कृषि अनुसंधान
डाटा पुस्तिका
AGRICULTURAL RESEARCH
DATA BOOK
2024

भाकृअनुप
ICAR

INTERNATIONAL YEAR OF
CAMELIDS
2024

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डॉ हिमांशु पाठक
Dr HIMANSHU PATHAK

सत्यमेव जयते

सचिव कृषि अनुसंधान और शिक्षा विभाग एवं
भारतीय कृषि अनुसंधान परिषद
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Secretary, Department of Agricultural Research
and Education (DARE)
and Director General, Indian Council of
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प्राक्कथन

कृषि के समग्र एवं स्थायी विकास के लिए कृषि अनुसंधान की महत्वपूर्ण भूमिका है। भारतीय कृषि अनुसंधान परिषद (भा.कृ.अनु.प.), राष्ट्रीय स्तर पर एक शीर्ष संगठन है जो देश मे कृषि अनुसंधान, शिक्षा, प्रसार एवं नवीन प्रौद्योगिकियों के उपयोग को बढ़ाने में महत्वपूर्ण भूमिका निभाती है। परिषद द्वारा नीति निर्माताओं, वैज्ञानिकों, प्रसार कार्मिकों, छात्रों, अनुसंधानकर्मियों, उद्यमियों एवं प्रगतिशील किसानों के उपयोग हेतु कृषि के विभिन्न पहलुओं पर जानकारी संकलित कर कृषि अनुसंधान डाटा पुस्तिका के रूप में प्रतिवर्ष प्रकाशित की जाती है। कृषि अनुसंधान डाटा पुस्तिका फसलों के क्षेत्र, उत्पादन, उत्पादकता, भूमि उपयोग, बागवानी, पशु पालन, मत्स्य पालन आदि पर आँकड़ों का एक समृद्ध स्रोत है।

कृषि अनुसंधान डाटा पुस्तिका भा.कृ.अनु.प. का महत्वपूर्ण प्रकाशन है, जो एक व्यापक वार्षिक सार-संग्रह प्रस्तुत करता है। भूमि उपयोग के आँकड़ों से लेकर बागवानी और पशुपालन की प्रचुरता तक, हमारे कृषि परिदृश्य का एक विश्वसनीय स्रोत है। कृषि अनुसंधान डाटा पुस्तिका 2024 के वर्तमान अंक में नवीनतम आँकड़ों का समावेश किया गया है। यह अपेक्षा की जाती है कि यह प्रकाशन कृषि पर आँकड़ों का एक विश्वसनीय आधार बना रहेगा।

इस अमूल्य ज्ञान के भण्डार को प्रकाशन स्वरुप एकत्रित करने में कृषि शिक्षा प्रभाग, भारतीय कृषि अनुसंधान परिषद एवं विशेष रूप से भा.कृ.अनु.प.-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान (भा.कृ.अनु.प.-भा.कृ.सां.अनु.सं) के अथक प्रयासों के लिए मैं हृदय से सराहना करता हूँ। मेरी यह कामना है कि कृषि विज्ञान के क्षेत्र में कृषि अनुसंधान डाटा पुस्तिका एक प्रकाश स्तंभ बनी रहे।

दिनांक : 02 जुलाई, 2024

नई दिल्ली

(हिमांशु पाठक)

डॉ हिमांशु पाठक
Dr HIMANSHU PATHAK

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सचिव कृषि अनुसंधान और शिक्षा विभाग एवं
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FOREWORD

Agriculture, the bedrock of our nation's sustenance, thrives on a foundation of information. It is a fertile ground where data blossoms into growth, and knowledge ripens into sustainable development. In this vital role, the Indian Council of Agricultural Research (ICAR) stands tall as a guiding force. ICAR, tirelessly cultivates a rich harvest of research, education, and extension services in agriculture. This dedication generates a wealth of information, a vibrant ecosystem of data that empowers various stakeholders, policymakers, researchers, students, and even farmers, all flourish in the sunlight of this knowledge.

Agricultural Research Data Book (ARDB) is ICAR's signature publication, offering a comprehensive annual compendium. It serves as an indispensable reference, a trusted almanac for agricultural data across the spectrum. From land use statistics to the bounty of horticulture and animal husbandry, the ARDB provides a reliable snapshot of our agricultural landscape. This 2024 edition, meticulously updated with the latest information, ensures its continued relevance. This book is more than a static collection of figures and a dynamic tool for informed decision-making. It empowers us to chart a course for a more sustainable, productive agricultural future. I have full faith that the ARDB will continue to be a cornerstone of knowledge.

My deepest appreciation goes to the ICAR Education Division, especially the ICAR-Indian Agricultural Statistics Research Institute (ICAR-IASRI), for their tireless efforts in bringing forth this invaluable publication. Let the ARDB continue to be a beacon, guiding us towards a brighter agricultural horizon.

Date: 2nd July, 2024
New Delhi

(Himanshu Pathak)

आमुख

भारतीय कृषि अनुसंधान परिषद (भा.कृ.अनु.प.) स्वतंत्रता के बाद से भारत में कृषि अनुसंधान एवं कृषि शिक्षा का मार्गदर्शन के लिए एक दृढ़ स्तम्भ है। इसकी अटूट प्रतिबद्धता ने हमारे देश के कृषि परिदृश्य में समृद्धि को बढ़ाया है।

कृषि अनुसंधान, शिक्षा एवं कृषि सम्बन्धी अन्य क्षेत्रों से संबंधित जानकारी असंख्य प्रकाशित और अप्रकाशित अभिलेखों में उपलब्ध है। वर्ष 1995 के बाद से, इन सभी अभिलेखों/आँकड़ों को एकत्रित कर भाकृअनुप-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान (भाकृअनुप-भाकृसांअनुसं) के प्रयासों के माध्यम से कृषि अनुसंधान डाटा पुस्तिका के रूप में संकलित किया गया है। उपयोगकर्ता के अनुकूल अनुभागों में विभाजित, यह कृषि संबंधी जानकारी का एक विस्तृत संग्रह है। पृथ्वी के प्राकृतिक संसाधनों से लेकर बागवानी और पशुपालन की प्रचुर उपज तक, इस पुस्तिका में कृषि उत्पादन, उत्पादकता, अभियांत्रिकी, अंतर्राष्ट्रीय व्यापार एवं मानव संसाधनों को सम्मलित कर आँकड़ों का एक समृद्ध एवं विविध संग्रह उपलब्ध है। कृषि से संबन्धित सभी आँकड़ों को 180 तालिकाओं में दर्शाया गया है। कृषि अनुसन्धान डाटा पुस्तिका में भारत में उपलब्ध जून 2024 के अंत तक के नवीनतम आँकड़े प्रस्तुत किए गए हैं।

कृषि अनुसन्धान डाटा पुस्तिका का प्रथम संस्करण वर्ष 1996 में प्रकाशित हुआ, जिसमें 1995 के अंत तक के आँकड़ों की जानकारी सम्मलित की गई थी। तदनुसार, इस पुस्तिका का एक संशोधित संस्करण अनवरत प्रत्येक वर्ष प्रकाशित किया जाता है। वर्ष 2024 का संस्करण श्रृंखला का सत्ताईसवां अंक है। कृषि अनुसंधान डाटा पुस्तिका 2024 कई संवर्द्धन प्रस्तुत करती है, जिसमें भविष्य के खाद्यान्न उत्पादन पर अनुमान, डाटा का दृश्य प्रतिनिधित्व, राज्य-वार डाटा चित्रण और भौगोलिक सूचना प्रणाली तकनीक द्वारा रचित विषयगत मानचित्र सम्मिलित हैं। इस संस्करण में उल्लेखनीय परिवर्धन में बिजली उत्पादन क्षमता, समुद्री निर्यात और जल शक्ति मंत्रालय द्वारा जारी भारत की उद्घाटन जल निकाय जनगणना रिपोर्ट की अंतर्दृष्टि भी सम्मिलित हैं, जो बढ़ते कृषि क्षेत्रों पर अत्याधुनिक जानकारी के साथ प्रकाशन को समृद्ध करते हैं।

उपयोगकर्ताओं के बीच कृषि डाटा पुस्तिका की व्यापक मांग को देखते हुए, कृषि अनुसंधान डाटा पुस्तिका 2024 का एक डिजिटल संस्करण हमारे संस्थान की वेबसाइटः https://iasri.icar.gov.in *पर उपलब्ध है। हमें विश्वास है कि इस संस्करण में प्रस्तुत आँकड़ों का संकलन पाठकों के लिए अमूल्य सिद्ध होगा। आपसे अनुरोध है कि भविष्य के संस्करणों के संवर्धन एवं सुधार हेतु अपने बहुमूल्य सुझाव निम्न पते पर भेजें:*

डॉ. राजेन्द्र प्रसाद,
निदेशक,
भा.कृ.अनु.प.-भारतीय कृषि सांख्यिकी अनुसंधान संस्थान
***लाइब्रेरी एवेन्यू, पूसा, नई दिल्ली*-110 012,**
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***ई-मेलः* director.iasri@icar.gov.in**

कृषि अनुसन्धान डाटा पुस्तिका 2024 के संकलन में परिषद के विभिन्न एसएमडी के अधिकारियों, विशेष रूप से आईसीएआर के शिक्षा प्रभाग, भा.कृ.अनु.प.-भा.कृ.सां.अनु.सं. की संकलन टीम और अपेक्षित जानकारी प्रदान करने वाले विभिन्न संगठनों द्वारा किए गए योगदान की अत्यधिक प्रशंसनीय है।

(राजेंद्र प्रसाद)
निदेशक, भा.कृ.अनु.प.-भा.कृ.सां.अ.सं.

(राकेश चन्द्र अग्रवाल)
उप-महानिदेशक (कृषि शिक्षा), भा.कृ.अनु.प.

PREFACE

The Indian Council of Agricultural Research (ICAR) stands as a cornerstone, meticulously guiding agricultural research and education in India since independence. Its unwavering commitment has nurtured the growth and prosperity of our nation's agricultural landscape.

Information related to agricultural research, education, and associated domains is dispersed across a myriad of published and unpublished sources. Since 1995, these scattered fragments of knowledge have been meticulously compiled into the Agricultural Research Data Book (ARDB) through the endeavours of the ICAR-Indian Agricultural Statistics Research Institute (ICAR-IASRI). This 2024 edition marks the 27th volume in this ongoing series. Divided into user-friendly sections, it offers a comprehensive symphony of agricultural information. From the earth's natural resources to the bountiful yield of horticulture and animal husbandry, the ARDB provides a vibrant tapestry of data encompassing production, productivity, agricultural engineering, international trade, and human resources. Within its 180 tables lies a treasure trove of insights, all meticulously updated with the latest information available as of June 2024.

The inaugural edition of the ARDB debuted in 1996, encapsulating information up to the conclusion of 1995. Since then, a revised iteration of the ARDB has been diligently published each year. The ARDB has continuously evolved, enriching its content with valuable additions. The ARDB 2024 introduces several enhancements, including projections on future food grain production, visual representations of data, state-wise data depictions, and thematic maps generated utilizing Geographical Information System (GIS) technology. Noteworthy additions in this edition comprise tables on electricity generation capacity, itemized marine exports, and insights from India's inaugural water bodies census report released by the Ministry of Jal Shakti, enriching the publication with cutting-edge information on evolving agricultural sectors.

Recognizing the widespread demand of the ARDB among users, a digital version of the ARDB 2024 has been made available on our Institute's website: https://iasri.icar.gov.in. We are confident that the wealth of information presented in the ARDB 2024 will prove invaluable to its readers. We eagerly anticipate and welcome feedback on the content of the ARDB 2024, as it will undoubtedly contribute to the enrichment of future editions. Suggestions may please be sent to:

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Director,
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The contributions made in compilation of ARDB 2024 by officials of various SMDs of the Council especially the Education Division of ICAR, the compilation team of ICAR-IASRI and various organizations for supplying requisite information are highly acknowledged.

(Rajender Parsad)
Director, ICAR-IASRI

(Rakesh Chandra Agrawal)
Deputy Director General (Agricultural Education), ICAR

विषय-सूची

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	परिवर्णी शब्द	ACRONYMS
000’	हजार	Thousand
000’ t	हजार टन	Thousand tonnes
cm	सेंटीमीटर	Centimeter
ha	हेक्टेयर	Hectare
kg	किलोग्राम	Kilogram
kg/ha	किलोग्राम/ हेक्टेयर	Kilogram/ hectare
kW	किलोवाट	Kilowatt
kWh	किलोवाट घंटा	Kilowatt hour
mm	मिलिमीटर	Milimeter
Mw	मेगावाट	Megawatt
million ha	मिलियन हेक्टेयर	Million hectare
MJ	मेगा जूल	Mega Joules
ppm	पार्टस प्रति मिलियन	Parts per million
ppbv	पार्टस प्रति बिलियन बाई वॉल्यूम	Parts per billion by volume
ppmv/year	पार्टस प्रति मिलियन बाई वॉल्यूम प्रति वर्ष	Parts per million by volume per year
ppmv	पार्टस प्रति मिलियन बाई वॉल्यूम	Parts per million by volume
pptv	पार्टस प्रति ट्रायलियन बाई वॉल्यूम	Part per trillion by volume
q	क्विंटल	Quintal
	रुपये	Rupees
t	टन	Tonnes
t/ha	टन / हेक्टेयर	Tonnes/ hectare
µm	माइक्रोमीटर	Micrometer
Neg.	नगण्य	Negligible
FAO	खाद्य एवं कृषि संगठन	Food and Agriculture Organisation
FAQ	उचित औसत गुणवत्ता	Fair Average Quality

K	पोटाश	Potash
N	नाइट्रोज़न	Nitrogen
B	बोरोन	Boron
Fe	आयरन	Iron
Zn	जिंक	Zinc
Cu	कॉपर	Copper
Mn	मैंगनीज़	Manganese
Mo	मॉलिबडीनम	Molybdenum
SPM	सोलिड पार्टिकुलेट मैटर	Solid Particulate Matter
CWC	केन्द्रीय जल आयोग	Central Water Commission
DAP	लद्दू पशु शक्ति	Draught Animal Power
HSD	उच्च श्रेणी का डीज़ल	High Speed Diesel
HYV	उच्च उपज़ वाली किस्म	High Yielding Varieties
SPV	सोलर फोटो वोलटेक	Solar Photo Voltaic
R&D	अनुसंधान एवं विकास	Research and Development
GNP	सकल राष्ट्रीय उत्पाद	Gross National Product
NNP	शुद्ध राष्ट्रीय उत्पाद	Net National Product
PM	पार्टिकुलेट मैटर	Particulate Matter
CFC	क्लोरो-फ्लोरो कार्बन	Chloro-Fluoro Carbons
CIAE	केन्द्रीय कृषि अभियान्त्रिकी संस्थान	Central Institute of Agricultural Engineering

Conversion Factors between Important Primary and Secondary Agricultural Commodities

Commodity	Conversion Factor
Rice (Cleaned) Production	2/3 of Paddy Production
Cotton	
Cotton Lint Production Cotton Seed Production	1/3 of Kapas Production 2/3 of Kapas Production 2 times of Cotton Lint Production
Jute	
100 Yards of Hessian	54 lbs of Raw Jute
4148 Yards of Hessian	1 Ton of Raw Jute 5.55 Bales of Raw Jute (of 180 kg. Each)
1 Ton of Sacking	1.11 Tons of Raw Jute 6.17 Bales of Raw Jute (of 180 kg. Each)
1 Ton of Hessian Sacking etc.	1.05 Tons of Raw Jute 5.85 Bales of Raw Jute (of 180 kg. Each)
Groundnut	
Kernel to Nuts in Shell Oil to Nuts in Shell Oil to Kernels Crushed Cake to Kernels Crushed	70 per cent 28 per cent 40 per cent 60 per cent
Sesamum	
Oil to Seeds Crushed Cake to Seeds Crushed	40 per cent 60 per cent
Rapseed and Mustard	
Oil to Seeds Crushed Cake to Seeds Crushed	33 per cent 67 per cent
Linseed	
Oil to seeds Crushed Cake to Seeds Crushed	33 per cent 67 per cent
Castor Seed	
Oil to Seeds Crushed Cake to Seeds Crushed	37 per cent 63 per cent
Cotton Seed	
Oil to Seeds Crushed Cake to Seeds Crushed	14 to 18 per cent 82 to 86 per cent
Coconut	
Copra to Nuts Oil to Copra Crushed Cake to Copra Crushed	One Ton of Copra = 6773 Nuts 62 per cent 38 per cent

Nigerseed	
Oil to Seeds Crushed	28 per cent
Cake to Seeds Crushed	72 per cent
Kardi Seed	
Oil to Seeds Crushed	40 per cent
Cake to Seeds Crushed	60 per cent
Mahua Seed	
Oil to Seeds Crushed	36 per cent
Cake to Seeds Crushed	64 per cent
Neem Seed	
Oil to Kernels Crushed	45 to 50 per cent
Cake to Kernels Crushed	50 to 55 per cent
Soybean Seed	
Oil to Soybean Seed Crushed	18 per cent
Meal to Soybean Seed Crushed	73 per cent
Hull from Soybean Seed Crushed	8 per cent
Wastage from Soybean Seed Crushed	1 per cent
Sugar	
Gur from Cane Crushed	11.20 per cent to 11.50 per cent
Crystal Sugar from Gur Refined (Gur Refineries)	62.5 per cent
Crystal Sugar from Cane Crushed (Cane Factories)	10.20 per cent
Khandasari Sugar (Sulpher and Non-sulpher) from standard Gur Refined	46 per cent
Molasses from Cane Crushed	4.0 per cent to 4.5 per cent
Cane-Trash* from Cane Harvested	8.0 per cent to 12.0 per cent
Lac	
Seed Lac	66.0 per cent of Stick Lac
Shell Lac	57.4 per cent of Stick or 87.0 per cent of Seed Lac
Cashewnut	
Cashew Kernel	25 per cent of Cashewnuts

Note : *This consists of leaves and portion of the top of stalk which are removed from the cane stalk, while harvesting and before sending the cane for milling.

Source : Directorate of Economics and Statistics, Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare Govt. of India. (https://desagri.gov.in)

CONVERSION FACTORS

Area			Weight		
1 ha	=	2.47100 acres	1 metric tonne	=	2204.7 pounds
	=	100 x 100 sq m		=	0.98421 long ton
				=	1 .10231 short ton
				=	1000 kg
1 acre	=	0.40468 ha		=	10 q
	=	4840 sq yd	1 q	=	100 kg
	=	43.560 sq ft	1 long ton	=	2.240 pounds
	=	0.00156 sq miles		=	1.01605 metric tons
			1 short ton	=	2.000 pounds
1 sq mile	=	640 acres		=	0.90781 metric ton
	=	259 ha	1 kg	=	2.20462 pounds
	=	2.59 sq kms	1 pound	=	0.45359 kg
1 sq kilometer	=	0.3861 sq miles	1 ounce	=	0.0283 kg or 28.35 gm
100 sq ft	=	9.290 sq m	16 ounce	=	1 pound
10 Marlas	=	0.0253 ha	10 pounds	=	4.54 kg
10 Bighas	=	0.8440 ha	1 mound	=	81.2857 pounds
	=	2.0830 acre		=	37.32410 kg
10 Biswas	=	0.0420 ha	**Distance**		
20 Biswas	=	1 Bigha	1 mile	=	8 furlongs or 1760 yards or 5280 ft
20 Biswani	=	1 Biswa		=	1.609 km
4.8 Bighas	=	1 acre		=	1609.344 m
640 acre	=	1 sq mile	1 furlong	=	220 yards
				=	660 ft
10 Kanals	=	0.5058 ha		=	0.201168 km
1 Kanal	=	20 Marla		=	201.168 m
Yield				=	0.125 mile
100 kg per ha	=	1.4869 bushels (60 lb) per acre	1 km	=	5/8 mile = 0.6214 mile
1 bushel (60 lb) per acre	=	67.253 kg per ha		=	3280.84 ft
1 kg per ha	=	0.892169 lb per acre		=	1000 m
1 lb per acre	=	1.120864 kg per ha		=	1093.613 yards
Energy			1 meter	=	1.0936 yards
1 BTU	=	251.9958 calorie		=	3.28089 ft
	=	0.0003930148 horse power-hour		=	100 cm
	=	1055.056 Joule	1 inch	=	25.4 mm
	=	0.0002930711 kilo watt-hour		=	2.54 cm
	=	0.2930711 watt hour	1 foot	=	30.48 cm
1 calorie	=	0.003968321 BTU		=	0.3048 m
	=	4.1868 Joule	1 yard	=	91.44 cm
	=	0.001163 watt-hour		=	0.9144 m

CONVERSION FACTORS

Atmosphere to lbs per sq inch	14.73
British thermal unit to kilo calorie	0.252
Cubic centimeter to cubic inch	0.061103
Cubic feet to cubic metre	0.02832
Cubic feet to gallons	6.228
Cubic inch to litre	0.01639
Cubic metre to cubic yard	1.308
Foot lbs per second to horse power	0.001818
Foot lbs to kilogram metre	0.1383
U.S. Gallons to litre	3.785
Barrels to gallons	42.00
Grams to ounces	0.03527
Grams to lbs	0.002205
Horse power to kWatts	0.746

Source : *Fertiliser Statistics, 2022-23,* The Fertiliser Association of India, New Delhi.

भाकृअनुप
ICAR

भाग-I
प्राकृतिक संसाधन

SECTION-I
Natural Resources

भाकृअनुप
ICAR

Table 1.1: Land use classification in India

(million ha)

Classification	1950-51	1980-81	1990-91	2000-01	2013-14#	2014-15#	2015-16#	2016-17#	2017-18#	2018-19#	2019-20#
I. Geographical area	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.73	328.75
II. Reporting area for land utilisation statistics (1 to 5)	284.32	304.16	304.86	305.19	307.54	307.52	307.49	308.06	307.51	307.53	306.54
1. Forests	40.48	67. 46	67.81	69.84	71.85	72.07	72.14	72.29	72.33	72.29	71.75
	(14.2)	(22.2)	(22.2)	(22.9)	(23.4)	(23.4)	(23.5)	(23.5)	(23.5)	(23.5)	(23.4)
2. Not available for cultivation (a+b)	47.52	39.55	40.48	41.23	43.66	43.99	43.77	44.55	44.07	44.28	44.32
(a) Non-agricultural uses	9.36	19.60	21.09	23.75	26.96	27.15	27.27	28.04	27.56	27.59	27.78
	(3.3)	(6.4)	(6.9)	(7.8)	(8.8)	(8.8)	(8.9)	(9.1)	(9.0)	(9.0)	(9.1)
(b) Barren and uncultivable land	38.16	19.96	19.39	17.48	16.71	16.84	16.50	16.51	16.51	16.69	16.54
	(13.4)	(6.6)	(6.4)	(5.7)	(5.4)	(5.5)	(5.4)	(5.4)	(5.4)	(5.4)	(5.4)
3. Other uncultivated land excluding fallow land (a+b+c)	49.45	32.31	30.22	27.74	25.79	25.85	25.59	25.63	25.71	25.64	25.56
(a) Permanent pastures and other grazing land	6.68	11.99	11.40	10.66	10.22	10.20	10.21	10.29	10.29	10.33	10.48
	(2.3)	(3.9)	(3.7)	(3.5)	(3.3)	(3.3)	(3.3)	(3.3)	(3.4)	(3.4)	(3.4)
(b) Miscellaneous tree crops and groves	19.83	3.58	3.82	3.44	3.19	3.10	3.09	3.13	3.17	3.15	3.13
	(7.0)	(1.2)	(1.3)	(1.1)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
(c) Culturable waste land	22.94	16.74	15.00	13.63	12.39	12.55	12.28	12.21	12.25	12.16	11.95
	(8.1)	(5.5)	(4.9)	(4.5)	(4.0)	(4.1)	(4.0)	(4.0)	(4.0)	(4.0)	(3.9)
4. Fallow land (a+b)	28.12	24.55	23.37	25.04	25.00	26.17	27.02	26.59	26.63	26.87	25.01
(a) Fallow land other than current fallow	17.45	9.72	9.66	10.27	10.70	11.09	11.31	11.29	11.64	11.65	11.24
	(6.1)	(3.2)	(3.2)	(3.4)	(3.5)	(3.6)	(3.7)	(3.7)	(3.8)	(3.8)	(3.7)
(b) Current fallow	10.68	14.83	13.70	14.78	14.30	15.07	15.71	15.30	14.99	15.21	13.77
	(3.8)	(4.9)	(4.5)	(4.8)	(4.7)	(4.9)	(5.1)	(4.9)	(4.9)	(5.0)	(4.5)
5. Net area sown	118.75	140.29	143.00	141.34	141.24	139.45	138.97	139.00	138.77	138.44	139.90
	(41.8)	(46.1)	(46.9)	(46.3)	(45.9)	(45.3)	(45.2)	(45.1)	(45.1)	(45.0)	(45.6)
6. Area sown more than once	13.15	34.63	42.74	44.00	60.06	58.84	59.15	62.16	62.11	62.74	71.46
7. Gross cropped area (5+6)	131.89	172.63	185.74	185.34	201.30	198.28	198.12	201.16	200.88	201.18	211.36
8. Cropping intensity*	111.07	123.05	129.89	131.13	142.52	142.20	142.56	144.72	144.75	145.32	151.08
III. Net irrigated area	20.85	38.72	48.02	55.20	68.42	68.58	67.77	69.22	70.08	72.19	75.46
IV. Gross irrigated area	22.56	49.78	63.20	76.19	96.27	97.85	97.75	99.44	101.27	104.49	112.23

Note : 1. #: Provisional, 2. *: Cropping intensity is percentage of the gross cropped area to the net area sown, 3. Figure in parentheses indicate percentage share to the reporting area. 4. UT of Ladakh was bifurcated from the state of Jammu and Kashmir on 31st October, 2019.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

Table 1.2: Agro-climatic regions/zones in India

Zone No.	Agro-climatic regions/zones	States/UTs represented
Zone 1	**Western Himalayan region**	Himachal Pradesh, UT of Jammu & Kashmir, UT of Ladakh, Uttarakhand
Zone 2	**Eastern Himalayan region**	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal
Zone 3	**Lower Gangetic plain region**	West Bengal
Zone 4	**Middle Gangetic plain region**	Uttar Pradesh, Bihar
Zone 5	**Upper Gangetic plain region**	Uttar Pradesh
Zone 6	**Trans Gangetic plain region**	Chandigarh, Delhi, Haryana, Punjab, Rajasthan
Zone 7	**Eastern plateau and hills region**	Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, West Bengal
Zone 8	**Central plateau and hills region**	Madhya Pradesh, Rajasthan, Uttar Pradesh
Zone 9	**Western plateau and hills region**	Madhya Pradesh, Maharashtra
Zone 10	**Southern plateau and hills region**	Andhra Pradesh, Karnataka, Tamil Nadu
Zone 11	**East coast plains and hills region**	Andhra Pradesh, Odisha, Puducherry, Tamil Nadu
Zone 12	**West coast plains and Ghat region**	Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu
Zone 13	**Gujarat plains and hills region**	Gujarat, Dadra & Nagar Haveli and Daman & Diu
Zone 14	**Western dry region**	Rajasthan
Zone 15	**Island region**	Andaman & Nicobar Islands, Lakshadweep

Source : Planning Commission (Khanna, 1989) has identified 15 resource development regions in the country, 14 in the main land and remaining one in the islands of Bay of Bengal and Arabian Sea.

