2. On farm water management
  - 3. Soil Health Management
  - 4. Climate change and sustainable agriculture "Monitoring, modeling and networking"
- NMSA is envisaged as one of the eight Missions outlined under National Action Plan on Climate Change (NAPCC).
  - **❖** NMSA has the following schemes:
    - i. Rainfed Area Development (RAD)
    - ii. Soil Health Management (SHM)

- iii. Sub Mission on Agro Forestry (SMAF)
- iv. Paramparagat Krishi Vikas Yojana (PKVY)
- v. Soil and Land Use Survey of India (SLUSI)
- vi. National Rainfed Area Authority (NRAA)
- vii. Mission Organic Value Chain Development in North Eastern Region (MOVCDNER)

Contact: 9828822277

- viii. National Centre of Organic Farming (NCOF)
  - ix. Central Fertilizer Quality Control and Training Institute (CFQC&TI)
- ➤ Fund for Sub-Mission on Agricultural Mechanization (SMAM): Total central share of Rs.3250 Cr.
- SMSM was launched in: 2014-15, SMAM aims to increase the reach of farm mechanization to small and marginal farmers and to the regions where availability of farm power is low, to promote 'Custom Hiring Centres' to offset the adverse economies of scale arising due to small landholding.
- > Total central share for Integrated Scheme on Agricultural Marketing (ISAM) is 3863.93 Cr.
- ➤ National e-Governance Plan (NeGP-A) has total central share of 211.06 crore and it Aims to bring farmer centricity & service orientation to the programmes.

#### 41. National Oilseeds and Oil Palm Mission

- **Launched on: 2014-15**
- NMOOP aims to enhance the production and productivity of Oilseeds from an average production of 29.79 million tones and productivity 1122kg/ha during 12th plan.
- Now, the country is self-sufficient in pulses production.
- > Year 2018-19 is declared as National Millet Year (Nutri-Cereals).
- > 2023 will be celebrated as "International Year of Millets"
- Sharing of expenditure between Central and State Government in the ratio of

- i. 60:40 for general category of states,
- ii. 90:10 for North Eastern and Himalayan states.
- ➤ During 2017-18, NMOOP programme is under implementation in 28 states comprising of three Mini Missions i.e
  - i. MM-I (Oilseeds) in 27 states,

- ii. MM-II (Oil palm) in 13 states and
- iii. MMIII (Tree Borne Oilseeds) in **10 states** involving 5 Central seed producing agencies and need based R&D through 7 R&D institutions with Budgetary Estimate (BE) of **Rs.403 crore.**

Contact: 9828822277

All these schemes/missions were appraised and approved independently as separate scheme/mission. In 2017-18, it has been decided to club all these schemes / missions under one umbrella scheme 'Green Revolution - Krishonnati Yojana'.

# 42. Pradhan Mantri Kisan SAMPADA Yojana:

- Fradhan 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. This scheme was launched in 2017.
- The following schemes will be implemented under PM Kisan SAMPADA Yojana:
  - Mega Food Parks
  - Integrated Cold Chain and Value Addition Infrastructure
  - Creation/ Expansion of Food Processing/ Preservation Capacities (Unit Scheme)
  - Infrastructure for Agro-processing Clusters
  - Creation of Backward and Forward Linkages
  - Food Safety and Quality Assurance Infrastructure
  - Human Resources and Institutions
- ➤ The government has allowed 100% FDI in trading including through e-commerce with respect to food products manufactured and produced in India.
- ➤ The Governments has created a **Special Fund of Rs. 2000 crore in NABARD** to provide credit at the concessional rate of interest to designated food parks and agro-processing units in the designated food parks.

# 43. RASHTRIYA KRISHI VIKAS YOJANA (RKVY):

Department of Agriculture & Cooperation (DAC), Ministry of Agriculture, in consultation with the Planning Commission, launched the RashtriyaKrishiVikasYojana (RKVY) in **2007-2008.** 

An amount of **Rs. 31730.13 crore** was released for implementation of the scheme To the States & Union Territories (UTs) during the XII Plan period.

Contact: 9828822277

- An amount of Rs. 3600 crore has been allocated for implementation of the scheme during 2018-19.
- ➤ It is to be shared between the center and States in the ratio of **60:40** (**90:10 for 8 North-Eastern and 3 Himalayan States**) against 100% funding by the Central Government till the end of the financial year 2014-15.
- From 1 November, 2017 RASHTRIYA KRISHI VIKAS YOJANA was changed to Remunerative Approaches for Agriculture and Allied Sectors Rejuvination (RKVY-RAFTAAR) for three years. From 2017-18 to 2019-20 with financial allocation of Rs. 15722 crore.

#### 43.1 Sub-Schemes launched under RKVY:

Some new sub- schemes launched during the current financial year, with a total allocation of Rs. 771.53 crore in 2017-18.

- 1) Bringing Green Revolution to Eastern India (BGREI):
  Initiated in 2010-11, Rs. 4130 crore had been earmarked for implementation of this programme during the XII Plan. The allocation for this programme during 2017-18 is Rs.450 crore. 315 crore is given for 2018-19
  - ➤ It was started for Rice only however right now working for Rice and Wheat as well.
- 2) Swachh Bharat: This scheme has been initiated in 2017-18 with an allocation of Rs. 47.50 crore for the current year for solid and liquid waste management in agriculture and 36 crore has been given for 2018-19.
- 3) Crop Diversification Programme(CDP): Pursuant to an announcement in the Union Budget for 2013-14, Rs.1080 crore had been earmarked for implementation of the programme during the XII Plan. The allocation for this programme during 2018-19 has fund of 19.96 crore.
- 4) **Reclamation of Problem Soil (RPS):** This programme was initiated as a subschemeof RKVY during 2016-17 for enhancing soil fertility & productivity. The allocation for the scheme during 2016-17 was Rs 50 crore. This programme during 2018-19 has fund of 20 crore.
- 5) Foot and Mouth Disease Control Programme (FMD-CP): This programme was initiated as a sub-scheme of RKVY during 2016-17. The allocation for the scheme during 2016-17 was Rs.100.65 crore. The allocation for the programme for 2017-18 is Rs. 50 crore.
- **6) Additional Fodder Development Programme (AFDP):** This programme was launched in 2014-15. The allocation for the programme during the XII Plan was Rs.411.83 crore. The allocation for this programme for 2018-19 is Rs.10 crore.

#### 44. Gobar-DhanYojna:

Launched in: April, 2018 (announced in the 2018-19 Budget) at National Dairy Research Institute (NDRI) Auditorium, Karnal

Contact: 9828822277

➤ Objective: It is an effort to make the villages open defecation free and improving the lives of villagers by Galvanized Organic Bio-Agro Resources Dhan (GOBAR-DHAN).

#### 45. Saffron revolution:

- **Launched: 2014.**
- ➤ Objective: Saffron is a color of energy. Saffron revolution is related mainly related to solar energy otherwise this focus on energy development.

# 46. "Nari tu Narayani/Women"

- \* woman-empowering budget, it focuses on developing a women-led economy through multiple initiatives.
- ❖ Approach shift from women-centric-policy making to women-led initiatives and movements.
- Women SHG interest subvention program proposed to be expanded to all districts.
- ❖ By chanting "Nari tu Narayani", the **FM** introduced **Rs 1 Lakh loan** under **mudra scheme** for **women** entrepreneurs and **Rs. 5,000 overdraft** for every verified **SHG member** having a Jan Dhan account.

# 47. Nari Shakti Puraskar (2018) - National Award for Women

- Every Year, Ministry of Women & Child Development celebrates International Women Day on 8th March and also conferred Nari Shakti Puraskar.
- The **Ministry of Women and Child Development** reaffirm its commitment to provide equal opportunities to Women by making them an integral part of nation's development journey.
- Ministry of Women and Child Development has revised the guidelines in year 2016. Now 20 Nari Shakti Puruskars shall be conferred every year.
- The President of India confers the Nari Shakti Puraskar on the **International Women's Day**, every year.

# **Eligibility Criteria for Nomination:**

**\*** The awards are **open to all individuals and institutions**.

❖ In case of individual category, the awardee must be at least 25 years of age on the last date of receipt of nomination.

Contact: 9828822277

- ❖ If the applicant is an institution, it should have worked in the relevant field for at least 5 years.
- ❖ The Nari Shakti Puruskar may be awarded for outstanding work, preferably in exceptional circumstances, to individuals/ groups / institutions / NGOs, etc. in the areas of: economic and social empowerment of women; effective implementation of women related legislations; gender mainstreaming and positive actions in favor of women.
- ❖ An award shall also be given to a State or Union Territory, which has appreciably improved Child Sex Ratio (CSR).

# **Dairy Development schemes:**

The important schemes are as follow:

- 1. National programme for bovine breeding and dairy development\_(NPBB&DD)
- Launched in **Feb 2014** with budgetary provision of 1800cr during 12<sup>th</sup> five year plan by merging four ongoing schemes namely "Integrated Dairy Development programme" (IDDP), "strengthening infrastructure for quality & clean milk production" (SIQ-CMP), "Assistance to cooperatives" (A to C), "National project for cattle and buffalo breeding". NPBB&DD have two components,
  - a) National programme for Bovine breeding
  - b) National programme for dairy development: Fund-325 crore (2019-20)

#### **\* FUNDING PATTERN UNDER NPDD:-**

- ➤ 50% grants in aid to NDP states and for non NDP states 75% grants to profit making milk unions with accumulated profit of more than Rs.1 Cr in previous year,
- ➤ 90% grants to loss making milk unions with accumulated profit of less than **Rs. 1cr** in previous year
- ➤ 90% grant to hilly & north eastern states and 50% grants for rehabilitation of sick milk unions. The central assistance is restricted

o Rs.15 cr per project and Rs.5 cr for rehabilitation of the milk unions.

Contact: 9828822277

- Financial assistance for 2019-20: 325 crore
- ➤ The scheme "Integrated Dairy development programme in Nonoperation flood, hilly and backward areas" was started in 1993-94 with 100% grants in aid basis.
- The scheme was modified in March 2005 and renamed as "Intensive dairy development programme". The scheme has been subsumed under the scheme "National programme for bovine breeding and dairy development" launched in 2014.
- The central provides grant in aid to co-operative milk union on **50:50** sharing basis between central and the state govt.

# 2. Dairy Entrepreneurship Development Scheme

- ➤ Launched on **September,2010**
- Financial assistance for 2019-20: 325 crore
- ➤ This scheme is being implemented through NABARD which provides financial assistance to commercial to commercially bankable projects with loans from commercial, co-operatives, urban and rural banks with a back ended capital subsidy of 25% of the project cost to the beneficiaries of general category and 33.33% of the project cost to sc & st category.
- ➤ **NDP-I** is a central sector scheme of GOI being implemented by **NDDB** through the network of End Implementing Agencies (EIA) for the period of 2011-12 to 2018-19.

# 3. DAIRY PROCESSING & INFRASTRUCTURE DEVELOPMENT FUND

- ➤ Has been set up as a corpus of **Rs 8004cr** with NABARD over a period of **3yrs (2017-18 to 2019-20)**.
- ➤ DADF, GOI has issued the administrative approval of the central sector scheme DIDF on **21 December 2017.**
- ➤ DIDF scheme will be implemented with a total investment outlay of **Rs. 10,881 cr** comprising **Rs. 8004cr** as a loan from NABARD, Rs. 2001cr as end Borrower's contribution, **Rs.864cr** as GOI's Interest subvention and Rs. 12crore by NDDB and National Cooperative Dairy Corporation (NCDC).

An increase in per capita availability of milk from current level of 375 grams per day to 515 grams per day in 2021-22.

Contact: 9828822277

- ➤ To achieve the desired milk production targets, average In-milk animal productivity would be required to grow annually at the rate of **4.7% to 6.14kgPD** by 2021-22 from existing **4.65kgPD**.
- National action plan for dairy development is targeted to increase organized milk handling from 20% at present to 41% in 2021-22. The milk handling by cooperatives has been targeted to increase from 10% to 20% and private sector from 10% to 30%.
- ➤ Under this scheme, **loan assistance** is provided **through NABARD** at the subsidized 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).
- ➤ India is the largest producer of milk in the world and contributes about 19% of total milk production.

#### 4. NATIONAL LIVESTOCK MISSION:

- Mission was launched in 2014-15 with an approved outlay of Rs. 2,800 crore during XII Plan.
- Now it is subsumed under white revolution Rashtriya Pashudhan Vikas Yojna from 2018-19 with 380 crore outlay.
- ➤ Following four Sub- Missions:
  - i. Sub-Mission on Livestock Development
  - ii. Sub-Mission on Pig Development in North-eastern Region
  - iii. Sub-Mission on Fodder and Feed Development
  - iv. Sub-Mission on Skill Development, Technology Transfer and Extension.

# Following are the main activities under the above four sub Mission of NLM:-

- 1. Sub-Mission on Livestock Development: Risk Management and Insurance:-
  - The 'Risk Management & Insurance' as component of sub-mission on livestock development of NLM is being implemented in all the Districts of the Country from 21.05.2014.
  - ➤ Benefit of subsidy is to be restricted to **5 animals** per beneficiary per household for all animals except sheep, goat, pig and rabbit.
  - An amount of Rs. 19.11crore has been released to States/UTs and 5.00 lakh animals have been insured during 2017-18 up to December, 2017.
- **❖** Following components related to Poultry are covered under NLM:

- **❖** Modernization and Development of Breeding Infrastructure Central Farms: Central Poultry Development Organizations:
  - > CPDO & Training Institute Hessarghatta, Karnataka.
  - ➤ The Central Poultry Performance Testing Center (CPPTC), Gurgaon

Contact: 9828822277

#### Central Farm: Central Sheep Breeding Farm, Hisar (Haryana):-

- ➤ The farm was established in 1968-70.

  DAIRY DEVELOPMENT: RASHTRIYA GOKUL MISSION AND NATIONAL MISSION ON BOVINE PRODUCTIVITY:
- Rashtriya gokul mission was launched in 2014-15 with the allocation of 500 crore from 2014-15 to 2016-17
- 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**

- National Mission on Bovine Productivity scheme **started 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:
- ➤ PashuSanjivni: 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.
- ➤ Implementation of Advanced Breeding Techniques through establishment of Embryo Transfer Technology Laboratories in the country.
- 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.
- ➤ Establishment of E-Pashuhaat portal (Launched on 26 November, 2016) for connecting the best breeders for the Indigenous Bovine Breeds and creation of e-market for Bovine Germplasm
- > Semen production in 10 Semen Station in the country is being established.
- ➤ Gopal ratna for best dairy development has been given to Punjab for year 2018

> 20 gokul gram has been established till now 13 state with an outlay of 197.67 crore.

Contact: 9828822277

# **Rashtriya Gokul Mission:**

- **Launched:** December 2014
- ➤ Ministry/Department: Ministry of Agriculture & Farmers Welfare.
- ➤ **Aim** is conservation and development of indigenous breeds in a focused and scientific manner.
- ➤ It is a project under National Programme for Bovine Breeding and Dairy Development.
- Rashtriya Gokul Mission is being implemented through "State Implementing Agencies (SIA) viz Livestock Development Boards.
- Rashtriya Gokul Mission is being implemented through "State Implementing Agencies (SIA) viz Livestock Development Boards.
- Scheme is implemented on 100% grant-in-aid basis and throughout the country.
- > It includes: Establishment of Integrated Indigenous cattle centres "Gokul Gram".
- > Establishment of Breeder's societies "Gopalan Sangh".
- Award to Farmers "Gopal Ratna" and Breeders' societies "Kamadhenu".
- Assistance to institution which are repositories of best germplasm.

# WELFARE OF FISHERMEN

- ➤ 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.
- ➤ Budget 2018 has set aside **Rs.7,522 crore** for setting up of a dedicated Fisheries and Aquaculture Infrastructure Development Fund (FIDF).

# **Important MCQs from important schemes**

Contact: 9828822277

	animal husba eased to	• .		htriya G	okul Mis	ssion has
a. 100	b. 350	c. 450	d. 650	e. 7	750	
	n Mantri Jan in India, laun			al missio	n on fina	ancial
a. 2013	b. 2014	c. 2015	d. 20	016	e. 2017	
	s the funding for the period			tri Kisa	n SAMI	PADA
a. 1234 Cı	rore b. 2000	Crore c. 6	000 Crore	d. 200	Crore	e. 100 Crore
- T	paragat Krish he total outlay	•		) was lau	nched in	<b>April 2015.</b>
a. 1234 Cı	rore b. 2000	Crore c	. 412 Crore	d. 200 (	Crore	e. 100 Crore
	onal Oilseeds Central and S				- AND	liture
a. 40: 60	b. 90:10 c.	60:40 d. 10	0 % Central	Governm	nent e.	None of these
Developm	SAMPADA Y nent of Agro-l his scheme wa	Processing C	lusters) wit	h an allo		O
a. 2014	b. 2015	c. 2016	d. 2017		e. 2018	

7. NATIONAL SEED CORPORATION was established in which year?

a. February	1963	b. Marc	h 1963	c. Jul	y 1963	d. Feb	1968	e. March 1968
8. 'Nal se Ja investment launched or	worth	•					•	attract s scheme was
a. 2015	b. 20	016	c. 2017		d. 2018		e. 2019	
is the name related to f	of an	integra	ted / um scheme	brella was ap	scheme proved	coveri	ng all ex ion Cab	ne Revolution) disting schemes inet in ow many year?
a. One year	b. 7	Γwo year	c. 7	Three y	ear	d. Four	year	e. Five Year
10. Nationa in India to NSRTC is s	maint	ain unif						the apex center onal level.
a. Bengalur	u t	o. Bhopal	l c. I	Mahara	ashtra	d. Var	ranasi	e. Karnataka
11. Who is	the pr	esent ur	nion min	ister (	Chemica	als and	Fertilize	ers?
a. Shri Gaje	ndra S	Singh She	ekhawat		b. Smt	t. Smriti	Zubin I	rani
c. Shri Ram	vilas I	Paswan			d. Shri	D.V. S	adanand	a Gowda
e. Shri Nitin	ı Jaira	m Gadka	ri 🚺					
12. Pradha provide loa enterprises	ns up			•				015 aims to nall/micro
a. 2.5 lakh	b. 5	Lakh	c. 7 La	kh (	d. Up to	10 lakh	e. N	one of these

Agri Coaching Chandigarh

Δσri	Coaching	Chandigarh
Agii.	Coaciiiig	Chandigain

13. Under organic farming what is the capital subsidy for bio-fertilizer & bio-pesticides unit?

- a. 25%
- b. 33%
- c. 50%
- d. 75%

e. 100%

Contact: 9828822277

14. The first time in the country, 2 National Kamdhenu Breeding Centers are being set up for the overall development of indigenous livestock breeds and conservation and upgradation of native breeds. These centers will be establishing at

- a. Hariyana & MP
- b. UP & MP c. UP & Punjab
- d. MP & AP

e. Rajasthan & AP

15. What is the assistance cost of reclamation of acidic soils under RKVY?

- a. 60000 Rs./ha
- b. 40000 Rs./ha.
- c. 30000 Rs./ha.

- d. 20000 Rs./ha.
- e. 15000 Rs. /ha.

16. Pradhan Mantri Kisan SAMPADA Yojana is launched in 2017 with an allocation of rs 6000 crore for the period 2016-2020. This scheme is implemented by which ministry?

- a. Ministry of Agriculture & Farmers' Welfare
- b. Ministry of Food Processing Industries
- c. Ministry of Fisheries, Animal Husbandry & Dairying
- d. Ministry of Chemicals and Fertilizers
- e. Ministry of Commerce and Industry

17. National programme for bovine breeding and dairy development launched

- a. September 2010
- b. August 2017 c. February 2014
- d. February 2010

e. September 2010

18.	Under the mega food park scheme what is pattern of financial assistance
	for NE region and difficult areas?

a. 75 %, 50 crore

b. 80%, 50 crore c. 90%, 75 crore

d. 50 %, 50 crore

e. 100 %, 75 crore

# 19. In which year "Krishi karman award" were instituted by the ministry of agriculture and farmer welfare?

a. 2005-06 b. 2008-09

c. 2015-16

d. 2010-11

e. 2000-01

Contact: 9828822277

#### 20. National Mission on Agricultural Extension and Technology (NMAET) was launched on -

a. 2010-11

b. 2016-17 c. 2014-15

d. 2008-09

e. 2006-07

21. Under soil health card scheme soil is tested in 12 parameters, which of the following nutrient is not considered in 12 parameters?

a. Fe

b. Mn

c. Zn

d. Ca

e. B

# 22. Under the mega food park scheme India's first mega food park named srini mega food park located in which state?

a. Maharashtra

b. Andhra Pradesh

c. Punjab

d. Uttar Pradesh

e. Haryana

# 23. Under the kisan credit card scheme what is the loan limit for fisheries and animal husbandry farmers for interest subvention?

a. 3 lakh

b. 5 lakh

c. 2 lakh

d. 1 lakh

e. 2.5 lakh

# 24. In which year NABARD mandated for encouraging cooperative bank and regional rural banks across the country to issue Rupay KCC card?

a. 2015

b. 2013

c. 2017

d. 2018

e. 2009

Agri	Coaching	Chanc	ligarl	า
7511	Coacining	CHAIL	iigai i	

25.	Paramparagat Krishi vikas yojna (PKVY) was launched in April 2015					
	,which of the state has first rank (area wise) in organic certification?					
	a. Maharashtra b. Andhra Pradesh c. Sikkim					
	d. Madhya Pradesh e. Himachal Pradesh					
26.	A central sector scheme "mission organic value chain development for					
	north eastern region " (movcdner) was launched in which year?					
	a. 2015 b. 2016 c. 2010 d. 2012 e. 2017					
27	National agriculture market coheme launched on 14 April 2016, this					
41.	National agriculture market scheme launched on 14 April 2016, this scheme is implemented by –					
	a. Department of agriculture & cooperation b. SFAC					
	c. Ministry of commerce and industry					
	d. Both a and b e. All of the above					
••						
28.	In which of the following state e-NAM scheme is not implemented so far a					
	a. UP b. West Bengal c. Uttarakhand d. Himachal Pradesh d. Karnatka					
29.	what is total investment outlay of dairy processing and infrastructure					
	development fund for the period of 2017-18 to 2019-20?					
	a. 8004 crore b. 10881 crore c. 2001 crore d. 6000 crore e. 2430 crore					
20	What is the total budget allocation for National Livestock Mission					
30.	Scheme for the year 2019-20 with new component, Entrepreneurship					
	Development & Employment Generation (EDEG)?					
	a. 500 crore b. 159.99 crore c. 199.89 crore d. 269 crore e. 321 crore					

1. E	2. B	3. C	4. C	5. C	6. D	7. B	8. E	9. E	10. D
11. D	12. D	13. A	14. D	15. E	16. B	17. C	18. A	19. D	20. C
21. D	22. B	23. C	24. B	25. D	26. B	27. D	28. D	29. B	30. C
				Y A					

# Some Important National and International organization:

Contact: 9828822277

#### 1.ICAR:

Established: 16 July 1929

▶16 July is also known as ICAR day.

