

# Gender Disaggregated Data in Agriculture



ICAR- CENTRAL INSTITUTE FOR WOMEN IN AGRICULTURE  
Bhubaneswar - 751 003, Odisha, India  
**ISO 9001:2015 Certified**





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Ananta Sarkar  
Anil Kumar  
Mridula Devi  
Tanuja S.  
Neetish Kumar  
Shaji A.  
Anup Kumar Behera



ICAR-Central Institute for Women in Agriculture  
Bhubaneswar-751003, Odisha, India  
ISO 9001:2015 Certified

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सत्यमेव जयते

डॉ. हिमंशु पाठक

**DR. HIMANSHU PATHAK**

सचिव (डीएन) एवं महानिदेशक (आईसीएआर)

Secretary (DARE) &

Director General (ICAR)

भारत सरकार

कृषि अनुसंधान और शिक्षा विभाग एवं

भारतीय कृषि अनुसंधान परिषद

कृषि एवं किसान कल्याण मंत्रालय, कृषि भवन, नई दिल्ली-110 001

GOVERNMENT OF INDIA

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AND

INDIAN COUNCIL OF AGRICULTURAL RESEARCH (ICAR)

MINISTRY OF AGRICULTURE AND FARMERS WELFARE

Krishi Bhavan, New Delhi 110 001

Tel: 23382629 / 23386711 Fax: 91-11-23384773

E-mail: dg.icar@nic.in



## Foreword

Women play an important role in the entire agricultural sectors by participating and contributing in almost all the important activities and services related to the sector. The traditional agricultural system recognized women's indispensable role but it has fallen short of identifying her as 'farmer' thereby depriving them in accessing a large number of government programmes and schemes. The widening gap between the contribution of women to agriculture and their meagre agricultural land ownership indicate the gender divide in agriculture. Moreover, most of the operational land owned by them belong to small and marginal categories. The lack of gender disaggregated data in agriculture is a major bottleneck in formulating enabling policies to mainstream them to lead the future agricultural development in the country. With the migration of menfolk from villages to the urban areas, the agricultural sector is being feminized. In such a scenario, there is a strong need to collect and collate gender disaggregated data in agriculture and allied sectors. The book on 'Gender Disaggregated Data in Agriculture' will go a long way in making available the data from diverse sources for further deliberations on the critical theme of gender equality in agriculture. I appreciate the efforts of ICAR-Central Institute for Women in Agriculture, Bhubaneswar, in conceptualizing and bringing out this important publication.

(Himanshu Pathak)





डॉ. राके श चन्द्र अग्रवाल

उपमहानिदेशक (कृषि शिक्षा)

**Dr. Rakesh Chandra Agrawal**

Deputy Director General (Agril. Edn.)



भारतीय कृषि अनुसंधान परिषद

**Indian Council of Agricultural Research**

कृषि अनुसंधान भवन-II, पूसा, नई दिल्ली - 110012

Krishi Anusandhan Bhawan-II, Pusa, New Delhi-110012

Phone : 011-25841760 (O), Fax : 011-25843932

E-mail : [ddgedn@gmail.com](mailto:ddgedn@gmail.com), [ddg.edu@icar.gov.in](mailto:ddg.edu@icar.gov.in)

## Foreword

Agriculture is considered to be the focal point of any country's journey towards becoming self reliant. Presently, India holds the second place in the world in rice and wheat production and is inching towards self-reliance in pulse production. Indian farmers are second to none in their contribution to the Indian economy. But it is usually a forgotten fact that the term 'Farmer' encompasses women farmers too. This is because women's time and labour are often overlooked, and their role in agriculture is usually not formally recognised. In fact, women contribute 53.2% of labour in the agricultural household in rural areas as compared to 46.8% by men. Realising gender equality (SDG 5) and women's empowerment in agriculture is essential to economic development. The availability of gender disaggregated data will help in better designing, implementation and evaluation of gender initiatives. I applaud the initiative to bring out a book on '**Gender Disaggregated Data in Agriculture**'. This publication will serve as a reference for the various stake holders to advance the R&D activities on gender issues in agriculture. I congratulate ICAR-Central Institute for Women in Agriculture, Bhubaneswar for its endeavour in bringing out this much awaited publication.

(R.C. Agrawal)



## PREFACE

ICAR-Central Institute for Women in Agriculture (ICAR-CIWA) is undertaking the research on women's role, participation, constraints and the emerging opportunities that exist for them in agriculture. Women provide vital labour force and performing large number of activities in agriculture and allied sector. In rural areas, 22.4% of women (age 6+ years) and 34.6% of men (age 6+ years) participate in agriculture and allied activities, including crop and livestock sector. Overall, women work for 9.5 h as compared to 7.5 h only by men including the unpaid work performed by them. The availability of reliable gender disaggregated data is an important prerequisite for the formulation, monitoring and evaluation of policies and programmes with a gender perspective. The book on 'Gender Disaggregated Data in Agriculture' is an innovative idea and smart way of presenting the much-needed information on gender in agriculture in a clear and concise format which will definitely be useful to the students, researchers and other readers. The publication presents up-to-date information on the current scenario of Indian agriculture, demography based on census data, health and nutrition, women empowerment, women's work participation in agriculture, welfare schemes for women etc. I appreciate the efforts of all the staff of the institute and congratulate them for bringing out this long awaited useful publication, which provides a lucid depiction of gender in agriculture.



  
(Mridala Devi)

Director, ICAR-CIWA, Bhubaneswar

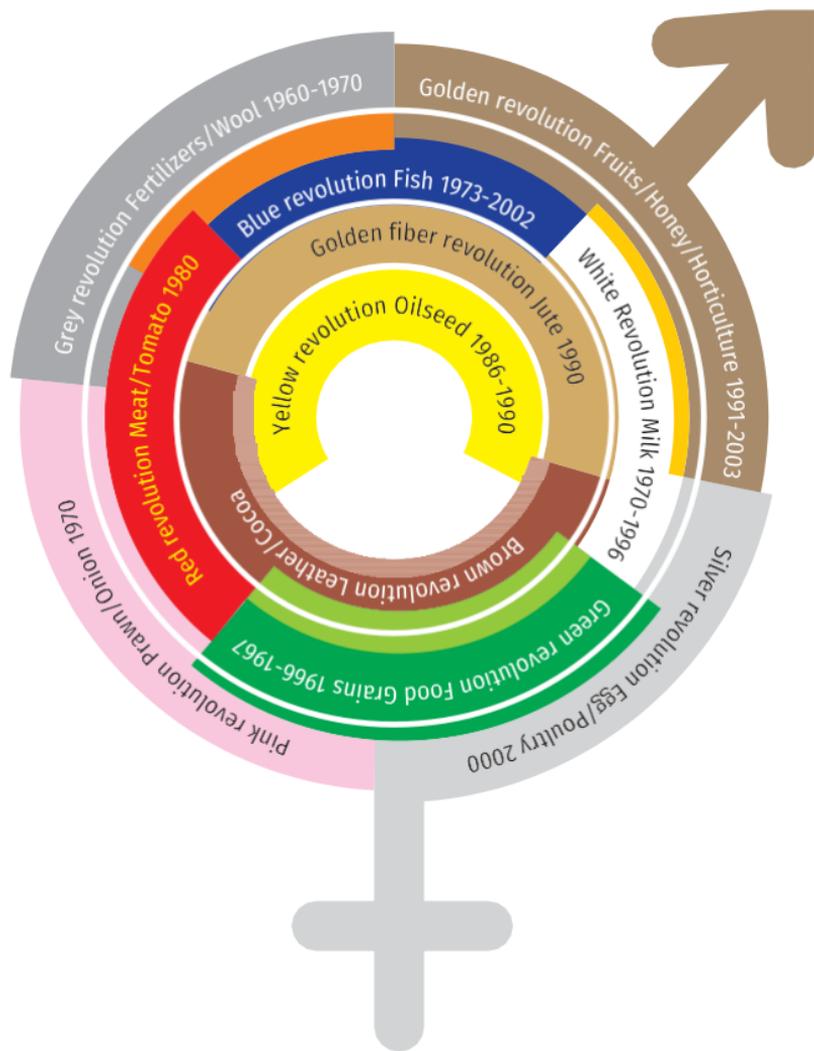


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## ACRONYM

State	Acronym	State	Acronym
Andhra Pradesh	AP	Punjab	PB
Arunachal Pradesh	AR	Rajasthan	RJ
Assam	AS	Sikkim	SK
Bihar	BR	Tamil nadu	TN
Chhattisgarh	CH	Telangana	TG
Goa	GA	Tripura	TR
Gujarat	GJ	Uttar Pradesh	UP
Haryana	HR	Uttarakhand	UK
Himachal Pradesh	HP	West Bengal	WB
Jharkhand	JH	A&N Islands	AN
Karnataka	KA	Chandigarh	CG
Kerala	KL	Dadra and Nagar Haveli	DNH
Madhya Pradesh	MP	Dadra NHDD	DNHDD
Maharashtra	MH	Daman and Diu	DD
Manipur	MN	Jammu & Kashmir	JK
Meghalaya	ML	Ladakh	LH
Mizoram	MZ	Lakshadweep	LD
Nagaland	NL	NCT Delhi	DL
Odisha	OD	Puducherry	PD
		<b>India</b>	<b>IND</b>

Acronym	Meaning
ACZ	Agro Climatic Zone
AER	Agro Ecological Zone
Ag	Agriculture
AgCensus	Agricultural Census
Ag worker	Agriculture total (incl. crop, animal production, forestry, fishery)
AgIn	Agrinnovate India Ltd.
AHFF	Agriculture, Hunting, Forestry & Fishing
AICRP	All India Coordinated Research Project
AL	Agricultural Labourer
ASRB	Agricultural Scientist Recruitment Board
AW	Agricultural Workers
AWPR	Agriculture work participation rate
CAU	Central Agricultural University
CL	Cultivators
CUAg	Central University with Course in Agriculture
DU	Deemed University
F	Female

Acronym	Meaning
FL	Field Labour
KVK	Krishi Vigyan Kendra
M	Male
M	Men
M	Million
MT or T	Metric Tonnes
MMT	Million Metric Tonnes
No.	Number
NSS	NSS 68 <sup>th</sup> Round Survey (2011-12)
P	Person (Male+Female)
(P)	Provisional
PLFS	Periodic Labour Force Survey
SAU	State Agricultural University
SHG-HMO	Household Mobilized in SHG
Shree Anna	Shree Anna /Nutri Cereals
Small Millet	Kodo, Foxtail, Proso, Little, Barnyard
TW	Total Workers
UT	Union Territory
W	Women



# 1. Indian agriculture: facts

## 1.1 Indian agriculture: current scenario (2022-23)

- Record production of food grain (330.5 MMT) and Horticulture (347.2 MMT).
- World's largest producer of milk, pulses, tea, spices, jute, banana, etc.
- 2<sup>nd</sup> largest producer of rice, wheat, fruit, vegetables, sugarcanes, etc.
- Export of US\$ 50 Billion (2021-22). Among top 5 net exporters in the World.
- The sector grew at 4.6% in the last 6 years.

## 1.2 Production of Food Grains in India

(MMT)

Crop (s)	2019-2020	2020-2021	2021-2022	2022-2023	
				Target	Third Adv. Estimate
Rice	118.87	124.36	129.47	130.50	135.54
Wheat	107.86	109.58	107.74	112.00	112.74
Maize	28.76	31.64	33.73	33.20	35.91
Barley	1.72	1.65	1.37	2.25	1.68
Millet*	17.26	18.02	16.00	20.50	17.14
Cereals	274.47	285.27	288.31	298.45	303.03
Pulses	23.02	25.46	27.30	29.55	27.50
Food grains	297.50	310.74	315.61	328.00	330.53
Oilseeds	33.21	35.94	37.96	41.34	40.99
Sugarcane	370.50	405.39	439.42	415.00	494.22
Cotton <sup>#</sup>	36.06	35.24	31.11	37.00	34.34
Jute & Mesta <sup>##</sup>	9.87	9.35	10.14	10.50	9.49

#Lakh bales of 170 kg. each

##Lakh bales of 180 kg. each

\*Shree Anna

Source: <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2023/may/doc2023525205101.pdf>

### 1.3 Production of Millets in India

(MMT)

Crop (s)	2019-2020	2020-2021	2021-2022	2022-2023	
				Target	Third Adv. Estimate
Sorghum (Jowar)	4.772	4.812	4.151	6.000	3.990
Pearl Millet (Bajra)	10.363	10.863	9.781	11.300	10.267
Finger Millet (Ragi)	1.755	1.998	1.701	2.500	1.597
Small Millets	0.371	0.347	0.367	0.700	0.397
Shree Anna/ Nutri Cereals	17.261	18.021	16.000	20.500	17.149

### 1.4 Production of Pulses in India

(MMT)

Crop (s)	2019-2020	2020-2021	2021-2022	2022-2023	
				Target	Third Adv. Estimate
Pigeon pea (Tur)	3.892	4.316	4.220	4.550	3.430
Chick pea (Gram)	11.078	11.911	13.544	13.500	13.543
Black gram (Urad)	2.081	2.230	2.776	3.700	2.612
Green gram (Moong)	2.509	3.085	3.166	4.000	3.740
Lentil	1.103	1.494	1.269	-	1.580
Other Kharif Pulses	0.873	0.799	0.669	0.800	0.892
Other Rabi Pulses	1.489	1.628	1.658	3.000	1.703
Total Pulses	23.025	25.463	27.302	29.550	27.504

## 1.5 Production of Oilseeds grains in India

(MMT)

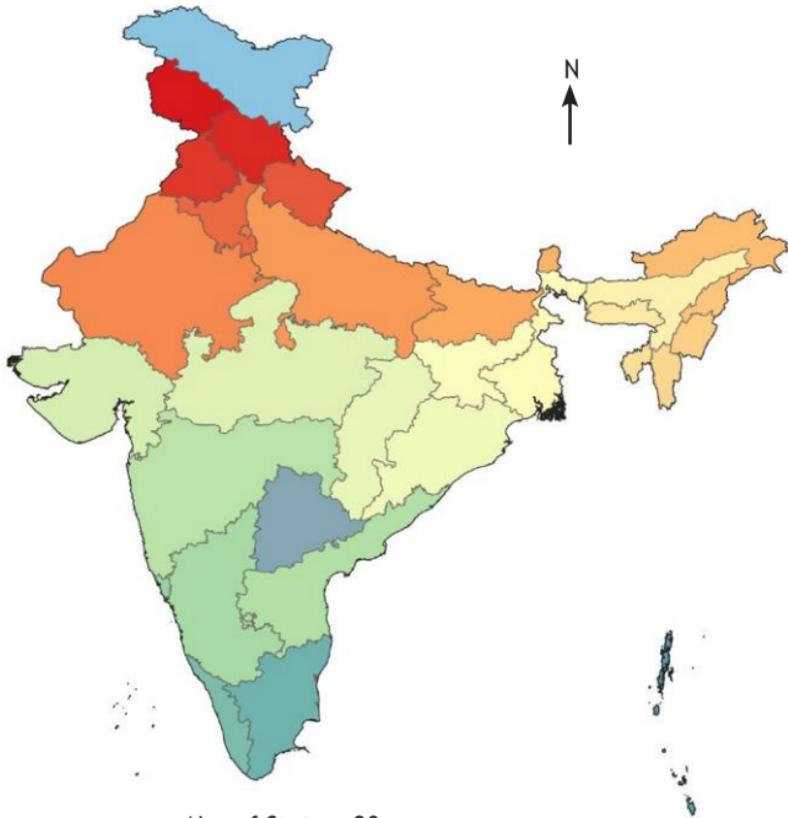
Crop (s)	2019-2020	2020-2021	2021-2022	2022-2023	
				Target	Third Adv. Estimate
Groundnut	9.952	10.244	10.135	10.405	10.282
Castorseed	1.842	1.647	1.619	2.270	1.870
Sesamum	0.658	0.817	0.789	1.000	0.750
Nigerseed	0.041	0.042	0.033	0.120	0.027
Soyabean	11.226	12.610	12.987	14.765	14.976
Sunflower	0.2132	0.228	0.250	0.330	0.375
Rapeseed & Mustard	9.124	10.210	11.963	12.100	12.494
Linseed	0.121	0.111	0.126	0.270	0.156
Safflower	0.044	0.036	0.061	0.085	0.064
<b>Total Oilseeds</b>	<b>33.219</b>	<b>35.946</b>	<b>37.963</b>	<b>41.345</b>	<b>40.996</b>