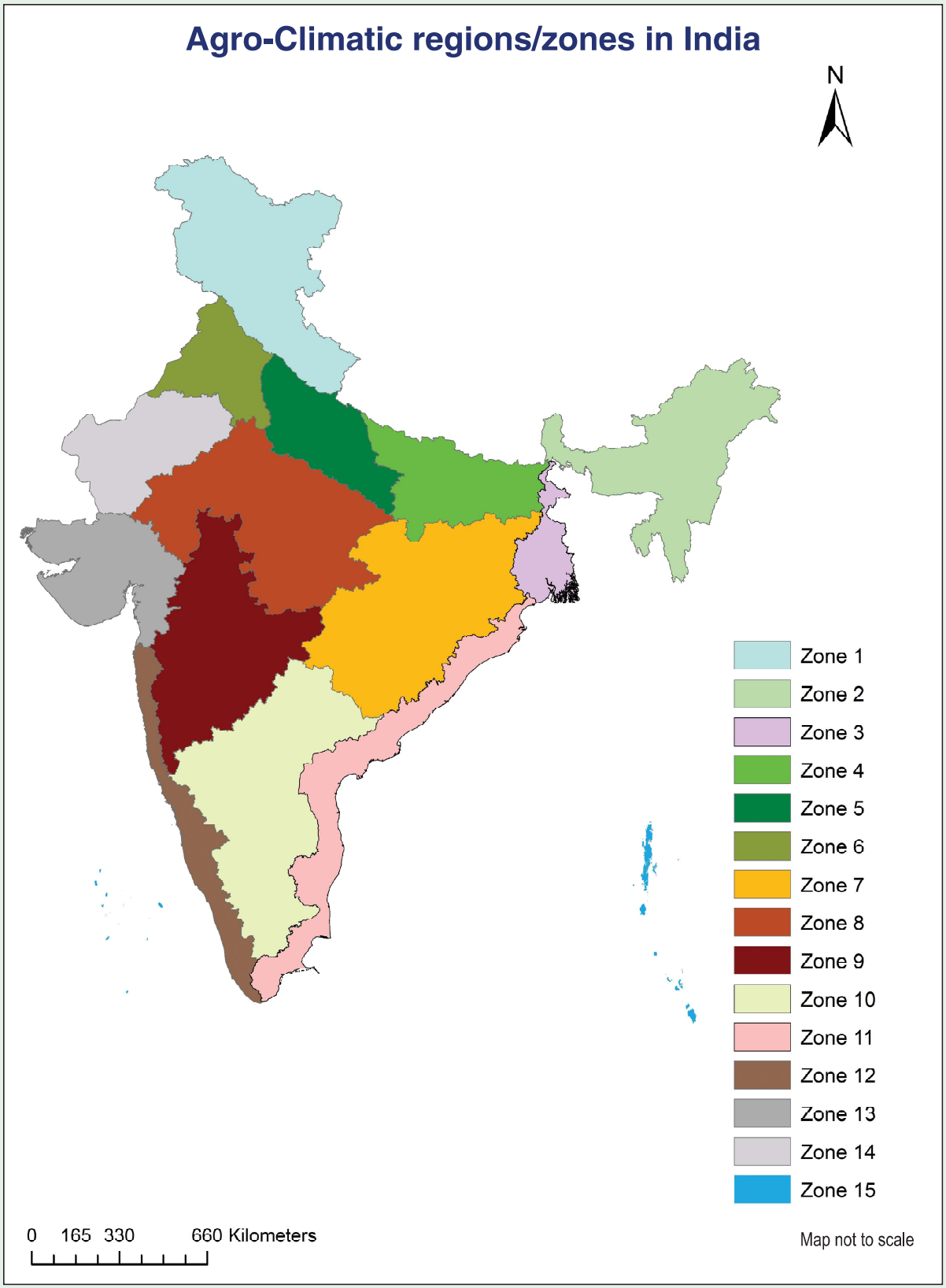

Agro-Climatic regions/zones in India
N
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6
Zone 7
Zone 8
Zone 9
Zone 10
Zone 11
Zone 12
Zone 13
Zone 14
Zone 15
0 165 330 660 Kilometers
Map not to scale

Table 1.3: Agro-ecological regions in India

Eco-system	Region	States represented	Eco-region	Soil type	Growing period (no. of days)
Arid	1.Western Himalaya	Jammu & Kashmir, HP	Cold arid	Shallow Skeletal	<90
	2.Western plain, Kutch and part of Kathiawar Peninsula	Gujarat, Rajasthan, Haryana, Punjab	Hot arid	Desent & Saline	<90
	3. Deccan plateau	AP, Karnataka	Hot arid	Red & black	<90
Semi-arid	4. Northern plain and Central Highlands including Aravallis	Gujarat, Rajasthan, UP, MP, Haryana, Punjab	Hot semi-arid	Alluvium-derived	90-150
	5. Central (Malwa) Highlands, Gujarat plains & Kathiawar Peninsula	Gujarat, MP	Hot semi-arid	Medium & deep black	90-150
	6. Deccan Plateau	Karnataka, AP, Maharashtra, MP	Hot semi-arid	Shallow and medium (with inclusion of deep) black	90-150
	7. Deccan (Telangana) Plateau and Eastern Ghats	AP	Hot semi-arid	Red & black	90-150
	8. Eastern Ghats, TN uplands and Deccan (Karnataka) Plateau	Karnataka, TN, Kerala	Hot semi-arid	Red loamy	90-150
Sub-humid	9. Northern plain	Bihar, UP, Punjab	Hot sub-humid (dry)	Alluvium-derived	150-180
	10. Central Highlands (Malwa, Bundelkhand & Eastern Satpura)	MP, Maharashtra	Hot sub-humid	Black & red	150-180 (to 210)
	11. Eastern Plateau (Chhattisgarh)	MP	Hot sub-humid	Red & yellow	150-180
	12. Eastern (Chhota Nagpur) Plateau and Eastern Ghats	Odisha, West Bengal, Bihar, MP, Maharashtra	Hot sub-humid	Red & Lateritic	150-180 (to 210)
	13. Eastern Plain	UP, Bihar	Hot sub-humid (moist)	Alluvium-derived	180-210
	14. Western Himalayas	Jammu & Kashmir, HP, UP	Warm sub-humid (to humid with inclusion of per humid)	Brown forest and Podzolic	180-210+
Humid-Per humid	15. Bengal and Assam Plains	West Bengal, Assam	Hot sub-humid (moist) to humid (inclusion of per humid)	Alluvium-derived	210+
	16. Eastern Himalayas	Arunachal Pradesh, Sikkim, West Bengal	Warm per humid	Brown and red hill	210+
	17. North Eastern Hills (Purvanchal)	Tripura, Mizoram, Meghalaya	Warm per humid	Red and Lateritic	210+
Coastal	18. Eastern Coastal Plain	TN, Puducherry, AP, Odisha, West Bengal	Hot sub-humid to semi-arid	Coastal Alluvium-derived	90-210+
	19. Western Ghats & Coastal Plain	Kerala, Goa, Daman & Diu, Maharashtra, Gujarat, Kerala	Hot humid-Per humid	Red, Lateritic and Alluvium-derived	210+
Island	20. Island of Andaman-Nicobar and Lakshadweep	Andaman-Nicobar and Lakshadweep	Hot humid-Per humid	Red loamy and sandy	210+

Source : *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.

Table 1.4: Area under broad soil groups

(million ha)

Major soil groups	Area	% of total geographical area
Red loamy	23.0	7.00
Red sandy	49.0	14.90
Laterite	11.7	3.60
Red & yellow	33.5	10.20
Shallow black	6.5	2.00
Medium black	41.7	12.70
Deep black	16.2	4.90
Mixed red & black	14.8	4.50
Coastal alluvium	6.2	1.90
Coastal sand	1.1	0.30
Deltaic alluvium	7.1	2.20
Alluvial-recent	39.0	11.90
Calcareous alluvium	2.2	0.70
Calcareous sierozem	4.9	1.50
Old alluvium	2.8	0.90
Grey brown	8.9	2.70
Desert soils-regosolic	13.4	4.10
Desert soils-lithosolic	8.5	2.60
Tarai	3.1	0.90
Brown hill	12.4	3.80
Sub-mountain	4.7	1.40
Mountain meadow	6.6	2.00
Saline & alkaline	*	*
Peaty and saline peaty	0.4	0.10
Skeletal	4.2	1.30
Other	6.8	1.90
Total geographical area	**328.7**	**100.00**

Note : *: The area of this soil is included into the areas under different groups of soil.

Source : 1. *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.
2. *Indian Agriculture in Brief-23rd Edition*, Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 1.5: Average size of holdings by different size classes

(ha)

Major size classes		Average size of operational holdings							
		1970-71	**1980-81**	**1990-91**	**1995-96**	**2000-01***	**2005-06***	**2010-11**	**2015-16**
Marginal	<1 ha	0.40	0.39	0.39	0.40	0.40	0.38	0.39	0.38
Small	1 to 2 ha	1.44	1.44	1.43	1.42	1.42	1.38	1.42	1.40
Semi-medium	2 to 4 ha	2.81	2.78	2.76	2.73	2.72	2.68	2.71	2.69
Medium	4 to 10 ha	6.08	6.02	5.90	5.84	5.81	5.74	5.76	5.72
Large	≥10 ha	18.10	17.41	17.33	17.20	17.12	17.08	17.38	17.07
All size classes		**2.28**	**1.84**	**1.55**	**1.41**	**1.33**	**1.23**	**1.15**	**1.08**

Note : *: Excluding Jharkhand.

Source : *All India report on Agriculture Census 2015-16*, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 1.6: Number and area of operational holdings by type of holding

(Number: 000', Area: 000' ha)

Major size classes	Number							Area						
	1980-81	1990-91	1995-96	2000-01*	2005-06*	2010-11	2015-16	1980-81	1990-91	1995-96	2000-01*	2005-06*	2010-11	2015-16
Marginal (Below 1 ha)	50122 (56.4)	63389 (59.4)	71179 (61.6)	75408 (62.9)	83694 (64.8)	92826 (67.0)	100251 (68.45)	19735 (12.1)	24894 (15.0)	28121 (17.2)	29814 (18.7)	32026 (22.2)	35908 (22.5)	37923 (24.03)
Small (1 to 2 ha)	16072 (18.1)	20092 (18.8)	21643 (18.7)	22695 (18.9)	23930 (18.6)	24779 (17.9)	25809 (17.62)	23169 (14.1)	28827 (17.4)	30722 (18.8)	32139 (20.1)	33101 (20.9)	35244 (22.1)	36151 (22.91)
Semi-medium (2 to 4 ha)	12455 (14.0)	13923 (13.1)	14261 (12.4)	14021 (11.7)	14127 (10.9)	13896 (10.0)	13993 (9.55)	34645 (21.2)	38375 (23.2)	38953 (23.8)	38193 (24.0)	37898 (23.9)	37705 (23.6)	37619 (23.84)
Medium (4 to 10 ha)	8068 (9.1)	7580 (7.1)	7092 (6.1)	6577 (5.5)	6375 (4.9)	5877 (4.2)	5561 (3.80)	48543 (29.6)	44752 (27.1)	41398 (25.4)	38217 (24.0)	36583 (23.1)	33828 (21.2)	31810 (20.16)
Large (10 ha and above)	2166 (2.4)	1654 (1.6)	1404 (1.2)	1230 (1.0)	1096 (0.8)	973 (0.7)	838 (0.57)	37705 (23.0)	28659 (17.3)	24160 (14.8)	21072 (13.2)	18715 (11.9)	16907 (10.6)	14314 (9.07)
All size classes	**88883 (100)**	**106637 (100)**	**115580 (100)**	**119931 (100)**	**129222 (100)**	**138348 (100)**	**146454 (100)**	**163797 (100)**	**165507 (100)**	**163355 (100)**	**159436 (100)**	**158323 (100)**	**159592 (100)**	**157817 (100)**

Note : 1. Figures in parentheses indicate per cent contribution, 2. *: Excluding Jharkhand.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

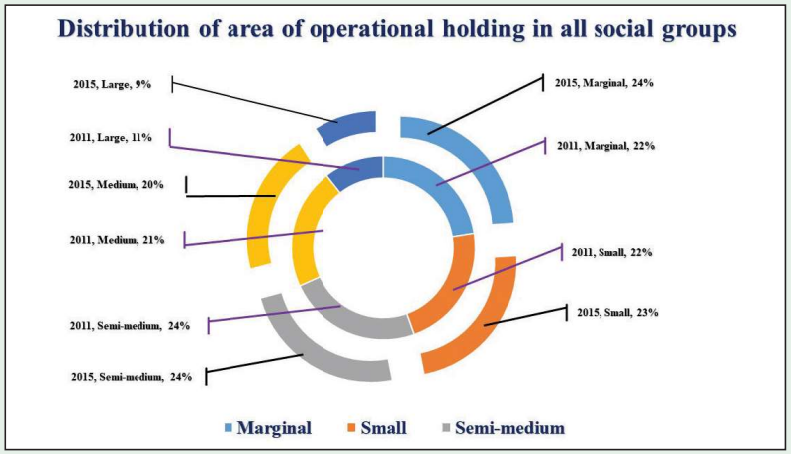


Table 1.7: State-wise distribution of number of operational holdings and area operated-all social groups

(Number: 000', Area: 000' ha)

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large		All Holdings	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Andaman & Nicobar Islands	2010-11	5	2	2	3	3	8	2	7	Neg.	1	12	22
	2015-16	5	2	3	4	3	8	1	6	Neg.	1	12	21
Andhra Pradesh	2010-11*	8425	3727	2918	4120	1399	3685	397	2209	36	552	13175	14293
	2015-16	5904	2336	1646	2334	770	2020	189	1038	15	276	8524	8004
Arunachal Pradesh	2010-11	21	12	19	26	34	94	28	155	7	97	109	384
	2015-16	27	14	24	31	29	77	26	153	7	104	113	380
Assam	2010-11	1831	775	497	687	304	818	85	437	4	282	2720	2999
	2015-16	1868	785	495	696	295	806	79	410	4	279	2742	2976
Bihar	2010-11	14744	3669	948	1186	415	1073	81	415	3	45	16191	6388
	2015-16	14971	3728	944	1178	414	1076	81	431	3	45	16413	6457
Chandigarh	2010-11	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	1	1
	2015-16	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	1	1
Chhattisgarh	2010-11	2183	953	831	1179	503	1348	202	1153	28	451	3746	5084
	2015-16	2434	1040	879	1238	493	1316	181	1026	23	372	4011	4992
Dadra & Nagar Haveli	2010-11	8	4	4	5	2	5	1	4	Neg.	2	15	20
	2015-16	9	5	4	5	2	5	1	4	Neg.	2	15	21
Daman & Diu	2010-11	8	2	Neg.	1	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	8	3
	2015-16	7	2	Neg.	1	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	8	3
Delhi	2010-11	11	5	5	6	3	8	2	9	Neg.	2	20	30
	2015-16	11	5	5	8	3	7	1	7	Neg.	2	21	29
Goa	2010-11	60	28	10	18	6	17	2	12	1	14	78	89
	2015-16	59	23	8	13	4	14	2	14	1	17	75	82
Gujarat	2010-11	1816	885	1429	2075	1080	2989	513	2930	49	1020	4886	9898
	2015-16	2019	1073	1616	2338	1150	3172	496	2804	40	590	5321	9978

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large		All Holdings	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Haryana	2010-11	778	360	315	463	284	814	195	1185	46	823	1617	3646
	2015-16	802	392	314	459	278	802	192	1168	41	788	1628	3609
Himachal Pradesh	2010-11	670	273	175	244	85	230	28	156	3	51	961	955
	2015-16	712	285	173	242	82	223	26	146	3	47	997	944
Jammu & Kashmir	2010-11	1207	416	167	235	64	171	11	62	1	12	1449	895
	2015-16	1187	397	160	221	58	154	11	59	1	11	1417	842
Jharkhand	2010-11	1848	764	429	591	283	775	129	725	20	311	2709	3165
	2015-16	1962	754	419	569	277	755	126	708	20	304	2803	3091
Karnataka	2010-11	3849	1851	2138	3020	1267	3393	511	2904	68	994	7832	12161
	2015-16	4767	2080	2214	3107	1193	3188	451	2569	56	861	8681	11805
Kerala	2010-11	6580	886	180	282	57	159	12	64	2	120	6831	1511
	2015-16	7333	856	181	242	56	142	11	60	2	95	7583	1395
Lakshadweep	2010-11	10	2	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	10	3
	2015-16	10	2	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.	10	3
Madhya Pradesh	2010-11	3891	1915	2449	3466	1655	4510	789	4545	89	1400	8872	15836
	2015-16	4835	2372	2725	3836	1674	4522	707	4008	63	933	10003	15670
Maharashtra	2010-11	6709	3186	4052	5739	2159	5765	711	3993	68	1084	13699	19767
	2015-16	7816	3449	4339	5771	2327	6026	734	4099	70	1162	15285	20506
Manipur	2010-11	77	40	49	63	22	55	3	13	Neg.	Neg.	151	172
	2015-16	77	40	49	63	22	55	3	13	Neg.	Neg.	150	172
Meghalaya	2010-11	103	46	58	77	41	113	8	47	Neg.	4	210	287
	2015-16	123	56	60	80	40	109	9	51	Neg.	4	232	300
Mizoram	2010-11	50	30	30	38	10	24	2	9	Neg.	4	92	105
	2015-16	45	27	27	35	14	32	3	15	Neg.	4	90	112
Nagaland	2010-11	6	3	20	23	48	125	78	481	25	442	178	1074
	2015-16	8	5	30	37	63	169	74	431	21	314	197	956
Odisha	2010-11	3368	1922	919	1498	311	919	64	381	6	142	4667	4862

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large		All Holdings	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
	2015-16	3637	2057	887	1404	287	788	51	284	4	86	4866	4619
Puducherry	2010-11	28	10	3	4	1	4	Neg.	3	Neg.	1	33	22
	2015-16	28	8	3	5	2	4	Neg.	3	Neg.	1	34	21
Punjab	2010-11	164	101	195	269	325	855	298	1713	70	1029	1053	3967
	2015-16	154	93	207	290	368	984	305	1730	58	857	1093	3954
Rajasthan	2010-11	2512	1238	1511	2162	1335	3774	1127	6918	404	7044	6888	21136
	2015-16	3071	1483	1677	2389	1416	3989	1131	6899	359	6114	7655	20873
Sikkim	2010-11	40	15	17	20	11	27	6	32	1	12	75	107
	2015-16	44	18	13	18	11	29	4	20	Neg.	6	72	91
Tamil Nadu	2010-11	6267	2292	1181	1644	502	1356	151	848	17	350	8118	6488
	2015-16	6224	2169	1119	1555	452	1215	128	714	15	317	7938	5971
Telangana	2015-16	3840	1706	1409	1977	564	1467	126	688	9	135	5948	5972
Tripura	2010-11	499	140	55	76	22	54	3	14	Neg.	1	578	285
	2015-16	504	149	48	70	19	49	2	13	Neg.	1	573	282
Uttar Pradesh	2010-11	18532	7171	3035	4243	1334	3629	398	2199	25	380	23325	17622
	2015-16	19100	7298	3008	4175	1314	3560	377	2075	23	343	23822	17450
Uttarakhand	2010-11	672	296	157	225	65	175	17	94	1	25	913	816
	2015-16	659	283	149	206	58	156	14	79	1	23	881	747
West Bengal	2010-11	5853	2891	980	1557	267	731	23	110	1	222	7123	5510
	2015-16	5998	2929	971	1553	256	700	18	84	1	220	7243	5487
All India Total	**2010-11**	**92826**	**35908**	**24779**	**35224**	**13896**	**37705**	**5875**	**33828**	**973**	**16907**	**138348**	**159592**
	2015-16	**100251**	**37923**	**25809**	**36151**	**13993**	**37619**	**5561**	**31810**	**838**	**14314**	**146454**	**157817**

Note : 1. Total may not tally due to rounding off figures, 2. Neg.: Negligible (i.e. less than 500 units/hectare), 3. *: Undivided Andhra Pradesh

Source : *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en)

Table 1.8: State-wise percentage distribution of number of operational holdings and area operated-all social groups

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Andaman & Nicobar Islands	2010-11	39.19	9.25	20.46	15.85	26.58	37.71	13.49	31.62	0.28	5.57
	2015-16	43.12	11.18	21.19	17.61	24.05	37.11	11.41	28.88	0.23	5.22
Andhra Pradesh	2010-11*	63.94	26.08	22.15	28.82	10.62	25.78	3.02	15.45	0.27	3.87
	2015-16	69.26	29.19	19.31	29.16	9.03	25.23	2.22	12.97	0.17	3.45
Arunachal Pradesh	2010-11	19.63	3.09	17.69	6.75	31.14	24.47	25.56	40.34	5.97	25.34
	2015-16	23.98	3.78	21.24	8.06	25.62	20.38	23.25	40.33	5.91	27.45
Assam	2010-11	67.31	25.83	18.25	22.91	11.16	27.27	3.12	14.58	0.15	9.39
	2015-16	68.13	26.37	18.07	23.39	10.77	27.09	2.89	13.78	0.14	9.37
Bihar	2010-11	91.06	57.44	5.86	18.56	2.56	16.80	0.50	6.50	0.02	0.71
	2015-16	91.21	57.73	5.75	18.25	2.52	16.66	0.50	6.67	0.02	0.69
Chandigarh	2010-11	63.45	22.58	18.63	20.64	10.92	24.15	6.58	29.03	0.42	3.60
	2015-16	64.17	22.61	18.58	20.92	10.83	25.77	6.15	27.21	0.27	3.49
Chhattisgarh	2010-11	58.26	18.74	22.18	23.20	13.43	26.51	5.39	22.68	0.74	8.88
	2015-16	60.69	20.83	21.93	24.81	12.29	26.36	4.51	20.55	0.58	7.45
Dadra & Nagar Haveli	2010-11	55.54	20.38	26.51	26.33	12.27	24.63	4.98	20.73	0.71	7.92
	2015-16	56.47	21.81	25.40	24.81	12.52	25.04	4.95	20.85	0.66	7.49
Daman & Diu	2010-11	92.35	56.81	5.48	19.78	1.64	11.15	0.43	7.18	0.13	5.08
	2015-16	92.59	58.11	5.28	19.78	1.63	12.38	0.42	6.99	0.07	2.75
Delhi	2010-11	55.17	16.20	22.04	20.14	14.53	27.05	7.53	28.95	0.73	7.66
	2015-16	55.12	17.97	26.08	26.35	12.41	25.08	5.80	23.86	0.58	6.74
Goa	2010-11	78.82	26.61	11.16	16.80	6.22	18.36	2.98	17.89	0.82	20.34
	2015-16	79.76	28.60	10.84	16.36	5.78	17.08	2.81	17.19	0.81	20.77
Gujarat	2010-11	36.89	8.58	29.12	20.08	22.00	28.92	10.48	28.41	1.51	14.00
	2015-16	37.94	10.76	30.37	23.43	21.62	31.79	9.32	28.11	0.75	5.91

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Haryana	2010-11	48.11	9.89	19.47	12.69	17.55	22.34	12.04	32.52	2.83	22.56
	2015-16	49.29	10.85	19.28	12.73	17.07	22.23	11.81	32.36	2.54	21.83
Himachal Pradesh	2010-11	69.69	28.52	18.23	25.53	8.86	24.21	2.88	16.43	0.34	5.31
	2015-16	71.45	30.23	17.40	25.66	8.25	23.65	2.60	15.48	0.30	4.98
Jammu & Kashmir	2010-11	83.25	46.51	11.53	26.19	4.39	19.05	0.79	6.94	0.04	1.31
	2015-16	83.79	47.18	11.29	26.20	4.10	18.27	0.78	7.06	0.04	1.29
Jharkhand	2010-11	68.23	24.13	15.83	18.66	10.44	24.49	4.75	22.90	0.75	9.82
	2015-16	69.98	24.40	14.94	18.43	9.89	24.44	4.48	22.90	0.71	9.83
Karnataka	2010-11	49.14	15.22	27.30	24.83	16.17	27.90	6.52	23.88	0.86	8.17
	2015-16	54.92	17.62	25.50	26.32	13.74	27.01	5.20	21.76	0.64	7.29
Kerala	2010-11	96.32	58.62	2.64	18.69	0.83	10.53	0.18	4.24	0.03	7.92
	2015-16	96.70	61.37	2.39	17.37	0.74	10.16	0.15	4.30	0.02	6.80
Lakshadweep	2010-11	95.81	62.22	2.60	13.23	1.26	11.79	0.25	5.78	0.08	6.98
	2015-16	95.46	63.24	2.81	12.77	1.35	12.36	0.31	6.35	0.08	5.27
Madhya Pradesh	2010-11	43.86	12.10	27.60	21.89	18.65	28.48	8.89	28.70	1.00	8.84
	2015-16	48.33	15.14	27.24	24.48	16.74	28.86	7.07	25.58	0.63	5.95
Maharashtra	2010-11	48.98	16.06	29.56	28.90	15.75	29.04	5.18	20.10	0.53	5.90
	2015-16	51.13	16.82	28.39	28.14	15.22	29.38	4.80	19.99	0.46	5.66
Manipur	2010-11	50.95	23.36	32.43	36.47	14.76	32.11	1.83	7.80	0.03	0.26
	2015-16	50.97	23.40	32.39	36.46	14.80	32.13	1.82	7.76	0.03	0.25
Meghalaya	2010-11	52.22	21.29	29.13	33.35	15.28	30.61	3.24	13.00	0.12	1.55
	2015-16	52.82	18.64	25.93	26.52	17.15	36.29	3.98	17.13	0.11	1.41
Mizoram	2010-11	54.65	28.79	32.38	36.00	10.80	22.94	1.88	8.47	0.29	3.80
	2015-16	50.08	24.16	30.61	31.18	15.41	28.16	3.57	13.26	0.32	3.25
Nagaland	2010-11	4.29	0.37	11.47	2.19	26.45	11.42	43.65	44.64	14.14	41.39
	2015-16	4.18	0.48	15.16	3.85	32.22	17.72	37.54	45.08	10.90	32.87
Odisha	2010-11	72.17	39.53	19.68	30.81	6.67	18.90	1.36	7.84	0.12	2.92

States/ Union Territories	Agriculture Census	Marginal		Small		Semi-medium		Medium		Large	
		No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
	2015-16	74.74	44.53	18.23	30.40	5.89	17.06	1.05	6.15	0.08	1.87
Puducherry	2010-11	85.71	45.11	8.36	18.66	4.36	18.98	1.35	11.75	0.21	5.51
	2015-16	83.81	39.28	10.00	23.55	4.63	20.52	1.42	12.91	0.13	3.75
Punjab	2010-11	15.62	2.55	18.57	6.78	30.83	21.56	28.35	43.18	6.62	25.93
	2015-16	14.13	2.36	18.98	7.33	33.67	24.88	27.93	43.75	5.28	21.68
Rajasthan	2010-11	36.46	5.86	21.94	10.23	19.38	17.86	16.36	32.73	5.86	33.33
	2015-16	40.12	7.10	21.91	11.44	18.50	19.11	14.78	33.05	4.69	29.29
Sikkim	2010-11	54.02	13.88	22.61	19.12	14.43	25.24	7.93	30.22	1.04	11.53
	2015-16	61.92	19.89	17.85	19.54	14.81	31.66	4.91	21.96	0.51	6.95
Tamil Nadu	2010-11	77.19	35.33	14.56	25.34	6.19	20.89	1.85	13.06	0.21	5.39
	2015-16	78.41	36.32	14.10	26.05	5.70	20.36	1.61	11.96	0.18	5.31
Telangana	2015-16	64.56	28.57	23.69	33.10	9.47	24.56	2.11	11.52	0.16	2.25
Tripura	2010-11	85.17	44.93	9.75	26.20	4.36	21.85	0.71	6.58	0.02	0.43
	2015-16	87.95	52.80	8.37	24.88	3.23	17.46	0.43	4.48	0.01	0.38
Uttar Pradesh	2010-11	79.23	39.27	13.14	24.58	5.79	21.10	1.73	12.82	0.11	2.23
	2015-16	80.18	41.82	12.63	23.92	5.51	20.40	1.58	11.89	0.10	1.97
Uttarakhand	2010-11	73.65	36.23	17.24	27.60	7.10	21.50	1.90	11.55	0.12	3.11
	2015-16	74.78	37.93	16.89	27.60	6.59	20.81	1.64	10.55	0.10	3.12
West Bengal	2010-11	82.16	52.47	13.76	28.26	3.75	13.26	0.32	1.99	0.01	4.02
	2015-16	82.81	53.39	13.41	28.31	3.53	12.76	0.24	1.54	0.01	4.00
All India Total	**2010-11**	**67.04**	**22.24**	**17.93**	**22.07**	**10.05**	**23.59**	**4.25**	**21.18**	**0.73**	**10.92**
	2015-16	**68.45**	**24.03**	**17.62**	**22.91**	**9.55**	**23.84**	**3.80**	**20.16**	**0.57**	**9.07**