Headquarter: New Delhi

#### **ICAR Human Resources:**

#### ➤ State Agricultural Universities (71 SAUs)

#### **▶** Deemed-to-be-Universities (4DUs):

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

#### Central Universities (4 CUs) with Agricultural faculties:

Banaras Hindu University	Varanasi, <b>U.P.</b>	
Aligarh Muslim University	Aligarh, <b>U.P</b> .	
Vishwa Bharti	Shantiniketan, West Bengal	
Nagaland University	Mediziphema, Nagaland	

# Central Agricultural Universities (3 CAUs):

Central Agricultural	Manipur
University	
Rani Laxmi Bai Central	Jhansi, Uttar Pradesh
Agricultural University	
Dr. Rajendra Prasad Central	Pusa (Samastipur)
Agricultural University	_

#### **ICAR** awards:

1.Sardar Patel Outstanding ICAR Institution Award 2018	➤ Award is given to recognized outstanding performance by the ICAR institutes, DUs of ICAR, CAU and State Agricultural Universities, three Awards of ₹ 10.00 lakh each
2. Chaudhary Devi Lal Outstanding All India Coordinated Research Project Award 2018	<ul> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance of the AICRP</li> <li>In order to recognize outstanding performance outsta</li></ul>
3. Pandit DeenDayal Upadhyay Krishi Vigyan Protshahan Puraskar(National& Zonal) 2018	This award has been instituted to promote healthy competition among Krishi Vigyan Kendras (KVKs)  Prize money for <b>national level</b> of ₹25.0 lakhs (₹20.00 lakhs for infrastructural development +₹1.0 lakhs for sharing among staff +₹4.0 lakh for training of KVK staff).  At zonal level there are a total of eleven awards: one for each zone of KVKs. Each award consists of ₹2.25 lakh (₹1.50 lakh for purchase of office/farm equipment +₹0.75 lakh for training of KVK staff).
4.Atal Bihari Vajpayee ICAR Challenge Award 2018	<ul> <li>To find a solution for any immediate or long-standing problem, or limitation in agriculture</li> <li>The award carries a cash prize of ₹10.00 lakh</li> </ul>
5. Rafi Ahmed Kidwai Award for Outstanding Research in Agricultural Sciences 2018	<ul> <li>➤ This award is to be given to agricultural scientists for outstanding contribution in specified areas.</li> <li>➤ A total of four awards are provided under the award. Each award carries a cash prize of ₹ 5.00 lakh in addition to the citation.</li> </ul>
6. Jawaharlal Nehru Award for P.G. Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences 2018	➤ In order to promote high quality doctoral thesis research in priority/frontier areas of agriculture and allied sciences ➤ ICAR has instituted 18 awards of ₹50,000/-in cash
7.Panjabrao Deshmukh Outstanding Woman Scientist Award 2018	All women scientists engaged in research in agricultural and allied subjects /extension in a recognized institution are eligible for this

	•
	award.  ➤ The award consists of ₹1.00 lakh in cash and citation along with provision of equal
	amount of <b>₹1.00 lakh</b> for motivating woman scientists
8. Vasantrao Naik Award for Outstanding Research	In order to promote outstanding research and application in priority aspects of dry land
Application in Dry Land Farming Systems 2018	farming systems & water conservation  ➤ An Annual Award of ₹1.00 lakh is to be awarded to an outstanding scientistor
	extension worker.
9. Bharat Ratna Dr C.	➤ In order to provide recognition to
Subramaniam Award for	outstanding teachers and to promote
Outstanding Teachers 2018	quality teaching in the field of Agriculture
	Each award consists of ₹1.00 lakh in cash
	+ travel grant of ₹1.00 lakh to promote innovation in teaching.
10. Lal Bahadur Shastri	➤ In order to recognize the <b>talented young</b>
Outstanding Young Scientist	scientists who have shown extraordinary
Award 2018	originality and dedication in their research
	programmes, <b>four individual awards</b> are to
	be given annually.
	➤ An individual award of ₹1.00 lakh in
	cash and a citation and a <b>challenge project</b> for three years with budgetary provision
	of₹10.00 lakh per year+ ₹ 5.00 lakh for
	foreign training (upto 3 months), if deemed
	necessary by the ICAR.
11. Swami Sahajan and	> The award is exclusively meant for
Saraswati Outstanding	individual extension scientist/teacher for
Extension Scientist Award	excellence in agricultural extension
2018	methodology and education work. Two
	individual awards have been provided.  ➤ An individual award would consist of
	₹1.00 lakh in cash and a citation.
12. NASI-ICAR Award for	➤ In order to reduce drudgery of farm
Innovation and Research on	women by development of farm implements
Farm Implements -2018	and to encourage researchers and innovators
	to develop farm implements for farm women
	➤ The award consists of <b>₹1.00 lakh in cash</b> , citation and certificate.
13.Fakhruddin Ali Ahmed	The award is primarily meant for <b>any</b>
15:1 amii uuum Ali Alliitu	principle award is principle incant for any

Award for Outstanding Research in Tribal Farming Systems 2018	person or team (with two or three associates, if any) engaged in applied research  ➤ Two awards each with the value of ₹1.00 lakh in cash and citation + provision of equal amount for study on related subject
14. Dr Rajendra Prasad Puruskar for technical books in Hindi in Agricultural and Allied Sciences 2018	<ul> <li>➤ To recognize to authors of original Hindi</li> <li>Technical books in agriculture</li> <li>➤ An individual award consists of ₹1.00</li> <li>lakh in cash and a citation.</li> </ul>
15. Hari Om Ashram Trust Award for the biennium 2016- 2017	<ul> <li>To recognize the outstanding research on long term problem in agricultural and allied sciences, four individual awards have been instituted.</li> <li>Each individual award carries a cash prize of ₹1.00 lakh in addition to a citation.</li> </ul>
16. Nanaji Deshmukh ICAR Award for Outstanding Interdisciplinary Team Research in Agricultural and Allied Sciences 2018	<ul> <li>➤ To encourage and promote research work</li> <li>➤ Each award would be of ₹5,00,000/- (Rupees Five Lakhs only). (For team of scientist)</li> </ul>
17. Chaudhary Charan Singh Award for Excellence in Journalism in Agricultural Research and Development 2017	➤ Six annual awards carrying cash award of ₹1,00,000/- (One Lakh only) and a certificate are to be given to journalists for Print Media
18. Jagjivan Ram Abhinav KisanPuruskar /Jagjivan Ram Innovative Farmer Award (National/Zonal) 2018	<ul> <li>In order to recognize the outstanding contributions of innovative farmers</li> <li>One annual national award of ₹ 1.00 lakh on national level and Eleven annual awards of ₹ 0.50 lakh each on zonal level</li> </ul>
19. N.G. Ranga Farmer Award for Diversified Agriculture 2018	<ul> <li>In order to recognize outstanding contribution of innovative farmers for diversified agriculture</li> <li>One annual award of ₹ 1.00 lakh in any of the areas of Diversified Agriculture is given by ICAR.</li> </ul>
20.Pandit DeenDayal Upadhyay Antyodaya Krishi	➤ In order to recognize the contributions of marginal, small and landless farmers for

	Zonal level: 11 awards of 50,000 each.	
21. Haldhar Organic Farmer	➤ In order to recognize outstanding	
Award, 2018	contribution of <b>organic farmers</b> , ICAR has	
,	instituted an award	
	➤ The award consists of <b>₹1,00,000/-</b> (Rupees	
	One Lakh only).	
	Minimum 5 years certified experience	
	required.	

➤ Krishi Vigyan Kendra (KVK) Chinyalisaur of Uttarkashi district was awarded the Pandit Deen Dayal Upadhyay Krishi Vigyan Protsahan Puraskar for outstanding work in promoting agriculture in science and technology.

# ICAR initiative for improvement of Agriculture

- ❖ The ICAR has supplemented the Government's "Soil Health Card" initiative and has developed a mini Lab "Mridaparikshak" for soil testing.
- ❖ "Mera Gaon Mera Gaurav" have helped connect farmers with scientists to provide agriculture related advice and information.
- ❖ 60 agricultural universities have been accredited by the National Agricultural Education Accreditation Board (NAEAB). Ranking of 57 Agricultural Universities has been done in an effort to improve their status in the World University Rankings.
- ❖ The amount of National Talent scholarship for UG and PG students has been increased to Rs.3000 and Rs. 5000 per month respectively.
- Livestock Disease Forewarning –Mobile Application (LDF-Mobile App), developed by ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (ICAR-NIVEDI), Bengaluru.
- **❖ Farmer FIRST**: It is an ICAR initiative to enhance farmers-scientists contact with multi stake holders-participation.
- ❖ The ICAR observed the **year 2016** as the **International Year of Pulses** as declared by the United Nations. To this effect, we established 150 seed hubs for pulses to help increase the availability of quality seeds.
- **❖ ICAR** launched a new initiative "Pandit DeenDayal Upadhyay Unnat Krishi Shiksha Yojana" for training of farmers in organic farming and sustainable farming.
- ❖ ICAR launched the Agricultural Education Portal for Centralised uniform solution called- EKTA portal (Ekikrit Krishi Shiksha TankiAyaam)

❖ ICAR has recently launched Rs 1100 crore ambitious National Agricultural Higher Education Project (NAHEP) to attract talent and strengthen higher agricultural education in the country.

Contact: 9828822277

- ❖ This project will be funded by the World Bank and the Indian Government on a 50:50 basis.
- ❖ In order to promote the participation of students in agricultural business, Student **READY** (**Rural Entrepreneurship Awareness Development Yojana**) scheme is being run, under which practical experience of agriculture and entrepreneurship is provided to undergraduate students.

### **Publication of ICAR English**

- 1. Indian Journal of Agricultural Sciences (Monthly)
  - 2. Indian Journal of Animal Sciences (Monthly)
    - 3. Indian Farming (Monthly)
    - 4. Indian Horticulture (Bi Monthly)
      - **5. ICAR News (Quarterly)**
      - **6. ICAR Reporter (Quarterly)** 
        - 7. ARIS (Quarterly)

#### Hindi

- 1. Kheti(Monthly)
- 2. Phal Phool(Bi Monthly)
  - 3. Krishi Chayanika

Other Agriculture research centers in India:

- 1. Indian Institute of SugarcaneResearch -- Lucknow
- 2. Indian Association for the Cultivation of Science (IACS) --Kolkata

- 3. Rubber Board --Kottyam
- 4. Spice Board Kochin, Kerala
- 5. Indian Institute of Wheat & Barley Research -- Karnal
- 6. National Institute of Nutrition(NIN) -- Hyderabad
- 7. All India Institute of Medical Sciences (AIIMS) New Delhi
- 8. Central Research Institute for Dryland Agriculture(CRIDA) -- Hyderabad
- 9. Central Mine Planning and Design Institute Limited -- Ranchi
- 10. Central Institute of Medicinal and Aromatic Plants -- Lucknow
- 11. Central Food Technological Research Institute -- Mysore
- 12. Central Glass and Ceramic Research Institute (CGCRI) -- Kolkata
- 13. Central Institute of Fisheries Education -- Mumbai
- 14. Central Institute of Fisheries, Nautical and Engineering Training **Kochi**, **Kerala**

#### **Revised names of ICAR institutes:**

1. Central Agricultural Research Institute (CARI), Andaman and Nicobar Islands

New Name: Central Island Agricultural Research Institute(CIARI)

2. Directorate of Maize Research (DMR), Pusa, New Delhi

New Name: Indian Institute of Maize Research (IIMR),Ludhiana (Shifted to Ludhiana in 13 November, 2014)

(It was located at New Delhi but now shifted to PAU campus, Ludhiana)

3. Directorate of Rice Research (DRR), Rajendranagar, Hyderabad

**New Name: Indian Institute of Rice Research (IIRR)** 

4. Directorate of Wheat Research (DWR), Karnal, Haryana

New Name: Indian Institute of Wheat and Barley Research(LWBR)

5. Directorate of Water Management, Bhubaneswar

New Name: Indian Institute of Water Management (IIWM)

6. Directorate of Research on Women in Agriculture, Bhubaneswar

#### New Name: Central Institute for Women in Agriculture (CIWA)

7. Directorate of Oil Palm Research (DOPR), Pedavegi, WestGodavari, Andhra Pradesh

Contact: 9828822277

New Name: Indian Institute of Oil Palm Research

8. Directorate of Ollseeds Research (DOR) Rajendranagar, Hyderabad

**New Name: Indian Institute of Oilseeds Research (IIOR)** 

9. Directorate of Sorghum Research (DSR), Rajendranagar, Hyderabad

**New Name: Indian Institute of Millets Research (IIMR)** 

10. Central soil and water conservation research and training institute, Dehradun

New Name: ICAR- Indian Institute of soil and water conservation (ICAR-IISWC)

11. National Research Centre for Citrus (NRCC), Nagpur

**New Name: Central Citrus Research Institute (CCRI)** 

12. ICAR Research Complex for Goa, Goa

New Name: Central Coastal Agricultural Research Institute(CCARI)

13. ICAR-Project Directorate for Farming Systems Research (ICARPDFSR), Meerut, UP

New Name: Indian Institute of Farming Systems Research

# List of important organization with their brief detail:

Abbreviation	Full title, and main objective	Date founded & headquarter
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics <b>Objective</b> : Crop improvement and cropping systems, focusing on sorghum, millets, chick-pea, pigeon pea and groundnut	1972 Hyderabad (India)
FAO	Head: José Graziano da Silva Objective: international efforts to defeat hunger.	Founded: 16 October 1945 Rome, Italy
CGIAR	The Consultative Group on International Agricultural Research	1970

	<b>Objective:</b> To coordinate international agricultural research efforts aimed at reducing poverty and achieving food security in developing countries.	France
IFPRI	International Food Policy Research	1975
	Institute	Washington D.C. (USA)
	<b>Objective:</b> Strategies and policies to	
	meet world food needs, emphasizing	
	policy analysis	3
IRRI	International Rice Research Institute	1960
	international Rice Research Institute	Los Baños (the
	Objective: Global rice improvement	Philippines)
IITA	International Institute of Tropical	1967
MA	Agriculture Agriculture	Ibadan (Nigeria)
	<b>Objective:</b> Crop improvement in	
	humid and semi-humid tropics, land	
	management and farming systems,	
	focusing on maize, cassava, cowpea,	
	_	
IIMI	plantain, soybean and yams  International Irrigation Management	1985
111V11	International Irrigation Management Institute	
		Colombo (Sri
	<b>Objective:</b> Research on water	Lanka)
	management in agriculture, irrigation,	
	groundwater, river basins, wetlands,	
	ecosystems, food security, wastewater	
	and climate change	
	Objective: Research and information	
	dissemination on improved irrigation	
NDDCD	management and irrigation systems	1077
NBPGR	National Bureau of Plant Genetic	1976
	Resources	New Delhi
	Objective: undertakes research and	
	coordinates activities in germplasm	
	collection; introduction and exchange	
	of seeds and plant materials	
IARI	➤ Indian Agricultural Research	1 April, 1905
	Institute	
	Objective: premier agricultural	New Delhi
	institution engaged in basic and	

	applied research in arons	
	applied research in crops,	
	postgraduate education and	
	training and extension education.	
	<b>≻Director</b> : A K Singh	
	➤ Deemed status in 1958	
NRRI	National Rice Research Institute	1946
	Objective: Basic and applied research	
	in all disciplines of rice culture	Cuttack, Odisha
CTRI	Central Tobacco Research Institute	1947
		Rajahmundry,
	<b>Objective:</b> varietals improvement of	Andhra Pradesh
	tobacco	
SBI	Sugarcane Breeding Institute	1912
	Objective: evaluating important	Coimbatore
	sugarcane varieties for different agro-	L RAH
	climatic regions in the country	
IISR	Indian Institute of Sugarcane Research	1952
	<b>Objective:</b> standardize the sugarcane	Lucknow, Uttar
	production and protection technologies	Pradesh
CICR	Central Institute of Cotton Research	1976
	Objective: basic and applied research	Nagpur,
	to improve cotton production.	Maharashtra
IIHR	Indian Institute of Horticultural	1967
	Research	Bangalore,
	Objective: conduct cytogenetical	Karnataka
	studies to improve horticultural crops	
CPRI	Central Potato Research Institute	1949
	Objective: conduct and coordinate	Shimla,
	potato research in India	Himachal
CTRI	Central Tuber Crops Research Institute	1963
	<b>Objective:</b> conducts and coordinates	Trivandrum,
	research on all tropical tuber crops	Kerala
	other than potato viz. cassava, sweet	
	potato, amorphophallus, aroids, yams,	
	arrowroot, etc.	
CAZRI	Central Arid Zone Research Institute	1952
	<b>Objective:</b> mandate to evolve location	Jodhpur,
	specific technologies for optimizing	Rajasthan
	production of arid lands based on	-
	ecological principles by judicious	

	utilization of natural resources	
CRIDA	Central Research Institute for Dryland Agriculture  Objective: mandate to carry out basic research in conservation, management and utilization of natural resources in dryland ecosystem	1985 Hyderabad, Andhra Pradesh
CIAE	Central Institute of Agricultural Engineering Objective: mandate for research and development of improved farm equipment related to crop production and postharvest technology	1976 Bhopal, Madhya Pradesh
СІРНЕТ	Central Institute of Post-Harvest Engineering and Technology undertakes research on various aspects of postharvest technology related to agricultural produce.	1989 Ludhiana, Punjab
IVRI	Indian Veterinary Research Institute  Objective: to conduct basic and applied research on all aspects of livestock health, production, and nutrition	1889 Izatnagar, Uttar Pradesh
NDRI	National Dairy Research Institute  Objective: to meet the manpower needs for research, teaching, and dairy development through undergraduate and postgraduate instructional programmes; study of dairy production, milk and milk processing, dairy economics and management; and conduct of transfer of technology programmes.	1923(Imperial Institute of Animal Husbandry and Dairying) National Dairy Research Institute after independence in 1947 Karnal, Haryana
CSWRI	Central Sheep and Wool Research Institute Objective: to improve productivity of indigenous breeds of sheep through selection or cross breeding	1962 Avikanagar, Rajasthan
CMFRI	Central Marine Fisheries Research Institute Objective: conducts research for	1947 Cochin

	assessing and monitoring exploitable marine fishery resources for rational	
	exploitation and conservation.	
CIFE	Central Institute of Fisheries	1961
	Education	Bombay
	<b>Objective:</b> Deemed University	
CIFT	Central Institute of Fisheries	formed in 1954
	Technology	and started
	<b>Objective:</b> conducts research for the	<b>functioning</b> in
	improvement of indigenous crafts and	1957
	gears, and develops suitable designs	Cochin
	for them; develops technologies for	
	handling, processing, preservation,	
	product development, quality control,	
	packaging and transportation of fish	
	and fishery products; and conducts	
	transfer of technology and training	
TACDI	programmes in fishery technology	1
IASRI	Indian Agricultural Statistics Research Institute	became a
		Statistical Branch in <b>1945</b>
	<b>Objective:</b> conducts research in experimental design, surveys,	New Delhi
	statistical genetics, computer and data	New Dellii
	processing; imparts postgraduate	
	courses for training professional	
	statisticians; and provides advisory	1
	and consultancy services to	
	agricultural scientists in the country	$A \subseteq I$
NRCs	National Research Centres	Pan India
SAUs	State agriculture universities	Pan India
	Objective: To regulate under graduate	
	and post graduate program in	
	agriculture	
NDDB	National Dairy Development Board	1965
	Objective: Quality Assurance,	Anand, Gujarat
	Productivity Enhancement, Institution	
	Building and National Information	
NABARD	National bank for agricultural and	12 July 1982
	rural development	
	Objective: "Matters concerning	Mumbai
	policy, planning and operations in the	

	filed of credit for agriculture and other economic activities in rural areas in India"  Chairman: Harsh Kumar Bhanwala	
RRBs	Regional rural banks  Objective: to provide sufficient banking and credit facility for agriculture and other rural sectors.	Regional Rural Banks were established under the provisions of an Ordinance passed on September 1975 and the RRB Act. 1976

# Institutions in Agriculture their location and establishment year:

Institution	Location	Establishment Year
National Rice Research Institute	Cuttack	23 April 1946
Indian Institute of Rice Research	Hyderabad	1965
Indian Institute of Pulses Research	Kanpur	1966 <b>, Shifted to</b> <b>Kanpur in</b> 1978
Central Tobacco Research Institute	Rajahmundry	1947
Indian Institute of Vegetable Research	Varanasi	1971
Indian Institute of Sugarcane Research	Lucknow	1952
Sugarcane Breeding research Institute	Coimbatore	1912
Sugarcane breeding institute	Karnal	1932
Central Institute of Cotton Research	Nagpur	1976
Central Research Institute for Jute and Allied Fibres	Barrackpore	1953
National Institute of Research	Kolkata	1939

Institution	Location	Establishment Year
on Jute & Allied Fibre Technology		
Indian Grassland and Fodder Research Institute	Jhansi	1962
Indian Institute of Horticultural Research	Bangalore	1967
Central Institute of Sub Tropical Horticulture (Started as Central Manage	Lucknow	Upgraded to a full-fledged Institute in 1984,
(Started as Central Mango Research Station in 1972)		renamed as CISH in 1995
Central Institute of Temperate Horticulture	Srinagar	1994
Central Institute of Arid Horticulture	Bikaner	1994
Central Potato Research Institute	Shimla	1949
Central Tuber Crops Research Institute	Trivandrum	1963
Central Plantation Crops Research Institute	Kasargod, Kerala	1974
Central Agricultural Research Institute	Port Blair, Andaman and Nicobar Islands	1978
Indian Institute of Spices Research	Calicut	1975
Indian Institute of Natural Resins and Gums	Ranchi	1924
Central Soil and Water Conservation Research & Training Institute	Dehradun	1974
<b>Indian Institute of Soil Sciences</b>	Bhopal	1988
Central Soil Salinity Research Institute	Karnal	1969
ICAR Research Complex for Eastern Region	Patna	2001
Central Research Institute of Dryland Agriculture	Hyderabad	1985
Central Institute of Fisheries Technology	Cochin	1957

Institution	Location	Establishment Year
Central Arid Zone Research Institute	Jodhpur	Upgraded to Central Arid Zone Research Institute (CAZRI) in 1959
ICAR Research Complex	Goa	1976
ICAR Research Complex for NEH Region	Barapani, Meghalaya	1975
National Institute of Abiotic	Malegaon,	2009
Stress Management	Baramati Maharashtra	
Central Institute of Agricultural Engineering	Bhopal	1976
Central Institute on Post harvest Engineering and Technology	Ludhiana	1989
Central Institute of Research on Cotton Technology	Mumbai	1924
Indian Agricultural Statistical Research Institute	New Delhi	1930
Central Sheep and Wool Research Institute	Avikanagar, Rajasthan	1962
Central Institute for Research on Goats	Makhdoom, Mathura	1979
Central Institute for Research on Buffaloes	Hissar	1985
National Institute of Animal Nutrition and Physiology	Bangalore	1995
Central Avian Research Institute	Izatnagar	1979
Central Marine Fisheries Research Institute	Kochi	1947
Central Institute Brackish water Aquaculture	Chennai	1987
Central Inland Fisheries Research Institute	Barrackpore	1947

# Seed

➤ Department has issued Cotton Seed Price Control Order, 2015. 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).

Contact: 9828822277

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)

- > Established on: March 1963
- During the Year 2016-17 Corporation has contributed the dividend of Rs.
   12.03 crore to the Government of India.
- > Validity Period of the seed Certificate:
- > The validity period shall be **nine months** from the date of test at the time of initial certification.

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

- > PPV&FRA started in 2001 (Act)
- ➤ 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.**

# **International Seed Testing Association**

- > ITSA was founded in the year 1924 with the aim to develop and publish standard procedures in the field of seed testing.
- > The **headquarters** of the Association is located in **Switzerland**.
- ➤ National Seed Research and Training Centre (NSRTC), Varanasi is the apex centre in India to maintain uniformity in seed testing results at national level.

## **COCONUT DEVELOPMENT BOARD (CDB)**

Contact: 9828822277

- ➤ Coconut Development Board Kochi, (CDB) is a statutory body established by Govt. of India by an Act of Parliament (Coconut Development Board Act 1979) and came in to existence in January 1981,
- Functions under the administrative control of the Ministry of Agriculture and Farmers Welfare, Government of India, with its **Headquarters** at **Kochi** in **Kerala**
- > A Market Development cum Information Centre has established in Delhi.

#### Replanting and Rejuvenation of Coconut Gardens

- A subsidy @ Rs.500 per palm for first 20 palm, and Rs. 250 per palm for subsequently removed palms subject to a maximum of Rs.13000/ha is provided for cutting and removal of old, senile, unproductive and disease advanced palms.
- For adoption of Integrated management practices a subsidy of **Rs.15000/ha**. and it will be provided in two equal installments.
- ➤ Assistance for replanting: For replanting, a subsidy of Rs.40/- per seedling subject to a maximum of Rs 4,000/ha is extended.
- During 2017-18, it is proposed to implement the scheme in a total area of 10240 ha, with a financial allocation of Rs. **5326.53 lakh**.
- Eligiblity for availing assistance: Under this component is maximum 4 ha./beneficiary.

#### **Coconut Palm Insurance Scheme (CPIS)**

- Palms in the age group from 4 years to **60 years** (Dwarf and hybrids) and 7 to 60 years for tall palms are eligible to get insurance coverage
- ➤ 50% of the premium is borne by the Board and balance is shared between the concerned State Govt. and Farmers @ 25% each. The premium for the category of palms belonging to the age group of 4-15 is Rs. 9 per palm and that for 16-60 year age group is Rs. 14 per palm.
- The insured amount for the corresponding categories is **Rs. 900 per palm** and Rs. **1750 per palm**.
- An amount of Rs. 40 lakh is earmarked under the scheme for the year 2017-18.
- ➤ If state does not agree to bear 25% share of premium it will be born by the farmer.

# Kera Suraksha' Insurance Scheme for Coconut Tree Climbers (CTC)

➤ The 'Kera Suraksha' Insurance Scheme provides insurance coverage to the coconut tree climbers @ Rs.2 lakh against 24 hours. The annual

premium of the policy is only Rs. 112.10 of which Rs. 84 is borne by the Board and Rs. 28 is contributed by the CTC.

Contact: 9828822277

- An amount of Rs. 8 lakh is allocated under the scheme for the year 2017-18
- ➤ It was started from 1 October 2014
- Eligibility is 18 to 65 years.

# **Poly Houses:**

- Mission for Integrated Development of Horticulture (MIDH), a centrally sponsored scheme is implemented for the holistic development of horticulture sector in the country covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo through various interventions.
- ➤ Under MIDH, assistance is provided for protected cultivation through Green House structures/poly houses.
- For Fan & Pad and Naturally ventilated system Green House (Tubular structure), assistance is provided @ 50% of cost for a maximum area of 4000 sq. mtrs. per beneficiary.
- For wooden and bamboo structure green house, assistance is provided @50% of cost limited to 20 units per beneficiary and each unit not exceeding 200 sq. m. Assistance for protected cultivation is also being provided under Rashtriya Krishi Vikas Yojana (RKVY) and National Mission for Sustainable Agriculture (NMSA).
- ➤ Under the Human Resource Development (HRD) programme of **MIDH**, training of farmers, entrepreneurs, field level workers and officials is envisaged, including for poly-houses.
- ➤ Further, 22 Precision Farming Development Centres (PFDCs) have been established in the country to standardize precision farming, promote use of various plasticulture technologies and to provide training & awareness programmes.
- Farmers are also provided technical literature and information about financial assistance under the scheme in local languages.

# **Farmer Producer Organizations (FPOs):**

- Farmer Producer Organizations (FPOs) are the most appropriate institutional form for a prosperous and sustainable agriculture sector
- ➤ The 100 % tax deduction for FPOs with annual turnover with Rs 100 crore will boost OPERATION GREEN and SAMPADA.

Agri-exports: India is the 4th-largest agri-export country that constitutes around 12.08 per cent (FY 2016-17) of the country's exports.

Contact: 9828822277

- > Subsidy on food, fertilizer and kitchen fuel has been increased by 15 %to Rs 2.64 lakh crores up from Rs 2.29 lakh crores revised estimate in the current fiscal.
- The refreshed version of KUSUM (KisanUrja Suraksha evamUtthanMahabhiyan) will aid solar power generation capacity of 28,250 MW over the next ten years.
- Skill development and employment for rural youth: About 33 lakh MahilaKisans were covered under Mahila Kisan Sashatikaran Pariyojana (MKSP).
- Durable assets such as roads, food storage godowns, land development, vermicompost, gramin house, animal husbandry shelter etc. are being created under MANREGA.
- > Rs 55000 crore has been allocated and 230 crore person days of employment is proposed to create.
- ➤ Under the Mega Food Park Scheme, **42 Parks proposed** during which aims to provide **direct and indirect employment** to **95000 persons** in **2017-18 and 2018-19**. Right now India has 17 operational mega food park.
- ➤ 32 lakh women farmers- sustainable agriculture- develop 1000 organic clusters- supporting for developing market infrastructure for women self-help group by ministry of agriculture through DAY-NRLM and MGNREGS.
- To motivate women to take up organic agriculture in clusters under National Rural Livelihood Programme, this year, the government would distribute loans worth Rs.75,000 crore by March 2019.
- ➤ In the year 2018-2019, for creation of livelihood and infrastructure in rural areas, total amount will be spend 14.34 lakh crore.
- ➤ National Nutrition Mission (NNM): Although the target to reduce Stunting is at least 2% p.a., Mission would strive to achieve reduction in Stunting from 38.4% to 25% by 2022 (Mission 25 by 2022).
- ➤ NABARD had been considered the **nodal agency** to facilitate **the rural infrastructure development** with a budget of **Rs 27623 crore** for 2018-19.
- ➤ In 2017-18, the rural, agriculture and allied sectors experienced 24 % increase in allocation as compared to the previous year reaching at Rs1872 billion.