## 1.6 Production of Livestock, Poultry and Fisheries products in India

Animal Products	2019-20	2020-21	2021-22	2022-23
Milk (MMT)	198.4	209.9	221.1	230.5
Meat (MMT)	8599.40	8797.91	9292.13	-
Egg (Billion)	114.3	122.0	129.6	-
Fish (MMT)	14164	14725	16248	-
Wool (Million Kgs)	36.8	36.9	33.0	-

Source:<https://dahd.nic.in/sites/>; <https://agricoop.gov.in/>

## 1.7 Map of India with states and UTs



No. of States: 28  
No. of UTs: 8

Map not to scale, for representation purpose only

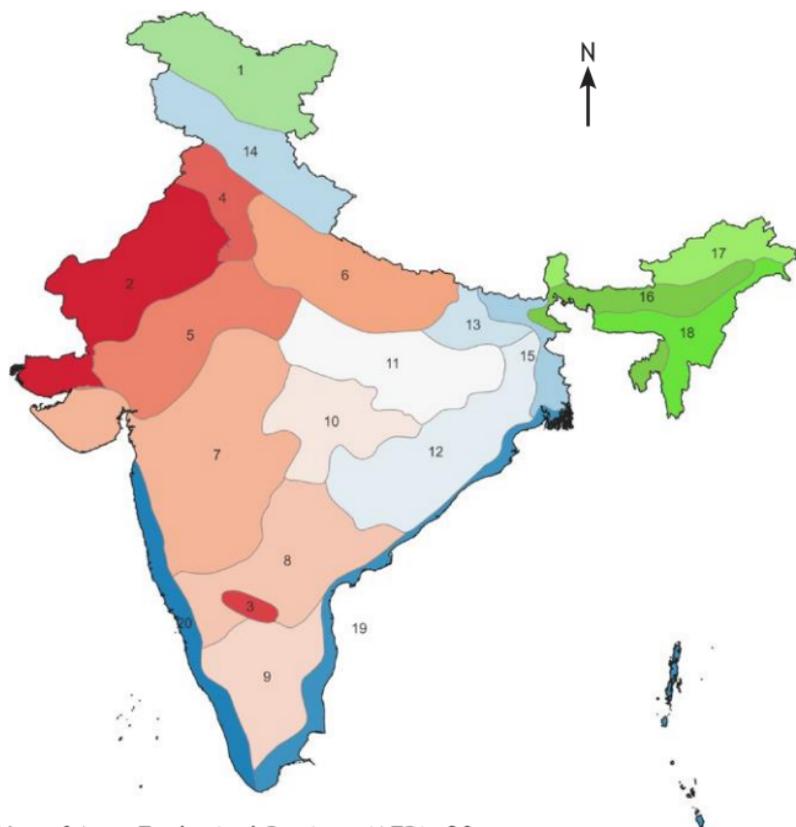
## States, Capitals and number of Districts

State	Capital	No of Dists.	State	Capital	No of Dists.
AP	Amaravati	26	OD	Bhubaneswar	30
AR	Itanagar	26	PB	Chandigarh	23
AS	Dispur	35	RJ	Jaipur	33
BR	Patna	38	SK	Gangtok	06
CH	Raipur	33	TN	Chennai	38
GA	Panaji	02	TG	Hyderabad	33
GJ	Gandhinagar	33	TR	Agartala	08
HR	Chandigarh	22	UK	Dehradun	13
HP	Shimla	12	UP	Lucknow	75
JH	Ranchi	24	WB	Kolkata	23
KA	Bengaluru	31	AN	Port Blair	03
KL	Thiruvananthapuram	14	CG	Chandigarh	01
MP	Bhopal	52	DNHDD	Daman	03
MH	Mumbai	36	DL	Delhi	11
MN	Imphal	16	JK	Srinagar(S*) Jammu (W*)	20
ML	Shillong	12	LH	Leh	02
MZ	Aizawl	11	LD	Kavaratti	01
NL	Kohima	16	PD	Pondicherry	04
			IND	New Delhi	766

\*S(Summer) and \*W(Winter) Source: <https://knowindia.india.gov.in/>



## 1.9 Map of India with Agro Ecological Regions



No. of Agro Ecological Regions (AER): 20

Map not to scale, for representation purpose only

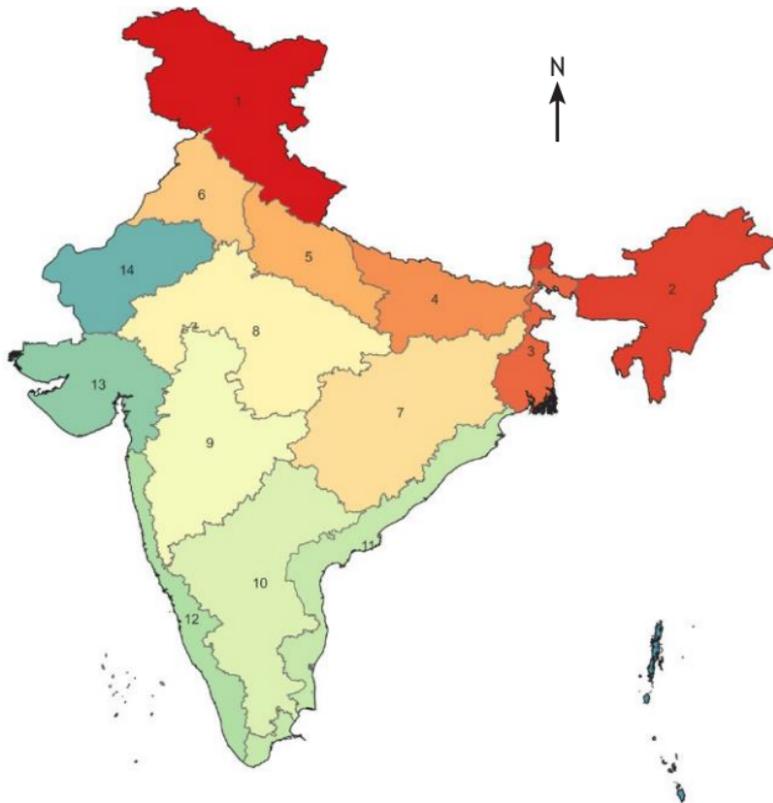
Source: ICAR-NBSSLUP

## 1.10 Agro Ecological Regions of India

AER no	Ecosystem	Physiography
1	Arid	Western Himalayas
2	Arid	Western plains and Kutch Peninsula
3	Arid	Deccan plateau
4	Semi-Arid	Northern Plain (Upper Gangetic)
5	Semi-Arid	Northern Plain (Rajasthan Upland and Gujarat plains)
6	Semi-Arid	Northern Plain (Middle Gangetic Plain)
7	Semi-Arid	Deccan Plateau (Malwa Plateau, Gujarat plains and Kathiawar peninsula)
8	Semi-Arid	Deccan Plateau
9	Semi-Arid	Deccan Plateau
10	Sub humid	Eastern Plateau (Satpura range and Mahanadi Basin)

AER no	Ecosystem	Physiography
11	Sub humid	Eastern Plateau (Bundelkhand Upland)
12	Sub humid	Eastern Plateau
13	Sub humid	Northern Plains (Lower Gangetic)
14	Sub humid	Western Himalayas
15	Sub humid	Bengal basin
16	Humid Per humid	Assam and North Bengal Plain
17	Humid Per humid	Eastern Himalayas
18	Humid Per humid	North Eastern hills (Purvanchal)
19	Coastal	Eastern Coastal Plains and Island of Andaman and Nicobar
20	Coastal	Western Ghats (Coastal Plains and Western Hills)

## 1.11 Map of India with Agro Climatic Zones



No. of Agro Climatic Zones (ACZ): 15

Map not to scale, for representation purpose only

Source: Planning Commission

## 1.12 Agro Climatic Zones of India

ACZ no	Region
1	Western Himalayan Region
2	Eastern Himalayan Region
3	Lower Gangetic Plains Region
4	Middle Gangetic plains region
5	Upper Gangetic plains region
6	Transgangetic Plains Region
7	Eastern Plateau & Hills Region
8	Central Plateau & Hills Region
9	Western Plateau & Hills Region
10	Southern Plateau & Hills Region
11	East Coast Plains & Hills Region.
12	West Coast Plains & Ghats Region
13	Gujarat Plains & Hills Region
14	Western Dry Region
15	The Islands Region

## 2. India's gender facts



## 2.1 Number of villages, towns, households, population and area

Census 2011	Number of villages		Number of towns
	Inhabited	Uninhabited	
Total	597,608	43,324	7,933
Rural	597,608	43,324	0
Urban	0	0	7,933

Census 2011	Excluding Institutional Households		
	No. of HH	No. of FHH	% FHH
Total	2467,40,228	268,88,926	10.90
Rural	1678,74,291	174,54,226	10.40
Urban	788,65,937	94,34,700	11.96

Source: Census 2011 (DDW-HH0101-0000.xls & DDW-FHH-TAB01-0000.xls)

Census 2011	Population			Area (sq. km)	Pop. per sq. km.
	P	M	F		
Total	1,210,854,977	623,270,258	587,584,719	3287469.00	382
Rural	833,748,852	427,781,058	405,967,794	3101473.97	279
Urban	377,106,125	195,489,200	181,616,925	102252.03	3,685

## 2.2 Operated land holdings

Facts about India	AgCensus 2015-16			AgCensus 2010-11		
	P	M	F	P	M	F
No. of operated land holdings (M)	146.19	125.75	20.43	138.11	120.42	17.68
No. of operated land holdings, %	100	86.02	13.98	100	87.20	12.80
Area of operated land holdings (M)	156.28	137.78	18.49	158.05	141.54	16.51
Area of operated land holdings, %	100	88.17	11.83	100	89.55	10.45
Average holdings size (ha)	1.07	1.10	0.90	1.14	1.18	0.93

### 2.3 Work participation in Agriculture (Census 2011 & 2001)

Facts about India	Census 2011			Census 2001		
	P	M	F	P	M	F
Population (M*)	1211	623	588	1029	532	496
Workers (M)	482	332	150	402	275	127
CL+AL (M)	263	166	98	234	143	91
CL (M)	119	83	36	127	85	42
AL (M)	144	83	62	107	57	49
% CL out of TW	24.7	17.2	7.5	31.7	21.2	10.4
% AL out of TW	30.0	17.2	12.8	26.5	14.3	12.3
% CL out of AW	45.1	31.5	13.7	54.4	36.5	17.9
% AL out of AW	54.9	31.4	23.4	45.6	24.5	21.1
% CL+AL out of AW	100.0	62.9	37.1	100.0	61.0	39.0
AWPR %	21.7	26.6	16.6	22.8	26.8	18.4
<b>Gender wise</b>						
% CL+AL out of TW	54.6	49.9	65.1	58.2	51.9	71.8
% CL out of TW	24.7	24.9	24.0	31.7	31.1	32.9
% AL out of TW	30.0	24.9	41.1	26.5	20.8	38.9
% CL out of AW	45.1	50.0	36.9	54.4	59.8	45.9
% AL out of AW	54.9	50.0	63.1	45.6	40.2	54.1
CL joined Ag (M)\$	-8.5	-2.7	-5.9			
AL joined Ag (M)\$	37.6	25.4	12.1			

\*M: Million; \$ with respect to previous Census

## Work participation in agriculture out of total workers

Fact about India	Source	P	M	F
% CL+AL out of TW	Census 2011	54.6	49.9	65.1
% CL+AL out of TW	PLFS 2020-21	46.5	39.8	62.2

### 2.4 Work participation in agriculture as per PLFS (2017-2023)

Year	Ag Worker / Worker	
	M	F
2017-18	40.24	56.99
2018-19	38.33	55.34
2019-20	39.95	59.94
2020-21	39.81	62.16
2021-22	38.08	62.87
2022-23	37.11	64.25

Source: <https://www.mospi.gov.in/>

## 2.5 Work participation: NSS vs. Census: Male-Female (M)

	NSS 68th survey: Industry: NIC-2008	M	F	P	Population, %		
					M	F	P
a.	Worker	339.2	128.9	467.8	54.4	21.9	38.6
b.	Ag worker	147.9	80.9	228.7	23.7	13.8	18.9
c.	Non ag worker	191.3	48.0	239.1	30.7	8.2	19.7
	<b>Census 2011</b>						
a.	Worker	331.9	149.9	481.9	53.2	25.5	39.8
b.	Ag worker (CL+AL)	165.5	97.6	263.1	26.6	16.6	21.7
c.	Non ag worker	166.4	52.3	218.7	26.7	8.9	18.1
	<b>Agricultural worker: NSS 68 round survey</b>						
i)	Growing non-perennial crops and mixed farming	135.4	66.5	201.8	21.7	11.3	16.7
ii)	Growing of perennial crops, etc.	7.5	4.3	11.8	1.2	0.7	1.0
iii)	Animal production	3.0	9.9	12.9	0.5	1.7	1.1
iv)	Forestry	0.5	0.1	0.7	0.1	0.0	0.1
v)	Fishing & aquaculture	1.4	0.2	1.5	0.2	0.0	0.1
	Ag. total	147.9	80.9	228.7	23.7	13.8	18.9
	<b>Census 2011</b>						
i)	Cultivator (cult.)	82.8	36.0	118.8	13.3	6.1	9.8
ii)	Agri. Labourers	82.7	61.6	144.3	13.3	10.5	11.9
	Ag worker -total (cult, ag lab.)	165.5	97.6	263.1	26.6	16.6	21.7

\*To calculate percent of population, use the data: Total=1210.9; Male=623.3; Female=587.6; Source: Kumar et al. (2021)

## 2.6 Work participation: NSS vs. Census: Rural-Urban

(M)

	NSS 68th survey: Industry: NIC-2008	Rural	Urban	Total	Population, %		
					Rural	Urban	Total
a.	Worker	332.8	135.0	467.8	39.9	35.8	38.6
b.	Ag worker	213.3	15.4	228.7	25.6	4.1	18.9
c.	Non ag worker	119.5	119.6	239.1	14.3	31.7	19.7
	<b>Census 2011</b>						
a.	Worker	348.7	133.2	481.9	41.8	35.3	39.8
b.	Ag worker (CL+AL)	252.1	11.1	263.1	30.2	2.9	21.7
c.	Non ag worker	96.7	122.1	218.7	11.6	32.4	18.1
	<b>Agricultural worker: NSS 68 round survey</b>						
i)	Growing non- perennial crops and mixed farming	189.7	12.1	201.8	22.8	3.2	16.7
ii)	Growing of perennial crops, etc.	10.6	1.2	11.8	1.3	0.3	1.0
iii)	Animal production	11.3	1.6	12.9	1.4	0.4	1.1
iv)	Forestry	0.6	0.1	0.7	0.1	0.0	0.1
v)	Fishing & aquaculture	1.1	0.4	1.5	0.1	0.1	0.1
	Ag. total	213.3	15.4	228.7	25.6	4.1	18.9
	<b>Census 2011</b>						
i)	CL	115.1	3.7	118.8	13.8	1.0	9.8
ii)	AL	137	7.3	144.3	16.4	1.9	11.9
	Ag worker (CL+AL)	252.1	11.1	263.1	30.2	2.9	21.7