Note : *: Undivided Andhra Pradesh

Source : *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

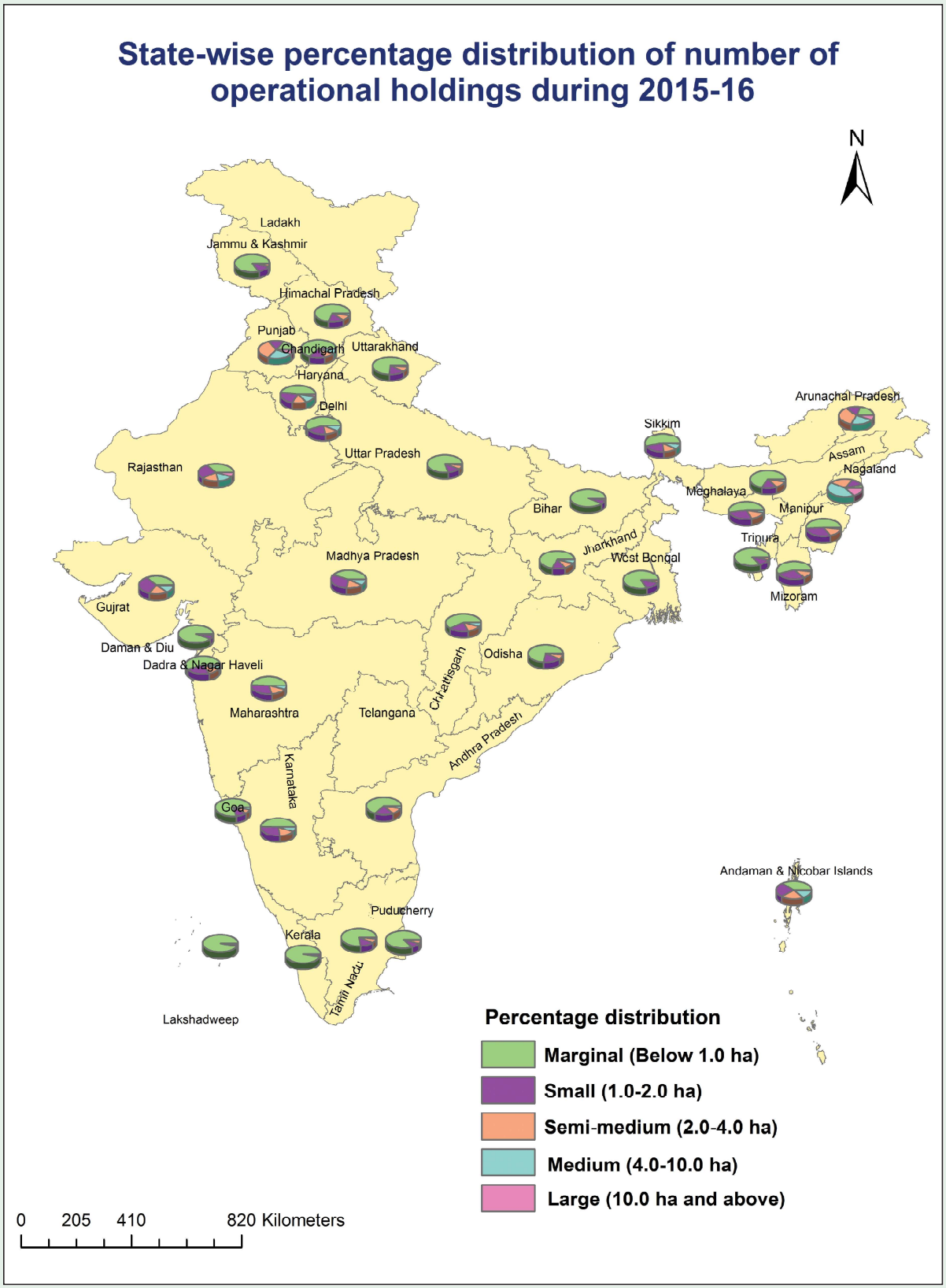

State-wise percentage distribution of number of operational holdings during 2015-16
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Madhya Pradesh
Gujrat
Daman & Diu
Dadra & Nagar Haveli
Odisha
Chhattisgarh
Maharashtra
Telangana
Andhra Pradesh
Karnataka
Goa
Puducherry
Kerala
Tamil Nadu
Lakshadweep
Andaman & Nicobar Islands
Percentage distribution
Marginal (Below 1.0 ha)
Small (1.0-2.0 ha)
Semi-medium (2.0-4.0 ha)
Medium (4.0-10.0 ha)
Large (10.0 ha and above)
0 205 410 820 Kilometers

Table 1.9: India's major natural disasters since 1995

Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
1995	Floods	Large parts of the country	1360	Property worth ₹ 17.7 billion and 2.35 million hectare crop damaged.
1996	Floods	Large parts of the country	1700	Property worth ₹ 22.0 billion and 20.0 million hectare crop damaged.
1996	Cyclone	Andhra Pradesh	1058	0.3 million houses fully and a similar number partially damaged. 0.1 million hectare crop damaged. Loss to property worth ₹ 61.26 billion.
1997	Earthquake	Jabalpur	39	N.A.
1998	Earthquake	Chamoli	100	N.A.
1999	Cyclone	Odisha	9887	1.8 million hectare crop area and 1.6 million houses damaged.
1999	Cyclone	West Bengal	N.A.	₹ 577.30 million
2000	Floods	Andhra Pradesh, Assam, Arunachal Pradesh, West Bengal, Bihar, Punjab, Uttar Pradesh, Himachal Pradesh, Gujarat, Karnataka, Kerala, MP and Sikkim	3048	Estimated value of public properties ₹ 1957.82 crores.
2001	Earthquake	Gujarat	N.A.	Estimated value of public properties ₹ 21,262 crores. Over 20,000 people killed, 1,50,000 injured and 1,59,00,000 affected, 12.54 lakh house damaged.
2004	Tsunami/ Tide waves	Andaman & Nicobar Islands, Andhra Pradesh, Tamil Nadu and Puducherry	N.A.	Over 10,749 people killed. 5,640 people expected missing. About 6.5 lakh people moved to the referred places.
2005	Earthquake	Pakistan & Kashmir	N.A.	Over 87,000 people killed.
2008	Kosi floods	North Bihar	527	19323 livestock perished, 3.3 million persons affected.
	Cyclone Nisha	Tamil Nadu	204	
2009	Floods	Andhra Pradesh, Karnataka	300	N.A.
	Drought	252 districts in 10 States	N.A.	N.A.
2010	Cloud-burst	Leh, Ladakh in Jammu & Kashmir	N.A.	N.A.

Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
2011	Earthquake	North Eastern India with epicenter near Nepal Border and Sikkim	97	N.A.
	Floods	19 districts of Odisha	45	N.A.
	Earthquake	Sikkim, West Bengal, Bihar	60	N.A.
	Cyclone Thane	Tamil Nadu, Puducherry	47	N.A.
2012	Floods	Assam	N.A.	N.A.
	Floods	Uttarkashi, Rudraprayag and Bageshwar district & of Uttarakhand	52	N.A.
	Cyclone Nilam	Tamil Nadu	65	N.A.
2013	Cyclone Mahasen	Tamil Nadu	8	N.A.
	Floods/Land-slides	Uttarakhand and Himachal Pradesh	4094	N.A.
	Cyclone Phailin	Odisha and Andhra Pradesh	23	N.A.
	Floods	Andhra Pradesh	53	N.A.
	Floods	Odisha	21	N.A.
2014	Cyclone Hud Hud	Andhra Pradesh & Odisha	N.A.	N.A.
	Floods	Jammu & Kashmir	N.A.	N.A.
2015	Cyclonic Storms	West Bengal	N.A.	N.A.
	Floods and Heavy Rains	Tamil Nadu, Rajasthan, Andhra Pradesh, Gujarat	N.A.	N.A.
2016	Cyclonic Storm	Tamil Nadu	N.A.	N.A.
2017	Lightning	Odisha and Maharashtra	N.A.	N.A.
2018	Floods and Heavy Rains	Kerala and Uttar Pradesh	N.A.	N.A.
2019	Floods and Heavy Rains	Bihar, Maharashtra and Kerala	N.A.	N.A.
2020	Lighting &/Or Thunderstorm	Bihar, Uttar Pradesh and Jharkhand	N.A.	N.A.
	Cold Wave	Bihar and Uttar Pradesh	N.A.	N.A.

Year	Type	Affected population location	Loss (no. of human life)	Loss to crops & property
2021	Floods and Heavy Rains	Maharashtra and Uttarakhand	N.A.	N.A.
	Lighting &/Or Thunderstorm	Odisha, Madhya Pradesh, Maharashtra, West Bengal and Jharkhand	N.A.	N.A.
	Cyclonic Storms	Gujarat, Maharashtra, Kerala, Karnataka, Andhra Pradesh, Odisha, Goa, Telangana, Jharkhand, West Bengal and Bihar	N.A.	N.A.
2022	Lighting &/Or Thunderstorm	Bihar, Odisha, Madhya Pradesh, Jharkhand, Uttar Pradesh, Rajasthan, Chhattisgarh and Maharashtra	N.A.	N.A.
	Floods and Heavy Rains	Assam, Maharashtra and Uttar Pradesh	N.A.	N.A.
	Dust Storms	Dust Storms	N.A.	N.A.
2023	Lighting &/Or Thunderstorm	Bihar, Odisha, Madhya Pradesh, Maharashtra, Jharkhand, Uttar Pradesh, Chhattisgarh and Rajasthan	N.A.	N.A.
	Floods and Heavy Rains	Madhya Pradesh, Himachal Pradesh, Sikkim, Uttar Pradesh, Uttarakhand, Maharashtra and Rajasthan	N.A.	N.A.
	Heavy Wave	Uttar Pradesh, Odisha, Jharkhand, Maharashtra, and Andhra Pradesh	N.A.	N.A.
	Extremely Severe Cyclonic Storm 'BIPARJOY'	Gujarat and Rajasthan	N.A.	N.A.
	Severe Cyclonic Storm 'MICHAUNG'	Tamil Nadu, Andhra Pradesh, Telengana and Odisha	N.A.	N.A.

Note : N.A.: Not available.

Source : EnviStats India 2024, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India.
(Website:https://mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/EnviStats/Complete_ES1_2024_Vol1.pdf)

Table 1.10: Year-wise damage due to natural extreme events in India

Year	Live Lost human (in No.)	Cattle Lost (in No.)	Houses damaged (in No.)	Cropped areas affected (in Lakh hectares)
2001-02	834	21269	346878	18.72
2002-03	898	3729	462700	21.00
2003-04	1992	25393	682209	31.98
2004-05	1995	12389	1603300	32.53
2005-06	2698	110997	2120012	35.52
2006-07	2402	455619	1934680	70.87
2007-08	3764	119218	3527041	85.13
2008-09	3405	53833	1646905	35.56
2009-10	1677	128452	1359726	47.13
2010-11	2310	48778	1338619	46.25
2011-12	1600	9126	876168	18.87
2012-13	946	24293	667319	14.44
2013-14	5677	102998	1210227	63.75
2014-15	1674	92180	725390	26.85
2015-16	1460	59057	1313371	31.09
2016-17	1487	41965	546518	25.49
2017-18	2057	46488	915878	47.44
2018-19	2045	123014	1557908	17.09
2019-20*	2391	15729	800067	63.98
2020-21**	1782	45844	1150677	50.89
2021-22#	2206	54946	146935	23.68
2022-23##	2104	14166	318253	19.16

Note : **1**. *: As on 31.12.2019, 2. *: As on 02.12.2020, 3. #: As on 31.12.2021, 4. ##: As on 25.11.2022

Source : EnviStats India 2024, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India.(Website:https://mospi.gov.in/sites/default/files/reports_and_publication/statistical_publication/EnviStats/Complete_ES1_2024_Vol1.pdf)

Table 1.11: Drought years in India

Year	Area affected (million sq. km.)	% area of the country affected	Category
1876	0.49	15.8	Slight
1877	2.03	64.7	Calamitous
1883	1.03	32.8	Moderate
1884	0.70	22.2	Slight
1885	0.48	15.4	Slight
1891	1.15	36.7	Moderate
1896	0.68	21.7	Slight
1899	1.99	63.4	Calamitous
1901	0.89	28.5	Moderate
1902	0.54	17.1	Slight
1904	0.98	31.1	Moderate
1905	1.09	34.7	Moderate
1907	0.85	27.2	Slight
1911	0.97	30.8	Moderate
1913	0.70	22.3	Slight
1915	0.63	20.2	Slight
1918	2.16	68.7	Calamitous
1920	1.22	38.8	Moderate
1925	0.80	25.5	Slight
1928	0.67	21.4	Slight
1936	0.86	27.6	Slight
1941	1.01	32.3	Moderate
1951	1.04	33.2	Moderate
1952	0.81	25.8	Slight
1965	1.35	42.9	Moderate
1966	1.01	32.3	Moderate
1968	0.45	20.6	Slight
1969	0.62	19.9	Slight
1971	0.42	13.3	Slight
1972	1.39	44.4	Severe
1974	0.92	29.3	Moderate
1979	1.24	39.4	Moderate
1982	1.04	33.1	Moderate
1985	0.95	30.1	Moderate
1986	0.60	19.0	Slight
1987	1.55	49.2	Severe
2002	N.A.	N.A.	Severe
2009	N.A.	N.A.	Severe

Note : N.A.: Not available.

Source : *Fertiliser Statistics 2016-17,* The Fertiliser Association of India, New Delhi.

Table 1.12: Flood damages/heavy rains in India

Year	Area affected	Population affected	Damage to crops		Damage to house		Cattle lost	Human lives lost	Damage to public utilities	Total damages to crops, houses & public utilities
	(million ha)	(million)	Area (million ha)	Value (₹ million)	Nos. ('000)	Value (₹ million)	Nos. ('000)	Nos.	(₹ million)	(₹ million)
1953	2.29	24.28	0.93	420.80	265	74.20	47	37	29.00	524.00
1960	7.53	8.35	21.27	425.50	610	143.10	14	510	63.10	631.70
1965	1.46	3.61	0.27	58.70	113	2.00	7	79	10.70	71.40
1970	8.46	31.83	4.91	1627.80	1434	486.10	19	1076	764.40	2878.30
1975	6.17	31.36	3.85	2714.90	804	341.00	17	686	1660.50	4716.40
1980	11.46	54.12	5.55	3663.70	2533	1708.50	59	1913	3032.80	8405.00
1985	8.38	59.59	4.65	14253.70	2450	5838.60	43	1804	20500.40	40592.70
1990	9.30	40.26	3.18	6956.10	1020	2137.30	134	1855	4552.70	17089.20
1991	6.36	33.89	2.70	5790.20	1134	1804.20	41	1187	7288.90	14883.30
1992	2.64	19.26	1.75	10275.80	687	3082.80	79	1533	20106.70	33445.30
1993	11.44	30.41	3.21	13086.30	1926	5283.20	211	2864	14455.30	33824.90
1994	4.81	27.55	3.96	8886.20	915	1652.10	52	2078	7407.60	17945.90
1995	5.24	35.93	3.24	17147.90	2002	13078.90	62	1814	6796.30	37023.10
1996	8.05	44.73	3.83	11244.90	727	1765.90	73	1803	8613.90	30057.40
1997	4.57	29.66	2.26	6927.40	505	1525.00	28	1402	19859.30	28311.80
1998	10.85	47.44	7.50	25941.70	1933	11087.80	107	2889	51577.70	88607.20
1999	7.77	27.99	1.75	18508.70	1613	12990.60	91	745	4628.30	36127.60
2000	5.38	45.01	3.58	42466.20	2629	6809.40	123	2606	39369.80	88645.40
2001	6.18	26.46	3.96	6884.80	716	8164.70	33	1444	56044.60	71094.20

Year	Area affected	Population affected	Damage to crops		Damage to house		Cattle lost	Human lives lost	Damage to public utilities	Total damages to crops, houses & public utilities
	(million ha)	(million)	Area (million ha)	Value (₹ million)	Nos. ('000)	Value (₹ million)	Nos. ('000)	Nos.	(₹ million)	(₹ million)
2002	7.09	26.32	2.19	9130.90	762	5993.70	22	1001	10620.80	25745.40
2003	6.12	43.20	4.27	7307.23	775	756.48	15	2166	3262.15	11325.87
2004	5.31	43.73	2.89	778.69	1664	879.60	134	1813	1656.09	3529.71
2005	12.56	22.93	12.30	2370.92	716	380.53	120	1455	4688.22	7660.49
2006	1.10	25.22	1.82	2850.67	1497	3636.85	267	1431	13303.93	21546.29
2007	7.14	41.40	8.79	3121.53	3280	2113.11	89	3389	8049.04	13425.34
2008	3.43	29.91	3.19	3401.56	1567	1141.89	102	2876	5046.48	9595.34
2009	3.84	29.54	3.59	4232.61	1236	10809.80	63	1513	17509.35	32554.77
2010	2.62	18.30	4.99	5887.38	294	875.95	40	1582	12757.25	19520.59
2011	1.90	15.97	2.72	1393.85	1153	410.48	36	1761	6053.57	7857.89
2012	2.14	14.69	1.95	1534.11	175	240.57	32	933	9169.97	10944.65
2013*	3.64	21.15	3.64	3214.99	662	526.12	157	2137	3938.12	11094.96
2014*	10.24	9.25	5.09	1439.15	169	459.22	17	1402	4740.34	6638.27
2015*	0.26	22.70	2.42	12693.08	870	7998.93	26	963	8343.79	29099.93
Total	**442.53**	**1981.17**	**236.67**	**84890.97**	**75918**	**42598.16**	**5930**	**102986**	**136395.50**	**268551.11**
Average	7.02	31.45	3.76	1347.48	1205.05	676.16	94.12	1634.70	2165.01	4262.72
Maximum (Year)	17.05 (1978)	70.45 (1978)	12.30 (2005)	12693.08 (2003)	3507.54 (1978)	10809.80 (2009)	618 (1979)	11316 (1977)	17509.35 (2009)	32551.76 (2009)

Note : *: Tentative.

Source : Compendium of Environment Statistics India 2016, Central Statistics Office, Ministry of Statistics & Programme Implementation, Govt. of India. (Website: http://www.mospi.gov.in)

Table 1.13: All India rainfall distribution

(mm)

Year	Monsoon Season (June-September)			Post-Monsoon* (October-December)			Winter Season (January-February)			Pre-Monsoon Season (March-May)			Over all Rainfall (June-May)		
	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure	Actual	Normal	% Departure
1996-97	927.6	905.7	2.4	128.0	120.8	6.0	21.0	40.6	-48.3	118.9	123.2	-3.5	1195.5	1190.3	0.4
1997-98	927.4	908.6	2.1	187.7	119.5	57.1	44.1	41.9	5.3	132.3	128.3	3.1	1291.5	1198.3	7.8
1998-99	945.2	903.6	4.6	178.8	121.8	46.8	28.4	42.8	-33.6	123.1	130.6	-5.7	1275.5	1198.8	6.4
1999-00	866.9	903.2	-4.0	144.7	121.8	18.8	43.1	42.5	1.4	128.8	129.5	-0.5	1183.5	1197.0	-1.1
2000-01	833.7	902.3	-7.6	64.1	121.7	-47.3	16.2	42.2	-61.6	129.7	129.3	0.3	1043.7	1195.5	-12.7
2001-02	826.0	901.1	-8.3	137.7	121.7	13.1	35.0	41.2	-15.0	121.5	132.0	-8.0	1120.2	1196.0	-6.3
2002-03	737.1	911.7	-19.2	83.4	123.7	-32.6	53.2	38.3	38.9	107.7	131.7	-18.2	981.4	1205.4	-18.6
2003-04	947.3	902.7	4.9	134.6	125.0	7.7	34.5	39.2	-12.0	161.6	129.6	24.7	1278.0	1196.5	6.8
2004-05	779.6	893.3	-12.7	111.8	125.7	-11.1	69.8	43.8	59.0	124.7	134.5	-7.3	1085.9	1197.3	-9.3
2005-06	879.3	892.5	-1.0	138.4	125.8	10.0	27.8	43.9	-37.0	139.9	134.6	3.9	1185.4	1196.8	-1.0
2006-07	886.6	892.2	-0.6	99.3	125.9	-21.1	34.3	43.8	-21.7	112.8	133.6	-15.6	1133.0	1195.5	-5.2
2007-08	936.9	892.2	5.0	85.4	125.9	-32.2	42.6	43.2	-1.4	115.3	133.5	-13.6	1180.2	1194.8	-1.2
2008-09	873.2	892.2	-2.1	87.2	125.9	-30.7	23.6	43.8	-46.1	91.0	134.5	-32.3	1075.0	1196.4	-10.1
2009-10	689.8	892.2	-22.7	135.5	125.9	7.6	24.6	43.8	-43.8	122.9	133.7	-8.1	972.8	1195.6	-18.6
2010-11	912.8	893.2	2.2	153.2	126.3	21.3	31.9	40.9	-22.0	114.4	131.3	-12.9	1212.3	1191.7	1.7
2011-12	899.9	887.5	1.4	65.7	127.2	-48.3	38.8	40.9	-5.8	90.3	131.3	-31.2	1094.7	1186.9	-7.8
2012-13	819.5	886.9	-7.6	100.6	127.2	-20.9	51.4	40.9	25.7	101.9	131.3	-22.4	1073.4	1186.3	-9.5
2013-14	936.7	886.9	5.6	149.5	127.2	17.5	46.2	40.9	13.0	130.0	131.3	-1.0	1262.4	1186.3	6.4
2014-15	777.5	886.9	-12.3	85.2	127.2	-33.0	37.6	41.4	-9.2	181.5	131.5	38.0	1081.8	1187.0	-8.9
2015-16	760.6	887.5	-14.3	97.8	127.2	-23.1	17.9	41.4	-56.8	131.0	131.5	-0.40	1007.3	1187.6	-15.2
2016-17	862.0	887.5	-2.9	69.7	127.2	-45.2	39.3	41.4	-5.1	128.4	131.5	-2.4	1099.4	1187.6	-7.4
2017-18	841.3	887.5	-5.2	112.7	127.2	-11.4	15.4	41.4	-62.8	117.0	131.5	-11.0.	1086.4	1187.6.	-8.5.
2018-19	804.0	887.5	-9.4	71.2	127.2	-44.0	51.4	41.4	24.2	99.0	131.5	-24.7	1025.6	1187.6	-13.6
2019-20	968.3	880.6	10.0	160.0	123.8	29.2	40.2	41.4	-1.4	158.5	131.7	20.3	1327.0	1176.9	12.8
2020-21	957.6	880.6	8.7	124.6	123.8	0.6	27.8	40.8	-32.0	155.2	131.7	18.0	1265.2	1176.9	7.5
2021-22	874.6	880.6	-1.0	177.8	123.8	44.0	58.7	40.8	44.0	130.6	131.7	-1.0	1241.7	1176.9	5.5
2022-23	925.0	868.6	6.0	143.4	119.5	20.0	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Note : 1. *: Position is up to 28th February, 2022, 2. N.A.: Not available.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

Table 1.14: State-wise consumption of electricity for agricultural purpose during 2020-21 and 2021-22

(1 Giga Watt hour = 10^6 Kilo Watt hour)

Zones/States/Uts	Consumption for agricultural purposes		Total consumption		% Share of consumption for agricultural purposes	
	2020-21	2021-22(P)	2020-21	2021-22(P)	2020-21	2021-22(P)
NORTHERN	**71302.11**	**70394.13**	**308230.93**	**328250.58**	**23.13**	**21.45**
Chandigarh	1.37	1.43	1349.09	1409.33	0.10	0.10
Delhi	39.44	33.10	26319.22	27624.83	0.15	0.12
Haryana	10087.50	9123.54	41943.83	46035.71	24.05	19.82
Himachal Pradesh	72.64	85.10	8635.31	10198.09	0.84	0.83
Jammu & Kashmir	361.57	375.42	9984.32	10185.37	3.62	3.69
Punjab	13092.85	12572.46	50285.69	53353.27	26.04	23.56
Rajasthan	28525.48	28816.56	64888.34	69603.64	43.96	41.40
Uttar Pradesh	18931.27	18956.52	93600.08	97321.54	20.23	19.48
Uttarakhand	189.99	430.00	11225.05	12518.80	1.69	3.43
WESTERN	**78163.98**	**82538.90**	**314137.67**	**351271.18**	**24.88**	**23.50**
Chhattisgarh	5902.81	5933.05	23361.34	25161.29	25.27	23.58
Gujarat	12663.82	13791.38	92275.88	106151.65	13.72	12.99
Madhya Pradesh	25645.52	26521.52	60954.12	65812.24	42.07	40.30
Maharashtra	33912.33	36253.20	126423.05	141170.12	26.82	25.68
Daman & Diu	3.40	3.37	2136.68	2482.36	0.16	0.14
D & N Haveli	4.85	5.25	5286.39	6379.94	0.09	0.08
Goa	31.25	31.13	3700.21	4113.58	0.84	0.76
SOUTHERN	**68421.30**	**72091.59**	**292282.54**	**314419.43**	**23.41**	**22.93**
Andhra Pradesh	9368.73	14114.03	51756.03	62592.64	18.10	22.55
Telangana	22260.11	22159.18	57896.31	62153.84	38.45	35.65
Karnataka	22337.19	21935.73	62783.14	60959.62	35.58	35.98
Kerala	412.02	384.69	22598.78	23931.48	1.82	1.61
Tamil Nadu	13974.68	13436.25	94592.04	101957.96	14.77	13.18
Puducherry	68.57	61.71	2603.14	2773.64	2.63	2.22
Lakshadweep	0.00	0.00	53.10	50.25	0.00	0.00
EASTERN	**3330.90**	**3326.10**	**115146.91**	**129140.50**	**2.89**	**2.58**
Bihar	1149.30	1140.86	24108.37	26000.33	4.77	4.39
Jharkhand$	203.60	178.05	21375.17	22773.15	0.95	0.78
Odisha	644.66	781.42	20609.57	21561.37	3.13	3.62
West Bengal$	1332.23	1224.59	48393.90	58097.75	2.75	2.11
Sikkim	0.00	0.00	414.77	440.60	0.00	0.00
A & N Islands	1.11	1.18	245.13	267.30	0.45	0.44
NORTH EASTERN	**85.15**	**100.76**	**11857.59**	**13042.89**	**0.72**	**0.77**
Arunachal Pradesh	0.77	0.06	405.11	518.25	0.19	0.01
Assam	39.00	54.23	7356.29	8520.06	0.53	0.64
Manipur	7.08	7.19	651.30	731.70	1.09	0.98
Meghalaya	0.14	0.13	1326.45	906.67	0.01	0.01
Mizoram	0.16	0.00	453.54	660.92	0.04	0.00
Nagaland	0.00	0.00	682.57	654.23	0.00	0.00
Tripura	38.00	39.15	982.33	1051.06	3.87	3.72
All-India	**221303.44**	**228451.47**	**1041655.63**	**1136124.53**	**21.25**	**20.11**

Note : P :Provisional

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.(https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance*)* 2. Central Electricity Authority, New Delhi. (Website: http://www.cea.nic.in) 3. $: Includes Damodar Valley Corporation (DVC) sales to ultimate consumptions in Jharkhand & West Bengal Area.