## **Apiculture**

- ➤ Honey harvesting dates back to **7000 B.C.**
- ➤ Bee keeping was introduced in **1882**
- ➤ Honey production in India increased geometrically since 2005, thanks to large scale rearing of A. mellifera.

- ➤ A National Beekeeping Board at New Delhi (Registered Society under Societies Registration Act, XXI of 1860 on 19th July, 2000) was started to organize beekeeping activities.
- Accordingly, the National Bee Board (NBB) was reconstituted in June, 2006.
- ➤ This year (2018) & onwards, the day of celebration of World Honey Bee Day (World Bee Day) has been changed and 20th May has been declared as World Honey Bee Day.
- Main theme of celebrating World Honey Bee Day is to **SAVE HONEYBEES.**
- ➤ Honey Production leads us towards the "Sweet Revolution". According to estimation, farmers can earn up to 2 to 2.5 lakh from in 50 bee boxes.
- **Honey Production:**

1.	2016-17	94.50
2.	2017-18	105.00
3.	2018-19	113.00 (1 <sup>st</sup> estimate)

# **Important Facts about Apiculture:**

- ➤ Beekeeping can be done by domesticating 2 species of bees viz; *Apis cerena* and *Apis mellifera*.
- > Restrict number of **bee colonies** in a apiary from **50-100**.
- ➤ Keep row to row and box to box distance as 10 and 3 feet, respectively (Recomnd. by NBB).
- ➤ When **temperature** in the apiary **increases beyond 37°C**, water is used by bees to evaporate and cool the colony.
- ➤ Provide sugar syrup (1:1) @ 200 g sugar per colony per week for Indian bees.
- **Feed all the colonies** in the apiary at the **same time** to **avoid robbing**.
- ➤ Provide **50% sugar syrup** to the colonies **during dearth periods** when honey stores in the colonies is not adequate and nectar is not available in the area.

- **Feed** the colonies in the evening preferably after sunset
- > Start migration late in the evening and ensure the colonies reach the destination within 10-12 hrs.

- ➤ **Harvests** are normally possible during and shortly after the two main flowering seasons, namely **October/November and February-June**.
- ➤ The government is providing **financial assistance under** pollination support through beekeeping, a component of Mission for Integrated Development of Horticulture (**MIDH**).
- The average worker bee produces about 1/12th teaspoon of honey in their lifetime.
- ➤ Queen bee is the busiest in summer months, when the hive needs to be at its maximum strengths, and lays up to 2500 eggs per day.
- ➤ Honeybees are native to **Europe**.
- A queen bee can live up to 5 years, whereas a worker bee often has a life span as short as 6 weeks.

#### **National bee board (NBB)**

- The Ministry of Agriculture, Govt. of India launched a **Central Sector Scheme** titled 'Development of Beekeeping for Improving Crop Productivity' during the **VIII plan (1994-95).**
- ➤ The Scheme was approved for continuation during the IX Plan. However, the scheme got subsumed under the Macro Management Scheme, with effect from October, 2000, National Bee Board (NBB) was reconstituted in June, 2006
- ➤ In May 2005, Beekeeping has been included as a supplemental activity under National Horticulture Mission (NHM) for promoting cross pollination of Horticultural Crops.
- > About world honey bee day-
- Previously, it was known as Honey Bees Awareness Day.
- ➤ Officially announced by USDA in 2009, as an official day to honor honey bees and bee keeping.
- ➤ Up to 2017, the World Honey Bee Day was being celebrated every year on **3rd Saturday of August**.
- ➤ This year (2018) & onwards, the day of celebration of World Honey Bee Day (World Bee Day) has been changed and 20th May has been declared as World Honey Bee Day.
- A world class **honey testing laboratory** is being established in **Anand** (**Gujarat**).

#### Sericulture

The farm and non-farm activity of this sector creates **60 lakh man days** of employment **every year** mostly in rural sector.

Contact: 9828822277

- > Silk is the **most elegant textile** in the world.
- > Silk is known as the "Queen of Textiles".
- Sericulture industry provided **employment** to **approximately 8.25 million persons** in rural & semi-urban areas in India during **2015-16**.
- India's silk trade dates back to **15th** century.
- > Silk other than mulberry are known as Vanya silk.
- India is the only country which produces all five known commercial silks, Mulberry, Tropical Tasar, Oak Tasar, Eri and Muga.
- ➤ India is the **2nd largest** producer of silk in the world.
- Production of silk in 2017-18 was 31906 M.T.

#### Central Silk Board

- ➤ It is a statutory body established in **1948** by an act of Parliament.
- > CSB functions under the administrative control of the Ministry of Textiles, Govt. of India.
- > Headquarters at **Bangalore**.
- > Target to increase productivity from 100 kg/ha to 111 kg/ha by end of 2019-20.
- To achieve self-sufficiency by **2022**.
- ➤ To increase productive employment from **8.5 million** to **10 million person** by **2020.**

#### **ZBNF**

- > Zero Budget Natural Farming (ZBNF) has spread to various states in India.
- It has attained wide success in southern India, especially the southern Indian state of **Karnataka collaborated with Mr Subhash Palekar**, who put together **the ZBNF practices** where it first evolved.
- ➤ ZBNF was initially **launched in September 2015** under the Centre's Rashtriya Krishi Vikas Yojana. Initially, 50 villages across 13 districts of the state were selected for the pilot project. It has been so successful that the government wants to scale it up.
- Andhra Pradesh CM announced that the State would fully embrace Zero Budget Natural Farming (ZBNF).
- ➤ Six states Karanataka, Himachal Pradesh, Kerala, Uttarakhand, Chhattisgarh and Andra Pradesh, have already adopted the ZBNF

- technique.
- > Zero Budget Natural farming (ZBNF) is said to be "do nothing farming".

- ➤ It practices no-till, no chemical use in farming.
- ➤ Yields from ZBNF plots were found on average to be 11% higher for cotton than in non-ZBNF plots.
- The Government of India provides funding through the Rashtriya Krishi Vikas Yojana and Paramparagat Krishi Vikas Yojana.
- > The four pillars of ZNBF:
  - **Jivamrita/jeevamrutha**: Palekar suggests that Jeevamrutha is only needed for the first 3 years of the transition, after which the system becomes self-sustaining.
  - Bijamrita/beejamrutha
  - Acchadana Mulching
  - Whapasa— moisture

#### MOBILE APP FOR FARMERS

- ➤ PUSA KRISHI MOBILE APP: PUSA Mobile App for farmers for realizing the dream of the Prime Minister's Lab to Land Program. Farmers can get information from the technologies developed by IARI. It is available in two languages (Hindi and English)
- ➤ KISAN SUVIDHA MOBILE APP: To provide information to the farmers on sensitive parameters such as climate, plant conservation, exchange dealers, agricultural consultations and market value, Plant protection for 12 major crops etc. It is available in nine languages
- **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 captureslocation 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.
- > STCR mobile App: Bilingual (Marathi and English) STCR mobile App for fertilizer recommendations of Maharashtra was developed in collaboration with SOIL AND WATER PRODUCTIVITY.

➤ MKISAN Application: This app has been designed and developed by in house IT team of DAC with the help of C-DAC Pune. It enables farmers and all other stakeholders to obtain advisories and information being sent by experts and government officials at different levels through mkisan portal without registering on the portal.

Contact: 9828822277

- ➤ CHC farm machinery app: is developed to connect the farmer with custom hiring service centre in their nearby vicinity
- Meghdoot app: launched by Ministry of Earth science and Agriculture to assist farmer which will provide location, crop and livestock specific weather based Agro advisories to farmer in local language
- ➤ iMandi app: loss by IFFCOwith objective to bring the benefit of digital Technologies to every farmer and bring the digital Revolution to rural India

# The major Web portals developed by GOI

- i) Farmers' Portal: Farmers' Portal is a **one stop shop** for farmers where a farmer can get information on a range of topics including seeds, fertilizer, pesticides, credit, good practices, dealer network, and availability of inputs, beneficiary list and Agromet advisories.
- (ii)mKisan Portal: This is a unified platform from where officials and scientists can send targeted text and voice based advisories to the farmers on a host of issues related to agriculture and allied sectors.
- (iii)Crop Insurance Portal: To provide complete information related to Crop Insurance scheme being implemented in the country.
- (iv)Participatory Guarantee System of India (PGS) Portal: This is a portal for encouraging participatory approach to certification of organic farming in the country.
- **(V) PM-**Kisan portal: This is a portal for giving benefits to the beneficiary of PM-Kisan scheme.

# **Natural Resource Management**

Degraded land area - 120.4 mha (37%) includes

- Water and wind erosion 94.9 mha
- Water logging **0.9 mha**
- Soil alkalinity/ sodicity 3.7 mha
- Soil acidity 17.9 mha

- Soil salinity 2.7 mha
- Mining and industrial waste **0.3 mha**

# New varieties released by ICAR:

➤ Wheat-Pusa Kiran (HS 542-semi dwarf variety), NilgiriKhapli (HW 1098), HDSCW 18 (first variety of the country bred specifically for Conservation Agricultue), HD 3117, PusaMalvi (HD 4728), HS 562

- **▶Pearl Millet**-Pusa Composite 701
- ➤ Mustard –Pusa Double Zero Mustard 31-First canola type, erucic acid less than 2% and glucosinolates< 30 pp
- **▶ Pigeon pea** -PUSA Arhar 16 (determinate, extra early maturity)
- ➤ 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 1
- Low neuro toxin varieties of grass pea-rattan, nirmal, prateek
- **≻Marigold**-PusaBahar
- ➤ High zinc rice variety-DRR Dhan 45 (By ICAR- Indian Institute of Rice Research)
- ➤ High protein rice variety-CR Dhan 310 (By ICAR- Rice Research Institute, Cuttak )
- **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
- ➤ PusaBetakesari variety of cauliflower- 1st indigenous bred bio-fortified for beta carotene developed by IARI
- ➤ New variety of **pigeon pea** developed by IARI is **Pusa arhar-16** (120 days maturity and determinate in growth)
- ➤ World earliest maturity variety of cotton genotype was identified by CICR scientist (2017) variety name: Yugank
  - > Biofortified Varieties:
  - > Rice: CR Dhan 310 (protein rich variety with 10.3% protein),
    - **DRR Dhan 45** (zinc rich variety with 22.6 ppm zinc normally 12.0-16.0 ppm)
  - ➤ Wheat: WB 02:Rich in zinc (42.0 ppm) and iron (40.0 ppm) in comparison to 32.0 ppm zinc and 28.0-32.0 ppm iron in popular varieties

■ **HPBW 01**: Contains high iron (40.0 ppm) and zinc (40.6 ppm) incomparison to 28.0-32.0ppm iron and 32.0 ppm zinc inpopular varieties.

- ➤ Maize: Pusa Vivek QPM9 Improved: Country's first provitamin-A rich maize, High provitamin-A (8.15 ppm), lysine (2.67%) and tryptophan(0.74%) as compared to 1.0-2.0 ppm provitamin-A, 1.5-2.0%lysine and 0.3-0.4% tryptophan content in popular hybrids
  - **Pusa HM4 Improved**: Contains 0.91% tryptophan and 3.62% lysine whichis significantlyhigher than popular hybrids (0.3-0.4% tryptophan and 1.5-2.0% lysine)
  - **Pusa HM8 Improved**: Rich in tryptophan (1.06%) and lysine (4.18%) ascompared to 0.0.4% tryptophan and 1.5-2.0%lysine in popular hybrids
  - **Pusa HM9 Improved**: Contains 0.68% tryptophan and 2.97% lysinecompared to 0.3-0.4% tryptophan and 1.5-2.0% lysine in popular hybrids
- Pearl millet: HHB 299: High iron (73.0 ppm) and zinc (41.0 ppm) as compared to 45.0-50.0 ppm iron and 30.0-35.0 ppm zinc in popular varieties/hybrids
  - **AHB 1200**: Rich in iron (73.0 ppm) in comparison to 45.0-50.0 ppm inpopular varieties/hybrids
- ➤ Lentil: PusaAgeti Masoor: Contains 65.0 ppm iron as compared to 55.0 ppmiron in popular varieties
- ➤ Mustard: Pusa Mustard 30: Contains low erucic acid (<2.0%) in oil as compared to >40% erucic acid in popular varieties
  - **Pusa Double Zero Mustard 31**: Country's first Canola Quality Indian mustard variety, Low erucic acid (<2.0%) in oil and glucosinolates (<30.0 ppm) inseed meal as compared to >40.0% erucic acid and >120.0ppm glucosinolates in popular varieties
- $\triangleright$  Cauliflower: Pusa Beta Kesari 1: Country's first biofortified cauliflower, Contains high β-carotene (8.0-10.0 ppm) in comparison to negligible β-carotene content in popular varieties.
- Sweet Potato: Bhu Sona: High β-carotene (14.0 mg/100 g) content as compared to 2.0-3.0 mg/100 g β- carotene in popular varieties
  - **Bhu Krishna**: High anthocyanin (90.0 mg/100g) content in comparison to popular varieties which have negligible anthocyanin content
- ➤ **Pomegranate: Solapur Lal**: High iron (5.6-6.1 mg/100g), zinc (0.64-0.69 mg/100g) and vitamin C (19.4 -19.8 mg/100 g) in fresh arils in comparison

to 2.7-3.2 mg/ 100g, 0.50-0.54 mg/100g and 14.2-14.6 mg/100g, respectively in popular variety Ganesh.

Contact: 9828822277

#### Some another varieties:

#### **Crop varieties:-**

#### A. Vegetables/Spices:

- 1. Chilli: Kashi Surkh, PusaJwala, ArkaKyathi;
- 2. Cowpea: Kashi Kanchan;
- 3. Okra: IIHR-385-5-1, IIHR-386-7-2, OKMHS-3, Kashi Bhairo, Kashi; Satdhari, and Kashi Vibhuti;
- 4. Onion: Pusa Red;
- 5. Pepper: Arka Coorg Excel;
- 6. Tomato: Kashi Adarsh and Kashi Aman; and
- 7. Turmeric: IISR Pragati.

#### **B. Fruit/Flowers:**

- 1. Guava: Arka Kiran and Arka Rashmi;
- 2. Marigold: Arka Agni and ArkaBangara-

#### C. Food Crops:

- 1. Rice: PB 1637;
- 2. Wheat: HDCSW 18 and HD 3086.

#### During 2018-19, IARI had released these high yielding verities:

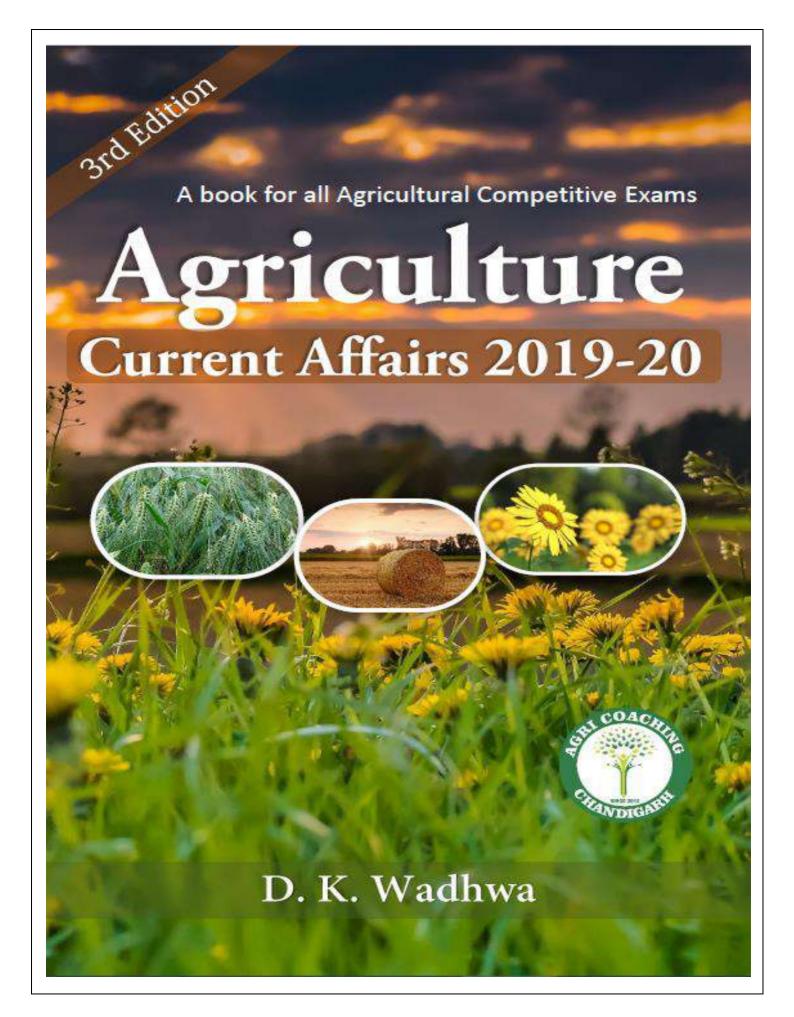
- 1. Non-basmati, medium slender grain, blast resistant **rice variety** named "Pusa Sambha 1850" for Chhattisgarh and Odisha.
- 2. Two **new wheat varieties** "HI 1612" and "HD 8777" were developed by ICAR-IARI
- 3. **Maize hybrid** "Pusa Super Sweet Corn 1" with enhanced sweetness with a good grain (9.3 t/ha) and fodder (16.2 t/ha) yield.
- 4. **Grape hybrid** "Pusa Aditi" was released by the Delhi State Variety
- 5. **Tomato**: Pusa Cherry Tomato-1
- 6. Onion: Pusa Sobha
- 7. The two varieties -- 'Pusa Chickpea 10216' and 'Super Annigeri 1' -- have been developed jointly by ICAR and University of Agricultural Sciences, Raichur in Karnataka in collaboration with International Crops Research Institute for the Semi-Arid Tropics through genomic interventions in breeding called molecular breeding.
- 8. Ten new varieties, viz. Longmelon 'Pusa Utkarsh', round melon 'Pusa Raunak', cucumber (parthenocarpic, gynoecious) 'Pusa Seedless Cucumber-6', muskmelon 'Pusa Madhurima' & 'Pusa Sunahari', brinjal 'Pusa Safed Baingan-1' & 'Pusa Hara Baingan-1', okra (resistant to YVMV) 'Pusa Bhindi-5, garden pea 'Pusa Prabal' and chenopodium 'Pusa

Green' and two hybrids viz. sponge gourd 'Pusa Shrestha' and bitter gourd 'Pusa Hybrid-4' have been released for cultivation in Delhi NCR region.

#### Developed at NRRI (2019)

❖ CR Dhan 309: It is resistant to stem borer (dead heart & white ear head), leaf folder and whorl maggot, yield 5.8 t/ha

- ❖ CR Dhan 801: Moderately resistant to leaf blast, neck blast, bacterial blight, stem borer (both dead heart and white ear heads) and leaf folder. 6.3t/ha
- ❖ CR Dhan 802 (Subhas): Resistant to stem borer (both dead heart and white ear heads), leaf folder, plant hopper and case worm while moderately resistant to bacterial blight, sheath rot and rice tungro virus. 6.5 t/ha
- ❖ CR Dhan 511: Moderately resistant to leaf blast, neck blast and bacterial blight diseases, stem borer (both dead heart and white ear heads), white backed plant hopper and leaf folder.





# **AGRI COACHING CHANDIGARH**



Chandigarh 9023284483

Sri Ganganagar (Raj.) 7300119702

Kanpur 9628994962

Jaipur (Raj.) 9983486171

Sagar (MP) 7610155343

Indore (MP) 7000902312

Pune (MH) 9153915385

Aurangabad (MH) 9545622622









Start Your Own Branch of Agri Coaching Chandigarh in Your City

Contact Us: 98288-22277

# NABARD Norms

# **Guidelines by NABARD (NABARD Norms)**

Contact: 9828822277

# POST HARVEST STORAGE ONION STORAGE STRUCTURES

- ❖ The onion bulbs are generally stored from May to November for a period of four to six months. However, 50-90 per cent storage losses are recorded depending upon genotype and storage conditions. The total storage losses are comprised of physiological loss in weight (PLW) i.e. moisture loss and shrinkage (30-40%), rotting (20-30%) and sprouting (20-40%).
- ❖ For storage, high temperature dormancy of onion bulbs and maintaining storage temperature at around 30°C need to be exploited.
- ❖ Ventilation is needed to maintain humidity between 65-70% and lack of this often adversely affects the quality and quantity by increase in water loss and respiration.
- ❖ Removal of tops, drying, grading, packing, storage conditions (optimum storage range of relative humidity 65% to 70% with the temperature ranging between 25°C to 30°C).
- ❖ The onion storage structure should be oriented in the North South direction i.e., length facing the East-West direction.

# WATER RESOURCES

#### WATER PUMPSET MODEL

The discharge of a solar pump with array area of 2-4m varies from 6-8 lit/s at a head of 15-50 m. This could irrigate about 1.5 - 4 ha of land.

#### **TYPES OF STRUCTURES**

# **Dugwell with SPV**

•Benefitting Area (ha.): 1.0

# **Borewell with SPV**

•Benefitting Area (ha.): 1.6

# **Shallow Tube wells with SPV**

•Benefitting Area (ha.): 2.0

# **Composite Fish Culture**

Contact: 9828822277

- Any perennial freshwater pond/tank retaining water depth of 2 meters can be used for fish culture purpose.
- > The **minimum level** should not fall below **one meter.**
- > Even seasonal ponds can also be utilized for short duration fish culture.
- ➤ Depending on the compatibility and type of feeding habits of the fishes, are recommended for Composite Fish Culture.
- The area under tanks and ponds available for warm freshwater aquaculture 2.41 million ha.
- > The area under swamps, beels, etc. 1.31 million ha

Species	Feeding Habit	Feeding Zone
Indian Major Carp		
Catla	Zoo plankton feeder	Surface feeder
Rohu	Omnivorous	Column feeder
Mrigal	Detrivorous	Bottom Feeder
Exotic carps		
Silver carp	Phytoplankton feeder	Surface feeder
Grass carp	Herbivorous	Surface, column and marginal areas
Common Carp	Detrivorous/Omnivorous	Bottom feeder

➤ **Repayment:** Repayment of bank loan is possible in 8 years with 1-year moratorium (temporary prohibition of an activity)

# **Pond Management:**

➤ **Pre-stocking:** In case of new ponds, pre stocking operations starts with liming and filling of the pond with water. However, the first step for existing pond requiring development deals with clearing the pond of unwanted weeds and fishes either by manual, mechanical or chemical means.

# Different methods are employed for this.

- i) Removal of weeds by Manual/Mechanical or through Chemical means.
- ii) Removal of unwanted and predatory fishes and other animals by repeated netting or using mahua oil cake @ 2500 kg/ha meter or by sun drying the pond bed.
- iii) **Liming:** The soils/ tanks which are acidic in nature are less productive than alkaline ponds.

➤ The **normal doses of the lime** desired ranges from **200 to 250 Kg/ha**. However, the actual dose has to be calculated based on pH of the soil and water as follows:

Contact: 9828822277

Soil pH	Lime (kg/ha)
4.5-5.0	2,000
5.1-6.5	1,000
6.6-7.5	500
7.6-8.5	200
8.6-9.5	Nill

**Fertilization / Manuring:** Fertilization of the pond is an important means for intensifying fish culture by increasing the natural productivity of the pond. A **combination of both Organic and Inorganic** fertilizers may be used for best results.

a) Organic	Organic manure to be applied after a gap of 3 days from the date of liming. Cow dung @ 5000 kg/ha or any other organic manure inequivalent manurial value.
b) Inorganic	Inorganic fertilization to be undertaken after 15 days of organic manuring.

# STOCKING:

- ➤ The pond will be ready for stocking after 15 days of application of fertilizers. Fish fingerlings of 50- 100 gm size (approx) should be used for stocking @ 5000 nos. per hectare.
- ➤ The present model envisages stocking of advanced fingerlings and rearing for 10-12 months.

#### **POST STOCKING:**

> Supplementary feeding: Fishes need much more food than what is available naturally in the pond. Fishes can be fed with a mixture of rice bran and oilcakes in the ratio 4:1.

Contact: 9828822277

The recommended feeding rate is 5 - 6 % of the body weight up to 500gmsize of fish and then reduce to 3.5% of body weight from 500-1000gm size.

#### **Manuring**

- i) Organic manuring may be done in monthly instalments @ 1000 kg/ha.
- ii) Inorganic fertilization may be done at monthly intervals alternating with organic manuring.

#### Harvesting

- ➤ Harvesting is generally done at the end of 1st year, when the fishes attain average weight of 800 gm to 1.25 kg.
- With Proper management a production of 4 to 5 tons/ha can be obtained in a year.

# **Subsidy for Fisheries (NFDB)**

- The fish production levels have increased from about 500 kg/ ha/yr to about 2200 kg/ ha/yr.
- ➤ Indian major carps (IMC) and exotic carps (silver carp, grass carp and common carp) form the mainstay of Indian freshwater aquaculture and contribute over 90 percent of the total freshwater aquaculture production.
- Fast growing species, which include minor carps (Labeo calbasu, L. bata), catfishes (singhi, magur) and murrels Channa species)

# **Components of Assistance**

The NFDB will assist the following five components to support intensive aquaculture in ponds and tanks:

**Intensive aquaculture in existing ponds** and tanks

Intensive aquaculture in new ponds and tanks

First-year one time inputs for intensive aquaculture in ponds and tanks.

Establishment of hatcheries for production of fish seed.

Establishment of fish seed rearing units for production of fish fingerlings. Training and demonstration.

Contact: 9828822277

# **Establishment of hatcheries for production of fish seed:**

- ➤ To meet the requirements of farmers in seed-deficit and new areas of aquaculture, it is proposed to support entrepreneurs/farmers in setting up of about 500 hatcheries for production of quality fish seed.
- ➤ The subsidy provided to the entrepreneur/ farmer shall be back-ended.
- Establishment of Fish seed rearing units for production of fish fingerlings:
- ➤ Requirement of quality fingerlings size of 100 mm and above is a prerequisite for reservoir development.
- > Fisheries subsidies are added in subsidy part

# Culture of white legged shrimp, Litopenaeus vannamei

➤ Shrimp farming in India, till 2009, was synonymous with the monoculture of tiger shrimp, Penaeus monodon.