\*To calculate percent of population use the data: Total=1210.9;  
Rural=833.7; Urban=377.1; Source: Kumar et al. (2021)

## 2.7 Work participation: NSS vs. Census: Male: Rural-Urban (M)

	NSS 68th survey: Industry: NIC-2008	Rural	Urban	Total	Population, %		
					Rural	Urban	Total
a.	Worker	232.4	106.8	339.2	54.3	54.6	54.4
b.	Ag worker	138	9.9	147.9	32.3	5.1	23.7
c.	Non ag worker	94.5	96.9	191.3	22.1	49.6	30.7
<b>Census 2011</b>							
a.	Worker	226.8	105.1	331.9	53.0	53.8	53.2
b.	Ag worker (CL+AL)	157.8	7.7	165.5	36.9	3.9	26.6
c.	Non ag worker	69	97.4	166.4	16.1	49.8	26.7
<b>Agricultural worker: NSS 68 round survey</b>							
i)	Growing non-perennial crops and mixed farming	127.5	7.9	135.4	29.8	4.0	21.7
ii)	Growing of perennial crops, etc.	6.7	0.8	7.5	1.6	0.4	1.2
iii)	Animal production	2.4	0.6	3.0	0.6	0.3	0.5
iv)	Forestry	0.4	0.1	0.5	0.1	0.1	0.1
v)	Fishing & aquaculture	1.0	0.4	1.4	0.2	0.2	0.2
	Ag. total	138	9.9	147.9	32.3	5.1	23.7
<b>Census 2011</b>							
i)	CL	79.9	2.9	82.8	18.7	1.5	13.3
ii)	AL	77.9	4.8	82.7	18.2	2.5	13.3
	Ag worker (CL+AL)	157.8	7.7	165.5	36.9	3.9	26.6

\*To calculate percent of population use the data: Total=623.3;  
Rural=427.8; Urban=195.5; Source: Kumar et al. (2021)

## 2.8 Work participation: NSS vs. Census: Female: Rural-Urban (M)

	NSS 68th survey: Industry: NIC-2008	Rural	Urban	Total	Population, %		
					Rural	Urban	Total
a.	Worker	100.8	28.1	128.9	24.8	15.5	21.9
b.	Ag worker	75.6	5.3	80.9	18.6	2.9	13.8
c.	Non ag worker	25.3	22.8	48.0	6.2	12.6	8.2
<b>Census 2011</b>							
a.	Worker	121.9	28.0	149.9	30.0	15.4	25.5
b.	Ag worker (CL+AL)	94.3	3.4	97.6	23.2	1.9	16.6
c.	Non ag worker	27.7	24.7	52.3	6.8	13.6	8.9
<b>Agricultural worker: NSS 68 round survey</b>							
i)	Growing non-perennial crops and mixed farming	62.5	4.0	66.5	15.4	2.2	11.3
ii)	Growing of perennial crops, etc.	3.9	0.4	4.3	1.0	0.2	0.7
iii)	Animal production	8.9	1.0	9.9	2.2	0.6	1.7
iv)	Forestry	0.1	0.0	0.1	0.0	0.0	0.0
v)	Fishing & aquaculture	0.1	0.1	0.2	0.0	0.1	0.0
	Ag. total	75.6	5.3	80.9	18.6	2.9	13.8
<b>Census 2011</b>							
i)	CL	35.2	0.9	36.0	8.7	0.5	6.1
ii)	AL	59.1	2.5	61.6	14.6	1.4	10.5
	Ag worker (CL+AL)	94.3	3.4	97.6	23.2	1.9	16.6

\*To calculate percent of population use the data: Total=587.6;  
Rural=406.0; Urban=181.6; Source: Kumar et al. (2021)

## 2.9 Female workers: NSS vs. Census

(M)

	Workers - total					
	NSSO	Census		NSSO	Census	
	ps+ ss	main+ marginal	ps	main	ss	marginal
All	128.9	149.9	94.9	89.4	34.1	60.6
	(21.9)	(25.5)	(16.2)	(15.2)	(5.8)	(10.3)
Rural	100.8	121.9	71.4	67.8	29.5	54.1
	(24.8)	(30.0)	(17.6)	(16.7)	(7.3)	(13.3)
Urban	26.6	28.0	22.8	21.6	3.9	6.5
	(14.6)	(15.4)	(12.6)	(11.9)	(2.1)	(3.6)

Figures in parenthesis indicate percent of respective total population; Source: Kumar et al. (2021)

## 2.10 Highlights: Census 2011

- 16.6% Female Population in India Work in Agriculture whereas 26.6% Male Population in India Work in Agriculture
- 20.3% of Total Workers (482M) are Female (98M) Agricultural Workers (Cultivators + Agricultural labourers) whereas 34.4% Total Workers are Male (166M) Agricultural Workers
- 37% of Agricultural Workers are Female (13.7% Cultivators + 23.4% Agricultural labourers)
- 65% of Female Workers are Involved in Agriculture (24% Cultivators + 41% Agricultural labourers) whereas 50% Male

Workers are Involved in Agriculture (25% Cultivators + 25% Agricultural labourers)

- 37% Female Agricultural Workers are Cultivators as whereas 50% Male Agricultural Workers are Cultivators
- 30% Cultivators are Women (36M) and 43% Agricultural Labourers are Women (62M)

### 2.11 Highlights: TUS 2019, NSO, MOSPI & Kumar et al., 2022

- 57.3 percent of the households were engaged in agricultural and allied activities (Rural)
- 22.45 percent of the rural households were engaged in livestock related activities (Rural)
- 39.2 percent households among the agricultural households owned livestock (Rural)
- 28.55 percent persons participate in agriculture (Rural)
- 22.4 percent women (age 6+) and 34.6 percent men (age 6+) participate in agriculture (Rural)
- 38.7% Agricultural Workers are Women (Rural)
- Women spend on an average 233 min/day in agriculture as against 330 min/day by men (Rural)
- Women contribute 30.8 percent and men 69.2 percent of the total time required in agriculture (Rural)
- Women contribute 53.2 percent of total labour in the agricultural household as compared to 46.8 percent by men (Rural)

## 2.12 Highlights: PLFS 2020-21

- 49.7% of rural households in India depend on either self-employment in agriculture or casual labour in agriculture
- 27.1% of females and 54.9% of males in rural India are employed
- 62.2% of female workers in India are involved in agriculture as compared to 39.8% of Total male workers (Rural+Urban)
- 75.4% of the total female workers are involved in agriculture as against 53.8% male workers (Rural) are involved in agriculture

## 2.13 Income related to agriculture (Census 2011)

Facts about rural India (2011)	Household headed by		
	P	M	F
Income source: Cultivation %	30.1	31.0	23.8
Income source: Manual Casual Labour %	51.2	51.0	52.6
Monthly Income < 5000, %	74.5	73.9	78.8
Monthly Income 5000-10000, %	17.2	17.6	14.3
Monthly Income > 10000, %	8.2	8.4	6.9

## 2.14 Migration (Census 2011)

	2011	2001
<b>Facts about rural India</b>	F	F
Total migrants, %	68.9	70.3
Reason for migration: Work/ Employment, %	15.9	12.3
Migrants from Ag & allied Activities, %		81.9

## 2.15 Health & nutrition (NFHS 4 & 5)

<b>Facts about India</b>	<b>2019-21</b>		<b>2015-16</b>	
<b>Adults (age 15-49 years)</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
BMI below normal (BMI <18.5 kg/m <sup>2</sup> ) (%)	16.2	18.7	20.2	22.9
Overweight (BMI ≥25.0 kg/m <sup>2</sup> ) (%)	22.9	24.0	18.9	20.6
Anaemic (%)	25.0	57.0	22.7	53.1
<b>Children (under 5 years)</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
Stunted (height-for-age) (%)		35.5		38.4
Wasted (weight-for-height) (%)		19.3		21.0
Underweight (weight-for-age) (%)		32.1		35.8
Overweight (weight-for-height) (%)		3.4		2.1
Anaemic* (<11.0 g/dl) (%)		67.1		58.6

\*age 6-59 months

## 2.16 Women's empowerment (NFHS 4 & 5)

Facts about India	NFHS 2019-21		NFHS 2015-16
	M	F	F
Married & participate in 3 household decisions (%)	-	88.7	84.0
Worked in last 12 months and were paid in cash (%)	-	25.4	24.6
Owning a house/ land (alone or jointly) (%)	-	43.3	38.4
Having bank account that they themselves use (%)	-	78.6	53.0
Having mobile phone that they themselves use (%)	-	54.0	45.9
Ever used the internet (%)	57.1	33.3	-

## 2.17 Women in India: important facts and figures

Sex ratio in India	943
Sex ratio (Rural)	949
Sex ratio (Urban)	929
Overall female population	48.47%
Rural population	48.69%
Urban population	48.16%
Overall female literacy rate	65.46%
Rural literacy rate	57.93%
Urban literacy rate	79.11%
Female workers	25.51%
Rural workers	30.02%
Urban workers	15.44%
Female agricultural labourers	55.21%

Female share of non-agricultural wage employment	17.00%
Female cultivators	31.11%
Female representation Lok Sabha	15%
Female representation Rajya Sabha	13%
Female representation in agricultural research service (ARS) as on 04.02.2020	22.3%
Female candidates qualified in ARS (2019-20)	43%
Female headed households	10.90%
Female operated land holdings	13.98% (2015-16)

Male field labour are paid 26% more average daily wage than female field labour (2019-20)

Source: Census 2011, Ag Census 2015-16, Agricultural Wages India 2019-20, <https://sansad.in/rs/dashboard>, <https://sansad.in/lr/dashboard>

## 2.18 Educational level for population age 7 and above (Census 2011)

	Illiterate (No.)			Percentage *		
	P	M	F	P	M	F
Total	447216165	188506636	258709529	36.93	30.24	36.93
Rural	350955017	146419684	204535333	42.09	34.23	42.09
Urban	96261148	42086952	54174196	25.53	21.53	25.53

	Literate (No.)			Percentage *		
	P	M	F	P	M	F
Total	763638812	434763622	328875190	63.07	69.76	55.97
Rural	482793835	281361374	201432461	57.91	65.77	49.62
Urban	280844977	153402248	127442729	74.47	78.47	70.17

	Literate without educational level (No.)			Percentage *		
	P	M	F	P	M	F
Total	35153231	19278416	15874815	4.60	4.43	4.83
Rural	22904616	12879121	10025495	4.74	4.58	4.98
Urban	12248615	6399295	5849320	4.36	4.17	4.59

	Below primary (No.)			Percentage *		
	P	M	F	P	M	F
Total	146897597	78445099	68452498	19.24	18.04	20.81
Rural	109643998	59106785	50537213	22.71	21.01	25.09
Urban	37253599	19338314	17915285	13.26	12.61	14.06

	Primary (No.)			Percentage *		
	P	M	F	P	M	F
Total	184170833	99311072	84859761	24.12	22.84	25.80
Rural	130265150	71805082	58460068	26.98	25.52	29.02
Urban	53905683	27505990	26399693	19.19	17.93	20.71

	Middle (No.)			Percentage *		
	P	M	F	P	M	F
Total	133903266	77629578	56273688	17.53	17.86	17.11
Rural	90343798	53864377	36479421	18.71	19.14	18.11
Urban	43559468	23765201	19794267	15.51	15.49	15.53

	Matric/Secondary (No.)			Percentage *		
	P	M	F	P	M	F
Total	105939743	63769834	42169909	13.87	14.67	12.82
Rural	61083022	38437368	22645654	12.65	13.66	11.24
Urban	44856721	25332466	19524255	15.97	16.51	15.32

	Higher secondary/Intermediate/ Pre-University/Senior secondary (No.)			Percentage *		
	P	M	F	P	M	F
Total	77942593	46481321	31461272	10.21	10.69	9.57
Rural	40652307	25900436	14751871	8.42	9.21	7.32
Urban	37290286	20580885	16709401	13.28	13.42	13.11

	Non-technical diploma or certificate not equal to degree (No.)			Percentage *		
	P	M	F	P	M	F
Total	1072289	726565	345724	0.14	0.17	0.11
Rural	434112	287418	146694	0.09	0.10	0.07
Urban	638177	439147	199030	0.23	0.29	0.16

	Technical diploma not equal to degree (No.)			Percentage *		
	P	M	F	P	M	F
Total	1072289	726565	345724	0.95	1.23	0.57
Rural	434112	287418	146694	0.64	0.81	0.39
Urban	638177	439147	199030	1.48	2.00	0.86

	Graduate & above (No.)			Percentage *		
	P	M	F	P	M	F
Total	68288971	42120460	26168511	8.94	9.69	7.96
Rural	22339967	15659295	6680672	4.63	5.57	3.32
Urban	45949004	26461165	19487839	16.36	17.25	15.29

	Educational level : Unclassified (No.)		
	P	M	F
Total	3031570	1647116	1384454
Rural	2057684	1135912	921772
Urban	973886	511204	462682

\* Percentage is based on Total Population of Male or Female or Total

## 2.19 Welfare schemes (central) for women in agriculture

### 1. National Mission on Agricultural Extension & Technology (NMAET) (2014)

- Two Women Food Security Groups (FSGs)/ block
- One 'Gender Coordinator' / State
- Provision for mandatory representation of Women Farmers in State, District, Block Farmer Advisory Committees
- At least 30% of total scheme beneficiaries would be women
- Minimum 30% of resources meant for programs and activities are to be allocated to women farmers and women extension functionaries
- Provision of Seed money/ Revolving Fund
- Capacity building, skill development and support services
- Farmer friend @ 1 over every 2 villages (women to be preferred)
- Back-ended composite subsidy
- One day specially allocated to cover areas of core competence women farmers in programs of All India Radio & Doordarshan

## 2. Mission for Integrated Development of Horticulture (MIDH) (2014)

- Assistance for horticulture mechanization
- Subsidy on procurement of
  - ❖ Tractor
  - ❖ Power Tiller
  - ❖ Sowing, planting reaping and digging equipment
  - ❖ Plastic mulch laying machine
  - ❖ Self - propelled Horticulture Machinery
  - ❖ Plant Protection Equipment Manual Sprayer: Knapsack/ foot operated sprayer.
  - ❖ Tractor mounted /Operated Sprayer
  - ❖ Eco Friendly Light Trap
- Area expansion under Bamboo Mission
- Adoption of technologies under Coconut Development Board (CDB)
- State Horticulture Missions have been instructed to make sure that women beneficiaries and farmers receive at least 30% of the annual budget allotment
- The Implementing Agencies under MIDH should identify the SC/ST/Women beneficiaries first among other beneficiaries to achieve the prescribed targets

### 3. National Mission on Oilseeds & Oil Palm (NMOOP) (2014-15)

- Promoting Women Groups
- Subsidy on procurement of
  - ❖ Manual sprayers: Knapsack / foot operated sprayers, eco- friendly light trap
  - ❖ Knapsack and Taiwan power sprayers
  - ❖ Manually/ Bullock drawn implements including Chiseller
  - ❖ Tractor driven, farm implements like Rotavator / Seed Drill/ Zero Till Seed Drill/ Multi-Crop Planter/ Zero Till Multi-Crop Planter/ Ridge furrow Planter/ Raised bed planter/ Power weeder/ Groundnut digger and Multi crop threshers
  - ❖ Small tractor with trolley
- Distribution of pre-processing, processing and oil extraction equipment to Farmers associations / FPOs/ FIGs / SHGs / Women Groups, cooperatives / federations
- Establishment of seed gardens
- The States may also be involved in the distribution of Certified Seeds through SHGs, FIGs, FPOs, Women Groups, Co-operatives, etc. For all harvests of oilseeds, the distribution of subsidized certified seed should only be done through the own outlets or dealers of Nodal Agencies