Table 1.15: Sector-wise electricity consumption in India

(1 Giga Watt hour = 10^6 Kilo Watt hour)

Year	Industry	Agriculture	Domestic	Commercial	Traction and Railways	Others	Total energy consumed
2007-08	189424	104182	120918	46685	11108	29660	501977
	(37.74)	(20.75)	(24.09)	(9.30)	(2.21)	(5.91)	(100.00)
2008-09	209474	109610	131720	54189	11425	37577	553995
	(37.81)	(19.79)	(23.78)	(9.78)	(2.06)	(6.78)	(100.00)
2009-10	236752	120209	146080	60600	12408	36595	612645
	(38.64)	(19.62)	(23.85)	(9.89)	(2.03)	(5.97)	(100.00)
2010-11	272589	131967	169326	67289	14003	39218	694392
	(39.25)	(19.00)	(24.39)	(9.69)	(2.02)	(5.65)	(100.00)
2011-12	352291	140960	171104	65381	14206	41252	785194
	(44.87)	(17.95)	(21.79)	(8.33)	(1.81)	(5.25)	(100.00)
2012-13	365989	147462	183700	72794	14100	40256	824301
	(44.40)	(17.89)	(22.29)	(8.83)	(1.71)	(4.88)	(100.00)
2013-14	384418	152744	199842	74247	15540	47418	874209
	(43.97)	(17.47)	(22.86)	(8.49)	(1.78)	(5.42)	(100.00)
2014-15	418346	168913	217405	78391	16177	49289	948522
	(44.11)	(17.81)	(22.92)	(8.22)	(1.71)	(5.20)	(100.00)
2015-16	423523	173185	238876	86037	16594	62976	1001191
	(42.30)	(17.30)	(23.86)	(8.59)	(1.66)	(6.29)	(100.00)
2016-17	440206.00	191151.00	255826.00	89825.00	15683.00	68493.00	1061183.00
	(41.48)	(18.01)	(24.11)	(8.46)	(1.48)	(6.45)	(100.00)
2017-18	468613.00	199247.00	273545.00	93755.00	17433.00	70834.00	1123427.00
	(41.71)	(17.74)	(24.35)	(8.35)	(1.55)	(6.31)	(100.00)
2018-19	519196.00	213409.00	288243.00	98228.00	18837.00	72058.00	1209972.00
	(42.91)	(17.64)	(23.82)	(8.12)	(1.56)	(5.96)	(100.00)
2019-20	532820.00	211295.00	308745.00	106047.00	19148.00	70031.00	1248086.00
	(42.69)	(16.93)	(24.74)	(8.50)	(1.53)	(5.61)	(100.00)
2020-21	508776.00	221303.00	330809.00	86950.00	14668.00	67701.00	1230208.00
	(41.36)	(17.99)	(26.89)	(7.07)	(1.19)	(5.50)	(100.00)
2021-22	556481.00	228451.00	339780.00	97121.00	21935.00	72996.00	1316765.00
	(42.26)	(17.35)	(25.80)	(7.38)	(1.67)	(5.54)	(100.00)
2022-23*	595000.00	240800.00	362000.00	105100.00	25000.00	75500.00	1403400.00
	(42.40)	(17.16)	(25.79)	(7.49)	(1.78)	(5.38)	(100.00)
Growth rate of 2022-23 over 2021-22(%)	**6.92**	**5.41**	**6.54**	**8.22**	**13.97**	**3.43**	**6.58**
CAGR 2013-14 to 2022-23 (%)	**4.97**	**5.19**	**6.82**	**3.94**	**5.43**	**5.30**	**5.40**

Note : 1. *: Provisional, 2. Figures in parentheses indicate percentage electricity consumption in different sectors, 3. CAGR: Compound annual growth rate.

Source : *Energy Statistics 2024,* Central Statistics Office, Ministry of Statistics and Programme Implementation, Govt. of India. (Website: http://www.mospi.gov.in)

Table 1.16: Percentage distribution of gross cropped area in India

Crop	2014-15*	2015-16*	2016-17*	2017-18*	2018-19*	2019-20*
Rice	22.32	21.91	22.15	22.45	22.58	22.77
Jowar	3.14	3.08	2.79	2.45	2.09	2.32
Bajra	3.76	3.61	3.77	3.75	3.60	3.59
Maize	4.39	4.29	4.57	4.43	4.44	4.61
Ragi	0.60	0.57	0.51	0.61	0.48	0.51
Wheat	16.16	15.66	15.98	15.52	15.71	16.80
Barley	0.36	0.27	0.29	0.27	0.24	0.26
Other Cereals & Millets	0.36	0.40	0.35	0.30	0.28	0.24
Coarse Cereals	**12.61**	**12.21**	**12.27**	**11.82**	**11.13**	**11.52**
Total Cereals	**51.09**	**49.78**	**50.40**	**49.78**	**49.41**	**51.09**
Gram	3.86	3.76	4.03	4.78	4.49	4.38
Tur	1.73	1.77	2.35	1.92	2.17	2.00
Other Pulses	5.34	6.05	6.84	7.31	7.09	6.12
Total Pulses	**10.93**	**11.58**	**13.22**	**14.01**	**13.75**	**12.49**
Total Food-grains	**62.02**	**61.36**	**63.62**	**63.80**	**63.15**	**63.58**
Sugarcane	2.80	2.71	2.38	2.54	2.77	2.48
Condiments & Spices	1.79	1.93	1.93	1.80	1.96	1.97
Total Fruits	**2.11**	**2.22**	**2.22**	**2.24**	**2.39**	**2.35**
Potatoes	0.89	0.97	0.93	0.91	0.91	0.87
Onions	0.34	0.58	0.55	0.52	0.51	0.57
Total Vegetables	**3.05**	**3.40**	**3.33**	**3.27**	**3.21**	**3.17**
Groundnut	2.38	2.27	2.63	2.44	2.35	2.31
Sesamum	0.88	1.01	0.93	0.87	0.82	0.80
Rapeseed & Mustard	2.74	2.82	2.81	2.77	3.08	2.92
Linseed	0.11	0.09	0.11	0.08	0.07	0.06
Other Oil Seeds	7.99	8.12	7.78	7.11	7.33	7.81
Total Oil Seeds	**14.10**	**14.32**	**14.26**	**13.27**	**13.65**	**13.88**
Cotton	6.44	6.12	5.29	6.14	6.14	6.30
Jute	0.38	0.36	0.35	0.34	0.33	0.30
Mesta	0.04	0.04	0.04	0.04	0.03	0.03
Total Fibres	**6.88**	**6.54**	**5.71**	**6.55**	**6.52**	**6.64**
Tobacco	0.21	0.24	0.21	0.21	0.20	0.19
Other Crops	7.04	7.29	6.35	6.32	6.15	5.72
Gross Cropped Area	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Note : *: Provisional.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.(https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance*)*

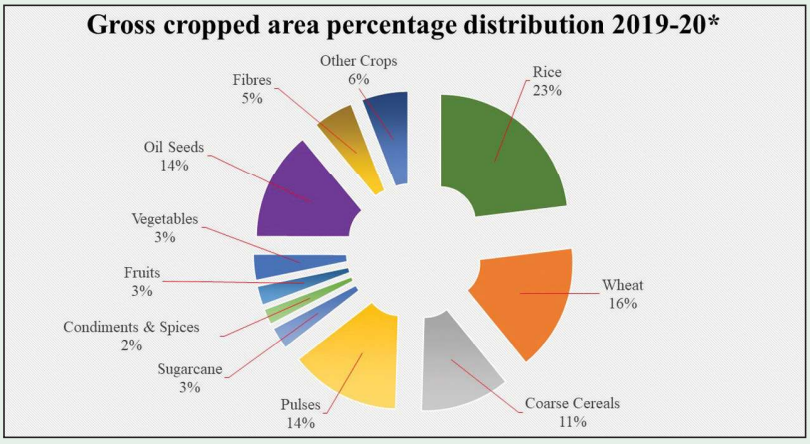


Table 1.17: Crop-wise irrigated area

(million ha)

Crops	2012-13*	2013-14*	2014-15*	2015-16*	2016-17*	2017-18*	2018-19*	2019-20*	2020-21*	2021-22*
Rice	25.01	26.52	26.61	26.20	27.07	27.72	28.60	31.26	33.63	33.72
	(58.5)	(59.6)	(60.2)	(60.4)	(60.7)	(61.5)	(63.0)	(65.0)	(66.7)	(67.6)
Wheat	28.28	29.15	30.26	29.29	30.40	29.53	30.18	34.01	33.90	33.17
	(92.7)	(92.8)	(94.4)	(94.4)	(94.6)	(94.7)	(95.5)	(95.8)	(95.6)	(95.3)
Total foodgrains	61.97	65.16	65.80	64.45	67.11	68.41	69.51	76.55	80.40	79.40
	(51.4)	(52)	(53.5)	(53)	(52.4)	(53.4)	(54.7)	(57)	(59.0)	(57.3)
Total pulses	4.17	4.77	4.34	4.47	5.07	6.56	6.51	6.10	7.30	7.47
	(18.9)	(19.9)	(20.1)	(19.5)	(19.1)	(23.3)	(23.6)	(23.1)	(27.7)	(25.0)
Fruits & Vegetables	6.27	6.42	6.65	7.51	7.52	7.60	7.87	8.33	8.69	9.40
	(64.7)	(64.8)	(65.1)	(67.5)	(67.5)	(68.5)	(69.8)	(71.4)	(70.0)	(74.4)
Total oil seeds	8.28	8.35	7.87	8.27	8.40	8.32	8.98	9.35	10.43	12.05
	(28.8)	(27.8)	(28.1)	(29.2)	(29.3)	(31.2)	(32.7)	(31.9)	(33.7)	(37.5)
Sugarcane	5.12	5.21	5.31	5.12	4.57	4.91	5.39	5.06	5.67	6.41
	(94.1)	(94.3)	(95.5)	(95.5)	(95.4)	(96.1)	(96.6)	(96.5)	(96.7)	(98.7)
Total gross irrigated area	92.78	96.27	97.85	97.75	99.62	101.47	104.71	112.44	118.93	120.38
	(47.7)	(47.8)	(49.4)	(49.3)	(49.5)	(50.5)	(52.0)	(53.2)	(55.0)	(54.9)

Note : 1. *: Provisional, 2. Figures in parentheses indicate percentage of the total area under the crop.

Source : *Land Use Statistics at a Glance 2012-13 to 2021-22,* Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in)

Table 1.18: Source-wise irrigated area

(million ha)

Source	2012-13*	2013-14*	2014-15*	2015-16*	2016-17*	2017-18*	2018-19*	2019-20*	2020-21*	2021-22*
Govt. canals	15.62	16.23	16.11	15.34	16.65	16.74	17.45	18.38	18.44	19.05
	(23.5)	(23.7)	(23.5)	(22.6)	(24.0)	(23.9)	(24.1)	(24.4)	(23.7)	(24.5)
Private canals	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.16	0.16	0.16
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Tanks	1.84	1.93	1.88	1.87	1.79	1.81	1.75	2.01	2.19	2.21
	(2.8)	(2.8)	(2.7)	(2.8)	(2.6)	(2.6)	(2.4)	(2.7)	(2.8)	(2.8)
Tube wells	31.06	31.64	31.95	32.68	32.96	33.91	34.97	35.80	37.20	36.80
	(46.6)	(46.3)	(46.6)	(48.2)	(47.6)	(48.3)	(48.4)	(47.4)	(47.9)	(47.2)
Other wells	10.17	10.71	10.65	10.20	9.97	10.04	9.98	10.70	10.13	10.31
	(15.3)	(15.7)	(15.5)	(15.1)	(14.4)	(14.3)	(13.8)	(14.2)	(13.0)	(13.2)
Other sources	7.73	7.73	7.83	7.52	7.73	7.49	7.94	8.42	9.61	9.39
	(11.6)	(11.3)	(11.4)	(11.1)	(16.65)	(16.74)	(17.45)	(18.38)	(18.44)	(19.05)
Net irrigated area	66.59	68.42	68.58	67.77	69.27	70.16	72.24	75.47	77.73	77.92
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Note : 1.*: Provisional, 2. Figures in parentheses indicate percentage of the net irrigated area.

Source : *Land Use Statistics at a Glance 2012-13 to 2021-22,* Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in)

Table 1.19: State-wise net area irrigated by source during 2021-22*

(000' ha)

Zones/States/UTs	Canals			Tanks	Wells		Other sources	Total net irrigated area
	Govt.	Private	Total		Tube wells	Others		
NORTH	**7755**	**147**	**7902**	**122**	**27809**	**1995**	**341**	**38169**
Haryana	2265	N.A.	2265	N.A.	4239	N.A.	N.A.	6504
Himachal Pradesh	10	0	10	1	52	5	142	211
Jammu & Kashmir	262	146	408	14	13	12	36	483
Punjab	1667	N.A.	1667	N.A.	6050	N.A.	N.A.	7717
Uttar Pradesh	3443	N.A.	3443	107	17056	1973	128	22707
Uttarakhand	109	1	109	0	398	4	36	548
Chandigarh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Delhi**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
SOUTH	**8044**	**0**	**8044**	**1323**	**6473**	**2472**	**1195**	**19506**
Andhra Pradesh	1816	N.A.	1816	346	1582	44	129	3916
Karnataka	1724	N.A.	1724	200	2745	398	1019	6085
Kerala	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Tamil Nadu	977	0	977	480	747	1682	6	3894
Telengana*	3522	N.A.	3522	297	1380	347	41	5587
A & N Islands	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Puducherry	5	N.A.	5	N.A.	19	N.A.	0	24
Lakshadweep	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
EAST	**2824**	**330**	**3153**	**281**	**3937**	**184**	**734**	**8289**
Arunachal Pradesh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	63	63
Assam	132	12	144	13	115	59	227	558
Bihar	1736	N.A.	1736	121	3487	44	209	5598
Jharkhand	4	N.A.	4	94	20	75	97	291
Odisha	848	291	1139	49	301	5	N.A.	1494
West Bengal	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Manipur	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Meghalaya	93	26	120	N.A.	N.A.	N.A.	N.A.	120
Mizoram	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Nagaland	N.A.	N.A.	0	N.A.	N.A.	N.A.	51	51
Sikkim	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Tripura	10	N.A.	10	4	13	1	87	115
WEST	**9818**	**0**	**9819**	**1094**	**17229**	**8759**	**4173**	**41074**
Chhattisgarh	953	0	954	27	1082	14	67	2144
Gujarat	2852	N.A.	2852	442	3370	2854	647	10166
Madhya Pradesh	2631	N.A.	2631	585	6928	3504	3221	16869
Maharashtra	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Rajasthan	3368	N.A.	3368	39	5849	2385	224	11865
Goa	14	N.A.	14	1	0	1	13	29
Daman & Diu	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Dadra & Nagar Haveli	0	N.A.	0	0	0	1	0	2
All India **2021-22***	19054	164	19218	2205	36797	10308	9387	77916
All India **2020-21***	18436	163	18600	2190	37200	10128	9612	77729
All India **2019-20***	18381	162	18543	2013	35800	10695	8416	75469

Note : 1. *: Provisional, 2. N.A.: Not available or no reporting of data from the States/UTs, 4. '0' means the area is less than 500 ha, 5. Totals may not tally due to rounding off figures.

Source : *Land Use Statistics at a Glance 2012-13 to 2021-22,* Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: http://desagri.gov.in)

Table 1.20: All-India cultivated and irrigated area under food grains with land man ratio

Year	Gross area under food grains ('000 ha)		% Share of area under food grains to Gross area sown	% Share of irrigated area under food grains to Gross irrigated area	Land man ratio
	Cultivated	Irrigated			
1980-81	127608	37851	73.9	76.0	0.24
1985-86	128756	40407	72.1	74.4	0.22
1990-91	127948	44866	68.9	71.0	0.20
1991-92	122520	45790	67.2	69.7	0.20
1992-93	125234	46855	67.4	70.2	0.19
1993-94	124782	48261	66.9	70.7	0.19
1994-95	125949	49894	67.0	70.6	0.19
1995-96	123463	49543	65.9	69.4	0.18
1996-97	125101	52175	66.0	68.6	0.16
1997-98	125716	52440	66.2	69.3	0.16
1998-99	126879	54957	66.2	69.9	0.17
1999-00	124719	55661	66.2	70.3	0.17
2000-01	122680	53609	66.2	70.4	0.17
2001-02	124222	54131	66.1	69.1	0.16
2002-03	115254	50043	66.3	68.5	0.16
2003-04	124971	53242	65.9	68.2	0.16
2004-05	122710	54715	64.2	67.5	0.16
2005-06	123610	56489	64.1	67.0	0.15
2006-07	124106	58550	64.5	67.5	0.15
2007-08	125859	59512	64.5	67.6	0.15
2008-09	124635	60415	63.8	68.0	0.15
2009-10	121467	58107	64.2	68.3	0.15
2010-11*	127479	61385	64.3	68.7	0.14
2011-12*	123485	61651	63.1	67.1	0.14
2012-13*	120487	61968	62.0	66.8	0.14
2013-14*	125272	65159	62.2	67.7	0.14
2014-15*	122977	65802	62.0	67.3	0.14
2015-16*	121567	64449	61.4	65.9	0.13
2016-17*	127973	67114	63.6	67.4	0.13
2017-18*	128154	68426	63.8	67.4	0.13
2018-19*	127053	69512	63.2	66.4	0.13
2019-20*	134390	76545	63.6	68.1	0.12
2020-21*	136289	80402	63.1	67.6	0.12

Note : 1. *: Provisional, 2. Land man ratio = Arable land and land under permanent crops/population.

Source : *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.

Table 1.21: All India cultivated and irrigated area–gross and net along with cropping intensity

(million ha)

Year	Area sown			Irrigated area			Intensity of gross irrigated area to gross sown area (%)	Cropping intensity (%)
	Gross	Net	More than once	Gross	Net	More than once		
1965-66	155.28	136.20	19.08	30.90	26.34	4.56	19.9	114.0
1970-71	165.79	140.86	24.93	38.20	31.10	7.09	23.0	118.2
1975-76	171.30	141.65	29.64	43.36	34.59	8.77	25.3	120.9
1980-81	172.63	140.29	32.34	49.78	38.72	11.06	28.8	123.3
1985-86	178.46	140.90	37.56	54.28	41.87	12.42	30.4	126.7
1990-91	185.74	143.00	42.74	63.20	48.02	15.18	34.0	129.9
1995-96	187.47	142.20	45.27	71.35	53.40	17.95	38.1	131.8
1996-97	189.50	142.93	46.57	76.03	55.11	20.91	40.1	132.6
1997-98	189.99	141.95	48.04	75.67	55.21	20.46	39.7	133.9
1998-99	191.65	142.75	48.90	78.67	57.44	21.23	41.0	134.3
1999-00	188.40	141.06	47.33	79.22	57.53	21.69	42.0	133.6
2000-01	185.34	141.34	44.01	76.19	55.21	20.98	41.1	131.1
2001-02	188.01	140.73	47.28	78.37	56.94	21.44	41.7	133.6
2002-03	173.89	131.94	41.95	73.06	53.90	19.16	42.0	131.8
2003-04	189.66	140.71	48.95	78.04	57.06	20.99	41.1	134.8
2004-05	191.10	140.64	50.46	81.08	59.23	21.85	42.4	135.9
2005-06	192.74	141.16	51.58	84.28	60.84	23.44	43.7	136.5
2006-07	192.38	139.82	52.56	86.75	62.75	24.01	45.1	137.6
2007-08	195.22	141.02	54.21	88.06	63.19	24.87	45.1	138.4
2008-09*	195.33	141.90	53.43	88.90	63.64	25.26	45.5	137.7
2009-10*	189.19	139.17	50.02	85.09	61.95	23.14	45.0	135.9
2010-11*	198.37	141.56	56.75	89.31	63.87	25.45	45.1	140.1
2011-12*	195.54	140.79	54.75	91.93	66.01	25.92	47.0	138.9
2012-13*	194.46	139.75	54.71	92.78	66.59	26.19	47.7	139.1
2013-14*	201.30	141.24	60.06	96.27	68.42	27.85	47.8	142.5
2014-15*	198.29	139.45	58.84	97.85	68.58	29.26	49.3	142.2
2015-16*	198.12	138.97	59.15	97.75	67.77	29.98	49.3	142.6
2016-17*	201.19	139.00	62.16	99.62	69.27	30.35	49.5	144.7
2017-18*	200.88	138.77	62.11	101.47	70.16	31.30	50.5	144.8
2018-19*	201.18	138.44	62.74	104.71	72.24	32.47	52.0	145.3
2019-20*	211.36	139.90	71.46	112.44	75.47	36.97	53.2	151.1
2020-21*	216.12	141.54	74.56	118.93	77.73	41.21	55.0	152.7

Note : 1. *: Provisional, 2. Cropping intensity = Gross/Net sown area x 100.

Source : *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.

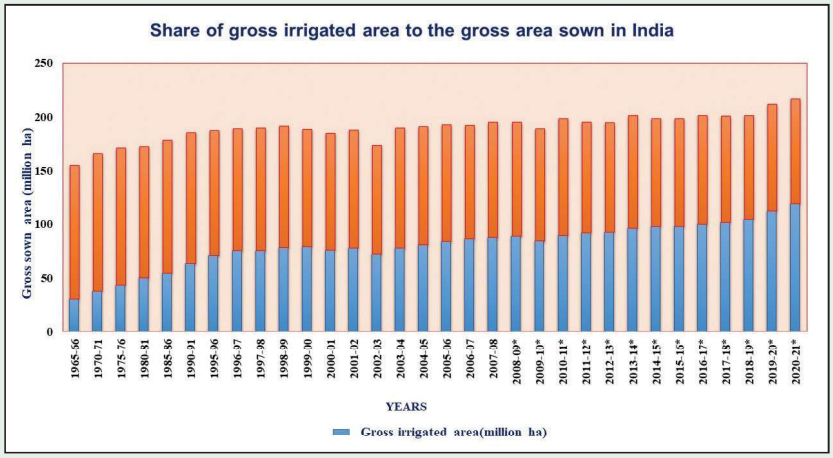


Table 1.22: Distribution of land use, number and area of holdings in India by irrigation status and size classes for all social groups as per Agriculture Census 2015-16*

(Number: 000', Area: 000' ha)

Sl. No.	Size Class (in ha.)	Total Holdings		Wholly Irrigated Holdings		Wholly Unirrigated Holdings		Partially Irrigated Holdings			Holdings Receiving Irrigation		Net Area Sown	Area Under Current Fallows	Net Area Cultivated	Uncultivated area
		No.	Area	No.	Area	No.	Area	No.	Total Area	Irrigated Area	Number	Net Irrigated Area				
1	**Below 0.5**	70469	16473	32732	7783	25670	5589	7833	1418	756	40565	8539	1075	86	1161	39
2	**(0.5-1.0)**	29783	21450	12434	8553	12748	8582	3493	2347	1277	15927	9830	1969	168	2138	75
Marginal		100251	37923	45165	16336	38418	14170	11326	3765	2033	56492	18369	3045	254	3299	114
3	**(1.0-2.0)**	25809	36151	9161	12117	11837	15259	4055	5229	3036	13215	15153	3721	288	4009	192
Small		25809	36151	9161	12117	11837	15259	4055	5229	3036	13215	15153	3721	288	4009	192
4	**(2.0-3.0)**	9828	23375	3344	7504	4408	9521	1809	3883	2230	5153	9735	2564	235	2799	172
5	**(3.0-4.0)**	4166	14245	1399	4514	1778	5457	878	2647	1548	2277	6062	1457	169	1625	156
Semi-medium		13993	37619	4743	12018	6186	14978	2687	6530	3779	7430	15797	4021	403	4424	328
6	**(4.0-5.0)**	2366	10458	810	3413	956	3760	535	2068	1205	1345	4617	1069	145	1214	142
7	**(5.0-7.5)**	2352	14147	761	4359	947	5001	577	2997	1691	1338	6050	1319	210	1529	208
8	**(7.5-10.0)**	843	7206	264	2129	345	2520	213	1540	856	476	2985	654	118	773	119
Medium		5561	31810	1835	9901	2247	11281	1324	6605	3751	3159	13652	3042	473	3515	469
9	**(10.0-20.0)**	693	9067	202	2508	299	3216	174	1881	965	376	3473	680	164	844	164
10	**20 & bove**	145	5247	36	1327	71	1990	34	924	462	70	1790	310	62	372	54
Large		838	14314	238	3836	370	5206	208	2804	1427	446	5263	990	226	1216	218
All Classes		**146454**	**157817**	**61142**	**54208**	**59059**	**60894**	**19600**	**24933**	**14026**	**80742**	**68234**	**14818**	**1645**	**16463**	**1322**

Note : 1. Totals may not tally due to rounding off, 2. *: Provisional.

Source : *All India report on Agriculture Census 2015-16*, Agriculture Census Division, Department of Agriculture, Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 1.23: Rural population and agricultural workers

(million)

Year	Total population	Average annual exponential growth rate (%)	Rural population	Total Workers	Agricultural Workers		
					Cultivators	Agricultural labourers	Total
1	2	3	4	5	6	7	8
1951	361.1	1.25	298.6 (82.7)	139.5	69.9 (71.9)	27.3 (28.1)	97.2 (69.7)
1961	439.2	1.96	360.3 (82.0)	188.7	99.6 (76.0)	31.5 (24.0)	131.1 (69.5)
1971	548.2	2.22	439.0 (80.1)	180.4	78.2 (62.2)	47.5 (37.8)	125.7 (69.7)
1981	683.3	2.20	523.9 (76.7)	244.6	92.5 (62.5)	55.5 (37.5)	148.0 (60.5)
1991	846.4	2.14	628.9 (74.3)	314.1	110.7 (59.7)	74.6 (40.3)	185.3 (59.0)
2001	1028.7	1.97	742.6 (72.2)	402.2	127.3 (54.4)	106.8 (45.6)	234.1 (58.2)
2011	1210.8	1.50	833.5 (68.9)	481.9	118.8 (45.1)	144.3 (54.9)	263.1 (54.6)

Note : 1. For 2001, figures include estimated figures for those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as Census result of 2001, Census in these three sub-divisions were cancelled due to technical and administrative reasons, 2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu & Kashmir. Hence the population figures for 1991 of Jammu & Kashmir have been worked out by 'interpolation'. The data on workers in columns 5-7 exclude Jammu & Kashmir, 3. The 1981 Census could not be held in Assam. The figures for 1981 for Assam have been worked out by 'interpolation'. The data on workers in columns 5-7 exclude Assam, 4. Figures in parentheses in column 4 represent percentages to the total population, 5. Figures within parentheses in column 6 and 7 are percentages to column 8, 6. Figures within parentheses in column 8 is percentage share of Agricultural Workers in Total Workers.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance*)*

Table 1.24: Dynamics of agricultural workers in India

(million)

Item	1991	2001	2011
Total population	846.3	1028.7	1210.8
Total workers	313.7	402.2	481.7
Total no. of workers as % of population	37.1	39.1	39.8
No. of agricultural workers	210.5	234.0	263.0
% of agricultural workers to total workers	67.1	58.2	54.6
Male	136.6	142.8	165.4
Female	73.9	91.2	97.6
% of females in agricultural work force	35.1	39.0	37.1

Source : *Census of India 2011, Primary Census Abstract*, Registrar General of India, New Delhi.