# **Biology:**

- L. vannamei is native of pacific coast of Mexico and Central and South America.
- ➤ It is mainly found on mud bottoms, down to a depth of 75 m. It is commonly known as white legged shrimp or Mexican white shrimp.
- ➤ The maximum weight of the females in the wild is about 120 g. The males are smaller at 60-80g.
- > It lives in the column and prefers clayey loam soil.
- ➤ For L. vannamei the growth at 30°C is much higher than at 25°C.
- > The optimal range of temperature for the species is between 30 and 34°C.
- ➤ At 20°C growth virtually stops.

➤ It can tolerate salinity levels of 0 to 50 ppt. Growth is uniform within 10-40 ppt.

Contact: 9828822277

- ➤ They can grow in freshwater also but the growth is slower below 10ppt.
- > pH range of 7 to 9 is tolerated with optimal growth at pH 8.0.
- Dissolved oxygen levels above 4.5 ppm are required for optimal growth.
- L. vannamei is an **omnivorous scavenger** and is less aggressive and **less** carnivorous than P. monodon.
- ➤ The shrimps attained the size of 20g within a period of 100-120 days depending on the stocking density.

# Advantages of L. vannamei:

- 1. It grows as fast as P. monodon up to 20 g.
- 2. It is easier to culture in very high stocking densities of up to 150/sqm due to their less aggressive

#### nature.

- 3. It is tolerant to wide range of salinities of 0.5 to 45 ppt.
- 4. It is very tolerant to low temperatures of up to 15 degree centigrade
- 5. It requires comparatively low protein feed (20-35%).
- 6. Higher survival rates in hatchery (50-60%).

#### **Financial Outlay:**

- The capital cost for development of one-hectare pond works out to be Rs 8.48 lakh and the recurring cost as Rs 15.04 lakh.
- ➤ Vannamei shrimp, black tiger shrimp, cuttlefish, lobster, clams, fish fillets and squid are the major products for export.

# **Fish Cold Storages**

- $\triangleright$  Once fish is frozen, it must be stored at a constant temperature of -23 °C (-10°F) or below in order to maintain a long shelf life and ensure quality.
- ➤ The free water in fish freezes over a wide range of temperature, beginning at approximately -2 °C (28 °F).
- ➤ The amount of remaining free water decreases until the product reaches a temperature of approximately -40 °C.
- ➤ Fish are therefore normally stored at -18 to -29 °C (0 to -20 °F), resulting in a variable shelf life ranging from a few weeks to almost one year.
- ➤ The International Institute of Refrigeration recommends a storage temperature of -18°C for lean fish such as cod and haddock and -24°C for fatty species such as herring and mackerel.
- ➤ Capacity of cold stores normally ranges between 1,000 MT and 10000 MT.

# **Types of cold stores**

➤ Stores with unit coolers: The most widely used method of cooling modern cold stores is by means of unit coolers with fan designed with good circulation of the air. However, the main disadvantage is that many designs using this type of cooling unit do not allow for uniform distribution of the air within the store.

Contact: 9828822277

- > Multiple units.
- > Financial Viability and Bankability

#### **Project Cost**

- ➤ The main costs involved are preparation of the site, construction of the building, engine room equipment's, machinery, electrical installation, other equipment's and services.
- ➤ These costs will depend to a great extent on the location of the site. The cost of construction of 1000 MT, 2000 MT and 3000 MT capacity including land cost and machinery and other equipment's works out to Rs.175 lakh, Rs.395 lakh and Rs.600.50 lakh respectively.
- ➤ The above costs are average indicative costs. Banks may adopt higher or lower than the average costs depending on local conditions and viability of the units.

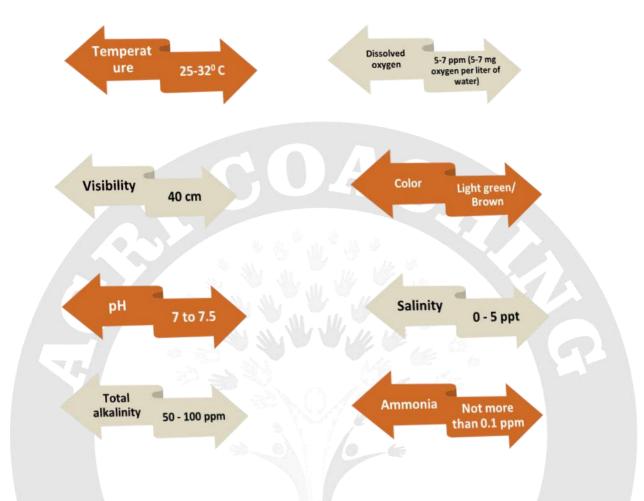
#### **FISHERIES**

# **MODEL SCHEME ON FISH FARMING IN WETLANDS**

- > The inland fisheries and aquaculture contribute about 65 per cent of the total fish production of the country.
- ➤ The average productivity from culture ponds is presently only 2800 kg per hectare as against the potential yield of 4000 to 5000 kg per hectare with scientific fish culture practices.

# **WATER:**

Adequate and good quality of water, free from pollution is required for fish culture. The water depth of 1.2 m should be maintained throughout the culture period. The optimum water quality parameters for culture of IMC and exotic craps are as under:



#### **❖ Pond Construction:**

- A convenient width of 30 to 50 m is recommended.
- Normally a size of 0.4 to 1.5 ha is found suitable.
- The average depth of the pond should be minimum 1 m and maximum of 1.5 m.
- ➤ Dyke slope may be kept at 1.5:1 outside and at 2.1 inside. The minimum top width of dyke should be about 1 m.
- ➤ The embankments must have a free board of atleast 60 cm above the high water level in the pond.

# **\*** Farm Management:

- ➤ The culture period in wet lands would be maximum of 7-8 months.
- ➤ The advanced fingerlings upto 50 g size should be stocked and average growth of 600 to 700 gram would be possible in the culture period.
- ➤ The stocking of fingerlings should be done at the rate of 5000 numbers per ha after acclimatization in the pond.

#### **❖** Financial Outlay

➤ The capital cost for one ha of pond development in wet lands has been estimated at Rs.2.70 lakh and the operational cost for one crop cycle has been estimated at Rs.1.235 lakh and capitalized.

Contact: 9828822277

#### Margin Money and Bank loan

- As per the guidelines of RBI, borrowers are required to contribute for the development of the activity from their own resources, at the rate of minimum 5 percent to 15 per cent based on the type of borrower.
- ➤ The margin money of 25 percent is assumed in the model scheme prepared.

# Subsidy

➤ Under Blue Revolution scheme of the GoI, the subsidy assistance is available for development of water logged areas at the rate of 50 per cent of the unit cost.

# GIFT TILAPIA CULTURE

- ➤ Tilapia has been considered as the Food Fish of the 21stcentury and is popularly known as **aquatic chicken.**
- ➤ Margin: The margin money may be considered @ 5,10 & 15% for small, medium and large farmer respectively and 25% for companies and partnership firms.

# **❖** Advantages of Tilapia Culture:

- > Can be cultured at high stocking densities.
- ➤ High disease resistance ability.
- $\triangleright$  Can be cultured in saline water (salinity 12 15 ppt).
- > Three crops are possible in perennial ponds.
- > Growing export potential due to the easiness to fillet the fish.
- > 50-75 fry may be reared in one sq m.
- > A production of 8-10 tons/ha can be obtained in one crop of 6 months.

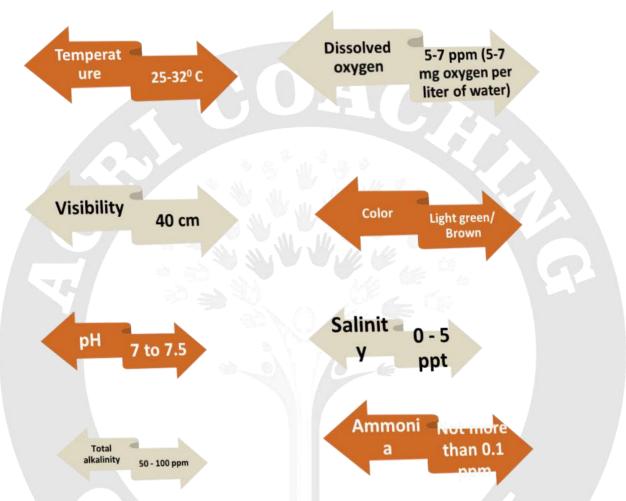
# **Model Scheme on Integrated Fish cum Dairy**

The cattle dung contains 14 per cent organic matter, 0.3per cent nitrogen, 0.2per cent phosphorous and 0.1 per cent potash.

# **WATER:**

➤ The water depth of 1.2 m should be maintained throughout the culture period. The optimum water quality parameters for culture of IMC and exotic craps are as under:

Contact: 9828822277



# **❖** Financial Outlay

➤ The capital cost for one ha of fish pond along with five CB cows has been estimated at Rs.6.53 lakh and the operational cost for one cycle has been estimated at Rs.1.87 lakh and capitalized.

# **❖** Margin Money and Bank loan

As per the guidelines of RBI, borrowers are required to contribute for the development of the activity from their own resources, at the rate of minimum 5 percent to 15 per cent based on the type of borrower. The margin money of 25 percent is assumed in the model scheme prepared.

# Subsidy

➤ Under Blue Revolution scheme of GOI, the subsidy assistance is available for development of new ponds @40% of the cost for general category and 60% of the unit cost for the category of SC/ST/women and their cooperatives.

➤ Under Dairy Entrepreneurship Development Scheme (DEDS) of GoI implemented through NABARD, the subsidy assistance @25% for general category and 33.33% for SC/ST category is available for milch cattle rearing of 2 to 10 animals.

Contact: 9828822277

# **Model Scheme on Integrated fish cum Poultry (Broiler)**

- ➤ Poultry litter contains 1.6per cent nitrogen, 1.5 per cent phosphorous, 0.9 per cent potassium and 2.4 per cent calcium.
- ➤ In the integrated fish cum poultry farming system, approximately 500 to 600 birds are required to fertilize one ha of pond area.
- ➤ The litters can be applied daily @ 30 to 35 kg per ha or in weekly basis. Application of litter is stopped when algal bloom appears on the pond.
- ➤ Marketing of broilers should start from 4-5 weeks of rearing during which birds weight 1.2 to 1.5 kg.

# **❖** Financial Outlay

➤ The capital cost for one ha has been estimated at Rs.3.98 lakh and the operational cost for one cycle has been estimated at Rs.3.03 lakh and capitalized.

#### **❖** Margin Money and Bank loan

As per the guidelines of RBI, borrowers are required to contribute for the development of the activity from their own resources, at the rate of minimum 5 percent to 15 per cent based on the type of borrower. The margin money of 25 percent is assumed in the model scheme prepared.

# Subsidy

➤ Under Blue Revolution scheme of the GoI, the subsidy assistance is available for development of new ponds 40 per cent of the unit cost for general category and 60 per cent of the unit cost for the category of SC/ST/women and their cooperatives.

# INTENSIVE FISH CULTURE

➤ Out of the total inland fish production around 60% is contributed by the aquaculture sector. The average productivity from ponds at present is to the tune of 2160 kg/ha/year.

# **❖** Financial Outlay

The capital cost for excavation of 1 Ha pond works out to be Rs 3,02,500/- and the recurring cost as Rs 2,88,075/-.

#### **❖** Supplementary feeding

Fishes need much more food than what is available in the pond. Fishes can be fed with the mixture of bran and oilcake in equal quantities daily. The feed should be placed on a bamboo tray the fishes will get used this type of feeding and aggregate at the same place at particular time. The average requirement of feed rate is as under:

Contact: 9828822277

Feed	0/0	Kgs
Rice Bran	80	9600
Ground Nut oil Cake	10	1200
Cotton seed cake	10	1200
Total	100	12000

#### Manuring:

> Organic manuring may be done in monthly instalments @ 1000 kg/ha.

# **Pangassius Fish Culture**

- Pangassius species is commonly called as river or silver stripped catfish, Siamese shark, sutchi catfish, or swai catfish.
- ➤ Pangassius is being farmed in about 40,000 ha with an expected production of 1.80 to 2.20 lakh tons.

# Margin

➤ The margin money may be considered @ 5, 10 & 15% for small, medium and large farmer respectively and 25% for companies and partnership firms.

# Financial Outlay

- ➤ The capital cost for excavation of one hectare pond works out to be Rs.8.97 lakh and the recurring cost as Rs.23.86 lakh.
- ➤ The fish has rapid growth rate and attains 1.0 to 1.5 kg in 8 -10 months culture period in ponds.
- > Pangassius spp. can tolerate **pH ranging from** 5 7.5.

# ❖ Size of Culture Pond & Depth of water

➤ The ideal pond size 1 ha area.

- $\triangleright$  The ideal water depth is 1.5 2 meters.
- ➤ Pangassius hypophthalamus should not be more than 10,000/ha with a target production of 12-14 tons/ha. Pangassius sp. can be stocked at a rate of 12500 per ha depending on the culture environment.

# FOOD AND VEGETABLE PROCESSING UNIT

#### **Canned fruit pulp and vegetables:**

- ➤ The temperature required for effective sterilization varies with the pH of the product and is generally higher than boiling point of water (100°C or 212°F).
- ➤ Pickling is a process of preservation by fermentation. The fruits and vegetables are immersed in 5–10 per cent salt solution (brine) leading to lactic acid fermentation.
- ➤ The natural sugars present in fruits and vegetables are converted to lactic acid at 25°C.
- Fresh fruits contain more than 80 per cent water and 10 to 15 per cent sugars.

#### **❖** Jam, jelly and marmalade:

➤ Jam, jelly and marmalade are based on preservation by high sugar concentration. All fruits can be converted to jam by mashing or slicing it fine, adding an approximately equal amount of sugar, and simmering until it reaches proper concentration orgel at 218° to 222°F (103°–105°C).

#### \* Squash:

- As per **Indian Standards**, squash should contain at least 25 per cent (by volume) of fruit juice.
- > The squashes are consumed after dilution by drinking water in 1:3 ratio.
- ➤ These beverages contain added flavors and permitted class II preservatives.
- ❖ The processed products should follow the Food Safety and Standard Authority of India (FSSAI) act 2006. FSSAI Act is applicable pan India for all food products.
- ❖ A project cost of **Rs.74.78 Lakh** has been estimated. For a small scale fruit and vegetable processing unit, a plot of land measuring 0.5 acre, with built-up area of 3850 sq ft is considered sufficient.
- ❖ The processing hall and other utilities would require construction of around 3850 sq ft. of building at a total cost of Rs.23.10 Lakh.

❖ The construction cost is assumed as Rs. 600 per sq ft. The building consists of 1000 square feet of processing hall, 1000 square feet of finished product storage area, 1000 square feet of raw material storage area, 500 square feet of washing area, 250 square feet of toilets, and 100 square feet of guard room.

Contact: 9828822277

#### **!** Interest rate:

- ➤ An interest rate of 12 per cent for working out the bankability of the model project.
- ➤ The margin money varies from minimum 10 per cent to 25 per cent of project cost. We have assumed margin money of 25 per cent in this model scheme.

# **Model Project on Milk Processing**

- **❖** Government has approved National
- ➤ Dairy Plan Phase-I (NDP-I) in February 2012 with a total investment of about Rs.2242 crore to be implemented from 2011-12 to 2016-17.
- ➤ Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India is also implementing "National Programme on Bovine Breeding & Dairy Development (NPBBDD) from 2013-14 to 2016-17.

# SMALL SCALE CASHEW PROCESSING UNIT

- > Indian Partnership Act 1932
- An important byproduct of cashew industry is cashew nutshell liquid (CNSL)which is produced from cashew shells. CNSL has multiple uses in paint industry.
- ➤ The Cashew Export Promotion Council of India (CEPCI) works towards the promotion of cashew nut and cashew nutshell liquid (CSLN).

#### **❖** Process Flow of Cashew:

- ➤ The margin money varies from minimum 10 per cent to 25 per cent of project cost. We have assumed margin money of 25 per cent in this model scheme.
- An interest rate of 12per cent for term loan and 12.5 per cent for working capital to assess the bankability of the model project.

# Model bankable project on Poplar based agroforestry

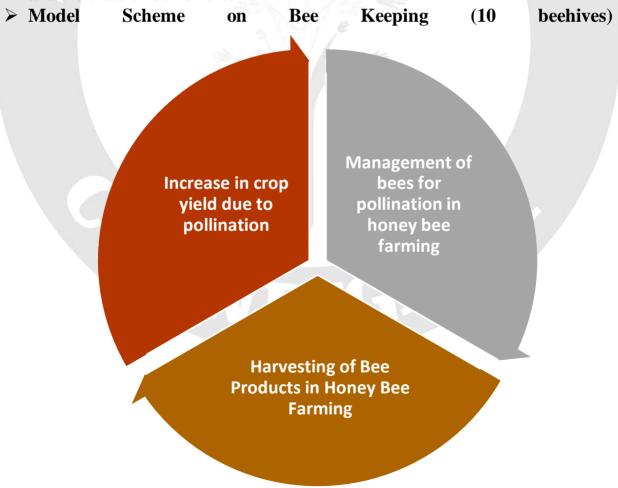
- ➤ Poplar (*Populus deltoids*) is one of the fast growing multipurpose tree species which can be grown as a mono crop as well as in association with agricultural crops.
- ➤ Its wood being light, homogenous and odour less is suitable for match splints, plywood, ply board, packing cases, sports goods, artificial limbs, furniture, pulp for paper, wood, light constructional timber, pencils and furniture, etc.

➤ It has emerged as important industrial wood in North India and is being widely cultivated and good market has developed in this region. Poplar being a deciduous species adds tremendous amount of leaf litter to the soil and is considered to be one of the best species for agroforestry.

Contact: 9828822277

#### Climate and Site requirement/ Site Selection:

- ➤ Poplar grows well in the subtropical climate where the temperature extremes are not too severe.
- ➤ It does not perform well on saline, alkaline (pH>8.0), dry sandy soils, waterlogged areas and hard clays.
- Cuttings obtained from the middle of the main shoot with diameter between 1-3 cm perform better.
- The best time of planting is middle of February. The distance to be kept is 80 cm row to row and 60 cm plant to plant.
- The plants are ready for harvest in 6th year when they attain a girth of about 75-90 cm.
- ➤ Margin money varies from 5% to 25% depending upon the type of investment and the class of borrowers.



#### **!** Increase in crop yield due to pollination:

➤ Yield Increase due to bee pollination in honeybee farming has been noteworthy. Incremental crop yields up to 44 % in mustard & sunflower, 32-45 % increase in cotton, 20 % increase in lucerne, 90 % increase in onion and 45 % increase in apple yield have been reported due to maintenance of beehives in their fields.

Contact: 9828822277

#### **\*** Management of bees for pollination in honeybee farming:

- ➤ It is recommended to place hives very near the flied to save bee's energy and migrate colonies near the field at 10 % flowering.
- ➤ It is also recommended to place colonies at 3 per ha for Italian bee and 5 per ha for Indian bees.
- ➤ The colonies should have at least 5 to 6 frame strength of bees and with sealed brood and young mated queen.

#### **\*** Harvesting of Bee Products in Honeybee Farming:

- ➤ Honey, bees wax, royal jelly, bee venom, propolis and pollen are the main bee products.
- ➤ Honey should be harvested at the end of a flowering season.
- **Training institutes for bee keeping:**



#### Profile for 1.0 ha Cashew Cultivation

- \* Cashew (Anacardium occidentale),
- **❖ Origin:** Brazil
- **! Introduction:** Later half of the Sixteenth Century
- ❖ Heavy clay soils with poor drainage and soils with pH more than 8.0 are not suitable for cashew cultivation.
- ❖ Red sandy loam, lateritic soils and coastal sands with slightly acidic pH are best for cashew.
- ❖ Areas where the temperatures range from 20 to 30°C with an annual precipitation of 1000 2000 mm are ideal for cashew growing. However, temperatures above 36°C between the flowering and fruiting period could adversely affect the fruit setting and retention.
- Cashew is a cross pollinated crop
- \* Epicotyl grafting and softwood grafting are found to be successful because it is easy to produce large number of grafts in a short time.

❖ The land preparation work should be completed prior to the onset of monsoon season i.e. during May-June.

Contact: 9828822277

#### **\*** Layout:

- ➤ Cashew trees are generally planted with a spacing of 7 to 9 meters adopting square system.
- A spacing of 7.5 m X 7.5 m (175 plants/ ha) or 8 m X 8 m (156 plants/ ha) is recommended.
- ➤ High density planting of cashew at a closer spacing of 4 m X 4 m (625 plants/ha) in the beginning and thinning out in stages to maintain a final spacing of 8 m X 8 m in the tenth year is also recommended.
- ❖ The training and pruning of cashew plants is done during August September.
- ❖ Tea mosquito (Helopeltis spp.),flower thrips, stem and root borer and fruit and nut borer are the major pests, which are reported to cause around 30% loss in yield.
- ❖ Cashew plants start bearing after three years of planting and reach full bearing during tenth year and continue giving remunerative yields for another 20 years.
- ❖ The cashew nuts are harvested during **February May.**
- The maturity of the cashew nut is tested by floatation method. The mature nuts sink in water while the immature/unfilled one's float.
- ❖ The shelling percentage of cashew varies between 20-25.

# **&** Grading and Packing:

- ➤ Grading is done for export purposes based on "counts" or number of kernels per pound.
- > Sound kernels are named as "wholes" and broken ones as "splits".

# **\*** Margin Money:

- The margin money / down payment prescribed are 5 %, 10 % and 15% for small, medium and other farmers respectively.
- ➤ The ultimate lending rate has been considered as 12 % for working out the bankability of the model project.
- ➤ The productivity of a ten-year-old cashew tree is considered at 9 kg of nuts per tree.

#### Model Profile of 1.0 ha Citrus cultivation:

❖ Among mandarins, Nagpur mandarin (Central India), Kinnow mandarin (North–West India), Coorg mandarin (South India) and Khasi mandarin (North-East India) are the commercial cultivars of India.

❖ Whereas, Mosambi (Maharashtra), Sathgudi (Andhra Pradesh) and Malta and Jaffa (Punjab) are the sweet orange cultivars traditionally grown.

Contact: 9828822277

- ❖ Citrus fruits grow best between a temperature range of 13°C to 37°C. Temperatures below − 4°C are harmful for the young plants. Soil temperature around 25°C seems to be optimum for root growth.
- ❖ Deep soils with pH range of 5.5 to 7.5 are considered ideal. However, they can also be grown in a pH range of 4.0 to 9.0.
- Plant density

#### Mandarin (Citrus reticulata Blanco)

• Normal spacing - 6 m x 6 m; Plant population - 277 / ha

#### Sweet orange (Citrus sinensis Osbeck)

• Normal spacing - 5 m x 5 m, 5.5 x 5.5 m; Plant population - 400/330 per ha

#### Limes/lemons (Citrus aurantifolia Swingle & Citrus limon)

- Normal spacing 6 x 6 m / 5 x 5 m, Plant population 277/400 per ha
- In light soils, spacing will be 4.5 x 4.5 m or 5 x 5 m
- ❖ The best season of planting is June to August.
- **\*** There are two main crops in mandarins and sweet oranges.
- ➤ One is called as **Ambiabahar** (**mango flowering**) the flowering of which occurs in the month of January (at the time of flowering of mango hence the name Ambia) the fruits of which are available in the months of October-December.
- ➤ The other crop is **Mrig bahar (Monsoon bloom)** the flowering of which occurs in the month of June-July and the fruits are harvested during February-April.
- ➤ Mandarins and sweet oranges normally take 240-280 days to arrive at maturity.
- ➤ Mature fruits at colour break stage are picked up in 2 3 intervals of 10-15 days. Limes and lemons take 150-160 days for maturity. There may be 2 or 3 crops in a year in limes and lemons.

#### **❖** Yield:

- ➤ Mandarin: Commences from the 5th year with about 50 fruits per tree and stabilizes in the 8th year. Average production is about 700-800 fruits per tree after stabilization.
- ➤ **Sweet Orange:** Commences from 5th year with 40-50 fruits per tree & stabilizes around the 8th year. Average production is about 500-600 fruits per tree after stabilization.

➤ **Lime/Lemon:** Commences from the 3rd year with 50-60 fruits per tree &stabilizes in the 8th year. Average production is about 1000-1500 fruits per tree after stabilization.

Contact: 9828822277

**Economic life** of plantation: 15 to 25 years

#### **❖** Post-harvest management

- For imparting uniform yellow-orange color to the fruits application of ethephon @ 250 ppm along with 1 % calcium acetate as foliar spray at maturity stage is recommended.
- > Sweet oranges and mandarins may be treated with **ethylene gas for degreening** and development of color.
- A temperature of 6-7°C, 5-10 ppm of ethylene and 90-95% RH in a degreening chamber can set a change in color in about 48 hours.

#### **\*** The storage conditions for various citrus fruits are as under:

- ➤ Mandarins: Mandarins can be stored at 5- 7°C with 85-90 % RH for 4-8 weeks.
- ➤ **Sweet oranges:** Sweet oranges can be stored at 7-8°C with 85-90% RH for 4-8 weeks.
- ➤ Lime/Lemon: Limes and lemon can be stored for 6-8 weeks at 9-10oC storage temperature with 80-90% RH. Limes are subjected to pitting after storage at temperature below 7°C. Waxing treatment further reduces moisture loss extends shelf life in all citrus fruits.
- ➤ The margin money / down payment prescribed are 5 %, 10 % and 15% for small, medium and other farmers respectively. However, in the present model, 10 % of the unit cost i.e. Rs.14100/ha has been considered as margin money.
- ➤ The ultimate lending rate has been considered as 12 % for working out the bankability of the model project.

#### Model Profile for 1.0 ha Coconut Cultivation:

- ❖ The mean annual temperature for optimum growth and maximum yield is stated to be27°C with a diurnal variation of 6°C to 7°C and relative humidity more than 60 %.
- ❖ The major soil types that support coconut in India are laterite, alluvial, red sandy loam, coastal sandy and reclaimed soils with a pH ranging from 5.2 to 8.0.
- ❖ In general square system of planting with a spacing of 7.5m x 7.5m is recommended for coconut. This will accommodate 177 palms per hectare.

However, spacing of 7.5 to 10 m is practiced in various coconut growing regions of the country.