#### **4. Integrated Scheme for Agricultural Marketing (ISAM)(2014)**

- Storage Infrastructure Project: Rate of subsidy on capital cost for registered FPOs, Panchayat, Women, SC/ST entrepreneurs, Self-help group is 33.33%
- Infrastructure projects other than storage infrastructure: Rate of subsidy on capital cost for registered FPOs, Panchayat, Women, SC/ST entrepreneurs, Self-help group is 33.33%

#### **5. National Food Security Mission (NFSM)(2007)**

- Promotion of Farmer Producer Organizations (FPOs) and marketing support for value chain integration
- Women farmers/women entrepreneurs among the FPOs will be trained on millet based food recipes
- At least, 30% allocation is made for women farmers as per norms of the NFSM

#### **6. National Mission for Sustainable Agriculture (NMSA) (2014-15)**

- Soil & water conservation; Water use efficiency; Soil health management and Rain-fed area development.
- At least 30% of fund has been allotted to utilized for women farmers

## 7. Sub-Mission on Agricultural Mechanization (SMAM)(2014-15)

- Training programs on gender friendly equipment for women farmers
- Subsidy on procurement of
  - ❖ Tractor
  - ❖ Power Tiller
  - ❖ Different self propelled machineries
  - ❖ Land development, tillage and seed bed preparation equipment's.
  - ❖ Sowing, Planting, Reaping and Digging Equipment
  - ❖ Inter cultivation equipment
  - ❖ Equipment for residue, management /Hay and Forage Equipment.
  - ❖ Harvesting & Threshing Equipment
  - ❖ All manual/animal drawn equipment /implements/ tools
- Manually/Bullock drawn implements including Chiseller @ 40% of the cost limited to Rs. 8000/- per implement (additional 10% assistance to SC / ST/ small/marginal Farmers, Women and NE States to a ceiling of Rs. 0.10 lakh per unit)

## 8. Agricultural Insurance (2016)

- Insurance protection for notified food crops, oilseeds and annual horticultural /commercial crops.
- Weather Based Crop Insurance Scheme (WBCIS).
- Coconut Palm Insurance Scheme (CPIS)
- **Pradhan Mantri Fasal Bima Yojana**
  - ❖ To provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases
  - ❖ To stabilize the income of farmers to ensure their continuance in farming
  - ❖ To encourage farmers to adopt innovative and modern agricultural practices
  - ❖ To ensure flow of credit to the agriculture sector



### 3. India: time series data



### 3.1 Work participation: out of population (1901-2011)

Work Participation Rate (%) = Workers / Population \* 100

Year	Workers			AW*		
	P	M	F	P	M	F
1901	46.73	61.31	31.82	33.52	43.14	23.69
1911	48.14	61.97	33.79	36.04	45.65	26.07
1921	46.90	60.51	32.66	35.64	45.11	25.73
1931	43.25	58.10	27.62	32.33	43.04	21.11
1951	38.64	53.41	23.03	27.87	36.89	18.33
1961	42.96	57.08	27.94	31.05	38.81	22.80
1971	32.91	52.48	11.85	23.64	36.59	9.72
1981	35.80	51.24	19.25	22.40	32.98	11.07
1991	37.11	51.07	22.05	25.76	32.17	18.85
2001	39.06	51.63	25.60	24.10	28.29	19.62
2011	39.80	53.26	25.52	22.67	27.66	17.38

Year	CL			AL		
	P	M	F	P	M	F
1901	23.67	32.63	14.49	7.89	7.59	8.21
1911	23.97	32.98	14.62	9.90	9.47	10.35
1921	25.51	34.11	16.52	8.16	8.18	8.15
1931	19.48	29.50	8.97	10.72	10.43	11.04
1951	19.33	27.72	10.46	7.62	7.99	7.23
1961	22.68	29.37	15.57	7.18	7.66	6.67
1971	14.26	24.26	3.51	8.66	11.16	5.98
1981	13.54	21.96	4.53	8.12	9.83	6.29
1991	14.73	20.40	8.61	10.16	10.70	9.57
2001	12.38	16.05	8.44	10.38	10.77	9.96
2011	9.81	13.28	6.13	11.92	13.28	10.48

Year	AHFF <sup>#</sup>			
	P	M	F	
1901	1.97	2.92	0.99	
1911	2.17	3.20	1.09	
1921	1.97	2.83	1.07	
1931	2.13	3.11	1.09	
1951	0.92	1.19	0.64	*Agricultural Workers = CL+AL + involved in AHFF
1961	1.19	1.78	0.56	<sup>#</sup> AHFF: agriculture, hunting, forestry & fishing
1971	0.72	1.18	0.23	Source: Sarkar et al. (2022)
1981	0.74	1.19	0.25	
1991	0.87	1.06	0.67	
2001	1.35	1.47	1.22	
2011	0.94	1.11	0.77	

### 3.2 Work participation: out of workers (1901 to 2011)

Year	AW / Workers*100%			CL / Workers*100%		
	P	M	F	P	M	F
1901	71.75	70.38	74.47	50.65	53.22	45.54
1911	74.87	73.66	77.15	49.80	53.22	43.28
1921	75.99	74.55	78.79	54.39	56.36	50.57
1931	74.75	74.08	76.43	45.05	50.78	32.48
1951	72.12	69.08	79.57	50.02	51.90	45.42
1961	72.27	67.98	81.59	52.80	51.45	55.72
1971	71.85	69.73	81.98	43.34	46.23	29.61
1981	62.57	64.35	57.50	37.83	42.85	23.51
1991	69.42	62.99	85.49	39.69	39.95	39.04
2001	61.70	54.80	76.64	31.68	31.09	32.97
2011	56.97	51.94	68.11	24.65	24.93	24.04

Year	AL /Workers*100%			AHFF/Workers*100%		
	P	M	F	P	M	F
1901	16.89	12.39	25.81	4.21	4.77	3.11
1911	20.57	15.28	30.64	4.50	5.16	3.24
1921	17.40	13.51	24.95	4.20	4.67	3.28
1931	24.79	17.95	39.99	4.92	5.36	3.96
1951	19.72	14.95	31.39	2.38	2.23	2.76
1961	16.71	13.41	23.86	2.77	3.12	2.01
1971	26.33	21.26	50.46	2.18	2.24	1.91
1981	22.69	19.18	32.69	2.06	2.32	1.30
1991	27.37	20.96	43.40	2.36	2.08	3.05
2001	26.57	20.86	38.91	3.45	2.85	4.76
2011	29.95	24.93	41.07	2.37	2.08	3.00

Year	CL/(CL+AL)*100%	
	M	F
1901	75.62	61.16
1911	72.25	56.09
1921	75.61	64.18
1931	68.54	42.50
1951	75.13	57.08
1961	75.69	68.29
1971	66.30	36.11
1981	66.58	40.88
1991	63.42	45.67
2001	56.73	43.02
2011	48.00	35.29

source: Census 1901 - 2011; Sarkar et al. (2022)

### 3.3 Gender-wise participation among AW (1901 to 2011)

Year	CL/AW(M+F)*100%		AL/AW(M+F)*100%		AW/AW(M+F)*100%	
	M	F	M	F	M	F
1901	49.31	21.28	11.48	12.06	65.21	34.79
1911	46.60	19.91	13.38	14.10	64.50	35.50
1921	48.94	22.64	11.73	11.17	64.73	35.27
1931	46.75	13.51	16.53	16.63	68.22	31.78
1951	51.10	18.25	14.72	12.61	68.02	31.98
1961	48.74	24.31	12.70	10.41	64.40	35.60
1971	53.17	7.15	24.46	12.19	80.20	19.80
1981	50.69	9.76	22.69	13.57	76.13	23.87
1991	41.10	16.07	21.57	17.87	64.81	35.19
2001	34.45	16.90	23.12	19.94	60.72	39.28
2011	30.15	13.13	30.14	22.43	62.80	37.20

Year	CL/CL(M+F)*100%		AL/AL(M+F)*100%	
	M	F	M	F
1901	69.86	30.14	48.76	51.24
1911	70.07	29.93	48.69	51.31
1921	68.38	31.62	51.23	48.77
1931	77.59	22.41	49.85	50.15
1951	73.68	26.32	53.86	46.14
1961	66.72	33.28	54.96	45.04
1971	88.15	11.85	66.74	33.26
1981	83.86	16.14	62.58	37.42
1991	71.89	28.11	54.69	45.31
2001	67.09	32.91	53.69	46.31
2011	69.66	30.34	57.33	42.67

source: Census 1901 - 2011; Sarkar et al. (2022)

### 3.4 Information on self help groups in India (2013-2022)

Year	Total No			
	District	Block	SHG Formed	SHG HMO
2013	655	5568	2100691	23261764
2014	683	5887	2531559	28084538
2015	692	6092	2962635	32903538
2016	716	6269	3540264	39373649
2017	728	6504	4322653	47995624
2018	731	6690	5202174	57654538
2019	731	6927	6123082	67570366
2020	741	7008	6770026	74439533
2021	741	7057	7485016	81777434
2022	742	7139	8240915	89043748

Source: <https://nrlm.gov.in/>

### 3.5 Number and area of land holdings (1995 - 2016)

Year		Land Holdings					
		Individual		Joint		Total	
		Number*	Area**	Number*	Area**	Number*	Area**
1995-1996	M	90372477	125444748	13981437	24774047	104353914	150218795
	F	10208217	10435065	803385	1280717	11011602	11715783
2000-2001	M	91856264	120400557	14812331	23855479	106668599	144256047
	F	12090328	12017200	899815	1355758	12990144	13372960
2005-2006	M	97891758	118056893	15959413	23804253	113851171	141861146
	F	13819862	12937421	1295355	1830340	15115217	14767761
2010-2011	M	102611669	116540886	17815452	24999477	120427121	141540363
	F	15980646	14312619	1702126	2196959	17682772	16509578
2015-2016	M	107052367	113367713	18698520	24416102	125750887	137783816
	F	18414003	15879512	2025145	2613720	20439148	18493232

source: <https://agcensus.dacnet.nic.in/>

\* in Absolute Units \*\* in Absolute Hectares

### 3.6 Participation in Agriculture Research Service (2006-2020)

Year	ARS qualified			Female (%)
	No. of Male	No. of Female	Total	
2006-07	176	15	191	7.9
2007-08	-	-	-	15.0
2008-09	199	50	249	20.1
2009-10	307	58	365	15.9
2010-11	156	58	214	27.1
2011-12	136	40	176	22.7
2012-13	200	119	319	37.3
2013-14	249	113	362	31.2
2014-15	153	75	228	32.9
2015-16	-	-	-	34.0
2016-17	115	64	179	36.0
2019-20	103	78	181	43.0

source: <https://www.asrb.org.in/download>

### 3.7 Participation in Agricultural Education (2007-2021)

Year	Female students %		
	UG	PG	PhD
2007-08	18.1	21.2	
2008-09	16.4	23.1	
2009-10	18.7	24.3	
2010-11	26.1	29.4	27.0
2011-12	27.3	30.1	30.1
2012-13	27.0	32.0	32.6
2013-14	29.2	34.0	36.9
2014-15	26.7	30.6	33.2
2015-16	27.7	32.6	36.2
2016-17	28.5	34.2	38.6
2017-18	29.1	35.2	40.4
2018-19	30.6	37.0	39.5
2019-20	30.5	38.0	43.7
2020-21	31.3	36.6	44.1

source: <https://aishe.nic.in/aishe/gotoAisheReports>

### 3.8 Average Daily Wages of Field Labour (2007-2020)

Year	Average Daily Wages of Field Labour (Rs.)		
	Male	Female	Difference
2007-08	91	70	30.0
2008-09	108	82	31.7
2009-10	124	95	30.5
2010-11	149	115	29.6
2011-12	183	134	36.6
2012-13	214	158	35.4
2013-14	229	178	28.7
2014-15	268	200	34.0
2015-16	275	212	29.7
2016-17	294	230	27.8
2017-18	314	245	28.2
2018-19	330	261	26.4
2019-20	348	276	26.1

source: Agricultural Wages India 2019-20

### 3.9 Production of Food Grains (1950-2023)

Food Grains

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	50.82	1962-63	80.15	1974-75	99.83
1951-52	51.99	1963-64	80.64	1975-76	121.03
1952-53	59.2	1964-65	89.36	1976-77	111.17
1953-54	69.82	1965-66	72.35	1977-78	126.41
1954-55	68.03	1966-67	74.23	1978-79	131.9
1955-56	66.85	1967-68	95.05	1979-80	109.7
1956-57	69.86	1968-69	94.01	1980-81	129.59
1957-58	64.31	1969-70	99.5	1981-82	133.3
1958-59	77.14	1970-71	108.42	1982-83	129.52
1959-60	76.67	1971-72	105.17	1983-84	152.37
1960-61	82.02	1972-73	97.03	1984-85	145.54
1961-62	82.71	1973-74	104.67	1985-86	150.44

## Food Grains

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	143.42	1998-99	203.61	2010-11	244.49
1987-88	140.35	1999-00	209.8	2011-12	259.29
1988-89	169.92	2000-01	196.81	2012-13	257.13
1989-90	171.04	2001-02	212.85	2013-14	265.05
1990-91	176.39	2002-03	174.77	2014-15	252.03
1991-92	168.38	2003-04	213.19	2015-16	251.54
1992-93	179.48	2004-05	198.36	2016-17	275.11
1993-94	184.26	2005-06	208.6	2017-18	285.01
1994-95	191.5	2006-07	217.28	2018-19	285.21
1995-96	180.42	2007-08	230.78	2019-20	297.5
1996-97	199.34	2008-09	234.47	2020-21	310.74
1997-98	192.26	2009-10	218.11	2021-22	315.61
				2022-23	329.68

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.10 Production of Rice (1950-2023)

Rice

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	20.58	1962-63	33.21	1974-75	39.58
1951-52	21.3	1963-64	37	1975-76	48.74
1952-53	22.9	1964-65	39.31	1976-77	41.92
1953-54	28.21	1965-66	30.59	1977-78	52.67
1954-55	25.22	1966-67	30.44	1978-79	53.77
1955-56	27.56	1967-68	37.61	1979-80	42.33
1956-57	29.04	1968-69	39.76	1980-81	53.63
1957-58	25.53	1969-70	40.43	1981-82	53.25
1958-59	30.85	1970-71	42.22	1982-83	47.12
1959-60	31.68	1971-72	43.07	1983-84	60.1
1960-61	34.58	1972-73	39.24	1984-85	58.34
1961-62	35.66	1973-74	44.05	1985-86	63.83

## Rice

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	60.56	1998-99	86.08	2010-11	95.98
1987-88	56.86	1999-00	89.68	2011-12	105.3
1988-89	70.49	2000-01	84.98	2012-13	105.23
1989-90	73.57	2001-02	93.34	2013-14	106.65
1990-91	74.29	2002-03	71.82	2014-15	105.48
1991-92	74.68	2003-04	88.53	2015-16	104.41
1992-93	72.86	2004-05	83.13	2016-17	109.7
1993-94	80.3	2005-06	91.79	2017-18	112.76
1994-95	81.81	2006-07	93.36	2018-19	116.48
1995-96	76.98	2007-08	96.69	2019-20	118.87
1996-97	81.73	2008-09	99.18	2020-21	124.37
1997-98	82.54	2009-10	89.09	2021-22	129.47
				2022-23	135.75