Table 1.25: Forest cover in States/UT's in India in 2021

(sq km)

States/UT's		Geographical area (G.A.)	Forest cover area				Percent of G.A.	Percent change wrt 2019
			Very dense forest	Moderate dense forest	Open forest	Total forest		
Andhra Pradesh		162968	1994	13929	13861	29784	18.28	2.22
Arunachal Pradesh		83743	21058	30176	15197	66431	79.33	-0.39
Assam		78438	3017	9991	15304	28312	36.09	-0.05
Bihar		94163	333	3286	3762	7381	7.84	1.03
Chhattisgarh		135192	7068	32279	16370	55717	41.21	0.19
Delhi		1483	6.72	56.6	131.68	195	13.15	-0.23
Goa		3702	538	576	1130	2244	60.62	0.31
Gujarat		196244	378	5032	9516	14926	7.61	0.46
Haryana		44212	28	445	1130	1603	3.63	0.06
Himachal Pradesh		55673	3163	7100	5180	15443	27.73	0.06
Jammu & Kashmir	UT of Jammu & Kashmir	54624*	4155	8117	9115	21387	39.15	0.14
#	UT of Ladakh	168055*	2	512	1758	2272	1.35	0.8
Jharkhand		79716	2601	9689	11431	23721	29.76	0.47
Karnataka		191791	4533	20985	13212	38730	20.19	0.4
Kerala		38852	1944	9472	9837	21253	54.7	0.52
Madhya Pradesh		308252	6665	34209	36619	77493	25.14	0.01
Maharashtra		307713	8734	20589	21475	50798	16.51	0.04
Manipur		22327	905	6228	9465	16598	74.34	-1.48
Meghalaya		22429	560	9160	7326	17046	76	-0.43
Mizoram		21081	157	5715	11948	17820	84.53	-1.03
Nagaland		16579	1272	4449	6530	12251	73.9	-1.88
Odisha		155707	7213	20995	23948	52156	33.5	1.04
Punjab		50362	11	793	1043	1847	3.67	-0.11
Rajasthan		342239	78	4369	12208	16655	4.87	0.15
Sikkim		7096	1102	1551	688	3341	47.08	-0.03
Tamil Nadu		130060	3593	11034	11792	26419	20.31	0.21
Telangana		112077	1624	9119	10471	21214	18.93	3.07
Tripura		10486	647	5212	1863	7722	73.64	-0.05
Uttar Pradesh		240928	2627	4029	8162	14818	6.15	0.08
Uttarakhand		53483	5055	12768	6482	24305	45.44	0.01
West Bengal		88752	3037	4208	9587	16832	18.96	-0.41
A & N Islands		8249	5678	683	383	6744	81.75	0.01
Chandigarh		114	1.36	13.51	8.01	22.88	20.07	3.86
Dadra & Nagar Haveli Daman & Diu		602	1.4	85.56	140.79	227.75	37.83	0.04
Lakshadweep		30	0	16.09	11.01	27.1	90.33	0.00
Puducherry		490	0	17.53	35.77	53.3	10.88	1.7
Total		**3287912**	**99779**	**306890**	**307120**	**713789**	**21.71**	**0.22**

Note: 1. G.A.: Geographical Area, 2. #: Includes Jammu & Kashmir area outside LOC under illegal occupation of Pakistan and China. 3. * Area of the shape file provided by Survey of India (August, 2021). Notified geographical area from SOI awaited.

Source: *India State of Forest Report 2021 V I*, Forest Survey of India, Ministry of Environment & Forests, Govt. of India.

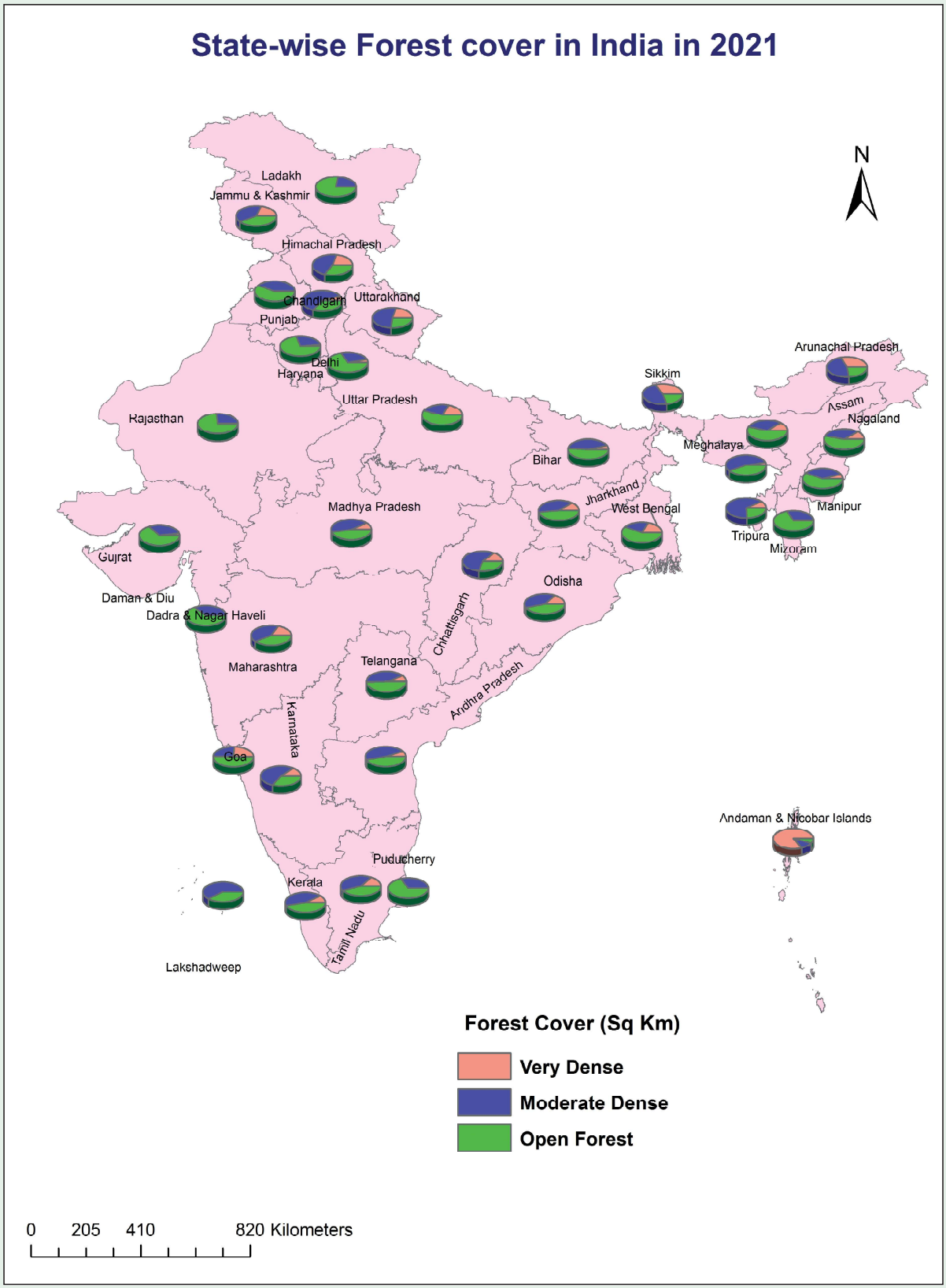

State-wise Forest cover in India in 2021
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Chandigarh
Uttarakhand
Punjab
Delhi
Haryana
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Madhya Pradesh
Gujrat
Daman & Diu
Dadra & Nagar Haveli
Odisha
Chhattisgarh
Maharashtra
Telangana
Andhra Pradesh
Karnataka
Goa
Andaman & Nicobar Islands
Puducherry
Kerala
Tamil Nadu
Lakshadweep
Forest Cover (Sq Km)
Very Dense
Moderate Dense
Open Forest
0 205 410 820 Kilometers

Table 1.26: Potential availability of agriculture-based biomass

(million t)

Biomass	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22*
Rice husk	52.6	53.3	52.7	52.2	54.9	56.4	58.2	59.4	62.2	65.1
Wheat straw	124.4	127.5	115.1	122.7	131.0	132.8	137.8	143.5	145.8	142.1
Maize cobs	6.7	7.3	7.3	6.8	7.8	8.6	8.3	8.6	9.5	10.1
Pearl millet straw	14.5	15.4	15.2	13.4	16.2	15.3	14.4	17.2	18.0	16.0
Sugarcane bagasse	112.6	116.2	119.6	115.0	101.0	125.4	133.8	122.3	133.8	142.5
Groundnut shell	1.6	3.2	2.4	2.2	2.5	3.1	2.2	3.3	3.4	3.3
Cotton stalks	35.9	35.9	38.5	36.9	32.5	37.8	37.8	40.4	39.9	35.7
Jute sticks	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.0	2.0	2.1

Note : 1. *: Provisional,

2. N.A.: Not Available

2. The conversion factors used are listed below:

Rice husk	=	yield of clean rice x 0.5
Wheat straw	=	grain yield x 1.33
Maize cobs	=	grain yield x 0.3
Straw from pearl millet	=	grain yield x 1.66
Bagasse	=	weight of cane x 0.33
One coconut	=	135 g shell, 164 g fibre, and 246 g pith
Groundnut shell	=	kernel yield x 0.33
Cotton stalks	=	3 tonnes / hectare
Jute sticks	=	3 tonnes / hectare

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance*)*

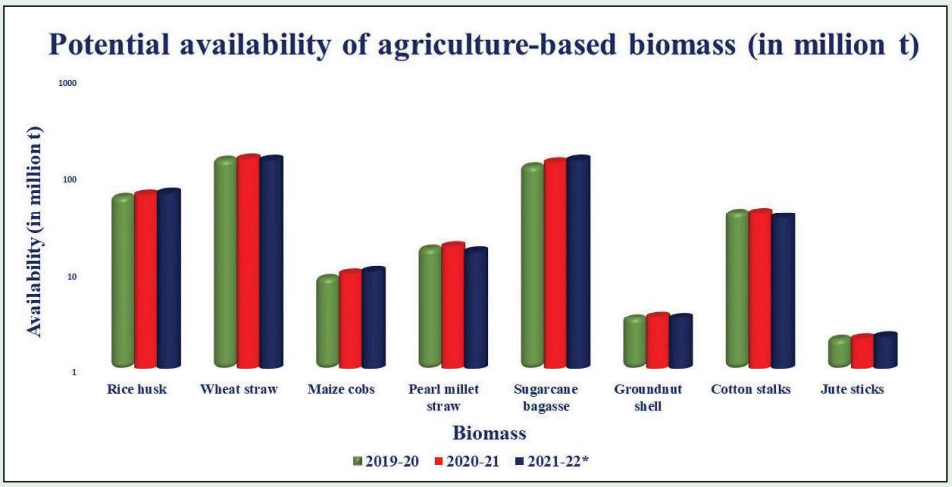


Table 1.27: State-wise potential availability of agriculture-based biomass during 2021-22*

(million t)

States	Rice husk	Wheat straw	Maize cobs	Pearl millet straw	Sugarcane bagasse	Groundnut shell	Cotton stalks
Andhra Pradesh	3.90	N.A.	0.62	N.A.	1.20	0.17	1.65
Assam	2.64	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Bihar	3.53	8.27	0.76	N.A.	3.98	N.A.	N.A.
Chhattisgarh	3.95	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Gujarat	N.A.	4.43	N.A.	1.76	5.76	1.48	6.84
Haryana	N.A.	13.90	N.A.	1.86	2.89	N.A.	1.92
Himachal Pradesh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Jammu & Kashmir	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Jharkhand	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Karnataka	N.A.	N.A.	1.57	0.28	20.18	0.18	2.01
Madhya Pradesh	N.A.	29.82	1.37	1.44	1.78	0.22	1.68
Maharashtra	N.A.	3.29	1.06	0.80	36.48	0.13	11.85
Odisha	4.57	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Punjab	6.45	19.71	N.A.	N.A.	2.36	N.A.	N.A.
Rajasthan	N.A.	12.61	0.61	6.23	N.A.	0.56	2.28
Tamil Nadu	4.04	N.A.	0.84	N.A.	5.10	0.31	N.A.
Telangana	6.15	N.A.	0.64	N.A.	N.A.	N.A.	5.67
Uttar Pradesh	7.64	45.15	N.A.	3.24	58.55	N.A.	N.A.
Uttarakhand	N.A.	N.A.	N.A.	N.A.	1.16	N.A.	N.A.
West Bengal	8.40	N.A.	0.79	N.A.	N.A.	N.A.	N.A.
All India	**65.15**	**142.10**	**10.09**	**15.97**	**142.50**	**3.34**	**35.73**

Note : 1. N.A.: Not available, 2. *: 4th Advance estimates,

4. The conversion factors used are listed below:

Rice husk	=	yield of clean rice x 0.5
Wheat straw	=	grain yield x 1.33
Maize cobs	=	grain yield x 0.3
Straw from pearl millet	=	grain yield x 1.66
Bagasse	=	weight of cane x 0.33
Groundnut shell	=	kernel yield x 0.33
Cotton stalks	=	3 tonnes / hectare

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

Table 1.28: Selected economic and social indicators

Indicator		2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
MACRO-ECONOMIC INDICATORS												
Gross Domestic Product (GDP)[a] at current prices (₹ Crore)		9944013	11233522	12467959	13771874	15391669	17090042	18899668	20103593[@]	19829927*	23471012`	27203767#
Gross Domestic Product (GDP)[a] at constant prices (₹ Crore)		9213017	9801370	10527674	11369493	12308193	13144582	13992914	14534641[@]	13687118*	14925840`	15971090#
Per capita Income[b] (at constant prices ₹ Crore)		65538	68572	72805	77659	83003	87586	92133	94490[@]	86054*	92583`	98118#
Rate of Gross Capital Formation to GDP at current prices[C] (percentage)		38.7	33.8	33.5	32.1	32.0	33.9	33.8	30.4[@]	27.9*	31.4`	NA
Rate of Gross Savings to GDP at current prices[C] (percentage)		33.9	32.1	32.2	31.1	31.4	32.1	31.8	29.6[@]	28.8*	30.12`	NA
Index of agricultural production[d]		124.0	129.8	124.0	120.8	132.8	139.4	138.1	145.5	154.1	155.2[<]	NA
Index of agricultural production(IIP)[e]		103.3	106.7	111.0	114.7	120.0	125.3	130.1	129.0	118.1	131.6	134.3[&]
Wholesale Price Index (WPI)[e]		106.9	112.5	113.9	109.7	111.6	114.9	119.8	121.8	123.4	139.4	153.5[&]
Consumer Price Index for industrial workers (CPI-IW)[f]		215.0	236.0	251.0	265.0	276.0	284.4	299.9	323.0	333.0	124.0	130.4^
OUTPUT												
(a) Food grains (million tonnes)		257.1	265.0	252.0	251.6	275.1	285.0	285.2	297.5	310.7	315.7**	NA
(c) Coal and lignite (million tonnes)		602.9	610.0	657.4	683.0	703.1	722.7	773.0	772.9[(P)]	NA	NA	NA
(d) Crude oil (million tonnes)		37.9	37.8	37.5	36.9	36.0	35.7	34.2	32.2	30.5	NA	NA
(e) Electricity generator (utilities only) (billion kWh)		964.5	1026.7	1105.0	1167.6	1235.4	1303.3	1371.8	1383.4	1373.2	1484.4	NA
FOREIGN TRADE												
(i) Export	**₹ Crore**	1634318	1905011	1896348	1716384	1849434	1956515	2307726	2219854	2159043	3147021	2648132[l]
	US$ million	300401	314405	310338	262291	275852	303526	330078	313361	291808	422004	332763[l]
(ii) Import	**₹ Crore**	2669162	2715421	2737087	2490306	2577675	3001033	3594675	3360954	2915958	4572775	4397382[l]
	US$ million	490737	450198	448033	381008	384357	465581	514078	474709	394436	613052	551704[l]
Foreign exchange reserves[g] (excluding gold, SDRs and Reserve Tranche Position at IMF	**₹ Crore**	1412630	1660910	1985458	2219061	2244939	2597569	2665564	3333815	3924168	4094565	4119695[m]
	US$ million	259726	276359	317324	336104	346319	399442	385357	442213	536693	540724	498022[m]

SOCIAL INDICATORS												
Population(Million)[h]			1235.0	1251.0	1267.0	1283.0	1299.0	1314.0	1327.0	1341.0	1355.0	1369.0	1383.0
Birth rate		**Per 1000**	21.4i	21.0i	20.8i	20.4i	20.2i	NA	19.5i	NA	NA	NA	NA
Death rate		**Per 1000**	7.0i	6.7i	6.5i	6.4i	6.3i	NA	6i	NA	NA	NA	NA
Life Expectation at birth (In years)			67.9	68.3	69.4k	69.4k	69.4k	69.4k	NA	NA	NA	NA	NA
(a)	**Male**	**In years**	66.4	66.9	68.2k	68.2k	68.2k	68.2k	NA	NA	NA	NA	NA
(b)	**Female**	**In years**	69.6	70.0	70.2k	70.2k	70.2k	70.2k	NA	NA	NA	NA	NA
Education literacy rate (%)[j]			N.A	N.A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(a)	**Male**	**(%)**	N.A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(b)	**Female**	**(%)**	N.A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Note : 1. `: 1st Revised Estimates, 2. *: 2nd Revised Estimates, 3. N.A.: Not Available, 4. @: 3rdRevised Estimates 5. **: As per 4th Advance Estimates, 6. #; 2nd advanced Estimates (as on 28.02.2023) 7. &: Calculated from April-October 8. ^: Calculated from April-November 9. <: Agricultural crops as per 4th Advance Estimates & Horticulture crops as per 3rd Advance Estimates 10. a: GDP figures prior to 2011-12 are at factor cost based on 2004-05 series. Figures from 2011-12 onwards are based on 2011-12 series, 11 b: Per capita Income prior to 2011-12 are based on constant (2004-05) prices and from 2011-12 onwards are based on constant (2011-12) prices, 12. c: Figures upto 2010-11 are percentages of GDP at market prices (2004-05 series) and from 2011-12 onwards are percentage of GDP at market prices (2011-12 series), 13. d: Base year for data till 2000-01 is Triennium ending (T.E.) 1981-82 and for data from 2010-11 onwards is T.E. 2007-08, 14. e: IIP and WPI from 2012-13 onwards are as per Base Year: 2011-12=100 and earlier data is based on old base years. 15. f: Figures from 2010-11 onwards are based on Base Year: 2001=100 and earlier data is based on old base years, 16. g: As on End-March,16. h: Relates to mid-financial year (as on October 1) based on estimated population figures of C.S.O., 17. i: Estimates from Sample Registration System (SRS) Statistical Report, Office of RGI, 18. j: The figures for 1951 1961 and 1971 relate to population aged 5 years and above and those for 1981, 1991, 2001 and 2011 to population aged 7 years and above. 19. k: Figures are for 2014-18 as given by RGI.20. l: Provisional figures for April to December 21. m: figures upto December 2022 22.: P-Provisional

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India.(https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance*)*

Table 1.29: State-wise number of water bodies by type of use in 2023

States/ Union Territories	Irrigation	Industrial	Pisciculture	Domestic/ Drinking	Recreation	Religious	Ground water recharge	Others	Total
Andhra Pradesh	37257	680	69510	1945	35	106	38460	1286	149279
Arunachal Pradesh	35	4	679	133	5	2	7	0	865
Assam	532	1279	152698	13459	64	93	5	1222	169352
Bihar	10488	506	8225	163	254	330	339	2690	22995
Chhattisgarh	3139	627	12042	8389	376	293	946	3164	28976
Goa	700	7	61	77	24	120	37	77	1103
Gujarat	26999	0	23669	149	152	20	2889	25	53903
Haryana	1	31	495	465	40	113	909	6740	8794
Himachal Pradesh	12751	116	395	55174	228	207	965	6035	75871
Jharkhand	68286	1077	12721	4000	395	391	5036	2630	94536
Karnataka	3495	70	476	320	4	21	548	940	5874
Kerala	20038	260	2663	10192	1295	3591	6199	2312	46550
Madhya Pradesh	18901	305	1231	4272	133	468	3807	8140	37257
Maharashtra	7976	37	29	12473	78	59	74097	1284	96033
Manipur	74	0	365	1120	19	11	0	12	1601
Meghalaya	2395	35	9142	795	33	10	105	105	12620
Mizoram	254	23	1361	385	15	1	2	22	2063
Nagaland	109	22	1166	59	8	3	6	8	1380
Odisha	25289	3609	110647	11899	3452	683	1018	5610	162207
Punjab	216	191	129	559	97	48	5008	1432	7680
Rajasthan	5766	322	187	2511	244	137	2406	1843	13416

States/ Union Territories	Irrigation	Industrial	Pisciculture	Domestic/ Drinking	Recreation	Religious	Ground water recharge	Others	Total
Sikkim	3	2	61	20	16	15	0	4	121
Tamil Nadu	20324	751	4196	8022	1623	1129	10903	9812	56760
Telangana	30085	168	850	432	110	145	19166	777	51733
Tripura	0	0	36216	7	3	1	0	8	36235
Uttar Pradesh	9090	1733	76071	2199	7326	6300	70301	6569	179589
Uttarakhand	323	11	611	16	26	17	1267	101	2371
West Bengal	N.A.	N.A.	6144	1282	17	1762	69	738206	747480
Andaman & Nicobar Islands	2883	3	224	193	1	1	5	24	3334
Chandigarh	N.A.	N.A.	N.A.	175	N.A.	2	0	11	188
Delhi	N.A.	N.A.	N.A.	N.A.	2	4	66	165	237
Jammu & Kashmir	719	12	97	5986	19	56	129	475	7493
Puducherry	15	0	2	122	0	20	296	232	687
All India	**308143**	**11881**	**532363**	**146993**	**16094**	**16159**	**244991**	**801961**	**2078583**

Note : N.A.: Not available
Source : *All India report of first Census of Water bodies (Volume-2),* Department of Water Resources, River Development and Ganga Rejuvenation, Govt. of India. (https://jalshakti-dowr.gov.in/)

Table 1.30: State-wise distribution of water bodies by water spread area and storage in 2023

States/ Union Territories	Distribution of water bodies by water spread area (ha)							Distribution of Water Bodies by Storage (Cu. Mtrs)				
	< 0.5	0.5 - 1.0	1 - 5	5 - 10	10 -50	> 50	Total	0 -100	100-1000	1000- 10000	>10000	Total
Andhra Pradesh	41510	26026	49876	9270	8788	1751	137221	87879	10108	43977	48813	190777
Arunachal Pradesh	857	76	49	7	3	1	993	161	310	452	70	993
Assam	165440	5930	898	185	13	13	172479	3939	91470	73208	3875	172492
Bihar	24187	8964	11026	983	353	200	45713	11196	5610	16842	12145	45793
Chhattisgarh	11522	9363	11379	919	325	83	33591	1858	2577	12938	16627	34000
Goa	1234	134	73	5	5	9	1460	698	553	170	42	1463
Gujarat	361	15713	36923	817	186	57	54057	25716	34	8122	20197	54069
Haryana	10094	4133	624	30	0	0	14881	2712	2712	8357	1117	14898
Himachal Pradesh	84664	1464	1148	57	13	6	87352	83677	3340	803	197	88017
Jharkhand	73286	20997	11153	1282	415	194	107327	14805	18767	62068	11958	107598
Karnataka	11425	10838	1387	2536	394	168	26748	24384	900	683	1027	26994
Kerala	54054	1077	466	45	32	51	55723	18774	26426	9524	1010	55734
Madhya Pradesh	32375	15388	17551	2642	823	347	69126	40400	16910	18652	6681	82643
Maharashtra	16396	34226	34134	10329	1455	407	96947	92026	3885	281	870	97062
Manipur	1502	115	29	7	2	3	1658	34	485	971	168	1658
Meghalaya	12238	432	521	93	25	9	13318	4942	5220	3009	161	13332
Mizoram	1409	655	116	1	1	1	2183	619	527	759	280	2185
Nagaland	993	271	166	1	1	0	1432	141	438	610	243	1432
Odisha	140014	20801	16997	2056	428	236	180532	8868	35995	93706	43268	181837
Punjab	9814	4081	1940	146	8	8	15997	1592	1560	8813	4047	16012

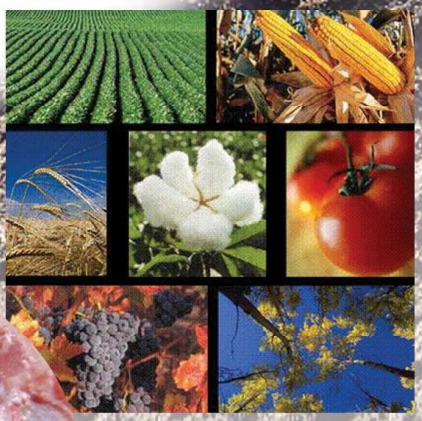
States/ Union Territories	Distribution of water bodies by water spread area (ha)							Distribution of Water Bodies by Storage (Cu. Mtrs)				
	< 0.5	0.5 - 1.0	1 - 5	5 - 10	10 -50	> 50	Total	0 -100	100-1000	1000- 10000	>10000	Total
Rajasthan	7893	2861	3938	1018	873	356	16939	3419	636	7294	5590	16939
Sikkim	121	4	5	2	2	0	134	42	63	19	10	134
Tamil Nadu	74673	11577	12211	5971	1152	708	106292	58155	19544	20299	8959	106957
Telangana	32914	5838	14838	4362	4651	1166	63769	38885	3883	5654	15634	64056
Tripura	35569	454	194	16	6	0	36239	804	25191	10181	63	36239
Uttar Pradesh	171903	38717	14922	3379	403	31	229355	11689	44611	150588	38200	245088
Uttarakhand	2567	283	217	10	10	9	3096	742	766	1286	302	3096
West Bengal	660040	71617	15481	287	52	3	747480	875	31403	650192	65010	747480
Andaman & Nicobar Islands	3369	137	12	0	2	0	3520	144	1948	1430	6	3528
Chandigarh	183	2	2	0	0	1	188	2	123	53	10	188
Delhi	818	38	29	1	1		887	398	48	271	176	893
Jammu & Kashmir	9602	104	45	2	1	5	9759	7238	2202	305	20	9765
Puducherry	611	375	116	65	3	1	1171	163	57	767	184	1171
All India	**1658690**	**337426**	**268451**	**46571**	**56659**	**5823**	**2301140**	**546171**	**332988**	**1202050**	**306887**	**2388096**

Note : N.A.: Not available

Source : *All India report of first Census of Water bodies (Volume-2),* Department of Water Resources, River Development and Ganga Rejuvenation, Govt. of India. (https://jalshakti-dowr.gov.in/)

भाग-II
कृषि निविष्टि

SECTION-II
Agricultural Inputs



भाकृअनुप
ICAR

Table 2.1: Crop-wise distribution of certified/quality seeds

(lakh q)

Year	Cereals	Pulses	Oilseeds	Fibers	Potato	Others	Total
1994-95	41.35	3.60	12.01	2.20	6.62	0.08	65.86
1995-96	44.03	3.58	12.64	2.58	6.85	0.24	69.92
1996-97	46.43	4.19	12.53	3.18	6.69	0.25	73.27
1997-98	51.78	3.89	12.87	3.21	6.83	0.21	78.79
1998-99	57.27	4.06	13.83	2.92	6.86	0.03	84.97
1999-00	61.14	3.87	12.98	2.93	6.89	0.17	87.98
2000-01	59.47	3.85	12.54	2.91	7.23	0.27	86.27
2001-02	65.56	4.69	12.10	2.89	6.33	0.23	91.80
2002-03	66.97	6.60	13.36	2.74	7.16	0.21	97.04
2003-04	70.82	8.17	19.39	2.78	7.01	0.23	108.40
2004-05	81.41	7.40	23.42	2.76	5.05	0.22	120.26
2005-06	86.73	7.37	24.35	2.89	5.08	0.33	126.75
2006-07	109.87	9.63	27.00	3.05	5.12	0.34	155.01
2007-08	123.80	12.57	34.33	2.63	5.35	0.37	179.05
2008-09	147.43	14.48	39.92	2.58	10.55	0.85	215.81
2009-10	165.15	19.69	50.71	2.65	18.68	0.23	257.11
2010-11	182.62	20.83	50.61	2.64	20.08	0.55	277.34
2011-12	189.96	22.26	61.49	3.09	16.68	1.64	294.85
2012-13	204.37	24.51	58.41	2.95	21.47	1.73	313.44
2013-14	183.03	27.80	61.09	2.87	24.63	1.97	301.39
2014-15	203.20	24.77	43.03	3.86	28.12	0.14	303.12
2015-16	194.95	22.71	47.44	2.49	33.88	2.57	304.04
2016-17	229.11	29.47	49.97	2.17	0.38	0.33	348.58
2017-18	238.00	23.54	57.23	2.46	30.57	0.20	352.01
2018-19	206.87	31.80	48.26	2.46	30.83	0.19	320.41
2019-20	229.98	34.16	53.09	3.21	62.87	0.40	383.72
2020-21	246.00	32.70	52.26	3.04	87.09	0.29	421.09
2021-22	234.89	34.74	53.28	2.20	104.79	0.40	430.31

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.