Contact: 9828822277

- ❖ 18 24 month old seedlings are preferred for planting in water logged areas. Planting the seedlings during May with the onset of pre-monsoon rain is ideal.
- \* Economic life of the coconut palm is about 60 years.
- ❖ Neera, coconut water based nonalcoholic health drink is now gaining momentum in many states like Karnataka and Maharashtra
- ❖ The margin money / down payment prescribed are 5 %, 10 % and 15% for small, medium and other farmers respectively. However, in the present model, 15 % of the unit cost i.e. Rs.35,100/ha has been considered as margin money.
- ❖ The ultimate lending rate has been considered as 13 % for working out the bankability of the model project.

#### Model Profile of 1.0-acre Gladiolus Cultivation

- ❖ Gladiolus (*Gladiolus sp.*) is a very popular bulbous ornamental plant.
- ❖ The pH should be slightly acidic in the range of 5.5-6.5.
- ❖ Gladiolus is propagated by corms (the underground storage organs which are sometimes wrongly called as bulbs) and cormels.
- ❖ Generally, gladiolus is grown in the winter.
- **\*** Harvesting of spikes and lifting of corms:
- ➤ The spikes would be ready for harvest from 60-120 days after planting depending upon the variety, corm size at the time of planting and season.
- > The spikes should be harvested at tight bud stage, with one to five florets showing colour and at least four leaves on the plant for development of corms and cormels.
- ➤ Thus, if planting of corm is done in the month of September, the harvesting of spikes will begin from November/December and continues up to January/February.
- ➤ The corms are lifted after maturity, when nearly 25 % of the cormels turn brown and the leaves turn yellow and start drying. It takes nearly one and half to two months after flowering for the corms to attain maturity.
- \* Yield:
- > Spike yield: One spike per plant
- ➤ Corm yield: One plant able size corm per plant and cormels.
- ➤ The yield per acre would be around 80000 spikes. The cormel yield varies from 1.5 2.5 quintals per acre depending on variety, depth of planting etc.
- The domestic market, the spikes are graded into three categories viz., A, B & C.

➤ The margin money / down payment prescribed are 5 %, 10 % and 15% for small, medium and other farmers respectively. However, in the present model, 15 % of the unit cost i.e. Rs.42,600/acre has been considered as margin money.

Contact: 9828822277

➤ The ultimate lending rate has been considered as 14 % for working out the bankability of the model project.

# Model Bankable Project on Hi-Tech Agriculture

- ❖ Hi tech Agriculture is one method of precision farming on a smaller scale where plant protection and fertigation are applied at the root zone and plants are grown in precise conditions of temperature and humidity for uniformity and maximization of yield.
- **❖** There are **two approaches** viz.,
- > Greenhouse / poly house system and open-air system.
- **Classification of greenhouses:**
- ➤ Greenhouse structure of various types are used for crop production. The different types of greenhouses based on **shape**, **utility**, **material and construction** are briefly given below:

# 1.Greenhouse type based on shape:

- a) Lean to type greenhouse.
- b) Even span type greenhouse.
- c) Uneven span type greenhouse.
- d) Ridge and furrow type.
- e) Saw tooth type.
- f) Quonset greenhouse.
- g) Interlocking ridges and furrow type Quonset greenhouse.
- h) Ground to ground greenhouse.

# 2. Greenhouse type based on Utility:

- a) Greenhouses for active heating.
- b) Greenhouses for active cooling.

# 3. Greenhouse type based on construction

- a) Wooden framed structure.
- b) Pipe framed structure.
- c) Truss framed structure.

# 4. Greenhouse type based on covering material

a) Glass glazing.

b) Fiber glass reinforced plastic (FRP) glazing (Plain sheet, corrugated sheet.)

Contact: 9828822277

- c) Plastic film (UV stabilized LDPE film, Silpaulin type sheet, Net house)
- d) Based on the cost of construction (High cost Green House, Medium cost Green House, Low cost Green House)

#### 5. Computerized green houses

- ➤ In general farmers prefer the manually Controlled System or Semi-Automatic Controlled System because of low investment. However, Manual systems require a lot of attention and care and are very difficult and cumbersome to maintain uniform environment inside the Green House.
- ➤ Ultimately this affects crop production and results in non-uniform growth and low quality of the crop.
- ➤ The poly houses are constructed with the help of ultraviolet plastic sheets, so that they may last for more than 5 years. Sheets are usually of 1501-micron thick plastic sheet and draped around bamboo or iron pipes which are more durable but costlier.

<b>*</b>	Equipment required for drip irrigation system include	:	
<b>*</b>			
	A pump unit to generate 2.8kg/cm2 pressure		
	Water filtration system – sand/silica/screen filters		
	PVC tubing with dripper or emitters		J

# **Drippers of different types are available:**

- i) Labyrinth drippers
- ii) Turbo drippers
- iii) Pressure compensating drippers contain silicon membrane which assures uniform flow rate for years
- iv) Button drippers- easy and simple to clean. These are good for pots, orchards and

are available with side outlet/top outlet or micro tube outlet.

v) Pot drippers – cones with long tube

# **\*** Water output in drippers

- a. 16mm dripper at 2.8kg/cm2 pressure gives 2.65 liters/hour (LPH).
- b. 15mm dripper at 1 kg/cm2 pressure gives 1 to 4 liters per hour

#### **Environmental control**

#### **Relative humidity control:**

A humidistat coupled to water circulating pump or exhaust fan is used to control the relative humidity inside the fan and pad greenhouse.

Contact: 9828822277

➤ The maximum achievable relative humidity is 90% only in fan regulated (FR) greenhouse. The RH in Nonventilated (NV) GH can be increased by providing foggers.

# **Financing Aspects**

# **Subsidy:**

- ➤ The State Horticulture Mission, Government of Kerala provides subsidies upto 50% of the cost subject to a maximum of 325/m2 for hi-tech and 125/m2 for normal poly houses, limited to 1000 m2/beneficiary.
- > 50% of cost subject to a maximum of 3500 per 500 m2 limited to 2 ha per beneficiary will be given as subsidy for shade nets also.
- ➤ Subsidy is also available for mulching at 50% of the total cost subject to a maximum of 7000/ha limited to 2 ha per beneficiary and for Plastic Tunnel up to 50% of cost subject to a maximum of 5000/1000 Sq .m limited to 5 ha per beneficiary.
- ➤ The national Mission on Micro irrigation offers a subsidy of 60% of system cost for small and medium farmers in the State. Farmers of Palakkad, Kasaragod, Kannur and Malappuram are eligible for a further 15% Assistance from the scheme.

#### **A Refinance to Banks:**

➤ The 90% of the amount financed to the borrower under the scheme by banks will be eligible for the refinance from NABARD.

#### **❖** Bank Finance:

- **i. Term Loan:** The banks may finance 85-90% of the project cost as term loan. The eligible amount of subsidy would also be allowed as term loan.
- **ii. Margin Money:** The entrepreneurs should normally meet 10-15% of the project cost out of their own resources.
- **iii. Interest Rate:** the repayment programme has been worked out at 14% rate of interest.

The yield under poly house cultivation can be achieved to the level of 5-8 times as compared to the open crop cultivation.

#### **&** Economic size:

- 1. Generally the length of the polyhouse is 25-30 feet and width 4-5 feet.
- 2. The direction of polyhouse is always East to West, so that the maximum sunshine is available.

Contact: 9828822277

- 3. The house should not be constructed in shade.
- 4. The size of poly house may differ depending on the necessity.
- 5. The poly houses are kept cold or hot depending upon the season.

#### **\*** Recommended Package of Practices:

- ➤ **Tomato:** It is a warm season crop and the moderate temperature ranging from 18oC to 30oC is best for its growth and flowering.
- The ideal soil pH is 6.00 to 7.00 for its growth.

#### **❖** Harvesting, Grading & Packing

- ➤ The harvesting of tomato fruits start from 90 days after transplanting. The total crop period for tomatoes is 8-9 month after planting.
- The optimum storage condition of 12oC temperature and 86 to 90 per cent relative humidity is required for tomatoes.

#### \* Yield:

➤ Under polyhouse condition from well-maintained tomato crop average 30 kg/m2 or 10 Kg/plant of marketable fruits are obtained.

#### **&** Cucumber:

- ➤ Cucumber is a warm season crop and grows best at a temperature between 18°C and 24°C.
- ➤ Soil pH between 5.5 and 6.7 is favorable for its cultivation.
- ❖ Average yield of capsicum is 6 to 8 kg/ plant.
- ❖ Cowpea: Soil pH between 5.5 and 6.7 is favorable for its cultivation.
- ❖ A good crop yields about 1.2-1.5 tons of grain.
- ❖ Shade Nets: Fixed type exterior/interior U.V. shading nets are recommended which can be removed as and when required and Shade nets should be with 50% shading effect.

# **BIOTECHNOLOGY**

**❖ VERMICOMPOST PRODUCTION UNIT** 

#### **Process**

➤ The process consists of constructing brick lined beds generally of 0.9 to 1.5 m width and 0.25 to 0.3m height are constructed inside a shed open from all sides.

Contact: 9828822277

- For commercial production, the beds can be prepared with 15 m length, 1.5 m width and 0.6 m height spread equally below and above the ground.
- Cow dung and farm waste can be placed in layers to make a heap of about 0.6 to 0.9 m height.
- ➤ Earthworms are introduced in between the layers @ 350 worms per m3of bed volume that weighs nearly 1 Kg.
- ➤ The beds are maintained at about 40-50% moisture content and a temperature of 20–30°C by sprinkling water over the beds.
- ➤ The capital cost may work out to about 5000 to 6000 for every tonne of vermicompost production capacity.
- ❖ Of about 350 species of earth worms in India with various food and burrowing habits Eisenia fetida, Eudrilus eugeniae and Perionyx excavates are some of the species that are reared to convert organic wastes into manure.
- > The worms live for about 2 years.
- Fully grown worms could be separated and dried in an oven to make 'worm meal' which is a rich source of protein (70%) for use in animal feed.
- A bed volume of 324 m3 spread over 24 beds 15 m long, 1.5 m wide and 0.6 m high is estimated to produce vermi-compost of 200 TPA over 6 cycles/crops of 65-70 days each annually. Total of 24 such beds may be housed under 2 to 4 different open sheds.
- ➤ The margin money/down payment has been considered at 25% in the present model, which works out to Rs. 3.375lakh.
- ➤ Bank loan considered in the model is 75% which works out to Rs. 10.125lakh.

# **FARM MECHANIZATION**

#### **❖ RURAL GODOWN**

**Capacity and dimensions:** 

Small sized godowns: Capacity of 50, 100, 200 and 250

Medium sized godowns: Capacity of 500, 1000 MT and 2000 MT

Large sized godowns: Capacity above 2000 MT

Contact: 9828822277

- For storage capacity of 1000 MT and above the godowns may be divided into suitable compartments, depending upon the availability of land.
- The height of a road fed godown is 5.6m.
- The ideal stack size shall be 9.15m X 6.1m X 4.57m.

#### **\*** CAPITAL INVESTMENT

Capital cost will be about Rs. 2800 per MT for small capacity up to 2000 MT and Rs.2000/MT for godowns of capacity above 2000MT.

#### **Assumptions for financial analysis**

- ➤ Cost of construction Rs.2800 per MT
- ➤ Bank Loan 75%
- ➤ Interest rate 12%
- ➤ Repayment period 10 years with one year grace period

#### ANIMAL HUSBANDARY

- ➤ The organized dairy sector (both cooperatives and private) is presently handling only 24-28 percent of total milk production in the country.
- ➤ National Dairy Plan Phase I (NDPI) is a Central Sector Scheme for a period of 2011-12 to 2018-19.
- As per Codex Alimentarius, immediately after milking, the milk must be cooled preferably to 4° C.

#### **\* COW REARING**

The average productivity (per day milk yield) of cross bred, indigenous cows and buffaloes in India was 7.02 Kg, 2.36 Kg and 4.89 Kg

# **Biomass Production: Moringa vs Other Fodder Crops**

Sr. Crop Biomass Production MT/ha/Year No.

1.	Moringa	650
2.	Napier grass	350
3.	Cereals in rotation	200
4.	Berseem	100
5.	Sorghum	55
6.	Cowpea	45

#### HORTICULTURE NORMS

#### \* MANGO

 $\triangleright$  Generally mango kernel contains 8 – 10% high quality fat.

#### \* NURSERY

➤ Considering the demand for quality planting material for fruit crops and the opportunity to promote as a horticulture business enterprise in potential pockets across different regions in the country, a prospects as a "Bankable Model Scheme for establishment of Modern Nursery Unit for production of quality planting material for perennial horticultural crops" is prepared for the guidance of entrepreneurs and bankers.

#### \* MUSHROOM

- ➤ **Mushrooms** are an excellent source of vitamins especially C and B (Folic acid, Riboflavin, Niacin and Thiamine) and minerals like potassium, sodium and phosphorus.
- > It also contains other essential minerals like Cu, Zn and Mg in traces.
- > The major mushroom varieties of commercial importance are:
- Button (Agaricus bisporus, A. bitorquis)
- Oyster–Dhingri (*Pleurotus sp.*)
- Paddy Straw (Volvariella sp.)
- ➤ Morel (*Morchella esculanta*) is seasonally harvested from the wild in north Himalayan states. In India, three types, namely button, oyster and straw mushroom are extensively cultivated on commercial scale.

➤ **Button:** It is most popular variety both in the domestic and export market and ranks first in terms of production and consumption.

Contact: 9828822277

➤ The button mushrooms are graded into Grade A, B and Cas per DMI standards.

#### **Unit Cost and Financials:**

- ➤ The average production of 2 kg mushroom per 10 kg of compost has been considered.
- ➤ It has been assumed that 10% of the project cost would be brought in by the entrepreneur as his margin money and remaining 90% will be the bank loan.
- ➤ The rate of interest charged on the bank loan has been assumed @ 10% and 12.5% for small and medium sized units respectively.
- The discounting factor of 15% has been considered to work out the economics.
- ➤ It has been assumed that only 50% of the surplus left after servicing of the payment of interest would be available for servicing the principal repayment.
- ❖ Mission for Integrated Development of Horticulture –Horticulture Mission for North East and Hilly States (HMNH)
- Production Unit: Rs.20 lakh/unit: The financial assistance to the extent of 100% of the project cost for public sector and 40% for private sector for meeting the expenditure on infrastructure as credit linked back ended subsidy is provided.
- Spawn making unit: Rs. 15 lakh/unit: The financial assistance to the extent of 100% of the project cost for public sector and 40% for private sector for meeting the expenditure on infrastructure as credit linked back ended subsidy is provided.
- Compost making unit Rs.20 lakh/unit: The financial assistance to the extent of 100% of the project cost for public sector and 40% for private sector

for meeting the expenditure on infrastructure as credit linked back ended subsidy is provided.

Contact: 9828822277

#### **❖** National Horticulture Board (NHB)

- ➤ The scheme relating to establishment of commercial production as well as projects on Post harvest Management and primary processing of products are eligible for assistance as per approved cost norms.
- ➤ The projects for establishment of <u>integrated production unit on Mushroom</u> are extended financial assistance as credit linked back-ended subsidy @ 50% of project cost limited to Rs.37.50 lakh in Hilly areas.
- ➤ The Board also supports Post Harvest Management projects relating to Pack House, Refer-Van, Retail Outlets, Primary processing etc., for horticulture produce in project mode as credit linked back-ended subsidy @ 50 % of project cost limited to Rs.72.50 lakh per project in hilly areas.

#### **Subsidy for Mushroom Development:**

The schemes provides incentives to farmers and unemployed graduate in the form of subsidy on the following items required for mushroom production, so as to encourage large number of farmers and unemployed gradates to take this activity: -

- i) Subsidy on compost for maximum 400 trays (40 kg) @ Rs.20/tray to SF/MF and unemployed graduates and Rs.40 per tray to SC/ ST and SGSY farmers
- ii) 100% transport subsidy on compost for all the above categories.

# \* Rastriya Krishi Vikas Yojna

An assistance of Rs. 80,000/-for the construction of mushroom house of size 20x12x10 ft, installation of racks in mushroom house, procurement of mushroom kit, tools etc. and pasteurized compost to the registered mushroom growers.

# **Important Subsidies**

# **Important Subsidies:**

Sr. No.	Type of Assistance	Criteria for Assistance/maximu m limit	Scheme/Co mponent
1.	Distribution of Micronutrie nts & soil ameliorants.	Rs. 2500/ha	Soil Health Card scheme
1. a	Supply of gypsum/pyrite/ lime/dolomite	50 % cost of the material + transportation limited to Rs. 750 per hectare.	National Food Security Mission (Oil Seed & Oil Palm)
2.	Supply of gypsum phosphogypsum / bentonite sulphur. Wheat & Pulses	50% of the cost limited to Rs. 750/ - per hectare	National Food Security Mission (NFSM), BGREI
3.	Micronutrients (Rice, Wheat, Pulses & Nutri- Cereals)	50% of the cost limited to Rs. 500/- per ha.	NFSM & BGREI
4.	Lime/liming materials (Rice & Pulses)	50% of the cost of the material limited to Rs.1000/ha.	NFSM & BGREI
5.	Bio-fertilizers (Pulses Nurti-	50 % of the cost limited to Rs. 300	BGREI/ NFSM

	Cereals)	per ha.	
6.	Adoption of Organic Farming	Rs. 10,000 per hectare for maximum area of 4 ha per beneficiary spread over a period of 3 years involving assistance of Rs. 4000 in first year and Rs. 3000 each in second and third year.	National Horticultu re Mission(N HM)/ Horticultu re Mission for North- East and Himalaya n States (HMNEH ) - Sub schemes under Mission for Integrated Developm ent of Horticultu re (MIDH)
7	Promotion of Integrated Nutrient Management	Rs. 1,200 /- per hectare (upto an area of 4 hectares)	NHM/HM NEH Sub schemes under MIDH
8	Reclamation of Problem Soil	Alkaline / Saline Soil Rs. 60,000/ ha	RKVY sub- scheme on

		Acidic Soil Rs. 15,000/ha 90:10 between Centre and State for the NE and Himalayan States 60:40 between Centre and State for other than NE and Himalayan States	Reclamati on of Problem Soil (RPS).
Water	Plant Protection Chemicals  Management under 1	Insecticides, fungicides, weedicides, biopesticides, bioagents, micronutrients, bio-fertilizers etc., @ 50 % of the cost limited to Rs. 500 per hectare.	National Food Security Mission (Oil Seed & Oil Palm)/ NFSM & BGREI
	lture (NMSA)		
Sr. No.	Type of Assistance	Quantum of Assistance	Scheme
1	Drip Irrigation	Financial assistance up to 55% for small & marginal farmers and 45% for other farmers.	Per Drop More Crop component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
2	Sprinkler Irrigation (Portable, mini, micro, semi,	Financial assistance up to 55% for small & marginal farmers	-do-

	permanent, large volume/Raingun etc.)	and 45% for other farmers.	
3	Water Harvesting System for individuals	50% of cost (Construction cost Rs. 125/- for plane and Rs. 150/- per cu m for hilly areas) limited to Rs. 75,000/-, for plane areas and Rs. 90,000/- for hilly areas including lining.	Water Harvesting System for individuals
4	Drip Irrigation System for Oil Palm	As per the specification of PMKSY guidelines	National Food Security Mission (Oil Seed & Oil Palm)
	i) Adoption of organic farming	50% of cost limited to Rs. 10000/ha for a maximum area of 4 ha. per beneficiary,	Rs. 20,000/ha
		spread over a period of 3 years involving an assistance of Rs. 4000/- in first year and Rs. 3000/- each in second & third year. The programme to be linked with	

		certification.	
	ii) Organic Certification	Rs. 5 lakh for a cluster of 50 ha which will include Rs. 1.50 lakh in first year, Rs. 1.50 lakh in second year and Rs. 2.00 lakh in third year.	Project based
16			TVA.

**Organic Farming** 

	Organic rarini	<u>8</u>	
i) Adoption of	50% of cost limited to	Rs.	Sub
organic	Rs. 10000/ha for a	20,000/ha	Scheme of
farming	maximum area of 4 ha.		NHM &
	per beneficiary, spread		HMNEH
	over a period of 3 years		under
	involving an assistance		MIDH
	of Rs. 4000/- in first	AVIN	
	year and Rs. 3000/- each	9/35	
	in second & third year.		
	The programme to		
	be linked with		
ACAY	certification.		Pall
ii) Organic	Rs. 5 lakh for a cluster of	Project	-do-
Certification	50 ha which will include	based	
	Rs. 1.50 lakh in first		
	year, Rs. 1.50 lakh in		
	second year and Rs. 2.00		
	lakh in third year.		
iii) Vermi	50% of cost conforming	Rs. 100,000/	-do-
compost Units	to the size of the unit of	unit for	
/ organic input	30'x8'x2.5' dimension of	permanent	
production)	permanent structure to be	structure	
	administered on prorata	and Rs.	
	basis. For HDPE	16,000/-	
	Vermibed, 50% of cost	unit for	
	conforming to the size of	HDPE	
	96 cft (12'x4'x2') and IS	vermibed.	
	15907:2010 to be		
	administered on prorate		
	basis.		

# Beekeeping

S. N.	Components	Rates of assistance approved under MIDH (NHM/ HMNeH)			
Devel	Development and Multiplication of Bee Stock				
i.	Production of nucleus (Pedigree) stock.	Rs.20.00 lakhs/ project for Research Institutes / Public Sector.			
ii.	Production of Bee colonies by Bee Breeders.	40% of cost or Rs.4.00 lakhs/project (whichever is less).			
2.	Distribution of 8 frame bee colonies (50 bee colonies per beneficiary).	40% of cost or Rs.800/ per set of bee colony (whichever is less).			
3.	Distribution of beehives, supers, etc. (50 beehives, supers, etc. per beneficiary).	40% of cost or Rs.800/ per set of beehive, supers, etc.(whichever is less).			
4.	Distribution of bee equipments [a set of one honey extractor of SS (4 frames) & 10 containers (30 kg each) of FGP/SS, 1 net & a set of other tools] / unit of 50 bee colonies / beneficiary.	40% of cost or Rs. 8000/- per set / per beneficiary (whichever is less).			

	Mushroom		
Type of Assista	Subsidy	Maximum Subsidy per unit	Scheme / Compon ent
nce		Area	
i) Production unit	100% of cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy.	Rs. 20 lakh/unit	-do-
ii) Spawn making un	100% of cost to t public sector and 40%	Rs. 15 lakh/unit	-do-

	of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy.		
iii)	100% of cost to	Rs. 20	-do-
Compost	public sector and	lakh/unit	
making unit	40% of cost for private		
	sector, for meeting the		
A/6 >	expenditure on		
	infrastructure, as credit	10.00	
	linked back ended		
	subsidy.	W 14 .	

Promotion of Integrated Nutrient Management (INM) Integrated Pest Management (IPM)				
Type of Assistance	Subsidy	Maximum Subsidy per unit Area	Scheme / Component	
i) Promotion of IPM/INM	30% of cost subject to a maximum of Rs. 1200/ha limited to 4.00 ha/beneficiary.	Rs. 4000/ha	MIDH	
ii) Disease forecasting unit (PSUs)	100% of costs.	Rs. 6.00 lakh/unit	-do-	
iii) Bio control lab	100% to Public sector and 50% to private sector.	Rs. 90.00 lakh / unit	-do-	
iv) Plant Health Clinics	100% to Public sector and 50% to private sector.	Rs. 25.00 lakh / unit	-do-	
v) Leaf / Tissue analysis labs	100% to Public sector and 50% to private sector.	Rs. 25.00 lakh/ unit	-do-	

# **Sub-Mission on Agroforestry under NMSA:**

Sr. No.	Type of Assistance	Quantum of Assistance	Scheme	
1.	Nursery Development for Production of Quality Planting Material (NDQPM)	Small Nursery (0.5ha): Rs. 10.00 Lakh Big Nursery (1.0 ha): Rs. 16.00 Lakh Hi-tech Nursery: Rs. 40.00 Lakh	Sub- Mission on Agroforestry	
2.	Peripheral and Boundary Plantation (PBP)	Maximum of Rs. 70/- per plant The assistance will be given over four years in proportion of 40:20:20:20	-do-	
3.	Low Density Plantation on Farm Lands (LDPFL)	Less than 100 plants/ha: As per actual no of plants @ Rs.70/- per plant >100 upto 500 plants/ha: Rs. 28000( or in proportion to planting intensity) The assistance will be given over four years in proportion of 40:20:20:20	-do-	
4.	High Density Block Plantation (HDBP)	Magnitude of block Plantations (no of plants/block of 1 ha)  500 to 1000 (spacing	Indica tive total cost (Rs) for the block 30000	
		3.5mX3.5m)  >1000 to 1000 (spacing 3.5mX3.5m)  >1000 to 1200 (spacing 3mX3m)	35000	
		>1200 to 1500(spacing	45000	

2.5mX2.5m)		
>1500(spacing less than 2.5mX2.5m))	50000	
The assistance will be		
given over four years in		
proportion of 40:20:20:20		

Funding pattern **60:40** as GoI: State Govts basis for all States excepting for 8 States of NE Region, the hilly states of Himachal Pradesh, Uttarakhand and Jammu & Kashmir where it would be **90:10** fund sharing. For UTs, the assistance will be **100% from GoI**.