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.11 Production of Wheat (1950-2023)

#### Wheat

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	6.46	1962-63	10.78	1974-75	24.1
1951-52	6.18	1963-64	9.85	1975-76	28.84
1952-53	7.5	1964-65	12.26	1976-77	29.01
1953-54	8.02	1965-66	10.4	1977-78	31.75
1954-55	9.04	1966-67	11.39	1978-79	35.51
1955-56	8.76	1967-68	16.54	1979-80	31.83
1956-57	9.4	1968-69	18.65	1980-81	36.31
1957-58	7.99	1969-70	20.09	1981-82	37.45
1958-59	9.96	1970-71	23.83	1982-83	42.79
1959-60	10.32	1971-72	26.41	1983-84	45.48
1960-61	11	1972-73	24.74	1984-85	44.07
1961-62	12.07	1973-74	21.78	1985-86	47.05

## Wheat

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	44.32	1998-99	71.29	2010-11	86.87
1987-88	46.17	1999-00	76.37	2011-12	94.88
1988-89	54.11	2000-01	69.68	2012-13	93.51
1989-90	49.85	2001-02	72.77	2013-14	95.85
1990-91	55.14	2002-03	65.76	2014-15	86.53
1991-92	55.69	2003-04	72.16	2015-16	92.29
1992-93	57.21	2004-05	68.64	2016-17	98.51
1993-94	59.84	2005-06	69.35	2017-18	99.87
1994-95	65.77	2006-07	75.81	2018-19	103.6
1995-96	62.1	2007-08	78.57	2019-20	107.86
1996-97	69.35	2008-09	80.68	2020-21	109.59
1997-98	66.35	2009-10	80.8	2021-22	107.74
				2022-23	110.55

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.12 Production of Maize (1950-2023)

Maize

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	1.73	1962-63	4.61	1974-75	5.56
1951-52	2.08	1963-64	4.56	1975-76	7.26
1952-53	2.87	1964-65	4.66	1976-77	6.36
1953-54	3.04	1965-66	4.82	1977-78	5.97
1954-55	2.98	1966-67	4.89	1978-79	6.2
1955-56	2.6	1967-68	6.27	1979-80	5.6
1956-57	3.08	1968-69	5.7	1980-81	6.96
1957-58	3.15	1969-70	5.67	1981-82	6.9
1958-59	3.46	1970-71	7.49	1982-83	6.55
1959-60	4.07	1971-72	5.1	1983-84	7.92
1960-61	4.08	1972-73	6.39	1984-85	8.44
1961-62	4.31	1973-74	5.8	1985-86	6.64

## Maize

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	7.59	1998-99	11.15	2010-11	21.73
1987-88	5.72	1999-00	11.51	2011-12	21.76
1988-89	8.23	2000-01	12.04	2012-13	22.26
1989-90	9.65	2001-02	13.16	2013-14	24.26
1990-91	8.96	2002-03	11.15	2014-15	24.17
1991-92	8.06	2003-04	14.98	2015-16	22.57
1992-93	9.99	2004-05	14.17	2016-17	25.9
1993-94	9.6	2005-06	14.71	2017-18	28.75
1994-95	8.88	2006-07	15.1	2018-19	27.72
1995-96	9.53	2007-08	18.96	2019-20	28.77
1996-97	10.77	2008-09	19.73	2020-21	31.65
1997-98	10.82	2009-10	16.72	2021-22	33.73
				2022-23	38.08

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.13 Production of Sorghum (Jowar) (1950-2023)

Sorghum (Jowar)

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	5.5	1962-63	9.75	1974-75	10.41
1951-52	6.08	1963-64	9.2	1975-76	9.5
1952-53	7.36	1964-65	9.68	1976-77	10.52
1953-54	8.08	1965-66	7.58	1977-78	12.06
1954-55	9.2	1966-67	9.22	1978-79	11.44
1955-56	6.73	1967-68	10.05	1979-80	11.65
1956-57	7.33	1968-69	9.8	1980-81	10.43
1957-58	8.64	1969-70	9.72	1981-82	12.06
1958-59	9.03	1970-71	8.11	1982-83	10.75
1959-60	8.58	1971-72	7.72	1983-84	11.92
1960-61	9.81	1972-73	6.97	1984-85	11.4
1961-62	8.03	1973-74	9.1	1985-86	10.2

## Sorghum (Jowar)

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	9.19	1998-99	8.42	2010-11	7
1987-88	12.2	1999-00	8.68	2011-12	5.98
1988-89	10.17	2000-01	7.53	2012-13	5.28
1989-90	12.9	2001-02	7.56	2013-14	5.54
1990-91	11.68	2002-03	7.01	2014-15	5.45
1991-92	8.1	2003-04	6.68	2015-16	4.24
1992-93	12.81	2004-05	7.24	2016-17	4.57
1993-94	11.41	2005-06	7.63	2017-18	4.8
1994-95	8.97	2006-07	7.15	2018-19	3.48
1995-96	9.33	2007-08	7.93	2019-20	4.77
1996-97	10.94	2008-09	7.25	2020-21	4.81
1997-98	7.53	2009-10	6.7	2021-22	4.15
				2022-23	3.81

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.14 Production of Pearl Millet (Bajra) (1950-2023)

Pearl Millet (Bajra)

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	2.6	1962-63	3.96	1974-75	3.27
1951-52	2.35	1963-64	3.88	1975-76	5.74
1952-53	3.19	1964-65	4.52	1976-77	5.85
1953-54	4.55	1965-66	3.75	1977-78	4.73
1954-55	3.52	1966-67	4.47	1978-79	5.57
1955-56	3.43	1967-68	5.19	1979-80	3.95
1956-57	2.87	1968-69	3.8	1980-81	5.34
1957-58	3.62	1969-70	5.33	1981-82	5.54
1958-59	3.87	1970-71	8.03	1982-83	5.13
1959-60	3.49	1971-72	5.32	1983-84	7.72
1960-61	3.28	1972-73	3.93	1984-85	6.05
1961-62	3.65	1973-74	7.52	1985-86	3.66

## Pearl Millet (Bajra)

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	4.51	1998-99	6.96	2010-11	10.37
1987-88	3.3	1999-00	5.78	2011-12	10.28
1988-89	7.78	2000-01	6.76	2012-13	8.74
1989-90	6.65	2001-02	8.28	2013-14	9.25
1990-91	6.89	2002-03	4.72	2014-15	9.18
1991-92	4.67	2003-04	12.11	2015-16	8.07
1992-93	8.88	2004-05	7.93	2016-17	9.73
1993-94	4.97	2005-06	7.68	2017-18	9.21
1994-95	7.16	2006-07	8.42	2018-19	8.66
1995-96	5.38	2007-08	9.97	2019-20	10.36
1996-97	7.87	2008-09	8.89	2020-21	10.86
1997-98	7.64	2009-10	6.51	2021-22	9.78
				2022-23	11.43

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.15 Production of Pulses (1950-2023)

#### Pulses

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	8.41	1962-63	11.53	1974-75	10.02
1951-52	8.42	1963-64	10.07	1975-76	13.04
1952-53	9.19	1964-65	12.42	1976-77	11.36
1953-54	10.62	1965-66	9.94	1977-78	11.97
1954-55	10.95	1966-67	8.35	1978-79	12.18
1955-56	11.04	1967-68	12.1	1979-80	8.57
1956-57	11.55	1968-69	10.42	1980-81	10.63
1957-58	9.56	1969-70	11.69	1981-82	11.51
1958-59	13.15	1970-71	11.82	1982-83	11.86
1959-60	11.8	1971-72	11.09	1983-84	12.89
1960-61	12.7	1972-73	9.91	1984-85	11.96
1961-62	11.76	1973-74	10.01	1985-86	13.36

## Pulses

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	11.71	1998-99	14.91	2010-11	18.24
1987-88	10.96	1999-00	13.42	2011-12	17.09
1988-89	13.85	2000-01	11.08	2012-13	18.34
1989-90	12.86	2001-02	13.37	2013-14	19.25
1990-91	14.26	2002-03	11.13	2014-15	17.15
1991-92	12.02	2003-04	14.91	2015-16	16.32
1992-93	12.82	2004-05	13.13	2016-17	23.13
1993-94	13.3	2005-06	13.38	2017-18	25.42
1994-95	14.04	2006-07	14.2	2018-19	22.08
1995-96	12.31	2007-08	14.76	2019-20	23.03
1996-97	14.15	2008-09	14.57	2020-21	25.46
1997-98	12.97	2009-10	14.66	2021-22	27.30
				2022-23	26.05

Source: <https://desagri.gov.in/wp-content/uploads/2023/05/Agricultural-Statistics-at-a-Glance-2022.pdf>

### 3.16 Production of Oilseeds (1950-2023)

#### Oilseeds

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	5.16	1962-63	7.39	1974-75	9.15
1951-52	5.03	1963-64	7.13	1975-76	10.61
1952-53	4.73	1964-65	8.56	1976-77	8.43
1953-54	5.37	1965-66	6.4	1977-78	9.66
1954-55	6.4	1966-67	6.43	1978-79	10.1
1955-56	5.73	1967-68	8.3	1979-80	8.74
1956-57	6.36	1968-69	6.85	1980-81	9.37
1957-58	6.35	1969-70	7.73	1981-82	12.08
1958-59	7.3	1970-71	9.63	1982-83	10
1959-60	6.56	1971-72	9.08	1983-84	12.69
1960-61	6.98	1972-73	7.14	1984-85	12.95
1961-62	7.28	1973-74	9.39	1985-86	10.83

## Oilseeds

(MMT)

Year	Production	Year	Production	Year	Production
1986-87	11.27	1998-99	24.75	2010-11	32.48
1987-88	12.65	1999-00	20.71	2011-12	29.8
1988-89	18.03	2000-01	18.44	2012-13	30.94
1989-90	16.92	2001-02	20.66	2013-14	32.75
1990-91	18.61	2002-03	14.84	2014-15	27.51
1991-92	18.6	2003-04	25.19	2015-16	25.25
1992-93	20.11	2004-05	24.35	2016-17	31.28
1993-94	21.5	2005-06	27.98	2017-18	31.46
1994-95	21.34	2006-07	24.29	2018-19	31.52
1995-96	22.11	2007-08	29.76	2019-20	33.22
1996-97	24.38	2008-09	27.72	2020-21	35.95
1997-98	21.32	2009-10	24.88	2021-22	37.96
				2022-23	41.35

Source: <https://desagri.gov.in/wp-content/uploads/2023/11/Time-Series-Production-of-First-AE-2023-24-1.pdf>

## 3.17 Production of Horticulture Crops (1991-2022)

## Horticulture Crops

(MMT)

Year	Production	Year	Production
1991-92	96.56	2011-12	257.28
2001-02	145.78	2012-13	268.85
2002-03	144.38	2013-14	277.35
2003-04	153.30	2014-15	280.99
2004-05	166.94	2015-16	286.19
2005-06	182.82	2016-17	299.85
2006-07	191.81	2017-18	310.67
2007-08	211.24	2018-19	311.05
2008-09	214.72	2019-20	320.47
2009-10	223.09	2020-21	334.60
2010-11	240.53	2021-22	347.17

Source: [https://agriwelfare.gov.in/Documents/Horticulture%20at%20a%20Glance%202017%20for%20net%20uplod%20\(2\).pdf](https://agriwelfare.gov.in/Documents/Horticulture%20at%20a%20Glance%202017%20for%20net%20uplod%20(2).pdf)

## 3.18 Livestock and Poultry Population (1992 - 2019)

(M)

Sl No	Species	1992	1997	2003	2007	2012	2019
1	Cattle	204.5	198.8	185.18	199.07	190.90	193.46
2	Buffalo	84.20	89.91	97.92	105.34	108.70	109.85
3	Yaks	0.05	0.05	0.06	0.08	0.08	0.06
4	Mithun	0.15	0.17	0.27	0.26	0.30	0.39
5	Sheep	50.78	57.49	61.46	71.5	65.07	74.26
6	Goat	115.27	122.27	124.35	140.53	135.17	148.88
7	Pigs	12.78	13.29	13.51	11.13	10.29	9.06
8	Other animals	3.13	3.49	2.25	1.78	1.54	0.79
<b>Total Livestock</b>		<b>470.86</b>	<b>485.38</b>	<b>485.00</b>	<b>529.69</b>	<b>512.06</b>	<b>536.76</b>
9	Poultry	307.06	347.61	489.01	648.83	729.21	851.81

Source: <https://dahd.nic.in/sites/>

### 3.19 Production of Eggs (1950-2022)

#### Eggs

(Billion Nos.)

Year	Production	Year	Production	Year	Production
1950-51	1.8	1990-91	21.1	2006-07	50.6
1955-56	1.9	1991-92	21.9	2007-08	53.5
1960-61	2.8	1992-93	22.9	2008-09	55.5
1968-69	5.3	1993-94	24.1	2009-10	60.2
1973-74	7.7	1994-95	25.9	2010-11	63.0
1979-80	9.5	1995-96	27.1	2011-12	66.5
1980-81	10.0	1996-97	27.4	2012-13	69.7
1981-82	10.8	1997-98	28.6	2013-14	74.8
1982-83	11.4	1998-99	29.4	2014-15	78.5
1983-84	12.7	1999-00	30.4	2015-16	82.9
1984-85	14.2	2000-01	36.6	2016-17	88.1
1985-86	16.1	2001-02	38.7	2017-18	95.2
1986-87	17.3	2002-03	39.8	2018-19	103.8
1987-88	17.7	2003-04	40.4	2019-20	114.3
1988-89	18.9	2004-05	45.2	2020-21	122.0
1989-90	20.2	2005-06	46.2	2021-22	129.6

Source : <https://dahd.nic.in/sites/default/files/5.%20Part%20II%20EGG%20BAHS%202012.pdf>

[https://agricoop.gov.in/Documents/CWWGDATA/Agricultural\\_Statistics\\_at\\_a\\_Glance\\_2022\\_0.pdf](https://agricoop.gov.in/Documents/CWWGDATA/Agricultural_Statistics_at_a_Glance_2022_0.pdf)

### 3.20 Production of Milk (1950-2023)

Milk

(MMT)

Year	Production	Year	Production	Year	Production
1950-51	17.0	1991-92	55.7	2008-09	112.2
1955-56	19.0	1992-93	58.0	2009-10	116.4
1960-61	20.0	1993-94	60.6	2010-11	121.8
1968-69	21.2	1994-95	63.8	2011-12	127.9
1973-74	23.2	1995-96	66.2	2012-13	132.4
1979-80	30.4	1996-97	69.1	2013-14	137.7
1980-81	31.6	1997-98	72.1	2014-15	146.3
1981-82	34.3	1998-99	75.4	2015-16	155.5
1982-83	35.8	1999-00	78.3	2016-17	165.4
1983-84	38.8	2000-01	80.6	2017-18	176.3
1984-85	41.5	2001-02	84.4	2018-19	187.7
1985-86	44.0	2002-03	86.2	2019-20	198.4
1986-87	46.1	2003-04	88.1	2020-21	209.9
1987-88	46.7	2004-05	92.5	2021-22	221.1
1988-89	48.4	2005-06	97.1	2022-23	230.5
1989-90	51.4	2006-07	102.6		
1990-91	53.9	2007-08	107.9		

Source: <https://dahd.nic.in/sites/default/files/4.%20Part%201%20Milk-BAHS%202012.pdf>

### 3.21 Production of fish in India (1950 - 2022)

Fish

(MMT)

Year	Inland	Marine	Total
1950-51	218	534	752
1980-81	887	1555	2442
1990-91	1536	2300	3836
2000-01	2845	2811	5656
2009-10	4894	3104	7998
2010-11	4981	3250	8231
2011-12	5294	3372	8666
2012-13	5719	3321	9040
2013-14	6136	3443	9579
2014-15	6691	3569	10260
2015-16	7162	3600	10762
2016-17	7806	3625	11431
2017-18	8902	3688	12590
2018-19	9720	3853	13573
2019-20	10437	3727	14164
2020-21	11248	3477	14725
2021-22(P)	12121	4127	16248

Source: [https://agricoop.nic.in/sites/default/files/pocketbook\\_0.pdf](https://agricoop.nic.in/sites/default/files/pocketbook_0.pdf)

## 3.22 Production of Wool (1950 - 2022)

(Million Kgs.)