Table 2.2: Commodity-wise indent and production of breeder seeds during 2018-19 to 2022-23

(q)

Crops	2018-19		2019-20		2020-21		2021-22		2022-23	
	Indent	Prod.	Indent	Prod.	Indent	Prod.	Indent	Prod.	Indent	Prod.
Cereals	39459.2	66988.5	40163.1	70246.6	40751.6	72485.2	39071.6	52828.6	30020.9	54561.6
Pulses	16470.4	20771.8	15284.5	18178.9	15448.3	17590.4	11700.6	13790.3	9595.1	15683.5
Oilseeds	27148.8	28949.5	29499.6	27135.0	24027.5	24638.4	25817.0	33936.3	25760.4	31717.7
Fibre crops	90.4	121.2	86.2	180.1	14.8	32.6	54.0	111.0	96.7	131.8
Forage crops	523.0	940.7	719.4	832.6	696.5	770.2	616.9	951.3	618.3	692.2
Total	**83691.8**	**117771.6**	**85752.8**	**116573.3**	**80938.5**	**115516.7**	**77260.1**	**101617.5**	**66091.3**	**102786.8**

Source : ICAR-Indian Institute of Seed Science, Kushmaur, Mau, Uttar Pradesh-275103.

Table 2.3: List of field crop varieties/hybrids released and notified in 2023

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
CEREALS					
Rice	Malviya Sugandhi Dhan-156 (HUR 156-IET25419)	Banaras Hindu University. Varanasi. Uttar Pradesh	49.0 q/ha	Uttar Pradesh and West Bengal	Suitable for irrigated condition, maturity 130-135 days, aromatic short slender grains, tolerant to leaf blight (LF), brown plant hopper (BPH), moderately resistant to gloom discoloration, brown spot, sheath rot and bacterial leaf blight.
	CR Dhan 323 (Jyotsna) (CRAC 3994-2-1 IET 25992)	ICAR-National Rice Research Institute, Cuttack, Odisha	5.0-5.5 t/ha (*Kharif*) 55-60 q/ha (*Rabi*)	Odisha	Suitable for irrigated and shallow lowland ecosystem both in *Kharif* and *Rabi* seasons, maturity 135-140 days, moderate resistant to leaf blast, neck blast, bacterial blight, grain discoloration, RTD and resistant to false smut and gal midge.
	CR Dhan 324 (Abhaya Paushtik) (CRAC 3994-2-5, IET28698)	ICAR-National Rice Research Institute, Cuttack, Odisha	45-55 q/ha	Odisha	Suitable for irrigated lands both in *Kharif* and *Rabi*, maturity 115-120 days, moderate resistance to leaf blast, neck blast, brown spot, grain discoloration and false smut, leaf folder and gal midge.
	CR Dhan 326 (Panchatatva) (CR 4202-298-2-2-1, IET28491)	ICAR-National Rice Research Institute, Cuttack, Odisha	61.62 q/ha	Odisha	Suitable for irrigated medium duration, maturity 132 days, resistance to bacterial blight, brown spot and sheath rot.
	CR Dhan 327 (Madhumita) IET 27689 (CR 3516 -1-1-2-1-1-4)	ICAR-National Rice Research Institute, Cuttack, Odisha	67.5 q/ha	Odisha	Suitable for early sowing, maturity 132-135 days (*Kharif*), 140-142 days (*Rabi*) season, non-lodging, moderately resistant to leaf blast and neck blast, intermediate grain shattering.
	CR Dhan 328 (IET 26420)	ICAR-National Rice Research Institute, Cuttack, Odisha	67.7 q/ha	Odisha Irrigated Late conditions of Odisha state in Wet season	Suitable for irrigated late conditions in wet season, maturity 140-145 days, tolerance to major diseases, highly resistance to leaf folder, stem borer.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Rice	CRDhan-704 (Shyamdev) (CRHR-150, IET28187)	ICAR-National Rice Research Institute, Cuttack, Odisha	70-75 q/ha	Odisha	Suitable for both *Kharif* and *Rabi* in irrigated, rainfed shallow-lowland and DSR condition, maturity 125-130 days (*Kharif*), 130-135 days (*Rabi*), moderate resistance to false smut, leaf blast, neck blast, brown spot, sheath rot and glume discoloration
	CR Dhan 805 (Naveen Shakti) [IET 29203]	ICAR-National Rice Research Institute, Cuttack, Odisha	48.3 q/ha	Odisha	Suitable for irrigated medium early situations, maturity 125-130 days, semi-dwarf, resistance to brown spot.
	CR Dhan 806 (Varsadhan Sub l)	ICAR-National Rice Research Institute, Cuttack, Odisha	39.3 q/ha	Odisha	Suitable for rainfed and submergence- shallow lowland & semi-deep water condition, maturity: 160-165 days, moderately resistant to neck blast, false smut and stem borer (dead heart) and BPH.
	CR Dhan 911 (Basudev) IET 28414)	ICAR-National Rice Research Institute, Cuttack, Odisha	45-55 q/ha	Odisha	Suitable for irrigated conditions, maturity 120-125 days, moderate resistance to leaf blast, brown spot, grain discoloration, leaf folder and gall midge and resistant to false smut.
	Pusa Narendra KN I (Pusa 1638-07 -130-2-67-1-I) (IET26204)	ICAR-Indian Agricultural Research Institute New Delhi and Acharya Narendra Dev University of Agriculture and Technology, F aizabad, Uttar Pradesh	36 q/ha	Uttar Pradesh	Suitable for irrigated conditions, maturity 145 days, medium slender grains, improved semi-dwarf version of traditional *Kalanamak*, moderately resistant to BLB and blast.
	Pusa CRD KN2 (Pusa l 638-07-171-1- 81-1-2) (IET 26213)	ICAR-Indian Agricultural Research Institute New Delhi	35 q/ha	Uttar Pradesh	Suitable for irrigated conditions, maturity 145 days, medium slender grains, improved semi-dwarf version of traditional *Kalanamak*, moderately resistant to BLB and blast.
	ADT 58 (AD 12132) (IET 291211)	Tamil Nadu Rice Research Institute, Tamil Nadu Agricultural Un iversity, Aduthurai, Thanjavur, TamilNadu	60.9 q/ha	Tamil Nadu	Suitable for irrigated conditions, maturity 125-130 days, tolerant to low temperature during reproductive stages, moderately resistant to blast, sheath rot and sheath blight, tolerance to stem borer, leaf folder and BPH.
	CO 56 (CB 12132) (IET 27408 & IET 25531)	Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu	63.7 q/ha	Tamil Nadu	Suitable for irrigated conditions, maturity 130-135 days, medium slender grains, moderately resistant to stem borer, gall midge, blast, BLB, brown spot, sheath rot, sheath blight and rice tungro disease (RTD).

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Rice	OUAT Kalinga Rice 8 (Suryashree) (IET 27737)	Odisha University of Agriculture and Technology. Bhubaneswar. Odisha	46.2 q/ha	Odisha	Suitable for irrigated medium lands, maturity 120-125 days, long bold grains, moderately resistant to sheath blight blast and gall midge.
	OUAT Kalinga Rice 7 (Barunei) (IET 23666)	Odisha University of Agriculture and Technology, Bhubaneswar, Odisha	53.5 q/ha	Odisha	Suitable for irrigated medium land conditions, maturity 135-140 days, long bold grain, moderately resistant to sheath rot blasts and BPH
	JR 21 (JR 81-01) (IET 28388)	Jawahar Lal Nehru Krishi Vishwa Vidyalaya, Jabalpur. Madhya Pradesh	54.6 q/ha	Madhya Pradesh	Suitable for rainfed and irrigated ecology, maturity 128-130 days, good for processing and poha making, moderately resistant to leaf blast, leaf folder and gall midge
	OUAT Kalinga Rice I (Kolab) (IET 25295)	Regional Research and Technology Tranfer Sub Station (OUAT), Dist-Koraput. Odisha	53 q/ha	Odisha	Suitable for irrigated medium conditions, maturity 130 - 135 days, moderately resistant to leaf blast, neck blast, brown leaf spot, grain discoloration, sheath rot, BPH and gall midge.
	OUAT Kalinga Rice 2 (Salandi) (IET 28444)	Regional Research & Technology Transfer Station (OUAT), Ran ital, Bhadrak, Odisha	64 q/ha	Odisha	Suitable for irrigated medium condition, maturity 130-135 days, moderately resistant to leaf blast, neck blast, sheath rot, bacterial blight, stem borer and leaf folder, white backed plant hopper (WBPH) and gall midge.
	OUAT Kalinga Rice 5 (Nabanna) (IET 25140)	ICAR-All India Coordinated Research Project for Dryland Agriculture, OUAT, Phulbani, Odisha and ICAR-National Rice Research Institute, Cuttack, Odisha	28 q/ha	Odisha	Suitable for rainfed uplands and similar agro-ecosystems experiencing frequent droughts/ dry spells, maturity 83-90 days, moderately resistant to blast, sheath rot false smut, BLB and bacterial leaf streak (BLS), tolerant to rice sheath blight.
	OUAT Kalinga Rice 6 (Bhargavi) (IET 23565)	Odisha University of Agriculture and Technology, Bhubaneswar, Odisha	48 q/ha	Odisha	Suitable for rainfed lowland ecosystem, maturity 150-160 days, moderately resistant to sheath rot, blasts, brown leaf spot and leaf folder.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Rice	ASD 21 (AS 15024) (IET 29799)	Tamil Nadu Agricultural University, Rice Research Station. Ambasamudram, Tamil Nadu	63.3 /ha	Tamil Nadu	Suitable for irrigated early Karl/ late Pishanam season in Tamil Nadu, grain yield 63.3 q/ha, maturity 120 days (116 -124 days), moderately resistant to stem borer, leaf folder, gall midge, blast, sheath blight and bacterial leaf blight.
	Swarna Purvi Dhan 3 (IET 28329)	ICAR Research Complex for Eastern Region, Patna (Bihar)	50-55 q/ha	Haryana, Rajasthan, Bihar, Uttar Pradesh, Chhattisgarh and Maharashtra	Suitable for direct seeded aerobic, irrigated *Kharif* ecology, maturity115-120 days, tolerant to medium to severe multi-stages drought stress, moderate resistant to BLBs, leaf blast, neck blast, sheath blight, brown spot, false smut, sheath rot and glume discoloration diseases and BPH, stem borer, leaf folder and biotype insect pest, high head rice recovery (64.7%).
	AAU-TTB-Dhan-42 (TTB-238) (Patkai) (IET 29034)	Regional Agricultural Research Station, Assam Agricultural University, Titabar, Assam	50-55 q/ha	Assam	Suitable for irrigated ecosystem, maturity 150-160 days, MAS derived variety (improved version of Ranjit *sub1*) having bacterial blight resistance genes *Xa5*, *Xa13* and *Xa21*, moderately resistant to sheath rot, blast, brown leaf spot and leaf folder.
	AAU-TTB-Dhan-43 (TTB 1048-60- 1) (Shatabdi) (IET 29087)	Regional Agricultural Research Station, Assam Agricultural University, Titabar, Assam	49.9 q/ha	Assam	Suitable for plains under irrigated conditions, maturity 125 days, aromatic, long slender grains, resistant/ moderately resistant to BLB and stem borer.
	AAU-TTB-Dhan-44 (TTB l041-204-1) (Prachur) (IET 29075)	Regional Agricultural Research Station, Assam Agricultural University, Titabar, Assam	49.2 q/ha	Assam	Suitable for medium duration, *Kharif* and *Boro* cultivation, maturity 125 days, aromatic long slender grains, resistant /moderately resistant to BLB and leaf blast.
Maize	HT 5110 (HT 519074)	Hytech Seed India Pvt. Ltd., Hyderabad, Telangana	79.32 q/ha	Bihar, Jharkhand, Odisha, West Bengal, Eastem Uttar Pradesh	Suitable for *Kharif* irrigated conditions, maturity 110-115 days, moderately resistant to maydis leaf blight, *Chilo partellus* and fall army worm.
	Pusa Jawahar Hybrid Maize-2 (AH-4271)	ICAR- Indian Agricultural Research Institute, New Delhi	74.35 q/ha	Madhya Pradesh	Suitable for *Kharif* irrigated conditions, medium to heavy soil under rainfed condition, maturity 94 days, moderately resistant to charcoal rot and bacterial stalk rot, stem borer, resistant to polysora rust.
	Jawahar Maize- 1014 (HMM 1014)	ICAR-AICRP on Maize. Jawaharlal Nehru Krishi V i shwaV id y alay a, Zonal Agriculture Research Station. Chhindwara, Madhya Pradesh	66.28 q/ha	Madhya Pradesh	Suitable for *Kharif* rainfed and *Rabi* irrigated conditions, maturity 94 days, resistant to turcicum leaf blight and maydis leaf blight.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Maize	COH (M) 11 (CMH 12-686)	Tamil Nadu Agriculture University, Coimbatore, Tamil Nadu		Tamil Nadu	Suitable for growing under irrigated and rainfed ecosystem in all seasons under medium to high fertility level, grain yield 81.08 q/ha, maturity 100-110 days, moderately resistant to charcoal rot and tolerant to fall army worm.
Sorghum	Raj Vijay Jowar 2357 (RVJ 2357) (SPV 2357)	Rajmata Vijayaraje Scindia Krishi Vishwavidyalaya, Indore, Madhya Pradesh	Grain yield 43q/ha Fodder yield 143 q/ha	Madhya Pradesh	Suitable for timely sown conditions of *Kharif* season, maturity 111 days, tolerant to leaf spot, moderately tolerant to shoot fly (*Atherigona soccata*), grain mold and stem borer (*Chilo pertillus*).
	K13	Agricultural Research Station, Kovilpatti, Tamil Nadu Agriculture University, Coimbatore, Tamil Nadu	Grain yield 25.75 q/ha	Tamil Nadu	Suitable for cultivation in rainfed conditions, maturity 95-100 days, moderately resistant to leaf blight, anthracnose, highly resistant to ergot, resistant to shoot fly, stem borer, downy mildew, grain mold and rust, tolerant to drought.
	Parbhani Vasant (PVRSG 10l)	Sorghum Research Station Vasantrao Marathwada Naik Vidyapeeth, Parbhani, Maharashtra	Green Hurda yield of 32- 35 q/ha Green Fodder yield 130-132q/ha	Maharashtra	Suitable for *Rabi* season in rainfed medium to high fertility condition, maturity 96 days, moderately tolerant to shoot fly, stem borer and charcoal rot.
SMALL MILLETS					
Pearl millet	Pearl Millet Hybrid COH 10 (TNBH 16l9)	Tamil Nadu Agriculture University, Coimbatore, Tamil Nadu	Grain Yield 30.13 q/ha (irrigated), 20.49 q/ha (rainfed),	Tamil Nadu	Suitable for irrigated as well as rainfed conditions, maturity 85-90 days, high Fe (59 ppm) and Zn (37 ppm) content, moderately resistant to shoot fly and resistant to downy mildew.
	VPMH 14	ICAR-All India Coordinated Research Project on Pearl Millet, Regional Agricultural Research Station, Vijayapura, University of Agricultural Sciences, Dharwad, Karnataka.	Grain Yield 37.62 q/ha	Zone-3 of Karnataka	Suitable for both early/late sown conditions, maturity 88-90 days, high Fe (70 ppm) and Zn (45 ppm) content.
Little millet	DHLM-28-4 (Prakruti) (LMV 513)	University of Agricultural Sciences, Dharwad, Agriculture Research Station, Hanumanamatti, Karnataka	Grain Yield 17.1 q/ha	Madhya Pradesh, Maharashtra, Tamil Nadu, Gujarat, Jharkhand, Andhra Pradesh	Suitable for rainfed during *Kharif* season, maturity 93-96 days, resistant to grain smut, brown spot and leaf blight and tolerant to shoot fly.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Little millet	JK- 95 (Jawahar Kutki-95) (DLM-95)	ICAR-AII India Coordinate Small Millet Improvement Project, Jawahar Lal Nehru Krishi Viswavidyalaya, Regional Agricultural Research Station. Dindori, Madhya Pradesh	Grain Yield 16.2 q/ha	Madhya Pradesh	Suitable for rainfed, timely sown condition, maturity irrigated, early sown, high fertility conditions, yield 75.2 q/ha, maturity 152 days, contains Fe (42.3 ppm), Zn (40.7 ppm) & good chapati making quality, resistant to brown rust.
Proso millet	ATL 2 (TNPm 238) (Pani Varagu)	Centre of Excellence in Millets. Tamil Nadu Agriculture University Athiyandal, Tirvannamalai, Tamil Nadu	Grain Yield 21.40 q/ha	Tamil Nadu	Suitable for mechanical harvesting, maturity 65-73 days, contains high protein (12.9%), moderately resistant to leaf blight and resistant to brown spot, moderately tolerant to shoot fly, non-lodging, uniform maturity.
Kodo millet	JK- 9-l (Jawahar Kodo 9-l- (DPS 9-l)	ICAR-AII India Coordinate Small Millet Improvement Project, Jawahar Lal Nehru Krishi Viswavidyalaya, Regional Agricultural Research Station, Dindori, Madhya Pradesh	Grain Yield 27.4 q/ha,	Madhya Pradesh	Suitable for rainfed, timely sown conditions, maturity 104 days (medium group), moderately resistant to shoot fly, resistant to head smut, tolerance to drought and shattering.
Finger Millet	Shreeratna (OUAT Kalinga Finger Millet-l) (OEB 601)	ICAR-AII India Coordinated Research Project on Small Millets, Odisha University of Agriculture and Technology, CPR, Berhampur, Dist-Ganjam, Odisha	Grain Yield 23.5 q/ha	Odisha	Suitable for *Kharif* and irrigated in summer, maturity 117 days, contains high protein (12.9%), good chapati making quality, resistant to brown spot, foot rot, moderately resistant to blast disease, moderately tolerant to stem borer, aphid and grass hopper; non-lodging and non-shattering; responsive to fertilizer up to 60 kg/ha N.
Barnyard Millet	ATL I (TNEf 3 1 7) (Kudiraivali)	Centre of Excellence in Millets. Tamil Nadu Agriculture University Athiyandal. Tirvannamalai. Tamil Nadu	Grain Yield 21.2 q/ha	Tamil Nadu	Suitable for drought prone areas and value addition with consumer preference, maturity 90-95 days, moderately resistant to grain smut, shoot fly, stem borer and tolerant to drought.
OILSEED					
Indian Mustard	CS 64 (CS 2005-143)	ICAR- Central Soil Salinity Research Institute, Karnal, Haryana	Seed Yield 22.30 q/ha	Haryana, Punjab, Rajasthan, Delhi and Uttar Pradesh, Plains of Jammu and Kashmir and Himachal Pradesh	Suitable for irrigated salt affected soils (salinity/ alkalinity) conditions, maturity 138 days, oil content 40-41%, tolerant to white rust, downy mildew, *Sclerotinia* rot, aphids, tolerant to soil and water salinity, resistant to *Alternaria* blight.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Indian Mustard	Gujarat Mustard 8 (Anand Hema) (ANDM 14-09)	Regional Research Station Anand Agricultural University, Anand, Gujarat	Seed Yield 27.91 q/ha	Gujarat	Suitable for timely sown irrigated condition, maturity 94 days, oil content 38.4%, crude protein 26.6% and free fatty acid (0.40%), tolerant to powdery mildew and aphid.
	Pant Rai-22 (PRL-2013-17)	G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand	Seed Yield 16.48 q/ha	Uttarakhand	Suitable for irrigated conditions of *Rabi* season, maturity 130 days, oil content 38.9%, moderately resistant to *Alternaria* blight, white rust and downy mildew and immune for stag head formation.
	Sampoorna (OUAT Kalinga Mustard I)	ICAR-All India Coordinated Research Project on Rapeseed Mustard, Ranital, (OUAT), Odisha University of Agriculture and Technology, Bhubaneswar, Odisha	Seed Yield 13.37 q/ha	Odisha	Suitable for timely sown irrigated conditions, maturity 110-115 days, oil content 40.3%, moderately resistant to aphid.
	Gujarat Mustard 6 (Banas Sona) (SKM 1328)	Castor-Mustard Research Station. S.D Agricultural University, Sardarkruush inagar, Banaskantha, Gujarat	Seed Yield 25.41 q/ha	Gujarat	Suitable for timely sown irrigated conditions, maturity 111 days, oil content 38.9%.
Yellow Sarson	Pant Pili Sarson-2 (PYS-2016-8)	G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand	Seed Yield 13.86 q/ha	Uttarakhand	Suitable for irrigated conditions, maturity 109 days, oil content 45.1%, tolerant to *Alternaria* blight, resistant to white rust.
Gobhi Sarson	Him Palam Sarson 2 (AKGS-19-8)	Chudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur, Himachal Pradesh	Seed Yield 18.5 q/ha	Himachal Pradesh, Punjab and Jammu and Kashmir	Suitable for irrigated, timely sown condition, maturity 158 days, oil content 39.5%, resistant to white rust and downey mildew.
Groundnut	Groundnut VRI l0 (VG 17008)	Regional Research Station, Tamil Nadu Agricultural University, Vriddhachalam, Cuddalore District. Tamil Nadu	Pod Yield 25.35 q/ha (*Kharif)*, 24.48 q/ha (*Rabi)*	Tamil Nadu	Suitable for irrigated and rainfed cultivation, maturity 90-95 days (early), oil content 46-48%, shelling 70%, moderately resistance to LLP, rust, sucking pests and defoliators.
Sesame	Gujarat Til 7 (Banas Gaurav) (SKT l50l)	Castor-Mustard Research Station, S.D Agricultural University, Sardarkruushi nagar. Banaskantha. Gujarat	Seed Yield 8.5-9.5 q/ha	Gujarat	Suitable for cultivation during *Kharif* season, maturity 88-94 days, oil content 49.06%, high linoleic acid (44.69%) and linolenic acid (0.32%) content, moderately resistant to powdery mildew and *Cercospora* leaf spot, resistant to leaf webber, mite and phyllody.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Sesame	VRI 5 (VS 19036)	Regional Research Station. Tamil Nadu Agriculture University. Vriddhachalam, Cuddalore, District. Tamil Nadu	Seed yield 7.95 q/ha	Tamil Nadu	Suitable for cultivation during *Rabi* and summer seasons (both irrigated and rainfed conditions), maturity 75-80 days, oil content 48-52%, moderately resistant to stem and root rot, phyllody, powdery mildew and sucking pests
	Ashrit (OUAT Kalinga Sesame- l)	Odisha University of Agriculture and Technology, Bhubneswar. Odisha	Seed Yield 8.50-9.50 q/ha	Odisha	Suitable for irrigated condition in summer season, maturity 87-93 days, oil content 45.0-48.0 %, moderately resistant to *Alternaria* leaf spot, phyllody, powdery mildew bold reddish brown coloured, *Macrophomina* stem/ root rot, *Cercospora* leaf spot, leaf roller, capsule borer, leaf hopper and mealy bug.
Sunflower	Sunflower COH 4 (CSH 15020)	Tamil Nadu Agriculture University, Coimbatore, Tamil Nadu	Seed Yield 21.82 q/ha (*Kharif*) 18.98 q/ha (*Rabi)*	Tamil Nadu	Suitable for rainfed/irrigated condition maturity 90-95 days, oil content 41%, moderately resistant to powdery mildew, *Alternaria*, sucking pest and leaf feeders.
Linseed	Sabour Tisi-4 (BRLS 121)	Bihar Agricultural University, Sabour, Bhagalpur, Bihar	Seed Yield 15.23 q/ha	Uttar Pradesh (Excluding Bundelkhand). Bihar, Jharkhand, West Bengal, Assam and Nagaland	Suitable for irrigated condition, maturity 127 days, oil content 32.1%, resistant to wilt and powdery mildew; and moderately resistant to *Alternaria* blight.
	Shuats Alsi-4 (SH-4)	Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj, (Allahabad), Uttar Pradesh	Seed Yield 10.35 q/ha	Uttar Pradesh	Suitable for irrigated and timely sown condition, maturity 135 days, oil content 35.1%, moderately resistant to bud fly, resistant to rust and powdery mildew.
	Jawahar Linseed Sagar 122 (JLS 122) (SLS-122)	Jawahar Lal Nehru Krishi Viswavidyalaya, Regional Agricultural Research Station. Sagar, Madhya Pradesh	Seed yield 8.74 q/ha	Madhya Pradesh	Suitable for irrigated condition, maturity 116 days, oil content 39.2%, moderately resistant to wilt, budfly, tolerant to rust and powdery mildew.
	Azad Pragya (LCK 1516)	ICAR-AICRP (Linseed) C.S. Azad University of Agriculture and Technology, Kanpur, Uttar Pradesh	Seed Yield 13.45 q/ha	Uttar Pradesh	Suitable for irrigated and timely sown condition, maturity 128 days, oil content 34.6%, moderately resistant to wilt, resistant to rust and powdery mildew.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
PULSES					
Green gram/ mung bean	Malaviya Jankranti (HUM 27)	Banaras Hindu University, Varanasi, Uttar Pradesh	Seed Yield 9.03-9.95 q/ha	Uttar Pradesh	Suitable for timely sown and irrigated conditions during spring season, maturity 68 days, protein content 28.9%, resistant to MYMV, ULCV, stem necrosis, Cercospora leaf spot, powdery mildew and tolerant to prevalent insect pests of mungbean.
	VBN 6 (VGG 15-030)	National Pulses Research Centre. Tamil Nadu Agriculture University, Vamban, Pudukkottai, Tamil Nadu	Seed Yield 7.60 q/ha	Tamil Nadu	Suitable for rice fallow cultivation, maturity 70 - 75 days (early maturity 65- 70 days), protein content 20.63%, moderately resistant to MYMV, powdery mildew and ULKV diseases, non-shattering pods.
	OUAT Greengram (Shreejan) (OBGG 58)	Odisha University of Agriculture and Technology, Bhubaneshwar. Odisha	Seed Yield 9.30 q/ha	Odisha	Suitable for *Kharif* season, maturity 68-70 days, rich in protein and minerals (protein-21.4%, Zn-33.0 mg, Fe 215.8 mg, Cu 11.8mg, Mn 15.8 mg), moderately resistant to web blight, *Anthracnose*, root rot, powdery mildew and Macrophomina blight.
	Co-9 (COGG 13-19)	Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu	Seed Yield 16.75 q/ha	Tamil Nadu (except Kanyakumari and Nilgiris, Distt.)	Suitable for rainfed cultivation, duration 65-70 days, moderately resistant to major pests, MYMV, yellow mosaic disease.Duration : 65-70 days.
	SGC 20 (AAU SHN Mung 02) (Buroi)	Assam Agricultural University Shillongani, Nagaon, Assam	Seed Yield 13.14 q/ha	Assam	Suitable for timely sown *Kharif* under rainfed conditions, maturity 65-68 days, moderately resistant to pod borer, aphids, leaf roller and stored insect pests.
Urdbean/ Blackgram	Pant Urd 11 (PU 13-05)	G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand	Seed Yield 10.57 /ha	Uttarakhand	Suitable for rainfed/irrigated conditions of *Kharif* season in Uttarakhand plains, maturity 87 days, tolerant to whitefly, thrips, resistant to MYMV, moderately resistant to ULCV and Leaf Curl Virus.
	TJU 339 (Trombay Jawahar Urd 339)	Jawahar LalNehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh and BARC. Nuclear Agriculture and Biotechnology Division, Trombay, Mumbai. Maharashtra	Seed Yield 14.18 q/ha	Madhya Pradesh	Suitable under *Kharif* and summer season cultivation, maturity 65-70 days (medium), nutri-rich with high grain protein (25.58%) and Fe (104.60 mg/kg), resistant to MYMV, leaf curl virus, *Cercospora* leaf spot, *Anthracnose* and powdery mildew.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Urdbean/ Blackgram	TJU 130 (Trombay Jawahar Urd 130)	Jawahar Lal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh and BARC, Nuclear Agriculture and Biotechnology Division, Trombay, Mumbai, Maharashtra	Seed Yield 14.18 q/ha	Madhya Pradesh	Suitable for spring/summer season cultivation,maturity 60-65 days (early), nutri-rich with high protein (24.93%), resistant to MYMV, *Anthracnose*, powdery mildew, having capability of saving one or two irrigations (water restricted condition).
	Dristi (IPU 17-2)	ICAR- Indian Institute of Pulses Research, Regional Centre, Bhopal, Madhya Pradesh	Seed Yield 6.92-13.69 q/ha	Madhya Pradesh	Suitable for normal sown condition, maturity 73 days (early), highly resistant to MYMV, resistant to ULCV, leaf curl virus, web blight, bacterial leaf blight, powdery mildew, *Cercospora* leaf spots, white fly, pod borer and pod bug.
	Narmada (IPU 19-10)	ICAR- Indian Institute of Pulses Research, Regional Centre, Bhopal, Madhya Pradesh	Seed Yield 8.02-21.30 q/ha	Madhya Pradesh	Suitable for normal sown rainfed condition, maturity 74 days (early), highly resistant to MYMV and resistant to ULCV, leaf curl virus, web blight, bacterial leaf blight, powdery mildew, *Cercospora* leaf spots, white fly, pod borer and pod bug.
	SBC 47 (AAU SHN Urd 02) (Pabhoi)	Assam Agricultural University Shillongani, Nagaon, Assam	Seed yield 14.16 q/ha,	Assam	Suitable for timely sown during *Kharif* season under rainfed condition, maturity 75-80 days, protein 25.20%, moderately resistant to pod borer, aphids, leaf rollers and stored insect pests.
	Blackgram ADT 7 (AD) (TR) BG 14003	TNAU-Tamil Nadu Rice Research Institute, Aduthurai, Thanjavur district, Tamil Nadu	Seed Yield 7.24 q/ha	Tamil Nadu	Suitable for rice fallow condition of Cauvery Delta Zone of Tamil Nadu, maturity 65-70 days, moderately resistant to MYMV and powdery mildew diseases, tolerant to sodicity.
Cowpea (Grain)	VBN 4 (VCP 14-001)	National Pulses Research Centre, Tamil Nadu Agriculture University, Vamban, Pudukottai, Tamil Nadu	Seed Yield 13.77 q/ha, Seed Yield (irrigated) and 10.35 q/ha (rainfed),	Tamil Nadu	Suitable for cultivation under both irrigated and rainfed conditions, maturity 70-75 days, protein 18.61%, fibre 5.60%, moderately resistant to *Maruca vitrata*, non - shattering pods.
Chickpea	Kota Kabuli Chana 4 (RKGK 13-416)	AU, Kota- Agricultural Research Station, Kota, Rajasthan	Seed Yield 16.59 q/ha	Andhra Pradesh, Telangana and Kamataka	Suitable for timely sown conditions, maturity 98 days, protein 20.08%, moderately resistant to wilt and dry root rot.
	ADVTKA (NC 7)	National Institute of Plant Genome Research, New Delhi	Seed Yield 16.18 q/ha	Gujarat, Maharashtra and Madhya Pradesh	Suitable for timely sown and rainfed conditions during *Rabi*, maturity 107 days, protein 22.7%, marker-assisted backcross breeding (MABB) derived introgression line of JG 16, resistant to *Fusarium* wilt and tolerant to drought.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Chickpea	GNG 2461	Zonal Agricultural Research Station, Sri ganganar, Rajasthan	Seed Yield 21.40 q/ha	Punjab, Haryana, Delhi North Rajasthan western Uttar Pradesh, Plains of Uttarakhand and Jammu and Kashmir	Suitable for rainfed condition, maturity 140 days, moderately resistance to wilt, *Ascochyta* blight, collar rot, dry root rot, Botrytis Gray Mold and stunt.
	JG l8 (Jawahar Gram 2019-155-118)	ICAR-AICRP on Chickpea, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh	Seed yield 21.0 q/ha	Madhya Pradesh	Suitable for timely as well as late sown conditions, maturity 110 days, protein 18.0-19.0%, resistant to multiple diseases, good parching quality.
	JG 52 (Jawahar Gram 2018-52)	ICAR-AICRP on Chickpea, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh	Seed Yield 23.0 q/ha	Madhya Pradesh	Suitable for rainfed timely sown condition, maturity 110 days, protein 18-20 %, multiple disease resistant.
	Pusa Chickpea Vijay (BGM 10217)	ICAR-Indian Agricultural Research Institute, New Delhi	Seed Yield 18.52 q/ha	Uttar Pradesh	Suitable for irrigated timely sown condition, maturity 128 days, protein 21.2%, resistant to *Fusarium* wilt.
Lentil	LL 1613	Punjab Agricultural University, Ludhiana, Punjab	Seed Yield 16-17 q/ha	Haryana, Punjab, Northern Rajasthan, Plains of Uttarakhand, Delhi. Western Uttar Pradesh and part of Jammu and Kashmir	Suitable for irrigated and rainfed timely sown cultivations, maturity 115-120 days, moderately resistant to rust and wilt.
	Pant Lentil l2 (PL 245)	G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand	Seed Yield 77.30 q/ha	Uttarakhand	Suitable for cultivation in hills under timely sown conditions, maturity 159 days in the hills of Uttarakhand, moderately resistant to pod borer, resistant to rust.
Field pea	Shikhar (IPFD 19-1)	ICAR- Indian lnstitute of Pulses Research, Kanpur, Uttar Pradesh	Seed Yield 19.17 q/ha	Bihar, Jharkhand, Assam, West Bengal and eastern Uttar Pradesh	Suitable for cultivation in rainfed and irrigated conditions, maturity 121 days, moderately resistance to rust, resistant to powdery mildew.
	Pant Pea 462 (Pant P 462)	G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand	Seed Yield 18.60 q/ha	Jharkhand, Bihar, West Bengal, Assam, West Bengal and eastern Uttar Pradesh	Suitable for rainfed and irrigated conditions, maturity 120 days, protein content 24.12%, moderately resistant to rust, resistant to powdery mildew