# Assistance under Rainfed Area Development component of National Mission for Sustainable Agriculture (NMSA)

Sr. No.	Type of Assistance	Quantum of Assistance	Scheme		
A) In	A) Integrated Farming System				
1.	Cropping System (CS) with rice, wheat, coarse cereal/oil-seed/ fibre/pulse based two crops.	50% of input cost limited to Rs. 10,000/- per ha with permissible assistance of maximum 2 ha per beneficiary.	RAD component of National Mission for Sustainabl e Agricultur e (NMSA)		
2.	Horticulture Based Farming System (Plantation + Crops/	50% of input cost limited to Rs. 25,000/- per ha with permissible assistance of maximum 2 ha per beneficiary.	- d o -		

	Cropping system)		
3.	Tree/Silvi- Pastural/in- situ/ex- situ conservation of Non Timber Forest Produce (NTFP) (Plantation + Grass/Crops/Cr opping System)	50% of input cost limited to Rs. 15,000/- per ha with permissible assistance of maximum 2 ha per beneficiary.	- d o
4. Live	estock Based Farmin Cross Breed	ng System 50% of input cost of	National
	Cows + Mixed farming + Fodder Buffalo +Mixed farming +Fodder Cow/	Cropping System (CS) including cost of animals with one year concentrated food limited to Rs. 40,000/- per ha (2 milch animals + 1 ha	Mission for Sustainabl e Agricultur e (NMSA)

4.2	Small Ruminant + Mixed farming+ Pasture  Poultry/duckery + Mixed Farming Poultry/duckery + Fishery + Mixed Farming	50% of input cost of cropping system including cost of animals/birds with one year concentrated food limited to Rs. 25,000/-per ha(10 animals/50 birds + 1 ha Cropping System (CS) with permissible assistance of maximum 2 ha/beneficiary.	- d 0 -
5.	Fishery Based Farming System	50% of input cost of cropping/ vegetable system including cost of fish farming limited to Rs. 25.,000/- per ha with permissible assistance of maximum 2 ha/beneficiary	d o -
6.	Vermi-compost Units/Organic Inputs Production Unit, Green Manuring	50% of cost subject to a limit of Rs. 125/- per cubic ft. Maximum permissible assistance shall be Rs. 50,000/- per unit for permanent structure and Rs. 8,000 per unit for HDPE vermin bed.  50% of cost limited to Rs. 2,000/- per ha and restricted to 2 ha per beneficiary for green	- d 0 -

		manuring.	
7.	Silage making for increased availability of green fodder round the year.	Construction of silo Pit of 2100-2500 cubic feet with brick and cement mortar (either below ground or above ground) with provision of Chaff Cutter and Weighing Balance  100 % assistance for silage making unit consisting of Silo Pit Chaff cutter and Weighing Balance limited to Rs. 1.25 lakh per farm family.	National Mission for Sustaina ble Agricult ure (NMSA)
8	Post-Harvest Storage / Value addition of NTFP	Small village level storage / packaging / processing unit for value addition to the produce of farming system to fetch better economic returns 50 per cent of capital cost subject to a limit of Rs. 4000 /- per square meter of storage / processing unit. Maximum permissible assistance shall be	- d o

restricted to Rs. 2 lakh per unit.	
OAA	

# **Subsidy for Fisheries (By NFDB)**

S.No	Item	Activities	<b>Unit Cost</b>	Subsidy
1.	Intensive aquaculture in existing ponds and tanks	(i)Reclamation/ Renovation of ponds and tanks.	Rs 30 000/ ha	i. Farmers - 20 % of the Unit Cost (Rs.6,000/) ii. SC/ST & NE States- 25% of the Unit Cost (Rs. 7,500/-)
2.	Intensive aquaculture in new ponds and tanks	(i) Construction Of ponds and tanks.	Rs 2,00,000 /ha	I Farmers - 20% of the Unit Cost (Rs.40,000/-) ii. SC/ST & NE States – 25% of the Unit Cost (Rs. 50,000/-)
3.	First-year inputs	i. Input costs for reclamation/reno vation of tanks/ponds and construction of new ponds	Rs 60 000/ ha	i. Farmers - 20 % of the Unit Cost (Rs. 12,000/-) ii. SC/ST & NE States – 25% of the Unit Cost (Rs. 15,000/-)
4.	Establishment of hatchery for	Setting up of a hatchery with	Rs 10 00000/unit 10	20 % of the Unit Cost (Rs200000)

	production of fish seed	production capacity of 8-10 million fry per annum.		
5.	Fish seed rearing units to produce quality fish fingerlings	(i) Construction of fish seed rearing units	Rs.3.00 lakhs	i. Farmers - 20% of the Unit Cost (Rs.60,000/-) ii. SC/ST and NE States – 25% of the Unit Cost (Rs.75,000)

#### **MECHANIZATION AND TECHNOLOGY**

- A. Sub Mission on Agricultural Mechanization (SMAM)
- 1. Financial Assistance for Procurement of Agricultural Machinery and Equipment's

Type of Agricultural Machinery *	For SC, ST, Small & Marginal farmers, Women and NE States beneficiary	For SC, ST, Small & Marginal farmers, Women and NE States beneficiary	For other beneficiary	For other beneficiary
	Maximum	Pattern of	Maximum	Pattern of
	Permissible	Assistance	Permissible	Assistance
	subsidy per		subsidy per	
	Machine/		Machine/	
	Equipment		Equipment	
	per		per	
	beneficiary		beneficiary	
Tractors				
1. Tractor 2WD	Rs. 2.00	50%	Rs.1.60	40%
(08-20 PTO HP)	lakh		lakh	
2. Tractor 4WD	Rs. 2.25	50%	Rs. 1.80	40%
(08-20 PTO HP)	lakh		lakh	

2 F2 4 AVVID	D 0 70	<b>=</b> 00.4	<b>D</b> 000	4004
3. Tractor 2WD (above 20-40 PTO HP)	Rs. 2.50 lakh	50%	Rs. 2.00 lakh	40%
4. Tractor 4WD (above 20-40 PTO HP)	Rs. 3.00 lakh	50%	Rs. 2.40 lakh	40%
5. Tractor 2WD (above40-70 PTO HP)	Rs. 4.25 lakh	50%	Rs. 3.40 lakh	40%
6. Tractor 4WD (above 40-70 PTO HP).	Rs. 5.00 lakh	50%	Rs 4.00 lakh	40%
Power Tillers 1. Power Tiller (below 8 BHP)	Rs. 0.65	50%	Rs. 0.50 lakh	40%
2. Power Tiller (8 BHP & above)	Rs. 0.85 lakh Rs.	50%	0.70 lakh	40%
Rice trans planter 1. Self-Propelled Rice Trans	Rs.1.50 lakh	50%	Rs. 1.20 lakh	40%
planter( 4 rows) Self-Propelled Rice Trans planter	Rs. 5.00 lakh. Rs. 8.00	50%	Rs. 4.00 lakh Rs. 6.50	40%
(i) above 4-8 rows (ii) above 8-16 rows	lakh.		lakh	
Tractor/Power Tiller (below 20 BHP) driven equipments. A. Land	Rs. 0.20 lakh	50%	0.16 lakh	40%
Development, tillage and seed bed preparation				
equipments: (i) MB Plow (ii) Disc Plow (iii) Cultivator				
(iv) Harrow (v) leveler Blade				

(vi) Cage wheel (vii) Furrow opener (viii) Ridger (ix) Weed slasher				
(x) Furrow opener (xi) Bund former (xii) Crust breaker (xiii) Rotopuddler (xiv) Rotocultivator	Rs.0.40 lakh	50%	0.32 lakh	40%
(xv) Power Harrow		W.W. W. Y.		
Chisel Plough	Rs. 0.10 lakh	50%	Rs. 0.08 lakh	40%
B. Sowing, Planting, Reaping and Digging Equipments: (i) Post Hole digger (ii) Potato Planter (iii) Potato Digger (iv) Ground nut digger (v) Strip till drill (vi) Tractor drawn reaper (vii) Onion harvester (viii) Rice straw Chopper, (ix) Raised Bed Planter (x) Sugar cane cutter/Stripper (xi) Planter, (xii) Multi crop planter	Rs 0.30 lakh	50%	0.24 lakh	40%

(xiii) Zero –till multi crop planter (xiv) Ridge furrow planter				
(i) Pneumatic Planter (ii) Pneumatic vegetable transplanter, (iii) Pneumatic vegetable seeder (iv) Plastic Mulch Laying Machine (v) Raised Bed Planter with inclined Plate planter and shaper attachment.	Rs. 0.50 lakh	50%	0.40 lakh	40%
(i) Seed treating drum (ii) Seed cum fertilizer drill (5 tines) (iii) Aqua ferti Seed drill (5-7 tines)	Rs. 0.15 lakh	50%	0.12 lakh	40%

~ -	<b>~</b> 0.6=	=0	0.001.1	10-1
C. Inter	Rs. 0.25	50%	0.20 lakh	40%
Cultivation	lakh			
<b>Equipments:</b>				
(i) Grass Weed				
Slasher				
(ii) Power Weeder				
(engine operated				
below 2 bhp)				
D. Equipments for	Rs. 0.25	50%	0.20 lakh	40%
Residue	lakh			
management/Hay				
and Forage				43
<b>Equipments:</b>				
(i) Sugarcane		FW, Y.,		MANA
thrash Cutter		WANGE OF		
(ii) Coconut		W Wille H		Man
Frond Chopper,		4.2		
(iii) Straw reaper				
(iv) Stubble		NO/4# 1		
shaver		<b></b>		
E. Harvesting &	Rs. 0.30	50%	0.25 lakh	40%
Threshing	lakh			
Equipment's				
(Operated by				
engine/				
electric motor				
below 3 hp and by				
power tiller, and				
tractor of below				
20				
BHP tractor ):				
(i) Ground Nut				
Pod Stripper				
(ii) Thresher				
(iii) Multi crop				
Threshers				
(iv) Paddy				
Thresher				
(v) Brush Cutter				
(vi) Winnowing				
fan				
(vii) Maize sheller				
( . 11) 1.14120 Billion				

(viii) Mower (ix) Flail Harvester (x) Mower Shredder (ALL PURPOSE/All crops) Tractor (above20- 35 BHP) driven equipments . A. Land Development, tillage and seed bed preparation equipments: (i) MB Plow (ii) Disc Plow (iii) Cultivator (iv) Harrow (v) leveler Blade	Rs. 0.30 lakh	50%	0.25 lakh	40%
<ul><li>(vi) Cage wheel</li><li>(vii) Furrow</li><li>opener</li><li>(viii) Ridger</li><li>(ix) Weed slasher</li></ul>				
(x) Furrow opener (xi) Bund former (xii) Crust breaker (xiii) Rotopuddler (xiv) Rotocultivator (xv) Power Harrow	Rs. 0.6lakh	50%	0.5 lakh	40%
Rotavator 5 feet	Rs. 0.42 lakh	50%	Rs. 0.34 lakh	40%
Laser Land Leveller	Rs. 2.00 lakh	50%	Rs. 1.60 lakh	40%
zero –till multi crop	Rs. 0.18 lakh	50%	Rs. 0.16 lakh	40%

Hanny/Turba	Rs. 0.728	50%	Rs. 0.582	40%
Happy/Turbo Seeder	lakh	30%	lakh	40%
D. Equipments for Residue management/Hay and Forage Equipments: Straw reaper	Rs. 0.25 lakh	50%	0.20 lakh	40%
Tractor (above 35 BHP) driven equipments. (i) MB Plow (ii) Disc Plow (iii) Cultivator (iv) Harrow (v) Leveler Blade (vi) Cage wheel (vii) Furrow opener (viii) Ridger	Rs. 0.50 lakh	50%	Rs. 0.40 lakh	40%

# Important one liner

WDIGES!

➤ It was decided in 2016 that every year **15th October** will be celebrated as **"Rashtriya Mahila Kisan Diwas"** by the Ministry of Agriculture and Farmers' Welfare.

- ➤ In current budget a corpus of funds available to women in self-help groups was **Rs** 42,000 crore in 2016-17, would be increased to Rs 75, 000 crore by March 2019.
- Free cooking gas to be distributed to rural women through "Ujjawala Yojana"
- Lakshadweep has the highest percentage of women headed households with nearly 40% of the houses headed by women.
- Indian Institute of Technology (IIT) Madras has developed portable solar-powered cold storage device with 500 kg capacity for storing vegetables and fruits, among other items.
- ➤ India accounts for only 4-5% of world's coffee output, but exports 70-80% of its produce.
- In India, two coffee varieties Coffea robusta (or Coffea canephora) and Coffea arabica are grown on large scale.
- First Agriculture minister of Independent India was Rafi Ahmed Kidwai
- First Deputy chairman of Planning commission was Gulzari Lal Nanda
- First DG of ICAR was Dr. B.P. Pal
- First RBI Governor of India Osborne Smith (April 1935)
- ➤ India's 1st NRC was for the crop Ground nut
- ➤ India's first All India Co-ordinated research project was for the crop Maize
- First soil testing lab was starting in year 1955-56 (IARI, New Delhi)
- ➤ The Indian Journal of Agriculture Sciences published by ICAR
- **➤ Indian Farming Journal Published by** ICAR
- First President of ICAR was Dr. Muhammad Habibullah
- ➤ **President of ICAR is** Minister of agriculture and Farmers welfare
- ➤ Chairman of NABARD is Dr. Harsh Kumar Bhanwala
- **▶ Chairman of Amul is** Ramsinh Parmar
- ➤ Founder member of Amul was Verghese Kurien & Tribhuvandas kishibhai Patel
- ➤ Largest Farmers' Cooperative organisation is IFFCO
- First World Agriculture Prize given by by Vice-President Venkaiah Naidu: MS Swaminathan
- ➤ India with a population of 1.27 billion India is the world's second most populous country.
- ➤ It is **the seventh largest country in the** world with an area of 3.288 million sq kms.
- ➤ It has a long coastline of over 7,500 kms.

➤ India is a diverse country where **over 22 major languages and 415 dialects** are spoken.

- India is the world's largest producer of milk, pulses and jute and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton.
- > It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops.
- India is the world's **third largest economy** after the US and China.
- Agriculture, with its allied sectors, is the largest source of livelihoods in India.
- ➤ 49 percent of its rural households still depend primarily on agriculture for their livelihood, with 86 percent of farmers being small and marginal.
- ➤ In 2017-18, total food grain production was estimated at **275 million tonnes** (MT).
- ➤ India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world.
- ➤ India's annual milk production was 165 MT (2017-18), making **India the largest** producer of milk, jute and pulses.
- It is the second-largest producer of rice, wheat, sugarcane, cotton and groundnuts as well as the second-largest fruit and vegetable producer, accounting for 10.9% and 8.6% of the world fruit and vegetable production, respectively.
- **Pineapple** has been declared state fruit of **Tripura**
- Madhya Pradesh government has given **50,000 crore farm loan waiver** under the scheme named Jay Kisan Rin Mukti Yojana
- ➤ Maharashtra ranks first in Niti Aayog's Index agricultural marketing and farmer friendly reforms index (AMFFRI).
- ➤ **Kaleshwaram irrigation project** inaugurated in Telangana on 21 June 2019 with fund of 80190 crore.
- Expert committee set up by government has recommended setting the **minimum** wages at rupees 375 a day higher than the existing rate of rupees 321 for agriculture for unskilled worker and rupees 371 for Semiskilled worker.
- ➤ National bank for Agriculture and Rural Development announced **rupees 700 crore** venture capital fund for equity investment in agriculture and rural focused startup. The fund has been launched by **Nabventures** a subsidiary of NABARD.
- ➤ 2019 **Golden Leaf award** given to tobacco board. It is given for the various sustainability (Green) initiative of tobacco board in tobacco cultivation.

Andhra Pradesh govt. launched "**Rythu Bharosa**" scheme. It will give Rs 12,500 to Rs 13,500 annually and implement it for five years instead of the promised four years.

- > 'Yeraringan' Award is given to Prof. M.S. Swaminathan in December, 2017.
- > Implementation period for Rastriya Krishi Vikas Yojana is 3 years.
- > Karnataka Govt has signed an MoU with Microsoft for use of Artificial Intelligence in Agriculture.
- ➤ Gobindobhog Rice got GI indication and it is the specialty of Burdwan District of West Bengal.
- > Pan card is not required if the sale is upto 2 lakhs/day.
- > National Nutrition strategy launched by NITI ayog.
- ➤ India ranked 102 in global hunger index in 2019
- ➤ IARI was setup in 1905 and second campus will established at Ranchi (Jharkhand) and third will be at Demaji, Assam.
- ➤ International centre for foot and mouth disease is established recently at Argul, Odisha.
- ➤ GM mustard DMH 11 is the genetically modified mustard developed by Centre for Genetic Manipulation of Crop Plants at Delhi University
- > Pradhan Mantri FasalBima Yojana launched on 13th January, 2016.
- ➤ The **Minimum Support Prices** were **announced** by the Government of India for the first time in **1966-67 for Wheat.**
- Minimum Support Price is the price at which government purchases crops from the farmers irrespective of the market price.
- The MSP is calculated and recommended by the CACP and decided by GOI/CCEA.
- ➤ Department of Agriculture and Cooperationimplements the Price Support Scheme (PSS) for Oil Seeds and Pulses through the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED).
- ➤ Rashtriya Krishi Vikas Yojana is a State Plan Scheme of Additional Central Assistance launched in August 2007 as a part of the 11th Five Year Plan by the Government of India.
- ➤ Agricultural Marketing Infrastructure (AMI) (The schemes of Grameen Bhandaran Yojana (2001) (GBY) and Development/Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization (AMIGS launched in 2004) is part of AMI from 2014)
- > Scientists at the National Dairy Research Institute in Karnal, Haryana have produced a female clone (named Deepasha) of endangered wild buffalo (named Asha) of Chhattisgarh.

➤ Apurva is a new cloned buffalo calf from the somatic cell of urine, an excretory material of elite female Murrah buffalo. It was produced by scientists at the National Dairy Research Institute in Karnal, Haryana.

- ➤ Murrah buffaloes produce more milk than any other variety of buffalo Up to 32 kg daily
- ➤ Indian Agricultural Research Institute (IARI) has initiated a novel scheme **Krishi Dak** in **20 districts** in which postmen supplies seeds of improved varieties of crops to the farmers in remote areas
- ➤ The **Per Drop More Crop component** of **PMKSY** is implemented with the objective of enhancing **Water Use Efficiency**.
- ➤ The Rashtriya Gokul Mission has been launched for conservation and development of indigenous breeds in a focused and scientific manner.
- ➤ To control the rising prices of agricultural commodities a **Price Stabilization**Fund of Rs. 500 Crore for agricultural commodities was announced
- > Student READY is a skill development initiative to strengthen students with skills to take up global challenges and also to improve both their employability as well as ability to set up a venture.
- ➤ Attracting and Retaining Youth in Agriculture (ARYA) to empower youth in rural areas to take up agriculture, allied and service sector enterprises for sustainable income and gainful employment in selected districts.
- ➤ Farmer FIRST: It is an ICAR initiative to enhance farmers-scientists contact with multi stake holders-participation.
- > ICAR-Indian Institute of Soil Science, Bhopal has developed a mini lab named Mridaparikshak'.
- ➤ Kisan Suvidha Mobile App has been launched by the Government which provides information to the farmers on Weather report, Plant Protection, Input Dealers, Agro-Advisory and Marketing. Besides, Pusa Krishi Mobile App, Agri-Market App and Crop Insurance Mobile App have also been launched for the benefit of farmers.
- ➤ AKRUTI is an acronym for "Advanced Knowledge and Rural Technology Implementation" initiative developed for rural entrepreneur.
- ➤ India is the largest producer of gram(sharing 65% area&70% of total global production)
- ➤ DR. AKINWUMI AYODEJI ADESINA, the President of the African Development Bank (AfDB), is recognized as the 2017 World Food Prize Laureate. In 2018 it has given to Dr. Lawrence haddad and Dr. David Nabarro. In 2019 it has given to Dr. Simon Groot

➤ ICAR launched a new initiative "Pandit DeenDayal Upadhyay Unnat Krishi Shiksha Yojana" for training of farmers in organic farming and sustainable farming.

- **▶ Place with minimum rainfall** Leh
- ➤ Maximum rainfall disparity state Kerala
- > Evergreen revolution started in 2010
- > e- Pashuhaat portal lunched on Nov. 26, 2016 on the occasion of National Milk day.
- $\triangleright$  The green house gases are  $CO_2$ , CFC, CH4, etc.
- ➤ Central Temperate Horticulture Research institute is situated at Srinagar (J&K)
- ➤ India's First Mega Food Park was started in Andhra Pradesh.
- > State with highest area for forest- Madhya Pradesh (77462 sq km)
- ➤ The **BHIM app** (Bharat Interface for Money) is **introduced by** Finance Minister **Arun Jaitley**
- ➤ Guava Apple of poor
- > Tomato- Orange of poor
- ➤ **Ber** Poor man's **fruit**
- ➤ Jack Fruit Poor man's food
- > Bamboo: poor man's timber
- ➤ "Indian Horticulture" is a bimonthly journal published from ICAR.
- ➤ **Kinnow** is synthetic hybrid developed by H.B. Frost in **USA** in **1935** by crossing 'King' (*Citrus nobilis*) × 'Willow Leaf' (*Citrus* × *deliciosa*)
- ➤ Agriculture minister of India: Narender Singh Tomar
- Farming began around 10,000 B.C. during the First Agricultural Revolution, when nomadic tribes began to farm.
- ➤ The **Third Agricultural Revolution**, or the Green Revolution, corresponds in the **late 20th century** with the exponential population growth occurring around the world. It includes biotechnology, genetic engineering, chemical fertilizers, and mass production of agricultural goods
- > Fruit farming began sometime between 6000 and 3000 B.C.Figs (Anjeer) were one of the first cultivated fruit crops.
- ➤ Banana is the number one fruit crop in the world. This is the 4th largest overall crop, after wheat, rice, and corn. They grow in more than 100 countries on farms.
- ➤ The tallest, biggest trees or bushes do not always yield the most fruit. Controlling the height of plants helps produce more fruit in less space. Farmers may also change a tree's shape by cutting branches or forcing branches to grow in a certain direction. The shape of the tree affects its lifespan and the size of its fruit

➤ The world population will jump from 7 billion to 9 billion by 2050. Farmers will need to double food production by then to keep pace.

- ➤ Agriculture in our country provides livelihood to 49% of the population. (Economic Survey)
- ➤ **Rice** Main food crop in India.
- ➤ Coarse Cereals Jawar, maize, Bajra, Ragi and small millets.
- ➤ Oilseeds of India-Groundnut, Mustards, Toria, Soybean, Sunflower, castor seed, Niger seed, Linseed and safflower.
- ➤ Madhya Pradesh Highest production of soybean and pulses
- ➤ Agmark is an acronym for agricultural marketing. This organization certifies food products for their quality.
- $\triangleright$  In making the **saffron** spice the parts of the plant which is used **Stigma**.
- > Cotton in India grows best on black soil.
- > The largest producer of chillies in the world is India.
- ➤ Kerala accounts for 92% of India's rubber production.
- > Operation flood is concerned with the improving the availability of milk in the cities.
- ➤ Andhra Pradesh is the leading producer of red chillies.
- > U.P. is called the sugar bowl of India.
- > Rice is a Tropical plant.
- ➤ The **first state** in the country to address the agriculture sector in such a big way with the setting up the **specific cabinet on agriculture Bihar.**
- ➤ Rice is the most important crop followed by wheat, pulses, oilseeds, sorghum, and maize.
- > Cotton and sugarcane are the principal commercial crops.
- > India has one-half of the buffalo and one-sixth of the cattle population of the world.
- ➤ India has **8,129 km** of coastline
- ➤ New IARI proposed campus are at Jharkhand and Assam
- > Some of the millets produced in India are Bajra, Jowar, Ragi.
- ➤ About 50 percent people of India are dependent on agriculture for their daily expenses. Almost every type of food grains are produced by Indian farmers.
- > The main food grain of India is rice. In case of North India, it is wheat.
- ➤ Growing at low or more crops in sequence on the same piece of land in a farming year **Sequential cropping**
- > National rice research institute is located in Cuttack, Odisha.
- > National Research Centre for weed science is situated at-Jabalpur (MP)
- ➤ National horticulture board was established in the year 1984 in Gurugram.
- ➤ Potato rank first among vegetable crops in production in the world

Cotton and Jute are the main fiber crops produced in India. **Gujarat** is the **largest producer of cotton** and **West Bengal** is the **largestproducer of Jute.** 

- **▶** Most exported variety of mango is Alphonso
- **➤ King of temperate fruit** is  **Apple**
- **Environment day** is celebrated on **5th June**
- ➤ According to ICMRvegetable required per capita per day is 285 gram
- ➤ NABARD was set up on the recommendation of Siva Raman committee,1982 under act 1981.
- > CAN is a Neutral fertilizer
- ➤ Kisandiwas is celebrated on 23 Dec
- ➤ Kisan call cente begun in the year 2004
- > Gujarat is the first state to establish cashless system for public distribution system of food grain.
- ➤ Number of agro ecological zones (NBSS & LUP) is 20
- > First Agriculture minister of India: Rafi Ahmed Kidwai
- Livestock insurance was started in 2005-06 on pilot basis in 100 districts.
- ➤ Bacterial leaf blight disease resistant rice varieties: Pusa 1592 and Punjab Basmati-3
- ➤ Blast disease resistant rice variety: Pusa 1609
- **Biggest cultivated fruit** in world is **jack fruit**.
- ➤ Iron and Vitamin C is deficient (Poor Source) in milk
- > Anand is known as milk city of India.
- Bacterial wilt resistant tomato hybrid: Arka Samrat
- ➤ Macroni wheat is scientifically called *Triticum durum*
- > Emmer wheat is scientifically called *Triticum dicoccum*
- ➤ Wheat, Barley and Oat are the example of Long day plant
- ➤ Rice, Sorghum and Maize are the example of Short day plant
- > Highest area under irrigation in India: U. P
- ➤ Highest irrigated area (**Percentage wise**) is in **Punjab**.
- ➤ Only BT cotton as GMO crop is allowed to grow on commercial level in India. BT Cotton was approved by GOI in 2002.
- ➤ Cotton, Sunflower and Buck wheat are the example of Neutral plants
- ➤ Indian Meteorological Organization situated at New Delhi(earlier Pune)
- > The **Directorate of cropping System research** is located at Modipuram, meerut, U.P.
- ➤ In India, the maximum acreage and production of wheat is in UP
- > Highest productivity of Wheat is in Punjab.
- > Total geographical area of the country -3287263 sq km (328.7 M ha)
- ➤ Largest state (area wise)-Rajasthan

- > Smallest state (area wise)-Goa
- ➤ Highest water erosion state- Kerala
- ➤ Odisha Govt. to roll out Biometrics Authentication for National Food Security Act Beneficiaries from January 2017

- > SRI is introduced in India first time- Tamilnadu (2000)
- ➤ World Bank declared Andhra Pradesh no 1 in energy efficiency
- ➤ The removal of the lateral branches or suckers or auxiliary buds is called **desuckring.**
- ➤ National institute of fisheries post-harvest technology and training (NIFPHATT) is located at Kochi, Kerala
- ➤ National Commission on Farmers (NCF) was established in **2004** and chaired by MS Swaminathan.
- ➤ National agricultural policy was formulated in 2000.
- ➤ Genetically Modified Cotton variety developed by Punjab Agricultural University (PAU), Ludhiana is—PAU Bt 1 and F1861
- ➤ ICAR launched the Agricultural Education Portal for Centralised uniform solution called- EKTA portal (Ekikrit Krishi Shiksha TankiAyaam)
- ➤ Bringing Green Revolution to Eastern India (BGREI) is started in 2010
- ➤ NMSA derives its mandate from Sustainable Agriculture Mission which is one of the eight Missions outlined under National Action Plan on Climate Change (NAPCC). It was started in 2014.hyb
- > The farming of Indian white shrimp, *Penaeus indicus*, is being popularized because Indian white shrimp canbe farmed as an alternative to exotic white-leg shrimp (*Penaeus vannamei*).
- ➤ Operation Greens was launched for Tomato, Onion, and Potato. 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. This scheme was launched in 2018-19.
- ➤ The population of **hilsa** (*Tenualosa ilisha*), an important food fish of Indian subcontinent, is declining rapidly. Its rearing in brackish water earthen pond suggested the possibility of captive maturation and reproduction for seed production.