Year	Production	Year	Production	Year	Production	Year	Production
1950-51	27.5	1986-87	40.0	1998-99	46.9	2010-11	43.0
1955-56	27.5	1987-88	40.1	1999-00	47.9	2011-12	44.7
1960-61	28.7	1988-89	40.8	2000-01	48.4	2012-13	46.1
1968-69	29.8	1989-90	41.7	2001-02	49.5	2013-14	47.9
1973-74	30.1	1990-91	41.2	2002-03	50.5	2014-15	48.1
1979-80	30.9	1991-92	41.6	2003-04	48.5	2015-16	43.6
1980-81	32.0	1992-93	38.8	2004-05	44.6	2016-17	43.5
1981-82	33.1	1993-94	39.9	2005-06	44.9	2017-18	41.5
1982-83	34.5	1994-95	40.6	2006-07	45.1	2018-19	40.4
1983-84	36.1	1995-96	42.4	2007-08	43.9	2019-20	36.8
1984-85	38.0	1996-97	44.4	2008-09	42.8	2020-21	36.9
1985-86	39.1	1997-98	45.6	2009-10	43.1	2021-22	33.0

Source: <https://dahd.nic.in/sites/default/files/FINALREPORT2023ENGLISH.pdf>

## 3.23 Production of Meat(1998 - 2022)

(MMT)

Year	Production	Year	Production	Year	Production
1998-99	1859.43	2006-07	2302.00	2014-15	6691.08
1999-00	1910.77	2007-08	4009.00	2015-16	7019.96
2000-01	1851.43	2008-09	4279.61	2016-17	7385.61
2001-02	1921.83	2009-10	4565.57	2017-18	7655.63
2002-03	2113.21	2010-11	4868.97	2018-19	8114.45
2003-04	2080.00	2011-12	5514.25	2019-20	8599.40
2004-05	2211.00	2012-13	5948.17	2020-21	8797.91
2005-06	2312.00	2013-14	6235.48	2021-22	9292.13
				2022-23	9768.64

source: <https://dahd.nic.in/sites/default/files/BAHS2023.pdf>

## 4. India: state wise data



## 4.1 State wise participation in agriculture in India (2019)

State	Participation (%) (Age 6 +)					
	Agriculture		Crops		Livestock	
	M	F	M	F	M	F
AP	33.2	21.3	25.8	14.8	10.4	6.7
AR	40.1	32.4	35.1	28.3	7.0	7.4
AS	37.9	20.0	33.2	13.9	5.5	2.7
BR	29.4	8.8	25.5	4.9	7.0	3.9
CH	39.5	31.9	34.3	27.5	8.4	3.6
GA	4.0	8.8	2.6	6.2	0.4	0.1
GJ	45.8	34.8	40.7	20.5	12.6	18.5
HR	29.2	26.6	22.0	3.1	15.9	24.5
HP	35.3	46.4	20.1	17.7	20.5	39.3
JH	26.8	17.3	23.6	12.4	6.0	4.1
KA	42.3	23.5	38.0	18.5	11.4	6.9
KL	17.4	9.5	13.2	5.7	4.3	4.5
MP	40.9	24.7	34.7	17.6	12.9	8.0
MH	43.7	31.0	39.1	27.2	10.1	4.4
MN	27.5	27.3	22.6	20.7	2.0	2.6
ML	35.2	18.5	29.9	16.4	8.7	3.0
MZ	44.4	24.5	38.4	18.4	3.7	5.7
NL	35.6	37.5	30.2	32.6	5.4	6.1
OD	31.3	16.1	26.7	7.6	6.5	7.7

State	Participation (%) (Age 6 +)					
	Agriculture		Crops		Livestock	
	M	F	M	F	M	F
PB	25.0	12.7	20.1	1.8	10.4	11.8
RJ	32.0	38.6	26.4	19.4	12.9	29.4
SK	39.4	26.9	27.9	18.2	23.7	.
TG	40.2	30.7	36.8	28.7	7.3	2.2
TN	25.8	19.9	20.3	13.5	7.7	7.2
TR	29.5	14.3	25.1	7.9	5.0	5.3
UK	21.8	35.6	13.9	19.1	13.7	26.3
UP	37.6	22.7	29.0	8.7	17.8	16.9
WB	30.9	10.9	27.3	4.3	5.5	6.2
AN	31.3	11.4	16.5	2.2	5.0	1.7
CG	1.9	.	.	.	1.9	.
DD	23.1	29.2	20.1	27.8	3.4	1.0
DL	2.9	.	1.0	.	1.9	.
JK	34.7	34.2	19.3	21.2	24.5	19.6
LD	24.3	4.7	6.7	3.9	4.6	.
LH	23.7	27.1	15.4	9.4	19.3	23.1
PD	20.4	9.6	16.2	7.1	5.1	3.1
<b>IND</b>	<b>34.59</b>	<b>22.36</b>	<b>28.88</b>	<b>13.33</b>	<b>10.8</b>	<b>10.69</b>

source: Kumar et al. (2022)

## 4.2 State wise time spent (min) in agriculture in India (2019)

State	M	F	State	M	F	State	M	F
AP	360	297	MP	349	264	TR	303	187
AR	290	242	MH	357	304	UK	260	206
AS	258	122	MN	261	180	UP	298	188
BR	312	174	ML	315	231	WB	356	186
CH	314	275	MZ	379	314	AN	305	273
GA	244	101	NL	310	248	CG	180	.
GJ	363	258	OD	325	193	DD	362	282
HR	316	183	PB	372	149	DL	337	.
HP	245	233	RJ	352	222	JK	287	155
JH	319	210	SK	310	211	LD	223	79
KA	344	276	TG	390	349	LH	259	147
KL	235	140	TN	362	295	PD	263	224
						IND	330	233

Source: Kumar et al. (2022) (Age 6 +)

### 4.3 State wise relative participation and contribution of women in agriculture in India (2019)

State	Participation (%)* (Age 6 +)			Contribution (%) (Age 6 +)		
	Ag	Crops	Livestock	Ag	Crops	Livestock
	F			F		
AP	39.8	37.3	40.0	35.3	36.6	34.4
AR	42.5	42.5	49.3	38.2	37.9	54.5
AS	34.3	29.2	32.9	19.8	18.4	27.0
BR	21.5	15.0	33.7	13.2	11.1	27.4
CH	44.4	44.2	30.0	41.1	42.3	21.2
GA	72.6	74.5	26.1	52.4	61.5	17.6
GJ	42.0	32.4	58.5	34.0	27.7	61.0
HR	44.7	11.0	57.7	31.9	11.3	59.4
HP	58.7	48.7	67.5	57.5	40.5	70.9
JH	38.7	34.0	40.0	29.4	26.9	33.3
KA	35.9	33.0	37.9	31.0	30.5	35.7
KL	38.7	33.4	55.0	27.3	22.5	44.0

State	Participation (%)* (Age 6 +)			Contribution (%) (Age 6 +)		
	Ag	Crops	Livestock	Ag	Crops	Livestock
	F			F		
MP	36.2	32.3	36.8	30.0	29.6	30.2
MH	40.6	40.1	29.5	36.8	37.9	23.6
MN	48.2	46.1	54.4	39.1	40.5	38.8
ML	35.1	36.1	26.2	28.4	28.8	22.4
MZ	33.8	30.7	58.8	29.7	28.6	58.3
NL	49.7	50.3	51.4	44.1	45.0	43.8
OD	33.8	22.1	53.8	23.3	18.1	41.6
PB	31.5	7.4	50.8	15.6	5.2	43.6
RJ	54.2	41.9	69.2	42.8	33.2	66.5
SK	37.0	36.0	0.0	28.6	28.5	0.0
TG	43.4	43.9	23.5	40.6	42.4	17.5
TN	44.7	41.1	49.7	39.7	39.5	45.6
TR	31.8	23.1	50.3	22.3	17.3	52.3

State	Participation (%)* (Age 6 +)			Contribution (%) (Age 6 +)		
	Ag	Crops	Livestock	Ag	Crops	Livestock
	F			F		
UK	61.7	57.5	65.5	56.1	50.7	60.8
UP	37.0	22.6	48.0	27.1	17.8	47.9
WB	25.5	13.1	52.3	15.2	11.3	40.5
AN	30.6	13.8	28.7	28.3	8.1	27.2
DD	53.2	55.5	20.5	47.0	51.9	24.0
JK	49.1	51.8	43.9	34.3	36.9	31.2
LD	16.1	36.4	0.0	6.3	32.2	0.0
LH	48.9	33.8	50.0	35.3	25.2	43.0
PD	32.8	31.1	38.3	29.4	30.3	30.1
<b>IND</b>	<b>38.7</b>	<b>31.1</b>	<b>49.1</b>	<b>30.8</b>	<b>27.2</b>	<b>45.8</b>

\*participation (%) (relative share) =  $W/(W+M)$ ;

Relative share of men =  $(100 - \text{Relative share of women}) \%$

Contribution of men =  $(100 - \text{Contribution of women}) \%$

Source: Kumar et al. (2022)

## 4.4 State wise health related data of children &lt;5 Yr (NFHS-5), %

State	Stunting	Wasting	Severe Wasting	Under weight	Over weight	Anaemia*
AP	31.2	16.1	6.0	29.6	2.7	63.2
AR	28.0	13.1	6.5	15.4	9.7	56.6
AS	35.3	21.7	9.1	32.8	4.9	68.4
BR	42.9	22.9	8.8	41.0	2.4	69.4
CH	34.6	18.9	7.5	31.3	4.0	67.2
GA	25.8	19.1	7.5	24.0	2.8	53.2
GJ	39.0	25.1	10.6	39.7	3.9	79.7
HR	27.5	11.5	4.4	21.5	3.3	70.4
HP	30.8	17.4	6.9	25.5	5.7	55.4
JH	39.6	22.4	9.1	39.4	2.8	67.5
KA	35.4	19.5	8.4	32.9	3.2	65.5
KL	23.4	15.8	5.8	19.7	4.0	39.4
MP	35.7	19.0	6.5	33.0	2.0	72.7
MH	35.2	25.6	10.9	36.1	4.1	68.9
MN	23.4	9.9	3.4	13.3	3.4	42.8
ML	46.5	12.1	4.7	26.6	4.0	45.1
MZ	28.9	9.8	4.9	12.7	10.0	46.4
NL	32.7	19.1	7.9	26.9	4.9	42.7
OD	31.0	18.1	6.1	29.7	3.5	64.2
PB	24.5	10.6	3.7	16.9	4.1	71.1

State	Stunting	Wasting	Severe Wasting	Under weight	Over weight	Anaemia*
RJ	31.8	16.8	7.6	27.6	3.3	71.5
SK	22.3	13.7	6.6	13.1	9.6	56.4
TG	33.1	21.7	8.5	31.8	3.4	70.0
TN	25.0	14.6	5.5	22.0	4.3	57.4
TR	32.3	18.2	7.3	25.6	8.2	64.3
UK	27.0	13.2	4.7	21.0	4.1	58.8
UP	39.7	17.3	7.3	32.1	3.1	66.4
WB	34.4	20.4	6.9	33.5	3.6	71.3
AN	22.5	16.0	4.8	23.7	5.4	40.0
CG	25.3	8.4	2.3	20.6	1.9	54.6
DD	39.4	21.6	4.3	38.7	1.9	75.8
DL	30.9	11.2	4.9	21.8	4.0	69.2
JK	26.9	19.0	9.7	21.0	9.6	72.7
LD	32.0	17.4	8.7	25.8	10.5	43.1
LH	30.5	17.5	9.1	20.4	13.4	92.5
PD	20.0	12.4	3.7	15.3	3.8	64.0
IND	35.5	19.3	7.7	32.1	3.4	67.1

\* among children 6-59 months; All values in percentage

Source: NFHS 2019-21

## 4.5 State wise health status among women (NFHS-5), %

State	Low	Over weight	Anaemia*	State	Low	Over weight	Anaemia*
AP	14.8	36.3	58.8	OD	20.8	23.0	64.3
AR	5.7	23.9	40.3	PB	12.7	40.8	58.7
AS	17.6	15.2	65.9	RJ	19.6	12.9	54.4
BR	25.6	15.9	63.5	SK	5.8	34.7	42.1
CH	23.1	14.1	60.8	TG	18.8	30.1	57.6
GA	13.8	36.1	39.0	TN	12.6	40.4	53.4
GJ	25.2	22.6	65.0	TR	16.2	21.5	67.2
HR	15.1	33.1	60.4	UK	13.9	29.7	42.6
HP	13.9	30.4	53.0	UP	19.0	21.3	50.4
JH	26.2	11.9	65.3	WB	17.4	20.3	74.4
KA	17.2	30.1	47.8	AN	9.4	38.1	57.5
KL	10.1	38.1	36.3	CG	13.0	44.0	60.3
MP	23.0	16.6	54.7	DD	25.1	26.8	62.5

State	Low	Over weight	Anaemia*	State	Low	Over weight	Anaemia*
MH	20.8	23.4	54.2	DL	10.0	41.3	49.9
MN	7.2	34.1	29.4	JK	5.2	29.3	65.9
ML	10.8	11.5	53.8	LD	8.0	33.5	25.8
MZ	5.3	24.2	34.8	LH	4.4	28.3	92.8
NL	11.1	14.4	28.9	PD	9.0	46.2	55.1
				IND	18.7	24.0	57.0

\* among women (15-49 year); All values in percentage

Source: NFHS 2019-21

## 4.6 State wise indicators of women empowerment (NFHS-5)

State	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)
AP	21.0	84.1	42.1	47.8	81.8	48.9
AR	52.9	87.0	23.5	70.2	78.2	76.4
AS	28.2	92.1	19.0	42.7	78.5	57.2
BR	20.6	86.5	12.6	55.3	76.7	51.4
CH	26.7	92.7	39.1	45.6	80.3	40.7
GA	73.7	93.1	31.9	23.2	88.3	91.2
GJ	30.8	92.2	30.8	42.6	70.0	48.8
HR	48.4	87.5	18.8	39.3	73.6	50.4
HP	49.7	93.9	20.2	23.1	83.1	79.5
JH	31.4	91.0	18.0	64.2	79.6	49.0
KA	35.0	82.7	37.0	67.6	88.7	61.8
KL	61.1	94.1	25.8	27.3	78.5	86.6
MP	26.9	86.0	26.8	39.9	74.7	38.5
MH	38.0	89.8	34.7	22.9	72.8	54.8
MN	44.8	94.8	42.1	58.4	74.0	72.2
ML	34.7	92.3	40.0	65.0	70.4	67.5