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Field pea	Arpan (IPFD 19-3)	ICAR-Indian Institute of Pulses Research Kanpur, Uttar Pradesh	Seed Yield 17.67 q/ha	Eastern Uttar Pradesh, Bihar, Jharkhand, Assam and West Bengal	Suitable for cultivation in rainfed and irrigated conditions, maturity 122 days, protein content 20-22%, Fe 91.5 ppm; Zn 50.5 ppm, moderately resistant to rust, resistant to powdery mildew.
	HFP 1426	CCS Haryana Agricultural University, Hisar, Haryana	Seed Yield 18.05 q/ha	Eastem Uttar Pradesh, Bihar, Jharkhand, West Bengal and Assam	Suitable for rainfed and irrigated conditions, maturity 120 days, protein 23.35%, resistant to powdery mildew and moderately resistant to rust.
	AAU SPC 101 (AAU SHN Motor 0l) (Xeuti)	Assam Agricultural University Shillongani, Nagaon, Assam	Seed Yield 15.0 q/ha	Assam	Suitable for rainfed condition relay cropping with rice, maturity 105 days, resistant to powdery mildew and tolerant to rust.
COMMERCIAL CROPS					
Cotton	Phule Satpuda (JLA-1207)	Cotton Research Scheme, Oilseeds Research Station, Mahatma Phule Krishi Vidyapeeth, Jalgaon, Maharashtra	Seed Cotton yield 14.14 q/ha	Maharashtra, Madhya Pradesh, Odisha, South Rajasthan and Gujarat	Suitable for rainfed condition, maturity 165-170 days, moderately resistance to gray mildew, resistant to Jassids, and BLB.
	Gujarat Cotton-46 (G.Cot-46: Sorath Swet Hem)	Cotton Research Station, Junagadh Agricultural University, Junagadh Gujarat	Seed Cotton yield 19.0 q/ha	Maharashtra, Madhya Pradesh, Gujarat and Odisha	Suitable for the cultivation under high fertility and irrigated conditions during *Kharif* season.
FIBRE CROPS/JUTE AND ALLIED CROPS					
Sunhemp	ADT I	Tamil Nadu Rice Research Institute, Aduthurai, Thanjavur, Tamil Nadu	Green Biomass Yield 207.9 q/ha	Tamil Nadu	Suitable for irrigated and rainfed agro-ecological conditions, exclusively released as green manuring crop variety, as green manuring crop of 45-50 days, seed to seed maturity 120 days, tolerant to sunhemp hairy caterpillar, flea beetle and spiny pod borer.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
FORAGE CROPS					
Forage Pearl Millet	ADV 955 (l6ADV 0055)	UPL Limited, Banjara Hills, Hyderabad, Telangana	Green Fodder Yield 456 q/ha, DMY 89.6 q/ha, Seed Yield 15.6 q/ha,	Punjab. Haryana, Rajasthan, Gujarat, Chhattisgarh, Madhya Pradesh, Maharashtra, Uttar Pradesh, Tamil Nadu, Telangana, Andhra Pradesh and Karnataka	Suitable for irrigated/ rainfed *Kharif* and summer seasons, maturity 90-110 days, stay green succulent fodder, resistant to leaf blast.
Forage Sorghum	Pant Chari l2 (UTFS 79)	G.B. Pant University of Agric. & Technology, Pantnagar, Uttarakhand	green fodder yield 528 q/ha and dry fodder yield 201 q/ha	Uttarakhand	Single-cut forage sorghum variety suitable for irrigated spring/ summer (May-June) sowing and *Kharif* (June- July) sowing in medium to high fertility soils.
	Pant Chari 13 (UTFS 83)	G.B. Pant University of Agric. & Technology, Pantnagar, Uttarakhand	green fodder yield 521 q/ha and dry fodder yield 193 q/ha	Uttarakhand	Single-cut forage variety suitable for rainfed *Kharif* cultivation in plains of Uttarakhand in medium to high fertility soils, tolerance to foliar diseases.
	Pant Chari 14 (UTMC 545)	G.B. Pant University of Agric. & Technology, Pantnagar, Uttarakhand	green fodder yield 737 q/ha and dry fodder yield 206 q/ha.	Uttarakhand	Multi-cut forage sorghum variety suitable for irrigated spring/summer (March-April) sowing) and *Kharif* (June- July) sowing in medium to high fertility soils.
	Pant Chari 15 (UTMC 559)	G.B. Pant University of Agric. & Technology, Pantnagar, Uttarakhand	green fodder yield 843 q/ha and dry fodder yield 242 q/ha.	Uttarakhand	Multi-cut forage sorghum variety suitable for irrigated spring/ summer (March-April) sowing and *Kharif* (June- July) sowing in medium to high fertility soils, better tolerance to shoot pests and foliar diseases.
Dinanath Grass	Bundel Dinanath-3 (JHD-le-4)	ICAR- Indian Grassland and Fodder Research Institute. Jhansi, Uttar Pradesh	green fodder yield 288 q/ha and dry matter yield 62 q/ha.	West Bengal, Jharkhand, Odisha, Assam, Bihar, Madhya Pradesh, Uttar Pradesh	Perennial grass suitable for *Kharif* (June-July) rainfed sowing in medium to high fertility soils condition, maturity 160 days, moderately resistant to leaf spot, leaf defoliators.
Oats	JWGO-01 (Jawahar Wellington Grain oats-01) (V8)	ICAR-IARI; Regional Station Wellington, Tamil Nadu and JNKVV, Zonal Agriculture Research Station, Hoshangabad, Madhya Pradesh	Yield 33.73 q/ha	Madhya Pradesh	Suitable for limited irrigated, timely sown condition, maturity 109 days, crude protein (16.78%), crude fiber (1.45%), crude fat (6.77%), β-glucan (4.58%), resistant to crown rust, stem rusts, powdery mildew and tolerant to moisture stress.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Sugarcane	Co 11015 (Atulya)	ICAR- Sugarcane Breeding Institute, Coimbatore, TamilNadu	CCS yield 16.22 t/ha Cane yield 108.33 t/ha,	Andhra Pradesh, Telangana, Kerala, Tamil Nadu, Karnataka, Gujarat, Maharashtra and Madhya Pradesh	Suitable for growing under medium and high fertile soils of under irrigated condition, maturity (early) by 8th and 10th months (300 days), sucrose 21.33%, tolerant to drought and salinity conditions, less susceptible to early shoot borer, top borer and scales, resistant to red rot.
	Co 14005 (Arunima)	ICAR- Sugarcane Breeding Institute, Coimbatore. TamilNadu	CCS yield 16.64 t/ha Cane yield 118.33 t/ha,	Tamil Nadu. Kerala. Andhra Pradesh. Telangana, Karnataka, Gujarat, Maharashtra and Madhya Pradesh	Suitable for growing under medium and high fertile soils under irrigated condition, maturity (mid-late) at 360 days, sucrose 20.18%, tolerant to water logging, drought and salinity conditions, less susceptible to early shoot borer, top borer and scales, resistant to moderately resistant to red rot.
	Phule Sugarcane 13007 (MS 14082)	Mahatma Phule Krishi Vidyapeeth, Central Sugarcane Research Station, Padegaon, Taluka-Phaltan, DistSatara, Maharashtra	CCS yield 17.58 t/ha, cane yield 128.60 t/ha,	Maharashtra, Gujarat, Karnataka, Tamil Nadu, Andhra Pradesh, Madhya Pradesh and Chhattisgarh	Suitable for growing under medium and deep fertile soil under irrigated condition and autumn and spring planting seasons, maturity (mid-late) at 360 days, sucrose 19.47%, less susceptible to woolly aphid, tolerant to water stress and drought, resistant to moderately resistant to red rot.
	CO 16030 (Karan l6)	ICAR-Sugarcane Breeding Institute Regional Centre, KarnalHaryana	CCS yield 11.96 t/ha, cane yield 94.97 t/ha	Haryana, Punjab, Rajasthan, Uttarakhand, Central and Westem Uttar Pradesh.	Suitable for growing under medium and high fertile soil under irrigated condition in autumn and spring seasons, maturity (mid-late) at 12th months (360 days), sucrose 17.88%, tolerant to winter and salinity stress, less susceptible to early shoot borer, top borer and stalk borer, resistant to moderately resistant to red rot.
	Ikshu-10 (CoLK 14201)	ICAR- Indian Institute of Sugarcane Research, Lucknow. Uttar Pradesh	CCS yield 11.39 t/ha, cane yield 91.34 t/ha	Punjab, Haryana, Rajasthan, Uttar Pradesh (Western & Central) and Uttarakhand	Suitable for normal irrigated/water logged conditions, maturity (early) at 10th month (300 days), sucrose 18.11%, non-lodging, non-flowering, better ratooning and nutrient responsive, resistant to moderately resistant to red rot and smut, less susceptible to the main insect pests.
	Ikshu-14 (CoLK 15206) (LG 07584)	ICAR- Indian Institute of Sugarcane Research, Lucknow, Uttar Pradesh	CCS yield 11.64 t/ha, cane yield 89.81 t/ha	Punjab, Haryana, Rajasthan, Uttar Pradesh (Western & Central) and Uttarakhand (North West Zone)	Suitable for normal irrigated/water logged conditions, maturity (mid-late) at 12th month (360 days), sucrose 18.42%, non-lodging, non-flowering, better ratooning and nutrient responsive, resistant to red rot, less susceptible to major insect-pests.

Crop	Variety	Developed by	Average Yield	Recommended Zone	Salient features
Sugarcane	Ikshu-15 (CoLK 16466)	ICAR- Indian Institute of Sugarcane Research, Lucknow, Uttar Pradesh	CCS yield 10.19 t/ha, cane yield 85.35 t/ha	Uttar Pradesh, Bihar and West Bengal and Assam	Suitable for water logged/normal irrigated conditions, sucrose 17.31%, maturity (early) at 10th month (300 days), non-lodging, non-flowering, better ratooning and nutrient responsive, resistant to moderately resistant to red rot, less susceptible to major insect-pests.
	Rajendra Ganna-5 (CoP 11438)	Dr. Rajendra Prasad Central Agricultural University, Pusa (Samastipur), Bihar	CCS yield 9.46 t/ha, cane yield 78.20 t/ha	Uttar Pradesh, Bihar and West Bengal and Assam	Suitable for irrigated condition, maturity (early) at 10th months (300 days), sucrose 17.37%, non-lodging, non-flowering, moderately resistant to moderately susceptible to red rot, less susceptible in reaction of major insect-pests.
	Sugarcane Co 18009 (Punnakai)	ICAR-Sugarcane Breeding Institute, Coimbatore. Tamil Nadu	CCS yield 20.71 t/ha, cane yield 160.30 t/ha	Tamil Nadu	Suitable for normal recommended practices and ecological conditions, sucrose 18.78%, maturity (mid-late) 12 months (360 days), moderately resistant to prevalent pathotype/races of red rot.
	CoA 17321	Regional Agricultural Research Station, Anakapalle, Acharya N.G. Ranga Agricultural University, Lam, Guntur, Andhra Pradesh	CCS yield 13.44 t/ha, cane yield 114.30 q/ha	Andhra Pradesh	Suitable for assured irrigated, limited irrigated and rained condition for East Coast Zone, early maturity (early) at 10th months (300 days), sucrose 16.93%, resistant to red rot, smut and tolerant to moisture stress.

Note : N.R.: Not Reported, SZ: South Zone, CZ: Central Zone, NEPZ: North Eastern Plain Zone, NWPZ: North Western Plain Zone, PZ: Plain Zone

Source : Division of Crop Science, Indian Council of Agricultural Research, New Delhi

Table 2.4: List of Horticultural Crop Varieties/hybrids notified/released/identified in 2023

Name of crop	Variety	Releasing centre/Institute	Maturity range (days)	Area of adaption	Average yield (q/ha)	Other traits/characteristics	Cropping season
FRUITS							
Mango	Sagarika (ML-2) (Genetic Stock)	ICAR-CISH, Lucknow	110-120 days under sub-tropical conditions and 90-100 days under tropical conditions.	Suitable for cultivation in salt affected regions, degraded lands and normal soils of Uttar Pradesh, Bihar, Madhya Pradesh, Andhra Pradesh, Karnataka, Maharashtra, Gujarat, Tamil Nadu.	10-20 kg /plant with about 150 -250 fruits per plant	Variety is suitable for rootstock purpose. Regular bearer, salt/sodicity tolerant pH_2 ranging from 8.26 (0-30cm) to 9.39 (45-90cm depth), polyembryony. Colour bright yellow while matured with attractive yellow coloured fruit peel, pulp dark yellow, firm and fibrous. Fruits weighs about 45–50 g, TSS is 21°B and is rich in carotene content. The rootstock has the potential for promoting mango cultivation in the degraded and salt affected soils of the country due to its high tolerance to soil sodicity and regular bearing ability.	June-July
Mango Hybrid	Arka Suprabhath	ICAR-IIHR	140 to 145 days from flowering to fruit maturity	All zones of Karnataka	35-40kg /plant	It is a hybrid between Amrapali X Arka Anmol. The trees are medium vigorous, regular, bunch bearing, high yielding (35-40 kg /plant after 8 years of planting or 4th bearing year) variety. Fruits weight ranged from 200-250g, fruit shape is like Alphonso and has pulp colour of Amrapali, deep orange firm pulp, pulp recovery (>70%), TSS(>22°B), acidity (0.12%), carotenoids (8.35mg/100g FW) and flavonoids (9.91 mg/100g FW) and it has got the shelf life of 8-10 days at room temperature. This hybrid is free from sponge tissue and internal breakdown after the hot water treatment before storage.	June-July

Mango Hybrid	Arka Udaya	ICAR-IIHR	150-155 days from flowering to fruit maturity	All zones of karnataka	35-40 kg /plant	It is a hybrid between Amrapali x Arka Anmol. The tree is semi-vigorous growth habit. The fruits are medium in size (200 to 250 g) with bunch bearing habit and good yield potential (35-40 kg/ after 8 years of planting or 4th bearing year), The fruits have the peel colour of Arka Anmol and with the pulp characteristics of Amrapali, firm with deep yellow orange in colour, sweet in taste with good TSS (24 °Brix) and high pulp recovery (77 %). The fruits have better keeping quality (12-15 days).	June-July
Guava Hybrid	Arka Poorna	ICAR-IIHR	120 to 130 days from flowering to fruit maturity	5 and 6	40 to 42 kg/tree/year (after 4 years of planting)	Semi- vigorous growth habit with precocious and prolific bearing nature. Medium to big sized (200 to 220g), round fruits with smooth, shiny pericarp. Firm, white pulp with good flavour and keeping quality. Good pulp recovery with medium soft seeds (4 to 6 kgf). Good TSS (12 to 13 ° B) and rich in ascorbic acid (190 to 200 mg/100 g FW). Yield : 40 to 42 kg/tree/year after 4 th year of planting	July to September and November to January
	Arka Rashmi	ICAR-IIHR	120 to 130 days from flowering to fruit maturity	1, 5 and 6	38 to 40 kg /tree/year (after 4 years of planting)	Plants are semi vigorous and suitable for close planting. Fruits are round, medium sized (180 to 200 g) with medium thick pericarp (> 1 cm). Pulp is dark red, with medium soft seeds (4-6 kgf) and medium in lycopene (4.93 mg/100 g pulp) and high in ascorbic acid (220 to 235 mg/100g) with good flavour. Dual purpose variety, suitable for both table and processing, Yield: 38 to 40 kg /tree/year after 4th year of planting	July to September and November to January
Custard Apple Hybrid	Arka Sahan	ICAR-IIHR	130 to 140 days from flowering to fruit maturity	2,3,4,5,6 and 7	12 t/ha	It is a progeny of Island Gem (*Annona atemoya* Hort.) X Mammoth (*A. squomosa* L.) Average Fruit weight: 410 g. Less seeded (8 seeds / 100g pulp). High pulp recovery (74.0%). High TSS (30.0°B). More shelf life (7 days).	July to September

Custard apple	Arka Neelachal Vikram	ICAR-IIHR	N.A.	Odisha	7-8t/ ha	Fruiting behavior: Self Fruitful, Fruit maturation: August -September, Fruit Weight: 220-230g, No of fruits/plant: 70-80(5-6years), Pulp Content: 51.6-54.2%, No of seeds/100g pulp:18-20. TSS: 23-24.5 Brix. Total sugar: 17.5-19.5%. Sugar acid ratio: 54-60. Ascorbic acid: 24-28 mg/100g. Keeping Quality: 5-6 days at 22-24 °C	July to September
Pummelo Variety	Arka Anantha	ICAR-IIHR	8 to 9 months days from flowering to fruit maturity	All zones of Karnataka	80-90 fruits/plant/season	Clonal selection of 25-5, the tree is medium height (2.0-3.0 m), drooping growth habit. Average 80-90 fruits /plant/season after 4 years of planting, fruit weight ranged from 0.9-1.2 kg, Oblique fruit shape and has pink pulp colour, TSS (11-12°B), acidity (1.0-1.2 %) and sweet in taste.	Fruiting during February to March
	Arka Chandra	ICAR-IIHR	8 to 9 months days from flowering to fruit maturity	All zones of Karnataka	35-40 fruits /plant/season	Clonal selection of 18-5, the tree is medium size (2.0-3.0 m) and spreading. It is a medium vigorous, Average yield 35-40 fruits/plant/season after 4 years of planting), fruit weight ranged from 0.8-1.0kg, spheroid fruit shape and has white pulp, TSS (11-12°B), acidity (0.89%) and sweet in taste.	February to March
Apple (Hybrids)	PRIDE	ICAR-CITH	120-125 days	Entire temperate climatic conditions of Northern Western Himalayan agro-eco system. of our country (J&K, Himachal Pradesh, Uttarakhand and North Eastern Areas of India)	240.0	The Variety is scab resistant with high yield having better quality traits (taste, shine, colour) and has wider acceptability both by the growers and consumers.	July-September
	PRIAME	ICAR-CITH	N.A.	Entiretemperate climatic conditions of Northern Western Himalayan agro-eco system. of our country (J&K, Himachal Pradesh, Uttarakhand and North Eastern Areas of India)	224.00	The variety is scab resistant with high yield having better quality traits(taste, shine, colour) and has wider acceptability both by the growers and consumers	July-September

Apple (Hybrids)	AMMOL	ICAR-CITH	120-125 days	Entire temperate climatic conditions of Northern Western Himalayan agro-eco system. of our country (J&K, Himachal Pradesh, Uttarakhand and North Eastern Areas of India)	208.00	Variety is high yieldinghaving better quality traits(size, shine, colour) and has wider acceptability both by the growers and consumers.	July-September
	GOLDEN SNOW	ICAR-CITH	144-146 days	Entire temperate climatic conditions of Northern Western Himalayan agro-eco system. of our country (J&K, Himachal Pradesh, Uttarakhand and North Eastern Areas of India)	208.00	The variety is high yielding, regular bearerhaving better qualitytraits (size, firmness, greasiness, shine besides shelf life) and has wider acceptability both by the growers and consumers. The hybrid possesses good pollinizer potential owing to its S-Allele composition. Hence it can replace existing apple pollinizers having poor fruit quality.	July-September
PLANTATION CROPS							
Coconut	Kalpa Vajra	ICAR-CPCRI, Kasaragod	72 to 80 months	Root (wilt) disease prevalent tracts, Kerala	19250	Root (wilt) tolerant inter se variety	N.A.
Coconut	Kalpa Suvarna	ICAR-CPCRI, Kasaragod	42-50 months	Kerala and Karnataka	16975 nuts/ha	Dwarf variety for copra and tendernut purpose	N.A.
Arecanut	Shatamangala	ICAR-CPCRI, Kasaragod	48 months	Karnataka & Kerala	5178.6 kg/ ha	Semi-tall variety with high yield	N.A.
Cocoa	VTLCS-1	ICAR-CPCRI, Kasaragod	48 months	Karnataka, Kerala, TN, AP, Maharashtra, Goa	1575	High yielding processible variety	N.A.
Cocoa	VTLCS-2	ICAR-CPCRI, Kasaragod	48 months	Karnataka, Kerala, TN, AP, Maharashtra, Goa	1687.5	High yielding processible variety	N.A.
Cocoa	VTLCH-1	ICAR-CPCRI, Kasaragod	48 months	Karnataka, Kerala, TN, AP, Maharashtra, Goa	925	High yielding processible variety	N.A.