### "ज़िंदगी जीना आसान नहीं होता; बिना संघर्ष के कोई महान नहीं होता; जब तक न पड़े हथौड़े की चोट; पत्थर भी भगवान नहीं होता।"

"Life is not easy; No one can become great without struggle; Without hammer injury; Even a stone is not a god."

# Current Affairs Practice Set

# **PRACTICE SET-1**

1. Kafi Ahmed	Kidwai Award	is given to		
a. Farmers	b. Doct	oral Thesis	c. Agricultural	scientists
d. Both a & b	e. All o	f these		
_		recognize outst	anding contrib	ution of
innovative farr	ners for			
a. Diversified a	griculture	b. Agric	cultural Thesis	
c. Organic Culti	ivation	d. Susta	ainable Agricult	ure
e. All of these				
3. The Water U	Jse Efficiency (	WUE) in Indian	agriculture, at	about
		n the world, aga		
a. 40 to 70 %			) % d. Mor	
e. None of these				
4. e- Pashuhaa	t portal lunched	l in which year	the c	occasion of
National Milk				
a. 2013	b. 2014	c. 2015	d. 2016	e. 2017
5. Livestock in	surance was sta	rted ino	n pilot basis in	100 districts.
a. 1919-20	b. 1970-71	c. 2005-06	d. 2009-10	e. 2015-16
6. What is the	feeding habit of	Indian Major o	carps Mrigal?	
a. Silver carp	b. Catla	c. Rohu	d. Mrigal	e. Grass carp
7. How many I	Pulses crops con	nes under minin	num support P	rice?
a. 4	b. 5	c. 6	d. 7	e. 11
8. The training	and pruning o	f cashew plants	is done during	
a. Jan-Feb	7	c. Aug-Sept	19700	
9. "Pradhan M	lantri Fasal Bin	na Yojana" has	been launched	from the Kharif
season of 2016.	. What is the pr	emium rate for	Kharif crops?	
a. 2 % b	. 1.5 % c. 3	3 % d. 5 %	e. None of th	ese
10. Coffee Boa	rd of India esta	blish in 1942 &	located on	
a. Kochi	b. Kolkata	c. Bengaluru	d. Mumbai e	. None of these
11. Balanced fe	ertilizer used at	the macro level	in India is gen	erally equated
with a nutrient	t consumption r	ration of?		
a. 4:2:1	b. 3:2:1	c. 1:2:3	d. 2:3:4	

Agri Coaching Chandigarh

e. None of the above

#### 12. Which one of them is/ are not bio fertilizers?

a. Rhizobium b. Azospirillum c. Phosphate solubilising bacteria (PSB)

d. Trichoderma e. None of these

#### 13. What is the India's rank in producing oranges?

a 3<sup>rd</sup>

b 5<sup>th</sup>

c. 6<sup>th</sup>

d. 7<sup>th</sup>

e. None of these

Contact: 9828822277

#### 14. Which oilseeds crop is grown in winter season?

a. Mustard

b. Safflower

c. Wheat

d. Only a and b

e. All of these

#### 15. If a farmer want to grow pulses, What will be the suitable pH required for this?

a. 6.0-8.5

b. 5 to 6

c. 9 to 11

d. 9 t0 12 e. None of the above

#### 16. A rough seedbed is good for which pulse crop?

a. Chickpea

b. Soybean c. Lentil

d. Green Gram

e. All of these

#### 17. According to NABARD norms what is the average productivity (per day milk yield) of cross bred?

a. 2.36 Kg

b. 7.02 Kg

c. 4.89 Kg

d. 5.89 Kg

e. 6.85 Kg

#### 18. According to NABARD norms what is the average productivity (per day milk vield) of Buffalo?

a. 2.36 Kg

b. 7.02 Kg

c. 4.89 Kg

d. 5.89 Kg

e. 6.85 Kg

#### 19. According to NABARD norms what is the cost of single compost making unit?

a. Rs.2 lakh/unit

b. Rs.5 lakh/unit

c. Rs.10 lakh/unit

d. Rs.20 lakh/unit

e. Rs.25 lakh/unit

#### 20. According to NABARD, which among the following crop produces higher biomass?

a. Napier grass

b. Berseem

c. Sorghum

d. Cowpea

e. Wheat

#### ANSWER KEY:

1. c	2. a	3. b	4. d	5. c	6. d	7. b	8. c	9. a	10. c
11. a	12. e	13. a	14. d	15. a	16. a	17. b	18. c	19. d	20. a

## PRACTICE SET - 2

1. How many r	abi crops comes	s under minimu	ım support Pric	e?
a. 4	b. 5	c. 6	d. 7	e. 11
	ojective of Parar ng in the country b. 2009	y. This scheme v	and the second second	-
being set up for	IP b. UP &	velopment of incomment of incom	digenous livesto s. These center	ock breeds and
attractive occu	b. Agric	ated rural yout een launched fo	h. "Rural Entre	epreneurship
5. 'Solapur Lalof a. Tomato d. Coconut	l' variety has ire	on, zinc and vita b. Red Chill e. Pomegranate	amin C. This is	the variety c. Kiwi
more than dou	or Assam	luction as comp not correctly m b. 'Nari	pared to native/latched? mada Nidhi' for	A 1970 Th. C
7. Who is the p a. Ram Singh P c. Narendra Sin e. None of these	gh Tomar	n of AMUL? b. Harsh Kumar d. Muhammad l		
8. Which onlin	e facility has be	en launched by	the Union Gov	ernment to

Agri	Coachi	ing (	Chan	digar	h
7511	Coacii	י פייי	Cilaii	uigui	•

-		e problem of ag				
a. e-Krishi Samasya		b. e-Krishi San	ıvad	c. e-Krishi Samveda		
d. e-Krishi Solution		e. None of thes				
	e has highest lan			IID a	Daiaethan	
a. Punjab	b. Arunachal	c. Nagaland	u.	UP e.	Rajasthan	
(In third adva	ong the followin	18-19)	V A			
a. Onion	b. Potato	c. Tomato	d. Spices	e. botl	hc&d	
11. The area (aquaculture is a. 2.41	million ha) und s- b. 1.31	c. 5.2			esh water . 4.32	
12 According	to nabard norn	ns Under Com	nosité Fish	Culture v	vater denth	
(metre) should		is, Chuci Comp	Josite Pisii	Culture	vater depth	
a. 2		c. 3	d. 0.5		e. 1	
13. E -nam po	rtal is available	in how many la	nguage?			
a. 8	b. 7	c. 9	d. 10		e. 22	
14. How many market? a. 124	v commodities a b. 69	re traded under	electronic d. 150	national	<b>agriculture</b> e. 142	
	desh b. And	lotment of shop hra Pradesh	s/godowns		sets to	
16. With which sale?	h of the followir	ng commodity el	NAM repo	rts first ir	nter-State	
a. Potato	b. Mustard	c. Tomato	d. Wheat	e. Basm	ati rice	
for Perennial Yojana? a. 2 % of SI or	e Maximum Pro horticultural cr Actuarial rate, wo	ops under Prad	han Mantr			

c. 5 % of SI or Actuarial rate, whichever is less

C. 3 % 01 S1	of Actuarian rate,	WIIICHEVE	1 18 1688			
18. Feeding	Habit of Mrigal	is-				
a. Zoo plank	ton feeder	b. Omr	nivorous		c. Detrivor	ous
d. Herbivoro	ous	e. Phyt	oplankto	n feeder	• ·	
	ng to nabard und					
fertilization	to be undertaker	n after	da	ays of o	rganic man	uring.
a. 3 days	b. 10 days	c. 15 d	ays	d. 5 day	ys e. 12 d	lays
	ng to nabard und		Cold Sto	rages sc	heme Capa	city of cold
	ally ranges betwe	een –				
	and 10000 MT.					
b. 2,000 MT	and 10000 MT.					
c. 1,000 MT	and 15000 MT.					
d. 5,000 MT	and 10000 MT.					
e. 5,000 MT	and 25000 MT.					
21. Accordi	ng to nabard und	er FISH	<b>FARMI</b>	ING IN	WETLANI	DS scheme
	for fish culture is					
a. 5.5-8	b. 5-7		c. 7-7.5		d. 7-8.5	e. 8-9.5
22. Accordi	ng to NABARD u	nder FIS	SH FAR	MING 1	IN WETLA	NDS
scheme, wh	at is the grow out	period (	months)	of fishe	es?	
a. 7-8	b. 10	c. 11		d. 12	e.	13
23. Accordi	ng to NABARD u	nder int	egrated :	fish farı	ming with d	lairy
scheme, no	of cross breed co					
a. 5	b. 10	c. 15		d. 7		e. 9
24. Accordi	ng to NABARD u	nder int	egrated	fish fari	ming with p	oultry
scheme gro	w out period of fi	sh is?				
a. 7-8	b. 10	c. 11		d. 12	e.	13
25. Yield In	crease due to bee	pollinati	ion in ho	neybee	farming ha	s been
noteworthy	Increase (%) in o	cotton cr	op yield	due to 1	oollination	is –
a. 44	b. 32-45	c. 20		d. 90	-	e. 45
26. The shell	lling percentage o	f cashew	varies l	between		
a. 20-25	b. 50-55	c. 40-5		d. 30		e. 35-40

27. Gladiolus (Gladiolus sp.) is a very popular bulbous ornamental plant. What is the suitable soil ph for Gladiolus (Gladiolus sp.)? a. 6.5-7.5 b. 5.5-6.5 c. 4.5-6.5 d. 4-5 e. 4.5-6 28. According to NABARD, under rural godown scheme what is the capacity (MT) of small sizes godowns? a. 50,100,200,250 b. 50,100,200,300 c. 50,150,200,250 d. 500,1000,2000 e. 500,1500,2000 29. According to NABARD, under rural godown scheme, In selecting the location maximum attention should be paid to hygienic and sanitary conditions of the area, what is the minimum distance (metre )should be maintained from dairies and poultry farms – a. 500 b. 300 c. 200 d. 150 e. 250 30. Which of the following fodder grass have highest biomass production (MT/ha/year)? a. Cow pea b. Berseem c. Sorghum d. Napier grass e. Cereal in rotation 31. The Task Force on Micro Irrigation had estimated a potential of 69.5 m ha under micro irrigation whereas the area covered (% of total irrigated area) under micro irrigation so far (2017-18) is only about? a. 10 b. 20 c. 25 e. 25 32. According to Directorate of Economics and Statistics 2018 what is Per Capita Net Availability of Food grains in India (Kgs Per Year)? a. 180 c. 150 d. 140 b. 160 e. 120 33. Which of the following Principal Agricultural Commodities has highest share in India's agriculture import in terms of value? a. Pulses b. Fresh fruits c. Spices d. Cashew e. Non-basmati rice 34. Which of the following Principal Agricultural Commodities has highest share in India's agriculture export in terms of quantity? a. Pulses b. Fresh fruits c. Spices d. Cashew e. Non-basmati rice 35. Under the aegis of Pradhan Mantri MUDRA Yojana (PMMY), MUDRA has created three products i.e. 'Shishu', 'Kishore' and 'Tarun' as per the stage of growth and funding needs of the beneficiary micro unite. What is limit of Kishore type loan? a. up to ₹50,000 b. above \$5,00,000 and up to \$10,00,000

d. above ₹5,00,000 and up to ₹15,00,000

Contact: 9828822277

c. above ₹50,000 and up to ₹5,00,000

e. above ₹10,00,000 and up to ₹10,00,000
36. Under Rythu Bharosa scheme of Andhra Pradesh, each farmer would be
given an annual grant of Rs to meet input costs?
a. Rs 5000 b. Rs 7,500 c. Rs 12,500 d. Rs 10,000 e. Rs 15000
37. KCC loan limit ( lakh ) for farmer who perusing Crop, animal husbandry , fisheries and also eligible for 2% interest subvention ? a. 3 b. 5 c. 2 d. 1.5 e. 4
38. The ICAR celebrates the "Women in Agriculture Day" on
a. 16 oct b. 4 Dec c. 16 Nov d. 18 oct e. None of these
39. According to forest report 2017 highest dense forest found in a. MP b. MIZORUM c. ORISSA d. MH e. ARUNACHAL PRADESH
40. According to forest report 2017 highest mangrove cover found in:
a. MP b. MIZORUM c. ORISSA d. MH e. ARUNACHAL PRADESH
41. Who is the vice chairperson of NITI Ayog?
a. Aditya Kumar Singh b. Amitabh Kainth c. Rajiv Kumar
d. Narendra Modi e. Narendar singh tomar
42. Gobar-Dhan Yojna was launched on which year?
a. April 2016 b. April 2017 c. April 2018
d. April 2019 e. None of these
43. Saffron revolution: It was started in 2014. Saffron revolution is related
mainly
a. Related to Saffron production b. Related to solar energy
c. Related to Agriculture Production e. All of these
44. The Kisan Credit Card (KCC) scheme was introduced in
a. February 1998 b. April 1998 c. August 1998
d. October 1998 e. December 1998
45. The PMKSY was launched in April 2015. The main objective was to promote organic farming in the country. Every farmer will be provided Rsper acre in three years for seed to harvesting of crops and to transport produce to the market.
a. 5000 b. 10000 c. 15000 d. 20000 e. 25000

Agri Coaching Chandigarh

	Agriculture Mar state have highes b. Gujarat	st Number	of APMCs?		·
in 2005-06. W	Horticulture Mis That is the share b. 40 & 60	of Central	and state go	vernment?	
Processing an of Rs. 6,000 cm	Mantri Kisan SA d Development fore for the peri	of Agro-Prod od	ocessing Clu	sters) with	an allocation
49. Which mo Minister's La	b. 2016-20 bile app for fari b to Land Progr	ners for re	alizing the d	ream of the	
	SHI MOBILE AP KET MOBILE A se		KISAN SUV CROP INSU		
number 1800-	l Center provide 180-1551. These te country cover	e call centre	s are worki	ng in	
a. 18	b. 19	c. 20	d. 21	e. :	22
51. What is the and Fisheries' a. 2 %	e interest subve ? b. 3 %	ntion to far	mer pursui	ng animal h	e. 7 %
	ictured National ith an outlay of I mission.			P* 102 ATT	
a. five year	b. two year	c. three ye	ar d. four	year e. N	one of these
implementation	cs and Agri-Bus on since April, 2 nen, SC/ST and	002. Under	this scheme	what is sub	osidy for
	b. 36 %	c. 44 %	d. 50 %	6 e. None	of these
54. Which of t	the following is t	he largest i	rrigation ca	nal in India	?

**222 |** Page

a. Buckingham Canal

- b. Sirhind Canal
- c. Indira Gandhi Canal

Contact: 9828822277

- d. Sutlei Yamuna Link Canal
- e. None of these
- 55. The Union Agriculture and Farmers Welfare Minister recently launched e-Pashuhaat portal to connect breeders and farmers regarding the availability of bovine germplasm. Who is the Union Ministry of Jal Shakti?
- a. Dr. Mahendra Nath Pandey

b. Shri Giriraj Singh

c. Shri Gajendra Singh Shekhawat

d. Shri Narendra Singh Tomar

e. Shri Ramvilas Paswan

- 56. The first ever Agricultural Marketing & Farm Friendly Reforms Index was launched by
- a. Planning Commission
- b. Ministry of Agriculture & Farmers Welfare

c. NITI Aayog

- d. Ministry of Home Affairs e. None of these
- 57. Sona, PB 18 and Kalyan were the High Yielding Variety Seeds used in HYVS programme for which among the following crops?
- a. Wheat
- b. Rice
- c. Cotton
- d. Maize
- e. Sugarcane
- 58. In which year National Seed Policy was announced?
- a. 2000
- b. 2002
- c. 2004
- d. 2006 e. N
- e. None of these
- 59. Which among the following variety accounts for maximum production of silk in India?
- a. Mulberry
- b. Muga
- c. Eri
- d. Tasar
- e. Both a & b
- 60. Govt of India established TRIFED in August 1987, with an objective to save tribals from exploitation by private traders. Which among the following is the precise full form of TRIFED?
- a. Tribal Federation of India Ltd.
- b. Tribal Marketing Development Federation of India Ltd.
- c. Tribal Cooperative Federation of India Ltd.
- d. Tribal Cooperative Marketing Development Federation of India Ltd.
- e. None of these

#### **ANSWER KEY:**

1. c	2. c	3. d	4. c	5. e	6. d	7. a	8. b	9. c	10. b
11. a	12. a	13. c	14. d	15. d	16. c	17. c	18. c	19. c	20. a
21. c	22. a	23. a	24. c	25. b	26. a	27. b	28. a	29. b	30. d
31. d	32. a	33. a	34. e	35. c	36. c	37. a	38. b	39. e	40. d
41. c	42. c	43. b	44. c	45. d	46. b	47. a	48. b	49. a	50. d
51. a	52. b	53. c	54. c	55. c	56. c	57. a	58. b	59. a	60. d

## **PRACTICE SET-3**

1. Under animal husbandry, allocation for Rashtriya Gokul Mission has been increased tocrore in 2018–19.							
a. 100	b. 350		d. 650	e. 750			
inclusion in	India, laun	ched in which	year?	ission on financial			
a. 2013	b. 2014	c. 2015	d. 2016	e. 2017			
3. What is the for the period			nan Mantri Kis	san SAMPADA Yojana			
<ul><li>a. 1234 Crore</li><li>e. 100 Crore</li></ul>	b. 20	000 Crore	c. 6000 Crore	d. 200 Crore			
What is the	total outlay	for the three	years?	launched in April 2015.			
<ul><li>a. 1234 Crore</li><li>e. 100 Crore</li></ul>	b. 20	000 Crore	c. 412 Crore	d. 200 Crore			
			Mission Shari ent for general	ng of expenditure states			
<ul><li>a. 40: 60</li><li>e. None of the</li></ul>		c. 60:40	d. 100	% Central Government			
Developmen	t of Agro-I		sters) with an	rine Processing and allocation of Rs. 6,000			
a. 2014	b. 2015	c. 2016	d. 2017	e. 2018			
7. NATION A a. February 1 e. March 196	963	CORPORATION OF March 1963	ON was establi c. July 196	ished in which year? 3 d. Feb 1968			
	vorth Rs 6.			s likely to attract years. This scheme was			
a. 2015	b. 2016	c. 2017	d. 2018	e. 2019			
_	_		_	heries (Blue Revolution) ering all existing schemes			

related to fisheries. This scheme was approved by Union Cabinet in December 2015 and the total outlay is of Rs. 3000 Crore for b. Two year c. Three year d. Four year e. Five Year a. One year 10. National Seed Research and Training Centre (NSRTC) is the apex center in India to maintain uniformity in seed testing results at national level. **NSRTC** is situated in a. Bengaluru b. Bhopal c. Maharashtra d. Varanasi e. Karnataka 11. Who is the present union minister Chemicals and Fertilizers? a. Shri Gajendra Singh Shekhawat b. Smt. Smriti Zubin Irani c. Shri Ramvilas Paswan d. Shri D.V. Sadananda Gowda e. Shri Nitin Jairam Gadkari 12. Pradhan Mantri MUDRA Yojana (PMMY) launched in 2015 aims to provide loans up to \_\_\_\_\_ to the non-corporate, non-farm small/micro enterprises. d. Up to 10 lakh a. 2.5 lakh b. 5 Lakh c. 7 Lakh e. None of these 13. Under organic farming what is the capital subsidy for bio-fertilizer & bio-pesticides unit? a. 25% b. 33% c. 50% d. 75% e. 100% 14. The first time in the country, 2 National Kamdhenu Breeding Centers are being set up for the overall development of indigenous livestock breeds and conservation and upgradation of native breeds. These centers will be establishing at a. Haryana & MP b. UP & MP c. UP & Punjab d. MP & AP e. Rajasthan & AP 15. What is the assistance cost of reclamation of acidic soils under RKVY? a. 60000 Rs./ha b. 40000 Rs./ha. c. 30000 Rs./ha. d. 20000 Rs./ha. e. 15000 Rs. /ha. 16. Pradhan Mantri Kisan SAMPADA Yojana is launched in 2017 with an allocation of rs 6000 crore for the period 2016-2020. This scheme is implemented by which ministry? a. Ministry of Agriculture & Farmers' Welfare b. Ministry of Food Processing Industries

c. Ministry of Fisheries, Animal Husbandry & Dairying

d. Ministry of Chemicals and Fertilizers

Agri Coaching Chandigarh	Contact: 9828822277
e. Ministry of Commerce and Industry	
17. National programme for bovine b launched in- a. September 2010 b. August 2017 e. September 2010	
18. Under the mega food park scheme for NE region and difficult areas?  a. 75 %, 50 crore b. 80%, 50 cro d. 50 %, 50 crore e. 100 %, 75 cro	
19. In which year "Krishi karman avagriculture and farmer welfare? a. 2005-06 b. 2008-09 c. 2015-16	vard" were instituted by the ministry of d. 2010-11 e. 2000-01
<b>20. National Mission on Agricultural</b> was launched on — a. 2010-11 b. 2016-17 c. 2014-15	Extension and Technology (NMAET) d. 2008-09 e. 2006-07
21. "Golden Mahasheer" is a variety a. Sheep b. Goat c. Fish	of which of the following? d. Dolphin e. None of these
<ul> <li>22. Which state has highest productional. Madhya Pradesh</li> <li>d. Punjab</li> <li>23. Which state has highest productional. Kerala</li> <li>b. Tamil Nadu</li> <li>c. Uttar</li> </ul>	<ul><li>b. Maharashtra</li><li>c. Uttar Pradesh</li><li>e. Haryana</li></ul>
24. According to Forest report 2017 v Forest?  a. Arunachal Pradesh d. Madhya Pradesh e. Mah	
25. In 2016-17 which commodities is la. Basmati rice b. Marine prod e. Sugar	_

 $26.\ National\ Mission\ on\ Oilseeds\ and\ Oil\ Palm\ (NMOOP)$  was started in which year?

a. 2008 b. 2012

c. 2013

d. 2015

e. 2016

Agri Coaching Chandigarh	Contact: 9828822277
27. What is the estimated irrigation under o	C
a. 20 b. 40 c. 60 d. 80	e. 100
28. What is the current GST rate on fertiliz	ær?
a. 4 b. 5 c. 12 d. 18 e. 5	28
	d mega food park in dewas, MP? ternational Mega Food Park ewas Mega Food Park
30. Credit Guarantee Fund for MUDRA Unloans sanctioned under Pradhan Mantri Mostands for?  a. Micro finance under Development and Refib. Medium Units Development and Refinance c. Micro Units Development and redevelopment. Micro Units Development and Refinance A e. None of these	nance Agency Agency ent Agency
<b>31. What is the maximum loan limit under</b> a. 10,000 b. 100000 c. 1000000	<b>PM Mudra Yojana?</b> d. 10000000 e. 100000000
<b>32. How much amount was allocated to MU</b> a. ₹1 lakh crore b. ₹2 lakh crore c. ₹3 e. ₹5 lakh crore	JDRA in Union Budget 2018-19? 3 lakh crore d. ₹4 lakh crore
33. Jeeraphool from Chhattisgarh recently	got GI tag. Jeeraphool is a
variety of? a. Rice b. Wheat c. Cumin d.	. Mandarin e. Rose
34. MSME is the second largest employmen	nt generating sector after

34. MSME is the second largest employment generating sector after agriculture. It provides employment to around how much population of the country?

a. 80 million b. 60 million c. 120 million d. 180 million e. 240 million

35. Under the 59 minute loan portal www.psbloansin59minutes.com which enables easy access to credit for MSMEs. What is the maximum limit of loan can be approved within 59 minutes?

a. 10,000 b. 100000 c. 1000000 d. 10000000 e. 100000000

Agri Coachir	ng Chandig	arh			Contact: 98288222	277
	_	_		s not eligible		
a. Individua e. None of the		b. Tena	nt Farmers	c. SHO	G d. JLG	
37. Accordi	_		ne share of	priority agi	riculture sector NP	'As
a. 2	b. 6	C	2. 8.6	d. 9.2	e. 13.1	
38. Accordi 19?	ing to NAB	SARD, wh	at is the gr	owth rate of	agriculture in 201	8-
a. 2.9	b. 5.0	c. 6.3	d. 7	e. 9		
39. Who is a. Naresh Gd. Neeraj Ku	upta	b. Subrat	a Gupta	c. T. S. R	aji Gain	
40. Housing	g for All by	2022 is re	elated to w	hich scheme	?	
A) 95. AUXISTA				Housing for a		
c. Rajiv Aw			d. N	NTR Urban H	lousing Scheme	
e. Delhi Dev	velopment.					
41. Under s	oil health	card scher	ne soil is to	ested in 12 p	arameters, which o	of
				12 paramet		
a. Fe b.	. Mn c	. Zn	d. Ca	e. B		
		_			ga food park name	ed
	P 1 1 '	1 41 !	1. • _14 _4	0		

b. Andhra Pradesh c. Punjab d. Uttar Pradesh e. Haryana a. Maharashtra

43. Under the kisan credit card scheme what is the loan limit for fisheries and animal husbandry farmers for interest subvention?

a. 3 lakh b. 5 lakh c. 2 lakh d. 1 lakh e. 2.5 lakh

44. In which year NABARD mandated for encouraging cooperative bank and regional rural banks across the country to issue Rupay KCC card?

a. 2015 b. 2013 c. 2017 d. 2018 e. 2009

45. Paramparagat Krishi vikas vojna (PKVY) was launched in April 2015 ,which of the state has first rank (area wise) in organic certification?