State	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)
MZ	67.6	98.8	29.2	20.8	80.7	82.3
NL	49.9	99.2	23.6	26.9	63.7	82.5
OD	24.9	90.2	25.7	43.5	86.5	50.1
PB	54.8	91.4	22.3	63.5	81.6	61.2
RJ	36.9	87.7	17.4	26.6	79.6	50.2
SK	76.7	89.7	32.7	53.1	76.4	88.6
TG	26.5	87.2	45.1	66.6	84.4	60.0
TN	46.9	92.8	40.8	47.9	92.2	74.6
TR	22.9	90.9	23.1	17.2	76.9	53.1
UK	45.1	91.0	21.6	24.6	80.2	60.9
UP	30.6	87.6	15.5	51.9	75.4	46.5
WB	25.5	88.9	20.2	23.2	76.5	50.1
AN	34.8	94.5	24.6	15.8	89.2	80.8
CG	75.2	94.6	22.0	30.4	87.1	70.0
DD	36.7	91.9	31.5	55.8	83.6	60.5
DL	63.8	92.0	24.9	22.7	72.5	73.8
JK	43.3	81.6	18.4	57.3	84.9	75.2

State	A (%)	B (%)	C (%)	D (%)	E (%)	F (%)
LD	56.4	92.2	10.9	30.7	66.9	84.0
LH	56.4	80.4	28.3	72.2	88.4	81.2
PD	61.9	97.9	38.2	37.3	92.6	82.9
IND	33.3	88.7	25.4	43.3	78.6	54

Source: NFHS 2019-21

A	Women who have ever used the internet
B	Currently married women who usually participate in three household decisions
C	Women who worked in the last 12 months and were paid in cash
D	Women owning a house and/or land (alone or jointly with others)
E	Women having a bank or savings account that they themselves use
F	Women having a mobile phone that they themselves use

## 4.7 State wise no. of self help groups in India (2022)

State	Total No.			
	District	Block	SHG Formed	SHG-HMO
AP	26	660	853122	8929363
AR	25	111	7389	58971
AS	35	219	331506	3702109
BR	38	534	1054917	12200804
CH	33	146	250800	2707815
GA	2	12	3640	46906
GJ	33	248	267461	2652687
HR	22	143	55037	567338
HP	12	92	41084	328624
JH	24	263	271128	3184575
KA	31	233	251313	2979062
KL	14	152	253431	3507604
MP	52	313	419943	4984016
MH	34	351	594843	5925836
MN	16	70	7685	79568
ML	12	46	44002	426730
MZ	11	26	9298	73358
NL	11	74	13908	119272

State	Total No.			
	District	Block	SHG Formed	SHG-HMO
OD	30	314	527798	5432268
PB	23	152	38798	390196
RJ	33	353	259185	2852500
SK	6	33	5456	50498
TG	32	542	438897	4678981
TN	37	388	317620	3612552
TR	8	58	45855	412199
UK	13	95	53283	397375
UP	75	827	695808	7272556
WB	23	345	1045372	10780580
AN	3	9	1165	11434
DD	3	3	886	9356
JK	20	283	75266	607677
LD	1	10	328	3741
LH	2	31	496	3863
PD	2	3	4195	53334
<b>IND</b>	<b>742</b>	<b>7139</b>	<b>8240915</b>	<b>89043748</b>

source: <https://nrlm.gov.in/>

## 4.8 Female headed households (Census 2011)

State	Number of FHH	State	Number of FHH	State	Number of FHH
AP	2,770,615	MH	2,512,836	UK	342,185
AR	28,723	ML	116,794	UP	2,733,797
AS	743,052	MN	72,887	WB	2,238,097
BR	1,406,384	MP	1,203,448	AN	11,138
CH	626,347	MZ	33,801	CG	20,945
GA	65,465	NL	48,228	DD	7,294
GJ	1,091,256	OD	1,018,943	DL	349,962
HP	270,128	PB	673,264	DNH	3,675
HR	449,366	RJ	881,530	JK	158,673
JH	530,722	SK	15,055	LD	4,307
KA	1,965,022	TN	2,588,870	PD	48,285
KL	1,749,790	TR	108,042	<b>IND</b>	<b>26,888,926</b>

(Excluding Institutional Households)

## 5. Brief about Indian Council of Agricultural Research (ICAR)

ICAR is the largest Agri-Research organization in the world

Area	Institution details	Nos.
1. Research	Institutes	113
	AICRP	74
2. Education	CAU	3
	DU	4
	SAU*	63
	CUAg*	4
3. Extension	KVKs	731
4. Support	ASRB	1
	AgIn*	1

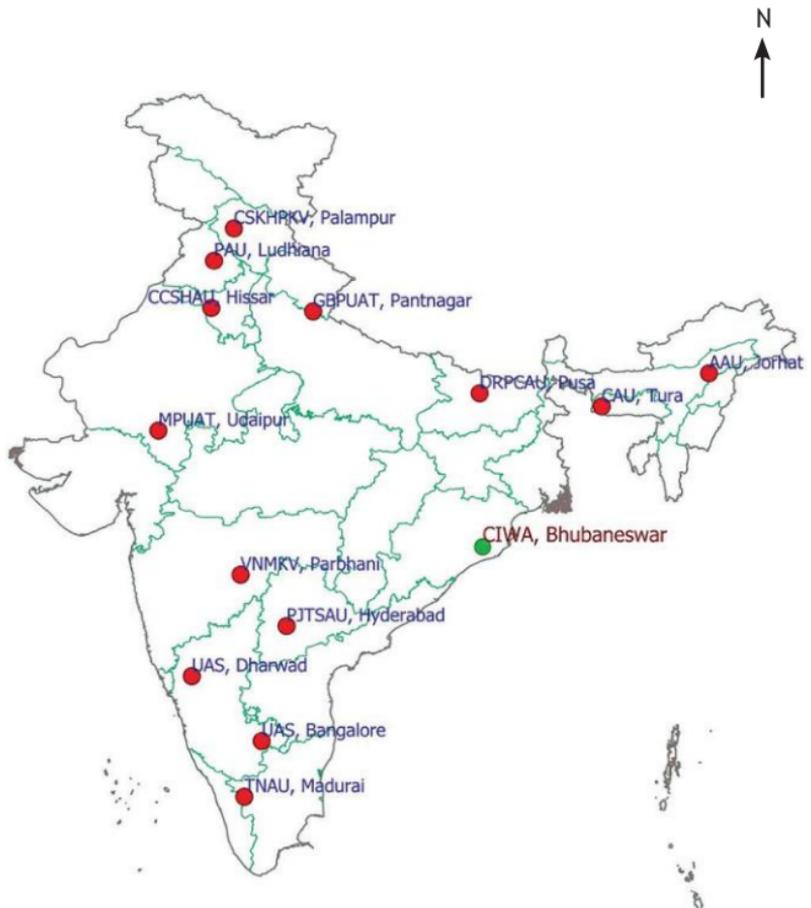
\*partially supported by DARE/ICAR

Staff details	Nos.
Scientists	6,586
Tech., Admin., Supporting staff	17,881
Staff in KVKs	11,000
Staff in AICRPs	3,500



## 6. List of AICRP on Women in Agriculture Centres

- Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana
- Punjab Agricultural University, Ludhiana, Punjab
- Govind Ballabh Pant University of Agriculture & Technology, Pantnagar, Uttaranchal
- Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan
- Prof. Jayshankar Telangana State Agricultural University (PJTSAU), Hyderabad, Telangana
- University of Agricultural Sciences, Dharwad, Karnataka
- University of Agricultural Sciences, Bengaluru, Karnataka
- Assam Agricultural University, Jorhat, Assam
- Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur, Himachal Pradesh
- Marathwada Agricultural University, Parbhani, Maharashtra
- Central Agricultural University, Tura, Meghalaya
- Tamil Nadu Agricultural University, Madurai, Tamil Nadu
- Dr. Rajendra Prasad Central Agricultural University, Samastipur, Bihar



Map not to scale, for representation purpose only

## 7. Achievements of ICAR-CIWA and AICRP on Women in Agriculture

- “Nutri Smart Villages - an Innovative Programme for Strengthening Poshan Abhiyan” - 75 Villages across the Country
  - Number of Nutri-gardens established - 2500
  - Capacity building programmes conducted (Last 10 Years)- 1500 (58000 Beneficiaries)
  - Coverage of Households under Ongoing Research Programmes - 66500
  - SC Farmwomen beneficiaries under SCSP - 5000
  - Number of women-led Custom Hiring Centres established- 26
- 
- Technologies assessed in gender perspectives - 550
  - Gender Sensitive Models developed - 15
  - Food products with Low Glycemic Index - 18
  - Nutri-dense products for vulnerable groups - 72
  - Nutritive food products for young children - 26
  - Ergonomically evaluated tools and scaled-up - 32 (3500 women beneficiaries)
  - Value added handicraft products developed -110
  - Value added textile (handicraft from under-utilized fibres & protective clothing products) - 112

### **Patents Granted**

- Device to Manage Head load

### **Patents Filed**

- Sizing agent for textile applications and a method for extracting the same from *Luffa tuberosa* tubers
- Biodegradable Mesta Composite Pots for Nurseries

### **Registration of Design**

- Power operated groundnut stripper cum decorticator (Design No. 385950-001)
- Easy Harvest Bag

### **Technologies Commercialized**

- DRWA- Hand Operated Maize Dehusker cum Sheller
- Technology entitled “Process of Fermented Fish Silage Manure-: A Wealth from Waste Technology”
- Women Friendly Multipurpose Integrated Vertical Nutri-Farming System (IVNFS) for Vegetable Production with Mushroom and Poultry
- Process Technology for production of High fibre food mix for management of obesity.
- Process Technology for production of Poustik Laddu
- Process Technology for production of Ragi malt
- Process Technology for production of Ragi hurihittu

### **ICAR Certified Technologies**

- Women Friendly Integrated Vertical Nutri-Farming System (IVNFS) for Vegetable Production with Mushroom and Poultry
- Process for fermented fish silage manure.
- Power operated groundnut decorticator cum stripper.
- Easy Harvest Bag.
- Manual Disc Ridger.

## 8. Agricultural Revolutions in India

Revolution	Products	Father of Revolution	Period
Round Revolution	Potato	---	1965-2005
Green Revolution	Food Grains	Norman Borlaug, William Goud M.S.Swaminathan	1966-1967
Grey Revolution	Fertilizers	M.S.Swaminathan	1960-1970
Pink Revolution	Onion Production/ Prawn Production	Durgesh Patel	1970
White Revolution/ Operation Flood	Milk Production	Vergheese Kurien	1970-1996
Blue Revolution	Fish Revolution	Dr. Arun Krishnsan	1973-2002
Red Revolution	Meat Production/ Tomato Production	Vishal Tewari	1980
Yellow Revolution	Oilseed Production	Sam Pitroda	1986-1990
Brown Revolution	Leather/Cocoa/ Non-Conventional Products	Hiralal Chaudri	---
Golden Fibre Revolution	Jute Production	Nirpakh Tutej	1990

Revolution	Products	Father of Revolution	Period
Golden Revolution	Fruits/ Honey Production/ Horticulture Development	Nirpakh Tutej	1991- 2003
Silver Revolution	Egg Production/ Poultry Production	Indira Gandhi	2000
Silver Fiber Revolution	Cotton	Indira Gandhi	2000
Protein Revolution	Agriculture (Higher Production)	Coined by Narendra Modi	2014- 2020
Evergreen Revolution	Overall Production of Agriculture	M.S.Swaminathan	2017- 2022

Source: Dastagiri et.al. (2014)

## 9. Bio fortified Crops

Crop(s)	No of Bio fortified Cultivars	Crop(s)	No of Bio fortified Cultivars	Crop(s)	No of Bio fortified Cultivars
Rice	8	Lentil	2	Potato	2
Wheat	28	Groundnut	2	Sweet Potato	2
Maize	14	Linseed	1	Greater Yam	2
Pearl Millet	9	Mustard	6	Pomegranate	1
Finger Millet	3	Soybean	5		
Little Millet	1	Cauliflower	1		

### Bio fortified Cultivars

#### RICE

1. Rice CR Dhan 310 (Protein 10.3%)
2. Rice DRR Dhan 45 (Zinc 22.6 ppm)
3. Rice DRR Dhan 48 (Zinc 24.0 ppm)
4. Rice DRR Dhan 49 (Zinc 25.2 ppm)
5. Rice Zinco Rice MS (Zinc 27.4 ppm)
6. Rice CR Dhan 311 (Mukul) (Protein 10.1 %, Zinc 20.1 ppm)
7. Rice CR Dhan 315 (Zinc 24.9 ppm)
8. Rice CR Dhan 411 (Protein 10.1%)

## WHEAT

1. Wheat WB 02 (Iron 40.0 ppm, Zinc 42.0 ppm)
2. Wheat HPBW 01 (Iron 40.0 ppm, Zinc 40.6 ppm)
3. Wheat Pusa Tejas (HI 8759) durum (Protein 12.0 %,Iron 41.1 ppm, Zinc 42.8ppm)
4. Wheat Pusa Ujala (HI 1605) (Protein 13.0 %, Iron 43.0 ppm)
5. Wheat HD 3171 (Zinc 47.1 ppm)
6. Wheat HI 8777 (durum) ( Iron 48.7 ppm, Zinc 43.6 ppm)
7. Wheat MACS 4028 (durum) (Protein 14.7 %,Iron 46.1 ppm, Zinc 40.3ppm)
8. Wheat PBW 752 (Protein 12.4%)
9. Wheat PBW 757 (Zinc 42.3 ppm)
10. Wheat Karan Vandana (DBW 187) (Iron 43.1 ppm)
11. Wheat DBW 173 (Protein 12.5%, Iron 40.7 ppm)
12. Wheat UAS 375 (Protein 13.8%)
13. Wheat DDW 47 (Protein 12.7 %, Iron 40.1 ppm)
14. Wheat PBW 771 (Zinc 41.4 ppm)
15. Wheat HI 8802 (durum) (Protein 13.0%)
16. Wheat HI 8805 (durum) (Protein 12.8 %, Iron 40.4 ppm)
17. Wheat HD 3249 (Iron 42.5 ppm)
18. Wheat MACS 4058 (durum) (Protein 14.7 %,Iron 39.5 ppm, Zinc 37.8 ppm)
19. Wheat HD 3298 (Protein 12.1 %, Iron 43.1 ppm)

20. Wheat HI 1633 (Protein 12.4 %, Iron 41.6 ppm, Zinc 41.1 ppm)
21. Wheat DBW 303 (Protein 12.1 %)
22. Wheat DDW 48 (durum) (Protein 12.1%)
23. Wheat DBW 332 (Protein 12.2 %, Zinc 40.6 ppm)
24. Wheat DBW 327 (Zinc 40.6 ppm)
25. Wheat HI 1636 (Zinc 40.4 ppm)
26. Wheat HI 8823 (durum) (Protein 12.1 %, Zinc 40.1 ppm)
27. Wheat HUW 838 (Zinc 41.8 ppm)
28. Wheat MP (JW) 1358 (Protein 12.1 %, Iron 40.6 ppm)

## **MAIZE**

1. Maize Vivek QPM 9 (Lysine 4.19 %, Tryptophan 0.83 %)
2. Maize Pusa HM 4 Improved (Lysine 3.62 %, Tryptophan 0.91 %)
3. Maize Pusa HM 8 Improved (Lysine 4.18 %, Tryptophan 1.06 %)
4. Maize Pusa HM 9 Improved (Lysine 2.97 %, Tryptophan 0.68 %)
5. Maize Pusa Vivek QPM 9 Improved (Provitamin-A 8.15 ppm, Lysine 2.67 %, Tryptophan 0.74 %)
6. Maize Pusa VH 27 Improved (Provitamin- A 5.49 ppm)
7. Maize Pusa HQPM 5 Improved (Provitamin-A 6.77 ppm, Lysine 4.25 %, Tryptophan 0.94 %)
8. Maize Pusa HQPM 5 Improved (Provitamin-A 6.77 ppm, Lysine 4.25 %, Tryptophan 0.94 %)
9. Maize Pusa HQPM 7 Improved (Provitamin-A 7.10 ppm, Lysine 4.19 %, Tryptophan 0.93 %)
10. Maize IQMH 201 (LQMH 1) (Lysine 3.03 %, Tryptophan 0.73 %)