a. Maharashtra b. Andhra Pradesh c. Sikkim d. Madhya Pradesh

e. Himachal Pradesh

Contact: 9828822277 46. A central sector scheme "mission organic value chain development for north eastern region " (movcdner) was launched in which year? c. 2010 a. 2015 b. 2016 d. 2012 e. 2017 47. National agriculture market scheme launched on 14 April 2016, this scheme is implemented by – a. Department of agriculture & cooperation b. SFAC c. Ministry of commerce and industry d. Both a and b e. All of the above 48. In which of the following state e-NAM scheme is not implemented so far? d. Himachal Pradesh a. UP b. West Bengal c. Uttarakhand 49. What is total investment outlay of dairy processing and infrastructure development fund for the period of 2017-18 to 2019-20? a. 8004 crore b. 10881 crore c. 2001 crore d. 6000 crore e. 2430 crore 50. What is the total budget allocation for National Livestock Mission Scheme for the year 2019-20 with new component, Entrepreneurship **Development & Employment Generation (EDEG)?** c. 199.89 crore a. 500 crore b. 159.99 crore d. 269 crore e. 321 crore 51. Pradhan Mantri Kisan SAmman Nidhi (PM-KISAN) was started on 1 February, 2019 at? (Source: ACC April Magazine) b. Bhopal, MP c. Nagpur, Maharashtra a. Nagore, Rai. d. Gorakhpur, UP e. Mysore, Karnataka 52. According the agriculture census 2015-16, what is the percentage of Semi-medium and Medium farmer (2-10 ha)? (Source: ACC April Magazine) a. 86.2% d. 13.22% b. 17.3% e. None of these c. 32.16% 53. Krushak Assistance for Livelihood and Income Augmentation is a scheme of which state? (Source: ACC April Magazine) a. West Bengal b. UP c. Assam d. Karnatka e. None of these

54. What is the outlay of Rashtriya Gokul Mission for the period of 2014-15 to 2019-20? (Source: ACC May Magazine)

a. 2000 crore b. 1000 crore c. 1025 crore d. 2125 crore e. 2025 crore

55. What will be the per acre benefits under Krishi Krishak Bandhu scheme ? (Source: ACC May Magazine)

#### Agri Coaching Chandigarh

a. 2000

b. 6000

c. 25000

d. 5000

e. None of these

## 56. Pricing policy for sugarcane was changed in which year from SMP to FRP?

a. 1965

b. 1975

c. 2009

d. 2018

e. None of these

# 57. Which among the following crop is not covered under the MSP by CACP?

a. Safflower

b. Masur

c. Sesamum

d. Urad

e. Sugarcane

Contact: 9828822277

#### 58. What is the current MSP of Bajra?

a. 2450

b. 1950

c. 1750

d. 1770

e. 1700

## 59. National Food Security Mission is being implemented in how many districts?

a. 654

b. 638

c. 612

d. 457

e. 322

# 60. Which method is used by CACP to calculate Minimum support price (MSP)?

a. A2 b. A2+FL

c. C2

d. Both A and B

e. None of these

## **ANSWER KEY:**

1. e	2. b	3. c	4. c	5. c	6. d	7. b	8. e	9. e	10. d
11. d	12. d	13. a	14. d	15. e	16. b	17. c	18. a	19. d	20. c
21. c	22. b	23. a	24. d	25. b	26. b	27. b	28. c	29. a	30. d
31. c	32. c	33. a	34. c	35. d	36. e	37. c	38. a	39. a	40. a
41. d	42. b	43. c	44. b	45. d	46. b	47. d	48. d	49. b	50. c
51. d	52. d	53. e	54. e	55. d	56. c	57. e	58. b	59. b	60. b

## PRACTICE SET – 4

1. Tree plantation on farm land "Har Medh Par Ped" along with crops/cropping system. What is the assistance of Big Nursery (1.0 ha) for Nursery Development for Production of Quality Planting Material in Sub-Mission on Agroforestry?
a. 10 lakh b. 16 lakh c. 25 lakh d. 40 lakh e. None of these
2. Kisan Suvidha mobile app can be used to provide relevant information to farmers through mobile. It is available in how many languages? a. 7 b. 10 c. 21 d. 24 e. 28
3. Kisan Call Centre (KCC) Started on 21st January, 2004. It is cover in how many states and UTs?
a. 18 states b. 23 states c. All states d. All states & UTs e. None of these
4. Agri-Clinics and Agri-Business Centers (AC&ABC)" has been under implementation since April, 2002. Under this scheme what is subsidy for respect of women, SC/ST and all categories of candidates from North-Eastern.  a. 33 % b. 36 % c. 44 % d. 50 % e. None of these
a. 33 % b. 30 % c. 44 % d. 30 % e. Inolle of these
<ul><li>5. Which state &amp; UTs have highest number of e-NAM mandis?</li><li>a. Andhra Pradesh b. Punjab c. Gujarat d. Uttar Pradesh e. Madhya Pradesh</li></ul>
6. PMKSY was approved by the Cabinet Committee on Economic Affairs on 01.07.2015 with an outlay of Rs for a period of 5 years (2015-16 to 2019-20).
a. 10000 Crore b. 20000 Crore c. 30000 Crore d. 40000 Crore e. 50000 Crore
7. What is the assistance of reclamation of acidic soil under the RKVY subscheme on Reclamation of Problem Soil? a. 10000 /ha b. 15000/ha c. 20000/ha d. 50000/ha e. 60000/ha
8. Soil health card has been launched on 19th February 2015. Under this scheme provide assistance Rs for Distribution of Micronutrients & soil
ameliorants. a. 2500 /ha b. 5000/ha c. 10000/ha d. 20000/ha e. 50000/ha
9. What is the interest subvention to farmer pursuing animal husbandry and Fisheries? a. 2 % b. 3% c. 4% d. 7 e. 9%

10. The restructured National Bamboo Mission (NBM) has been launched in April, 2018 with an outlay of Rs.1290 crore for i.e. till the end of 14th Finance Commission.
a. five year b. two year c. three year d. four year e. None of these
11. Which of the following winners for the farming leader ship award-2018?  a. Shailendra Chaudhary b. PK joshi c. Ammar Zaidi e. Rudy Rabbinge
12. India state forest report (ISFR) publication of forest survey of India is
a. Annual b. biannual c. Bicentennial d. After every 5 years e. After every 10 years
13. Rashtriya Gokul Mission" has been launched in Dec. 2014 with an outlay of Rs crore for development and conservation of indigenous breeds through selective breeding especially for genetic upgradation of 11.3 crore low milk yield nondescript bovine population.  a. 1000 b. 2025 c. 3026 d. 4026 e. 5000
14. What is the interest subvention to farmer pursuing animal husbandry and Fisheries?
a. 2 % b. 3% c. 4% d. 7 e. 9%
<b>15. The national food security bill was enacted on</b> a. 2002 b. 2005 c. 2007 d. 2010 e. 2013
16. The restructured National Bamboo Mission (NBM) has been launched in April, 2018 with an outlay of Rs.1290 crore for i.e. till the end of 14th Finance Commission.
a. five year b. two year c. three year d. four year e. None of these
17. Under soil health card Soil Samples will be collected by a trained person from a depth of cm by cutting the soil in a "V" shape.  a. 5-10 cm b. 10-15 cm c. 15-20 cm d. 20-25 cm e. None of these
18. What does 'I' stands for in NITI Aayog?  a. Institute b. Implementation c. Important d. Institution e. Information
19. New regional center of IRRI South Asia Regional Centre is getting

Agri Coaching Cha	andigarh		Contact: 9	828822277
<b>established at?</b> a. Varanasi b.	Lucknow	c. Mysore	d. Calcutta	e. Bhopal
<b>20.</b> What is the ta a. 100 b. 111	_	activity of silk d. 161 e. 17	-	20 (kg/ha)?
21. As per the In there will be no confolio under KCC a. 1 b. 2	charges for pr			
22. What is the cagricultural GDI a. 1 % b. 1				oduction in
23. Which among parameters of so a. Mn b. Zn	il in soil healt		ent is not included e. None of these	d in the testing
<b>24. What is the p</b> a. 20% b. 3	present import 80% c. 40	28. T 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		hese
25. Which among a. Tube wells	g the following b. Canals	g is the minor c. Tanks	_	tion in India? e. None of these
26. What is the ra. 328 M.ha. e. None of these	<b>eporting area</b> b. 228 M.ha.			M.ha
<b>27. What is the C</b> a. 0 b. 5	GST rate on di c. 12	rip and sprinl d. 18	kler irrigation eq e. 28	uipment?
28. Which among a. Individuals farmed. All of these	ner b. Jo	g is eligible to bint Farmer aly A and B	get Kisan credit c. Tenant far	
<b>29. Agri export z</b> a. Tamil Nadu	one for onion b. West Bo		. Karnataka	d. Maharashtra

30. Which among the following country has the highest export from India

e. None of these

Agri Coaching Chandigarh		Contact: 98	328822277
for Mango Pulp? a. Netherland b. Algeria c. Sau	di Arabia d.	. Oman	e. Iran
31. According to Indian state of forest percentage of forest cover?  a. Madhya Pradesh b. Mizoram d. Arunachal Pradesh e. Andaman	c. Lakshadw	/eep	s highest
32. What is the name of the project who Baroda aimed at digitization of digital sa. Baroda Digital b. Baroda Agrid. Baroda Card e. Baroda Kisan	ervices for agric c. Baroo		ank of
33. India has signed an agreement with Agriculture and Food Industry. a. Russia b. France c. Mald	. W. Y. W. 6		
34. Maharashtra Government has lau transform rural Maharashtra. This pra. Maharashtra government c. World bank d. NAB	A STATE OF THE PARTY OF THE PAR	l by? of India	MART to
35. What is the name of the scheme w Rs.6000/- per year for the farmers' fam hectare?  a. Pradhan Mantri Kisan Samman Nidhi b. Pradhan Mantri Krishi Samman Nidhi c. Pradhan Mantri Kisan Sampada Nidhi d. Pradhan Mantri Krishi Sampda Nidhi e. None of these	ilies with cultiva		
36. What is the number of markets co a. 1122 b. 2233 c. 3355	vered under AG d. 4433	<b>GMARKNE</b> 7 e. 4456	Γ?
<b>37. How many soil health card have be</b> a. 9 crore b. 10 Crore c. 12 C			e. 19 Crore
38. Which among the following scheme development? a. MOVCDNER c. Rashtriya Krishi Vikas Yojana d. Mission for Integrated Development of	b. Parampragat	_	Yojana

•• •	0.00.500.00				
a. 20:80		c. 40:60			in the ratio of?
a. 20.00	0. 00.20	C. 40.00	u. 00.40	0.50.5	O
	tly India has 7		hat is the	number of A	gricultural
0.	y Managemer	_			
a. 713	b. 700 c.	600 d.	684 e	e. 600	
41. The GO	)I has approv	red a scheme	to implem	ent National	Agriculture
			A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		nber of national
	market (NA				
a. Telangan	a b. Madhy	a Pradesh o	c. Gujarat	d. Maharash	tra e. Haryana
<b>42.</b> As per	the coconut p	oalm insuran	ce scheme	, what is pren	nium rate per
_	ge Group of 4	A VO 00 TO 10 A A			
a. Rs 14	b. Rs 12	c. Rs 9	Vy, d	l. Rs 11	e. Rs 15
43. What is	s the premiun	n rate for kha	rif crops,	according to	weather based
	ance scheme?				
a. 2 %	b. 1.5 %	e. 2.5%	d. 1%	e. None of t	hese
44. Accord	ing to soil hea	alth card sche	eme, what	is the criteria	for assistance
in distribut	tion of Micro	nutrients And	l soil amel	liorates?	
a. 1500 rs/h	a b. 2500 r	s/ha c. 2000	) rs/ha d	d. 6000 rs/ha	e. 3000 rs/ha
45. What is	s the rates of a	assistance ap	oroved un	der MIDH fo	r production of
	es by bee bree				7
	cost or rs 4 lek		b. 30% o	of cost or rs 31	Lakh/project
	ost or rs 3 lakl	1 3		f cost or rs 4 l	
	cost or rs 5 lak				
16	CAL CAU		. ah a a/a al		
	of the following	ig insurance s	scneme/sci	nemes is/are	being
a. PMFB	ed in India? b. WBCIS	c. CPI		d. UPIS e.	All of those
a. FMTD	U. WBCIS	C. CF	3	u. UFIS E.	All of these
47. What is	s the percenta	ge of subsidy	given by	SMAM scher	ne of gov of
India on 2	WD tractor	(above 20 - 4	0 PTO HP	P) for SC ST	farmer?
a. 45	b. 55	c.40	d	1. 50	e. 35
48. What is	s the amount	of subsidy by	SMAM so	cheme of gov	of India on
	r ( below 8 H			S	
a. 65000	b. 50000	c. 4000	)0 d	1. 35000	e. 55000

PMFBY scher	ne if the sowing hat percentage	is not done du	e to adverse we	·
a. 30	U	c. 25	d. 50	e. 45
on 01.07.2015	vas approved by for a period of ad allocated for	5 years (2015-1		conomic Affairs What is the
a. 5000 cr	b. 50000 lakh	c. 50000 cr	d. 5000 lakh	e. None of these
	to Global leade t Fisheries State		019 which state	e has got the
a. Bihar	b. Odisha	c. Gujarat	d. Mizoram	e. Nagaland
farming? a. 27.70 lakh h	EDA, what is the ectare b.17.70 e. both	O lakh hectare	Ø.	
188.1 million	to a recent esting tonne. What is to b. 176.35 Mt	he milk produ	ction for 2017-	18?
77	g to APEDA, the .34%. this maxi	mum export is		try?
	Animal Disease ( 31st may 2019. V			
a. 13,343 crore e. 13, 330 crore	b. 13,400 cro	ore c. 13,	334 crore	d. 13,433 crore
-	tionalization of a	-	_	n ISRO for crop & Farmers

welfare has established a centre Mahala Nobis National crop Forecast centre

in which year?

- a. 2013
- b. 2012
- c. 2011
- d. 2010
- e. 2014

Contact: 9828822277

- 57. Dept. Of Agriculture, Cooperation & Farmers welfare is using space technology for various programmes:
- a. FASAL
- b. CHAMAN
- c. NADAMAS d. both a& b e. All of these
- 58. There are changes in tax rate on Agricultural commodities. What is the tax rate under GST for Drip and sprinkler irrigation equipment?
- a. 5%
- b. 12%
- c. 18 %
- d. 28% e. 6%
- 59. The first product to get GI tag in India was Darjeeling Tea. Which among the following got GI tag this year?
- a. jeeraphool b. Kandhmal haldi c. Chulli oil d. all of these e. None of these
- 60. Recently, in Himachal Pradesh a new Mega Food park is established. In which state the first Aqua mega food park is established?
- a. Madhya Pradesh b. Andhra Pradesh c. Kerala d. Karnataka e. U.P.

#### **ANSWER KEY:**

1. b	2. a	3. d	4. c	5. d	6. e	7. b	8. a	9. a	10. b
11. c	12. b	13. b	14. a	15. e	16. b	17. c	18. d	19. a	20. b
21. c	22. e	23. e	24. c	25. c	26. d	27. c	28. d	29. d	30. c
31. b	32. e	33. c	34. c	35. a	36. c	37. a	38. e	39. e	40. d
41. c	42. c	43. a	44. b	45. a	46. e	47. d	48. a	49. c	50. c
51. b	52. d	53. b	54. a	55. a	56. b	57. e	58. b	59. d	60. b

## PRACTICE SET - 5

1. Paddy is an (2019-20)?	Importan	t crop of India	a. What is the M	SP of Grade A paddy
a. 1750	b. 1770	c. 1835	d. 1815	e. 1770
2. Which of the a. Groundnut e. All Crops co	b. Soybea	an Black	ot covered under c. Soybean Yello	MSP rates?  ow d. Safflower
remunerative j stands for?	prices to f	armers for the		s ensuring PM-AASHA "S" inable e. None of these
				usion program of me was launched
on a. 2013 b. 20	014 c	. 2015 d. 2	016 e. 2017	
<b>5. Which of the</b> a. Rhizobium		g bacteria non . Azospirillium	n-symbiotic nitro	ogen Fixers? c. Acetobacter
d. Azotobacter		. None of these		
6. Under organ pesticides unit		g what is the	capital subsidy f	or bio-fertilizer & bio-
a. 25%	b. 33% c	. 50%	d. 75%	e. 100%
			t <b>production of I</b> West Bengal d	<b>Pineapple?</b> . Kerala e. Karnataka
8. In India whi a. Uttar Pradesh e. Karnataka				shroom (2017-18)? d. Himachal Pradesh
9. According to (2017)?	o APEDA	Which Count	ry have highest	production of Apple
` '	b. USA	c. India	d. Pakis	tan e. None of these
	1974 unde	er TNAU & Do	epartment of Ag	(Pondicherry) was ricultural Research

a. 1970	b. 1972	c. 1973	d. 1974 e. 197	5
11. Coffee Bo	ard of India es	tablish in 1942 &	& located at	
a. Kochi				e. None of these
•		vard consist of r al amount of one		
a. Farmers	b. We	oman scientist	c. Mei	n scientist
d. Both a & c	e. All	of these		
13. The Kisan	Credit Card (	KCC) scheme w	as introduced in	n August 1998.
Card valid fo	r subje	ct to annual revi		
a. 1 years	b. 2 years	c. 3 years	d. 4 years	e. 5 years
	b. 23 states	c. All states	V 100 300 000 000 000 000 000 000 000 000	
April, 2018 w Finance Com	ith an outlay o mission.	f Rs.1290 crore	for i.e. ti	been launched in ll the end of 14th e. None of these
	nal food securi 2005 c. 200	ty bill was enact 07 d. 201		3
during the 12	th Five Year P		_	
a. Rice	b. Wheat	c. Pulses d.	Coarse Cereals	e. Oilseeds
establishment	t of Animal Hu	ns made provisio sbandry Infrast urship Develop c. 2012	ructure Develop	ment Fund
<b>19. What is th</b> a. 0%	ne GST rate on b. 8%	fertilizer in Ind	ia? c. 12%	d. 18% e. 28%
<b>20. Pusa Dou</b> la. Wheat		<b>new released va</b> Maize d. Mu	•	. Soybean
21. About 50°	% of the cropp	ed area in India	is under irrigate	ed area. what is

Agri Coaching Chandigarh

Agri Coaching Chandigarh				Conta	ct: 98288	22277
the area (m ha a. 4.7	) <b>under micro i</b> b. 5.6	rrigation ir	a <b>India?</b> c. 10.2		d. 12.5	e. 7.5
	<b>he following sta</b> b. Maharashtra	_	<b>est area und</b> Gujarat	_	<b>irrigatio</b> e. Tamil	
<b>23. Which of tl</b> a. Rajasthan	ne following sta b. Maharashtra	PV N				gation?
year 2017-18 n	e of largest ferti itrogen consum g element's fert b. P	ption in In ilizer has h	dia is about	17 milli	on tones. a's impor	Which
// // // // // // // // // // // // //	to Department Ut having highe	- N. W. W	MOUNT			
	b. Puducherry	c. Punjab	d. Hary	yana	e. Bihar	
26. Odisha gov "L" stand for?	vernment has la	unched a so	cheme name	d KALI	A? In K	ALIA
a. Livestock	b. Livelihood	c. Light	d. Land res	storation	e. Landf	orms
	ton (long staple			_		
a. 5550	b. 5255	c. 7050	d. 5150	) e.	. 3725	
<b>28. MSP of cot</b> a. 5550	ton ( medium s b. 5255	taple ) for y c. 7050	y <b>ear 2018-1</b> 9 d. 5150		. 3725	
	Iantri MUDRA Minister on Ap b. 5 c. 12	pril 8, 2015				•
has created thi	aegis of Pradha ree products i.e. h and funding n	. 'Shishu', '	Kishore' an	d 'Taruı	n' as per	the

limit of Kishore type loan?

a. up to ₹50,000

b. above ₹50,000 and up to ₹5,00,000

c. above ₹5,00,000 and up to ₹10,00,000

d. above ₹5,00,000 and up to ₹15,00,000

e. above ₹10,00,000 and up to ₹10,00,000

31. According	to FAO women	contribution to	India agricult	ture is –
a. 35%	b. 32%	c. 40%	d. 50%	e. 25%
32. The ICAR	-National Rice I	Research Institu	ıte, Cuttack ha	s developed a
new rice varie	ty CR Dhan 310	), which is rich	in?	
a. Zinc	b. Silicon	c. Protein	d. Carbohydra	te e. Potassium
33. Central ric	e research insti	tute (CRRI) wa	s setup on 23 <sup>rd</sup>	April 1946 at
<b>Cuttack Odish</b>	a. the institute	has two researc	h stations, one	of them central
rainfed upland	l rice research s	station is situate	ed in –	
a. Hazaribagh	b. Cuttack	c. Hyderabad	d. New Delhi	e. Assam
34. In order to agriculture ex		ning income wh	nat is the target	t value (US\$) of
	b. 30+	c 100+	d 50±	e. 70+
a. 00+	U. 30T		u. 30+	C. 70+
35 Under Ryt	hu Rharosa sch	eme of Andhra	Pradesh each	farmer would be
and the second s	al grant of Rs _			iainici would be
	_			a Da 15000
a. KS 5000	b. Rs 7,500	C. RS 12,500	a. KS 10,00	e. RS 15000
26 India's fine	t aaw sanatuan	. Kamdhanu C	au Abbyananya	a was established
	ct of Madya Pr		au Abiiyaraiiya	i was establisheu
	•	7, 7, 1	d Daisan	a Indora
a. Gwallol	b. Agar Malwa	c. Seom	u. Kaiseii	e. muore
37. National fo	od security mis	sion — rice is be	ing implement	ed in how many
districts?			•	1
a. 638	b. 269 c. 202	d. 126	e. 194	
20 National fo		Y !	L	3.4
	ood security mis	sion – puises is	being impleme	entea in now
many districts	25 6/4 600	1 100		
a. 638 b. 2	69 c. 202	d. 126	e. 194	
39. Marayoor	jaggery of whic	h state has got (	Geographical I	ndication (GI)
=	entral governme		8-17	()
a. Karnataka	_	desh c. Odisha	d Kerala e '	Tamil Nadu
a. Ixamataka	o. Madnya 1 1ac	desir c. Gaisha	d. Refuiu C.	Tamm Tuada
	e has topped the	e Agricultural I	Marketing & F	arm Friendly
Reforms Index	,	o Chhattians	d Molecus alex	o Cuionat
a. Karnataka	b. Tamil Nadu	c. Chhattisgarh	u. Manarasntra	a e. Gujarat
41 Which am	ong the followin	g variety of gro	aundnut has ro	cently released

by directorate Orissa and M	•	esearch (DGR) f	for cultivatio	n in west Bengal,
a. Girnar-1	b. Girnar-2	c. Girnar-3	d. M-13	e. None of these
by directorate	nong the followin e of groundnut ro unjab and Uttar b. Girnar-2	esearch (DGR) f Pradesh?	for cultivatio	<u> </u>
Institute of W variety is 47.2 give up to 57 a. DBW173 d. UP 2425	quintals / hectard b. Narendra e. HD - 2888	Research. It can tare & if grown e? a Wheat L076	n give Averagin favourabl	ge yield of this e conditions, it can HP L633
biscuits? a. DBW173 d. UP 2425	b. Narendr e. H-490	ra Wheat L076	c. Sonali	HP L633
(2018-19)?	5 -	<u>-</u>		
<ul><li>a. 48</li><li>b. 9</li><li>46. India is th</li><li>a. First</li></ul>	c. 133  ne largest prod  b. Second	d. 148 lucer of silk in t c. Third	e. 24 <b>he world</b> d. Fifth	e. Seventh
a. Tube wells	ong the followin b. Canals c.			gation in India? e. None of these
<b>48. Which am</b> a. Andhra Pra	n <b>ong the followin</b> desh b. Telang		100 March 100 Ma	
<b>49. Which am</b> a. Andhra Pra	nong the followin desh b. Bihar	<b>g state has high</b> c. Guja	-	on of fishes? e. MP
<b>50. What is th</b> a. 1st	ne India's rank in b. 2nd	overall fishes p	olus aquacult d. 4	
51. Headquar at:	ter of directorate	e of marketing a	and inspectio	n (DMI) located

Agri Coaching Chandigarh	Contact: 9828822277
a. Faridabad (haryana) b. Hissar c. New Delhi e. Vishakhapatnum (AP)	i d. Mumbai
52. The fisheries and aquaculture production co to India's Gross Domestic product (GDP) and agricultural GDP.	
9	d. 2, 5 e. 3, 5
53. Union budget 2018 has made provision for a establishment of animal husbandry infrastructu (AHIDF). a. 2450 cr b. 2500 cr c. 3000 cr d	ure development fund
54. Dairy processing and infrastructure develop a Corpus of Rs with NABARD over a peri 2019-20).	
a. 8000cr b. 10000cr c. 7000cr d. 6	6000cr e. None of these
<b>55. Which will be responsible for providing trainunder ACABC scheme?</b> a. MANAGE b. ICAR c. KVK d. NABARD	
<b>56. Agriclinics and agribusiness centres scheme</b> a. April 2002 b. May 2002 c. March 2002 e. None of the above	
57. Total indebtedness among agricultural hous	sehold is
a. 52.5% b. 50% c. 49% d	l. 100% e. 30%
58. Total% farmers are under the marginal farmers.	e category of small and
a. 87 b. 80 c. 89 d. 49	e. 50
<b>59. NABARD Has proposedCrores For the</b> rural Agricultural markets (rural hatts) of the ca. Rs 2000 b. Rs 3000 c. Rs 5000 d. Rs 600	country.
60. Which states have reported the highest num the century.	
<ul><li>a. North eastern states</li><li>b. North states</li><li>c. Wes</li><li>d. Southern states</li><li>e. Southwestern states</li></ul>	etern states

#### **ANSWER KEY:**

1. c	2. e	3. a	4. b	5. d	6. c	7. c	8. a	9. a	10. c
11. c	12. b	13. e	14. d	15. b	16. e	17. e	18. b	19. c	20. d
21. c	22. b	23. a	24. a	25. b	26. b	27. a	28. d	29. a	30. b
31. b	32. c	33. a	34. a	35. c	36. b	37. e	38. a	39. d	40. d
41. c	42. b	43. a	44. e	45. c	46. b	47. a	48. a	49. a	50. b
51. a	52. a	53. a	54. a	55. a	56.	57. a	58. a	59. a	60. a

## We are social











Contact: 9828822277

# Search "Agri Coaching Chandigarh" on any of these platforms to follow us

"Never underestimate the power of dreams and the influence of the human spirit. We are all the same in this notion: The potential for greatness lives within each of us."

-Wilma Rudolph

# All the best Champ!