11. Maize IQMH 202 (LQMH 2) (Lysine 3.04 % Tryptophan 0.66%)
12. Maize IQMH 203 (LQMH 3) (Lysine 3.48 % Tryptophan 0.77%)
13. Maize Malviya Swarn Makka 1 (Lysine 3.89 % Tryptophan 0.97%)
14. Maize Pusa HQPM 1 Improved (Provitamin-A 7.02 ppm, Lysine 4.59 %, Tryptophan 0.85 %)
15. Maize Pusa Biofortified Maize Hybrid 1 (Provitamin-A 6.60 ppm, Lysine 3.37 %, Tryptophan 0.72 %)

## MILLET

1. Pearl Millet HHB 299 (Iron 73.0 ppm, Zinc 41.0 ppm)
2. Pearl Millet AHB 1200 Fe (Iron 73.0 ppm)
3. Pearl Millet AHB 1269 Fe (Iron 91.0 ppm, Zinc 43.0 ppm)
4. Pearl Millet ABV 04 (Iron 70.0 ppm, Zinc 63.0 ppm)
5. Pearl Millet Phule Mahashakti (Iron 87.0 ppm, Zinc 41.0 ppm)
6. Pearl Millet RHB 233 (Iron 83.0 ppm, Zinc 46.0 ppm)
7. Pearl Millet RHB 234 (Iron 84.0 ppm, Zinc 46.0 ppm)
8. Pearl Millet HHB 311 (Iron 83.0 ppm)
9. Pearl Millet HHB 67 Improved 2 (Protein 15.5 %,Iron 54.8 ppm, Zinc 39.6 ppm)
10. Finger Millet VR 929 (Vegavathi) (Iron 131.8 ppm)
11. Finger Millet CFMV1 (Indravati) (Calcium 428mg/100g,Iron 58.0 ppm, Zinc 44.0 ppm)
12. Finger Millet CFMV2 (Calcium 454 mg/100g,Iron 39.0 ppm, Zinc 25.0 ppm)
13. Little Millet CLMV 1 (Iron 59.0 ppm, Zinc 35.0 ppm)

## **LENTIL**

1. Lentil Pusa Ageti Masoor (Iron 65.0 ppm)
2. Lentil IPL 220 (Iron 73.0 ppm, Zinc 51.0 ppm)

## **GROUNDNUT**

1. Groundnut Girnar 4 (Oleic acid 78.5 %)
2. Groundnut Girnar 5 (Oleic acid 78.4 %)

## **LINSEED**

1. Linseed TL 99 (Linoleic acid 58.9%)

## **MUSTARD**

1. Mustard Pusa Mustard 30 (Erucic acid 1.20 %)
2. Mustard Pusa Double Zero Mustard 31 (Erucic acid 0.76 % , Glucosinolates 29.41 ppm)
3. Mustard Pusa Mustard 32 (Erucic acid 1.32 %)
4. Mustard Pusa Double Zero Mustard 33 (Erucic acid 0.58 % , Glucosinolates 15.17 ppm)
5. Mustard RCH 1 (Erucic Acid 0.09 % , Glucosinolates 19.49 ppm)
6. Mustard PGHS 1699 (GSH 1699) (Erucic Acid 1.49 % , Glucosinolates 20.24 ppm)

## **SOYBEAN**

1. Soybean NRC 127 (Kunitz tryptsin inhibitor Free)
2. Soybean NRC 132 (Lipoxygenase - 2 Free)
3. Soybean NRC 147 (Oleic acid 42.0 %)

4. Soybean NRC 142 (Kunitz trypsin inhibitor Free)
5. Soybean MACSNRC 1667 (Kunitz trypsin inhibitor Free)

### **CAULIFLOWER**

1. Cauliflower Pusa Beta Kesari 1 (Provitamin A 8.0-10.0ppm)

### **POTATO**

1. Potato Kufri Manik (Anthocyanin 0.68 ppm)
2. Potato Kufri Neelkanth (Anthocyanin 1.0 ppm)

### **SWEET POTATO**

1. Sweet Potato Bhu Sona (Pro vitamin A 14.0 mg/100 g)
2. Sweet Potato Bhu Krishna (Anthocyanin 90.0 mg/100 g)

### **GREATER YAM**

1. Greater Yam Sree Neelima (Anthocyanin 50 mg/100g, Protein 15.4 %, Zinc 49.8 ppm)
2. Greater Yam Da 340 (Anthocyanin 141.4 mg/100g, Iron 136.2 ppm, Calcium 1890 ppm)

### **POMEGRANATE**

1. Pomegranate Solapur Lal (Iron 5.6-6.1 mg/100 g, zinc 0.64-0.69 mg/100g, Vitamin-C 19.4-19.8 mg/100 g)

Source : <https://icar.org.in/sites/default/files/2022-06/Biofortified-Varieties-4th-Edition.pdf>

[https://apeda.gov.in/milletportal/files/Statewise\\_Millet\\_Production.pdf](https://apeda.gov.in/milletportal/files/Statewise_Millet_Production.pdf)

## 10. Gender related data and information sources

Source	Website
Agricultural Census	<a href="http://agcensus.nic.in">http://agcensus.nic.in</a>
Census of India Organisation	<a href="http://www.censusindia.gov.in">http://www.censusindia.gov.in</a>
Centre for Social Research	<a href="http://www.csrindia.org">http://www.csrindia.org</a>
Centre for Women's Development Studies	<a href="http://www.cwds.ac.in">http://www.cwds.ac.in</a>
ICAR-Central Institute for Women in Agriculture	<a href="http://icar-ciwa.org.in">http://icar-ciwa.org.in</a>
Indian Council of Social Science Research	<a href="http://icssr.org">http://icssr.org</a>
Labour Bureau, Government of India	<a href="http://labourbureau.gov.in">http://labourbureau.gov.in</a>
Ministry of Labour & Employment	<a href="http://labour.gov.in">http://labour.gov.in</a>
Ministry of Women & Child Development	<a href="http://www.wcd.nic.in">http://www.wcd.nic.in</a>
National Commission for Women	<a href="http://ncw.nic.in">http://ncw.nic.in</a>
National Gender Resource Centre in Agriculture	<a href="https://krishivistar.gov.in/ngrca.aspx">https://krishivistar.gov.in/ngrca.aspx</a>
Rashtriya Mahila Kosh	<a href="http://rmk.nic.in">http://rmk.nic.in</a>
Self Employed Women's Association	<a href="http://www.sewa.org">http://www.sewa.org</a>

Source	Website
Women Agricultural Professionals of India	<a href="http://www.naarm.org.in">http://www.naarm.org.in</a>
Women's Studies Portal	<a href="http://www.womenstudies.in">http://www.womenstudies.in</a>
Young Women's Christian Association	<a href="http://www.ywcaindia.org">http://www.ywcaindia.org</a>
<u>Department of Agriculture &amp; Cooperation: Gender Resource Centre</u>	<a href="http://agricoop.nic.in/">http://agricoop.nic.in/</a>
<u>ICAR: Indian Council of Agricultural Research</u>	<a href="http://www.icar.org.in/">http://www.icar.org.in/</a>
<u>World Bank: Gender Data</u>	<a href="http://www.worldbank.org/en/topic/gender">http://www.worldbank.org/en/topic/gender</a>
IFPRI on Gender	<a href="https://www.ifpri.org/topic/gender">https://www.ifpri.org/topic/gender</a>
FAO:Gender	<a href="https://www.worldbank.org/en/topic/gender">https://www.worldbank.org/en/topic/gender</a>
National Indigenous Women's Resource Centre	<a href="https://www.niwrc.org/">https://www.niwrc.org/</a>

## 11. Padma awards received in agriculture (2017-2023)

Year	Awards	Name	Brief
2017	Padma Shri	Shri Genabhai Dargabhai Patel (Gujarat)	Divyang farmer, who single handedly transformed drought hit border district into the largest producer of pomegranate in the country
2019	Padma Shri	Shri Kanwal Singh Chauhan (Haryana)	Introduce profitable Baby Corn Farming
2019	Padma Shri	Shri Babulal Dahiya (Madhya Pradesh)	Conservation of old and traditional seeds
2019	Padma Shri	Ms. Rajkumari Devi (Bihar)	Kisaan Chachi- formed self-help group and motivated rural women to become financially independent
2019	Padma Shri	Shri Baldev Singh Dhillon (Punjab)	Agriculture Scientist and plant breeding specialist
2019	Padma Shri	Shri Vallabhbhai Vasrambhai Marvaniya (Gujarat)	High yielding variety of carrots
2019	Padma Shri	Shri Jagdish Prasad Parikh (Rajasthan)	Developed pest and climate resistant cauliflower variety
2019	Padma Shri	Shri Hukumchand Patidar (Rajasthan)	Marketed online, exported as well as trained local farmers in organic farming techniques
2019	Padma Shri	Ms. Kamala Pujhari (Odisha)	Preserved endangered seeds and promoted organic farming

Year	Awards	Name	Brief
2019	Padma Shri	Shri Bharat Bhushan Tyagi (Uttar Pradesh)	Practicing organic agricultural technique that reduce costs and increase income.
2019	Padma Shri	Shri Ram Saran Verma (Uttar Pradesh)	Adopted technology and scientific farming in cultivation and trained other in the same.
2019	Padma Shri	Shri Venkateswara Rao Yadlapalli (Andhra Pradesh)	Promoting organic farming
2020	Padma Shri	Ms. Rahibai Soma Popere (Maharashtra)	Agro bio-diversity conservation, Seed Mother
2020	Padma Shri	Shri Chintala Venkat Reddy (Telangana)	Developed new fruit varieties and brands of organic produce
2020	Padma Shri	Shri Radhammohan & Ms. Sabarmatee (Duo)* (Odisha)	Enabling farmers across the country to take to sustainable organic farming
2020	Padma Shri	Ms. Trinity Saioo (Meghalaya)	Turmeric farming movement
2021	Padma Shri	Shri Nanadro B Marak (Meghalaya)	Organic Farmer of Blackpepper
2021	Padma Shri	Ms. Pappammal (Tamil Nadu)	Agriculturist
2021	Padma Shri	Shri Prem Chand Sharma (Uttarakhand)	Successfully introduced range of pomegranate varieties

Year	Awards	Name	Brief
2021	Padma Shri	Shri Chandra Shekhar Singh (Uttar Pradesh)	Developing High yield seeds
2022	Padma Bhusan	Dr Sanjaya Rajaram (Uttar Pradesh)	Developed 480 high yield,disease resistant wheat varieties
2022	Padma Shri	Shri Amai Mahalinga Naik (Karnataka)	Single handedly transforming a barren land into an organic tree farm
2022	Padma Shri	Shri Seth Pal Singh (Uttar Pradesh)	Specializing in modifying singhara Crop geometry and rotation practice
2023	Padma Shri	Shri Tula Ram Upreti (Sikkim)	Concept of organic farming.
2023	Padma Shri	Nekram Sharma (Uttar Pradesh)	Reservation of indigenous seeds
2023	Padma Shri	Patayat Sahu (Odisha)	Growing Medicinal forest
2023	Padma Shri	Shri Raman Cheruvayal (Kerala)	Indigenous rice seed conservation
2023	Padma Shri	Dr. Khadar Valli Dudekula (Karnataka)	Millet Man of India known for having revived 5 types of disappearing millet
2023	Padma Shri	Dr Bakshi Ram (Haryana)	Contribution to the development of new sugarcane varieties

Source: <https://www.padmaawards.gov.in/>

## 12. All India emergency contact toll free numbers

Emergency Helpline	Contact Details
AIDS Help Line	1800 11 1097
Aids Helpline	1097
AIIMS	1800 11 6117
Air Asia	1860 500 8000
Air India	1800 180 1407
Ambulance	102
Anti Corruption Bureau	1800 222 021
Anti Poison (New Delhi)	1066
Anti Ragging Helpline	1800 1805 522
Bharat Gas	1800 222 725
CBSE-Helpline	1800117 002
Central Building Research Institute(CBRI)	1800 270 0800
Central Pension Accounting Open Pradhan Mantri Jan-Dhan Yojana	1800 117 788 / 1800 11 0001/ 1800 180 1111
Central Vigilance Commission	1800 11 0180
Community Radio Facilitation Centre	1800 11 6346

Emergency Helpline	Contact Details
Core Centre Helpline	1800 180 4566
Crime Stopper	1090
Delhi VAT Helpline	1800 110 066
Disaster Management Services	108
Earthquake/Flood/Disaster	011-24363260
Electricity Complaint	155333
e-procurement	1800 3070 2232
Ex. Serviceman Contributory Health Scheme ( ECHS)-Helpline	1800 114 115
'Eyeway National Helpdesk' for Visually Impaired Citizens	1800 300 20469
Fire	101
Free Service Ambulance	102
H1N1 FLU(Swine Flu) -Helpline	1800 11 4377
Help centre on Gold schemes of Government of India	1800 180 0000
Hindustan Petroleum	1800 233 3777
ICRI Global Research	1800 103 0006

Emergency Helpline	Contact Details
IMD Weather on Web	1800 180 1717
Income Tax Department	1800 4252 229
Income Tax-e-Filing	1800 4250 0025
Indane Gas	1800 233 3555
India Post Office-Speed Post Customer care	1800 119 888
Indian Railways Reservation(IRCTC)	1800 111 139
Indra Prastha Gas Ltd. (IGL)	1860 180 1817
Insurance Regulatory and Development Authority (IRDA)	1800 425 4372
IREDA	1800 111 442
Jan Aushadhi	1800 180 8080
Jet Airways	1800 225 522
Kendriya Vidhalaya Sangathan (KVS)	1800 118 002
Kisan Call centre	1800 180 1551
LPG Leak Helpline	1906
Mahanagar Gas	1800 229 944

Emergency Helpline	Contact Details
Mahatma Gandhi National Rural Employment Guarantee Act (NREGA)	1800 110 707
National AIDS Control Organisation (NACO)	1800 41 91800
National Career Service	1800 425 1514
National Commission For Minority Educational Institutions	1800 110 088
National Commission For Women Helpline	7827 170 170
National Consumer Helpline	1800 114 000
National Emergency Number	112
National Minorities Development & Finance Corporation	14402
Navodaya Vidyalaya Samiti (NVS)	1800 345 0092
NCERT	1800 111 265
PAN Card	1800 180 1961
Passport Seva Kendra	1800 2581 800
PF Office Mumbai	1800 118 005
Pharma Jan Samadhan	1800 111 255
Women Helpline	181

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## Authors Note

The pocket book 'Gender Disaggregated Data in Agriculture' is a compilation of data on gender in key areas of different socio-economic indicators of development available in public domain of various Ministries, Departments, Institutions and research findings of ICAR-CIWA. Attempt has been made to capture and present the most recent information on important indicators related to agriculture and gender both at national as well as state level and decadal/ year wise information at national level, where ever possible. Maps shown in the pocket book are not to scale and are meant for representation purpose only. We are overwhelmed to bring out the first edition of this book. The book will be updated on regular basis as and when new data is obtained from selected sources. We wish that the book will be useful to researchers and readers at large extent.

Authors





















**भाकृअनुप - केन्द्रीय कृषिस्त महिला संस्थान**

**भुवनेश्वर - 751 003, ओडिशा, भारत**

**ICAR-Central Institute for Women in Agriculture**

**Bhubaneswar - 751 003, Odisha (India)**

**ISO 9001:2015 Certified**

**Phone No.: (0674)-2387940/2387241**

**E-mail: [director.ciwa@icar.gov.in](mailto:director.ciwa@icar.gov.in)**

**Website: <http://www.icar-ciwa.org.in>**