Cocoa	VTLCH-2	ICAR-CPCRI, Kasaragod	48 months	Karnataka, Kerala, TN, AP, Maharashtra, Goa	718.75	High yielding processible variety	N.A.
VEGETABLES							
Garden Pea	Arka Priya	ICAR-IIHR	60-65	Himachal Pradesh, Jammu and Kashmir, Uttaranchal, Punjab, Uttar Pradesh, Bihar, Jharkhand, Karnataka, Tamil Nadu, Goa and Kerala	12t/ha	It is a mid-season variety. Pods are round, medium long (8 cm). Seeds are round, medium bold, dark green and sweet. Resistant to powdery mildew and rust.	Rabi
Chilli	Arka Neelachal Prabha	ICAR-IIHR	65-75	Odisha	Green fruit yield 10-12t/ ha	Mid season variety and fruits mature in 65-75 days. Fruits Medium long, 5-6 cm. Planting time Sept-October. Spacing: 60 x 45 cm. Green fruit yield: 10-12t/ ha. High capsaicin content and adapted to tropical humid climate.	Rabi
Ridge Gourd	Arka Vikram	ICAR-IIHR	120-135 days	Punjab, Uttar Pradesh, Bihar, Jharkhand, Karnataka, Tamil Nadu, and Kerala	34-35 t/ha	Arka Vikram has been notified for cultivation in Zone IV (Punjab, U.P, Bihar and Jharkhand) and zone VIII (Karnataka, TN, Pondicherry & Kerala) It is developed by crossing IIHR-6-1-1 and IIHR-53-1-3. Early flowering and female flower at 9th node itself, high frequency female line. Takes 40 days for the first female flower appearance and 46 days for first picking of fruits (early by 10-15 days compared to Pvt. hybrids). Green, long, tender fruits. Excellent cooking quality, nutritionally rich in antioxidant activity and minerals like potassium, calcium, iron, zinc and manganese. Yields 34-35t/ha in 120-135 days' duration. National level yield is 22.5 t/ha.	Throughout the year

Indian Bean	Arka Pradhan	ICAR-IIHR	75-80	Punjab, Uttar Pradesh, and Jharkhand	35 t/ha	Arka Pradhan is a pole type photo insensitive variety. Recommended for cultivation during Kharif and Rabi Pods of Arka Pradhan are light green, tender and long with undulating surface bearing from base of plant. Green pod harvest: 75-80 days after sowing. Yield: 35 t/ha. Field tolerant to Rust and mosaic.	Kharif and Rabi
Ridge Gourd	Arka Prasan	ICAR-IIHR	120-135 days	All zones of Karnataka	26-30 t/ha	Early flowering and female flower at 9thnode.Takes 34-35 days for the first female flower appearance and 42-45 days for first picking of fruits. Green, long, tender fruits Yields 26-30 t/ha in 120-135 days duration.	Throughout the year
French Bean Variety	Arka Arjun	ICAR-IIHR	70 days	All zones of Karnataka	16.5 t/ha	Plants are bushy and photo-insensitive. Pods are ready for harvest in 47 days after sowing. Pods are round on cross section, stringless, smooth, long (14.2 cm) and crisp with no parchment. Yield potential of 16.5 t/ha in 70 days. Resistant to Mung Bean Yellow Mosaic Virus (MYMV) disease.	Kharif and rabi
Okra Hybrid	Arka Nikita	ICAR-IIHR	37-45 days	1,3,4,6,7	22.46 t/ha	It is developed through genetic male sterile line, High yielding 22.46 t/ha. Dark green, medium, smooth and tender fruits. Early fruiting, takes 39 to 43 days. Suitable for kharif, rabi and summer season. Rich in iodine content (33.31µ g/kg). High mucilage content (1.08 %) (FW) and high edible fiber content (8.85 %) (DW). It is rich in minerals like potassium (3.7 %), calcium (997 mg /100 g) and magnesium.	Kharif
Indian Bean (Dolichos Bean) Variety	Arka Vistar	ICAR-IIHR	120-150 days	1, 3 and 8	35-37 t/ ha	Photo in-sensitive (suitable for both Kharif and Rabi). Yield: 35-37 t/ha. Duration: 120-150 days. Fruit characters: dark green, tender, thick and long with fleshy pulp. Highly preferred by the consumers.	Kharif and rabi
Indian Bean (Dolichos bean) Variety	Arka Krishna	ICAR-IIHR	120-150 days	1, 3 and 8	25- 30 t/ha	Photo in-sensitive (suitable for both Kharif and Rabi). Yield: 25-30 t/ha. Duration: 120-150 days. Fruit characters: dark green smooth pods with shininess suitable for fresh market. Highly preferred in Karnataka State.	Kharif and rabi

Bottle gourd	Kashi Shubhra (VRBG-14)	ICAR-IIVR, Varanasi	55-60	Zone IV (Uttar Pradesh, Bihar, Jharkhand & Punjab)	603.6 q/ha	Fruits are cylindrical, green and medium long (28-30 cm). Gutka fruit which is suitable for packaging, transportation and export. It is tolerant to downy mildew, powdery mildew and gummy stem blight under field conditions.	Rainy and Summer season
Potato	Kufri Daksh	ICAR-CPRI, Shimla	90 days	Central and Eastern plains	320 q/ha	Drought and heat tolerance.	Rabi
Potato	Kufri Uday	ICAR-CPRI, Shimla	90 days	Indian plains (Northern, Central and Eastern plains)	360-380 q/ha	Red colour tubers.	Rabi
	Kufri Sukhyati	ICAR-CPRI, Shimla	75 days	Indian plains (Northern, Central and Eastern plains)	300-350 q/ha	Early bulking.	Rabi
	Kufri Lohit	ICAR-CPRI, Shimla	90 days	Central and Eastern plains	360-380 q/ha	High iron content	Rabi
	Kufri Jamunia	ICAR-CPRI, Shimla	90 days	Indian plains (Northern, Central and Eastern plains)	350-380 q/ha	High anthocyanin content with purple flesh	Rabi
Cassava	Sree Kaveri	ICAR CTCRI, Thiruvananthapuram	300 days (10 months)	Kerala, Tamil Nadu, Andhra Pradesh	619	Cassava variety with Cassava mosaic disease (CMD) resistance. It has drought tolerance. suitable for growing in for industrial use	Kharif and Rabi
Taro	Sree Telia	CTCRI Regional centre, Bhubaneswar	120	Odisha	100-120	Short duration variety The cormels have good palatability, are mealy and have aroma. Cooked cormels are liked extremely by the consumers. It is having low acridity (calcium oxalate 12.6 mg 100 g^{-1}).	Kharif
	Sree Hira	CTCRI Regional centre, Bhubaneswar	180	Odisha	182	It is suitable for rainfed upland and irrigated medium and low land under Odisha conditions. This variety is tolerant to leaf blight which is very prevalent in traditional varieties of Odisha. Sree Hira also produce 12-16 numbers of cormels with each measuring 14-18 cm length. This variety is also having good cooking quality and low acridity.	Kharif and Rabi

FLOWERS							
Crossandra	Arka Kanaka	ICAR-IIHR		Maharashtra, Telangana and Karnataka	5 t/ha	Unique bigger size flowers, 67% higher than the local cultivar. Novel flower colour: Orange (21A, Orange group). 100 flower weight: 11.9 g. Utility: Loose flower, garland.	Round the year Rainy season-lean season
Crossandra	Arka Chenna	ICAR-IIHR		Maharashtra and Karnataka	Loose flower yield 40 kg/week/1000 palnts	Flower are orange coloured, medium sized, slightly bigger (20%) than the local. Loose flower yield: 4 times higher than the local variety. Loose flower yield: 40 kg per week per 1000 plants. Stalk strength: 20% more than the local variety. Utility: Loose flower, garland	Round the year Rainy season-lean season
Tuberose	Arka Sugandhi	ICAR-IIHR	180 days	West Bengal and Odisha	27 spikes/m^2	Arka Sugandhi is the dwarf type tuberose developed at ICAR-IIHR through hybridization between IIHR-6 x IIHR-5. It bears single type flowers on short and sturdy spikes. The flower buds are attractive with green tinge on the tip and straight upward facing florets with protruding stigma arranged compactly on spike. It exhibits early flowering and flower continuously for 180 day and ideal for planting in beds in the landscape and also for pot culture. It is field tolerant to root knot nematode *(Meloidogyne incognita)*.	Round the year Dormancy during winter
Gladiolus	Arka Manorama	ICAR-IIHR		Punjab, Rajasthan, New Delhi and Maharashtra	50000 spikes/acre	Unique flower colour (RHS: Red-Purple (65.B) having Red-Purple (62.A) streaks with Red-Purple (67.B) splash. Avg. Spike length: 86.09 cm. Avg. Diameter of second floret: 9.55 cm. Avg. No. of florets/spike: 15.07. Avg. No. of spikes per plant: 1.25. Avg. Vase life: Avg. 9.33 days. It is suitable for cut flower, bouquet preparation, floral arrangement and for garden display.	Rabi

Aster	Arka Aadya	ICAR-IIHR		Himachal Pradesh, West Bengal, Telangana, and Karnataka	Loose flower yield 6.5 t /acre	Flowers are semi-double type. Growth habit: Spreading. Early flowering: 60-70 days. Flower yield per plant: 178 g. Shelf life: 4 days. Utility: Loose flower and bedding.	Rabi
	Arka Kamini	ICAR-IIHR		West Bengal, Karnataka and Tamil Nadu	Loose flower yield 4 t /acre	Flowers are deep pink, semi-double type. Flower diameter: 5.5-6.0 cm. Flower yield per plant: 97 g. Vase life: 8 days. Utility: Garland, floral decoration, cut flower.	Rabi
Crossandra	Arka Ambara	ICAR-IIHR		Karnataka	5.0 t/acre	Unique bigger size flowers, 69% higher than the local cultivar. 100 flower weight:13.01g.	Round the year Rainy season-lean season
Gerbera	Arka Ashwa	ICAR-IIHR		Karnataka	342 cut flowers/m^2	Flowers are double flowers. Flowers are double flowers. Performs well under polyhouse with 50% shade net and on par with commercial varieties. Produces flowers with diameter (10.85 cm), flower stalk length (61.06 cm), flower stalk diameter (6.42 mm). Utility: Cut flower and flower arrangement.	Round the year Under polyhouse conditions
	Arka Krishika	ICAR-IIHR		Assam	387 cut flowers/m^2	Flowers are yellow coloured and double type. Has stalk length of 39 cm Suitable for open grown condition. Utility: Cut flower and flower decoration.	Round the year Under open conditions
	Arka Nesara	ICAR-IIHR		Karnataka	302 cut flowers/m^2	Flowers are double type. Performs well under polyhouse with 50% shadenet and on par with commercial varieties. Produces flower diameter (10.43 cm), flower stalk length (61.11 cm), flower stalk diameter (5.63 mm). Utility: Cut flower and flower arrangement.	Round the year Under polyhouse conditions

Gladiolus Hvbrid	Arka Amar	ICAR-IIHR		4 & 7	72000 spikes/acre	The flowers are red colour (RHS colour chart 46D) having red (RHS colour chart 45B) margin and white (RHS colour chart155B) line on tepals with yellow (RHS colour chart 2C) blotch. It has long spike (101 cm) with good rachis length (50 cm) and bears 17 florets per spike. It yields 2.0 flower spikes and 2 corms /corm and 23 cormels.	N.A.
Gladiolus Hybrid	Arka Kesar	ICAR-IIHR		4 & 7	60000 spikes/acre	The flowers are attractive with saffron coloured florets, yellow orange (RHS colour chart 19C), having orange (25D) margin, Blotch orange red (32C) with yellow green (154B) line. It flowers in 61 days, produces long spike (110 cm), number of florets per spike (17) and number of spikes per plant (1.80) and 2 corms /corm. It is suitable for cut flower, flower arrangement bouquet.	N.A.
MEDICINAL AND AROMATIC PLANTS							
Holy Basil/Tulsi (*Ocimum tenuiflorum*)	Gujarat Anand Black Tulsi-1 (GABT-1)	ICAR-AICRP MAPB, AAU, Anand	72 (days after transplanting)	Gujarat, Madhya Pradesh, Maharashtra, Bihar and Uttar Pradesh	Fresh leaf-80.07 q/ha Dry leaf-16.86 q/ha	Upright growth habit, dark violet leaves, long petiole, essential oil content (0.32%).	Kharif
Holy Basil/Tulsi (*Ocimum tenuiflorum*)	Vallabh Navya Tulsi-1	ICAR-DMAPR, Anand	55-60 (days after transplanting)	Gujarat, Madhya Pradesh, Maharashtra, Bihar and Uttar Pradesh	Fresh leaf- 83.74 q/ha Dry leaf-15.42 q/ha	Erect growing pattern, medium dark green leaf colour, essential oil content (0.50%), rich in Methyl eugenol content (82.81%)	Kharif
Basil (*Ocimum basilicum*)	Vallabh Yesha Basil-1	ICAR-DMAPR, Anand	81 (days after transplanting)	Gujarat, Madhya Pradesh, Maharashtra, Bihar and Uttar Pradesh.	Fresh leaf-75.01 q/ha Dry leaf- 15.14 q/ha	Light green leaf colour, purple inflorescence, essential oil content (0.49%), poses Linalool, β-elemene and Germacrene D content (32.13%, 2.53% & 3.32%, respectively).	Kharif
Opium Poppy (*Papaver somniferum*)	Chetak Aphim (hybrid)	ICAR-AICRP MAPB, MPUAT, Udaipur	135-140 days *100-105 days (for lancing)	Rajasthan, Madhya Pradesh and Uttar Pradesh (only for licensed growers)	Latex (dry)- 0.4 q/ha Husk- 8.93 q/ha Seed- 7.73 q/ha	Days to 50 % flowering (90 days), Morphine content (11.99%), seed white in colour.	Rabi

Betelvine (*Piper betle*)	Arka Padma (hybrid)	AICRP MAP&B, ICAR-IIHR, Bengaluru	Harvest at 30-45 days intervals (for fresh leaves)	Assam and West Bengal	Leaf-85 Lakh leaves/ha	shorter shoot intermodal length (5.03 - 5.11cm), higher number of laterals per vine (25) *Performed well in the closed system of cultivation.	Rabi
Betelvine (*Piper betle*)	Arka Sampada (hybrid)	AICRP MAP&B, ICAR-IIHR, Bengaluru	Harvest at 30-45 days intervals (for fresh leaves)	Karnataka and Andhra Pradesh	Leaf- 89 Lakh leaves/ha	shorter shoot intermodal length (4.06-5.40 cm), higher number of laterals per vine (6.96 - 8.65) *Performed well in an open system of cultivation.	Rabi
Velvet Bean (*Mucuna pruriens* var *utilis*)	Arka Dhanvantari	ICAR-IIHR	180-190 days	1, 4, 8 and 10	Seed Yield 2-2.5 t/ha	Long duration line comes to maturity 180-190 days after sowing.Non-itchy trichomes on pods.High seed yield (2- 2.5 t/ha) (32% increase).High L-Dopa content (4.5 to 5.5%).	Kharif
Velvet Bean (*Mucuna pruriens* var *utilis*)	Arka Daksha	ICAR-IIHR	150-160 days	3, 5 and 6	Seed Yield 1.6-2 t/ha	Medium duration line comes to maturity 150-160 days after sowing. Non-itchy trichomes on pods High seed yield (1.6- 2 t/ha) (35% increase) High L-Dopa content (3.5 to 4.5 %).	Kharif
Ashwagandha Variety	Arka Ashwagandha	ICAR-IIHR	180 days	3 & 5	Dry Root Yield: 11.95 q/ha	Arka Ashwagandha isa high yielding variety from pure line selection with double the dry root yield (11.95 q/ha) and total withanolide content (0.580%) compared to check Jawahar Ashwagandh -20 (5.27q/ha & 0.320%). The other significant features of the variety are good establishment, early vigour, field tolerance to bacterial wilt,late blight diseases and pests viz., Epilachna beetle, mites and aphids. Variety matures in 180 days and is characterized by pencil thickness roots and desired root depth of around 30 cm.	Late kharif
Mandukaparni/Ondelaga *(Centella asiatica)*	Arka Prabhavi	ICAR-IIHR		3 & 5	13 tonnes of fresh herb and dry herb 2.3 t/ha/year	Arka Prabhavi is an erect plant type variety with medium sized leaves. Arka prabhavi produces 13 tonnes of fresh herb and 2.3 tonnes of dry herb per hectare per year with higher asiaticoside content (3.85%) and higher tri- terpenoid content (7.27 %). Good for herbal industries for extraction of triterpenoids.	Throughout the year

Mandukaparni/Ondelaga *(Centella asiatica)*	Arka Divya	ICAR-IIHR		3 & 5	Biomass yield 2.5 MT /ha/year	It is an erect plant with very broad leaves and easy to harvest with every 30 days harvest. Have a higher dry biomass yield of 2.5 MT/ha /year,moderate asiaticoside content 0.54 to 1.69% and moderate Tri- terpenoid content 1.67 to 3.56%. The variety has higher nutritional values (minerals and vitamins) than check variety. It is good for both industry and as green vegetable purpose.	Throughout the year
MUSHROOMS							
Button Mushroom	NBS5-59	ICAR-DMR, Solan [Released by ICAR in 2023]	34	Button mushroom growers	19.46 Kg/100 kg compost	High yielding, Pure white, Browning resistant, Very thin gill, Late gill opening, High dry weight	Round the year
Button Mushroom	A-63	ICAR-DMR, Solan [Released by ICAR in 2023]	34	Button mushroom growers	20.53 kg/100 kg compost	Pure white, rounded cap and high yielding, High average fruit body weight (15.86 g), Non-bunchy character. It's a selection with 14.51 % yield increase than NBS-5 control.	Round the year
Oyster mushroom	H3	ICAR-DMR, Solan [Released by ICAR in 2023]	18	Oyster mushroom growers	68.44 kg/100 kg compost	H3 is hybrid strains of contrasting parental traits i.e. Pleurotus ostreatus (High fruit body weight) and P. florida (High yield). The percentage superiority of the strain over check is 7.55%.	Round the year
Paddy straw mushroom	DMRO 1072	ICAR-DMR, Solan [Released by ICAR in 2023]	14	Paddy straw mushroom growers	13.59 kg/100 kg compost	Whitish color fruit bodies with high acceptability over silvery-white to brownish-grey color, Short crop cycle, High average fruit body weight (19.59g) and 7.59% yield increase than over control	Round the year
Paddy straw mushroom	Vv-05-19	ICAR-DMR, Solan [Released by ICAR in 2023]	14	Paddy straw mushroom growers	15.8kg/100 kg compost	Early first harvest (14.4 days), High average fruit body weight (16.9 g), High yielding (19.25% increased yield as compared with control (DMRO-484).	Round the year
Milky Mushroom	CI-01	ICAR-DMR, Solan [Released by ICAR in 2023]	14	Milky mushroom growers	65kg /100 kg compost	Fruit body: More whiteness, High average fruit body weight (64.2 g), High yielding (11.74% increased yield as compared with control (DMRO-302)	Round the year

Note : N.A.: Not Available

Source : Division of Horticultural Science, Indian Council of Agricultural Research, New Delhi.

Table 2.5: All India consumption of plant nutrients per unit of gross cropped area during 1971-72 to 2022-23

Year	Gross cropped area (000' ha)	Consumption (kg) per hectare			
		N	P_2O_5	K_2O	Total
1971-72	165,186	10.88	3.38	1.82	16.08
1972-73	162,150	11.34	3.58	2.14	17.07
1973-74	169,872	10.77	3.82	2.12	16.71
1974-75	164,191	10.75	2.87	2.05	15.67
1975-76	171,296	12.54	2.73	1.62	16.89
1976-77	167,334	14.68	3.79	1.91	20.38
1977-78	172,232	16.91	5.03	2.94	24.88
1978-79	174,802	19.56	6.33	3.38	29.27
1979-80	169,589	20.63	6.79	3.58	30.99
1980-81	172,630	21.31	7.03	3.61	31.95
1981-82	176,750	23.02	7.48	3.83	34.33
1982-83	172,748	24.56	8.29	4.20	37.06
1983-84	179,560	28.98	9.64	4.32	42.94
1984-85	176,330	31.11	10.70	4.76	46.57
1985-86	178,464	31.72	11.24	4.53	47.48
1986-87	176,405	32.40	11.78	4.82	49.01
1987-88	170,738	33.48	12.81	5.16	51.45
1988-89	182,277	39.78	14.93	5.86	60.57
1989-90	182,269	40.52	16.54	6.41	63.47
1990-91	185,742	43.06	17.34	7.15	67.55
1991-92	182,241	44.15	18.22	7.47	69.84
1992-93	185,618	45.40	15.32	4.76	65.48
1993-94	186,595	47.10	14.31	4.87	66.27
1994-95	188,053	50.56	15.59	5.98	72.13
1995-96	187,471	52.40	15.46	6.17	74.02
1996-97	189,502	54.36	15.71	5.43	75.50
1997-98	189,988	57.38	20.60	7.22	85.20
1998-99	191,649	59.24	21.46	6.95	87.65
1999-00	188,396	61.53	25.47	8.91	95.91
2000-01	185,340	58.92	22.74	8.46	90.12
2001-02	188,014	60.16	23.31	8.87	92.33
2002-03	173,889	60.23	23.11	9.21	92.55
2003-04	189,661	58.40	21.75	8.43	88.57
2004-05	191,103	61.30	24.20	10.78	96.27
2005-06	192,737	66.01	27.00	12.52	105.53
2006-07	192,381	71.59	28.81	12.14	112.54
2007-08	195,223	73.86	28.25	13.50	115.61
2008-09	195,328	77.26	33.31	16.96	127.53
2009-10	189,118	82.35	38.45	19.20	140.00
2010-11*	197,683	83.76	40.72	17.78	142.26
2011-12*	195,796	88.36	40.42	13.15	141.93
2012-13*	194,246	86.60	34.25	10.61	131.46
2013-14*	200.951	83.35	28.03	10.44	121.83
2014-15*	198,378	85.44	30.74	12.77	128.95
2015-16*	197,054	88.16	35.42	12.19	135.76
2016-17*	200,203	83.59	33.49	12.53	129.62
2017-18*	199,988	84.80	34.27	13.90	132.97
2018-19*	201,179	87.67	34.35	13.32	135.34
2019-20*	211,359	90.37	36.25	12.33	138.96
2020-21*	216,107	94.42	41.54	14.59	150.55
2021-22*	N.A.	89.95	36.23	11.70	137.88
2022-23*	N.A.	93.50	36.66	7.94	138.10

Note : 1.*: Provisional, 2. Figures of consumption and gross cropped area refer to the same year, except last three years, where gross cropped area is for the year 2015-16, 3. N.A.: Not available

Source : *Fertiliser Statistics 2022-23*, The Fertiliser Association of India, New Delhi.

Table 2.6: State-wise estimated consumption of plant nutrients per unit of gross cropped area

(kg/ha)

Zone/State	2021-22				2022-23			
	N	P_2O_5	K_2O	Total	N	P_2O_5	K_2O	Total
EAST & NORTH EAST	**87.20**	**35.50**	**16.80**	**139.50**	**90.00**	**36.30**	**14.60**	**140.90**
Arunachal Pradesh	N.A.	N.A.	N.A.	N.A.	1.10	N.A.	N.A.	1.10
Assam	45.90	12.40	9.00	67.30	45.80	12.70	7.40	65.80
Bihar	159.60	48.70	13.80	222.10	163.50	50.40	11.30	225.20
Jharkhand	78.70	29.50	3.70	111.90	76.70	26.20	2.50	105.40
Manipur	23.40	6.50	0.30	30.20	37.10	10.00	5.60	52.70
Meghalaya	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Mizoram	6.00	0.10	N.A.	6.10	23.60	2.90	0.20	26.60
Nagaland	0.50	N.A.	N.A.	0.50	0.50	0.002	N.A.	0.50
Odisha	73.00	35.00	13.90	121.90	72.50	31.50	8.30	112.40
Tripura	23.20	12.80	3.70	39.70	19.70	9.40	3.30	32.30
West Bengal	78.00	43.60	29.50	151.20	83.40	46.90	27.90	158.20
NORTH	**148.30**	**43.20**	**7.20**	**198.70**	**150.00**	**43.60**	**4.40**	**198.00**
Haryana	160.30	42.10	6.90	209.30	159.20	43.80	3.70	206.70
Himachal Pradesh	42.60	10.20	9.50	62.30	43.20	12.10	9.00	64.40
Jammu & Kashmir	75.40	19.10	11.50	106.00	72.60	19.30	9.10	101.10
Punjab	200.90	45.40	7.70	254.00	190.40	47.10	3.70	241.20
Uttar Pradesh	138.20	45.60	6.90	190.70	144.30	45.10	4.40	193.90
Uttarakhand	105.10	24.50	6.80	136.40	105.40	29.30	3.80	138.50
Delhi	219.10	29.40	2.70	251.20	233.20	42.30	2.40	277.80
SOUTH	**103.90**	**47.70**	**21.10**	**172.70**	**107.10**	**48.70**	**14.70**	**170.60**
Andhra Pradesh	136.20	68.40	24.90	229.50	144.70	74.10	20.00	238.80
Telangana	130.30	50.00	12.70	193.00	140.50	53.20	8.20	202.00
Karnataka	83.00	43.60	20.50	147.00	83.20	41.90	13.00	138.10
Kerala	30.50	12.30	21.90	64.70	28.70	11.40	20.00	60.10
Tamil Nadu	109.80	44.60	29.10	183.50	106.00	44.50	19.50	170.00
Puducherry	316.90	72.50	38.90	428.30	346.90	72.30	24.10	443.40
Andaman & Nicobar Islands	7.10	10.10	N.A.	17.10	3.70	5.00	2.00	10.70
WEST	**59.70**	**28.90**	**8.50**	**97.10**	**64.40**	**29.00**	**4.90**	**98.30**
Gujarat	82.50	26.00	6.90	115.50	91.10	26.90	5.00	123.00
Madhya Pradesh	54.50	29.80	4.40	88.70	60.80	30.50	2.50	93.80
Chhattisgarh	79.60	41.10	12.00	132.70	81.30	37.00	6.10	124.30
Maharashtra	64.00	40.60	21.20	125.80	64.10	37.30	11.90	113.30
Rajasthan	44.70	15.90	1.20	61.70	50.60	18.90	0.50	70.00
Goa	10.30	5.00	6.30	21.60	8.60	6.00	4.30	18.90
Daman & Diu	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Dadra & Nagar Haveli	110.60	49.60	N.A.	160.20	136.60	44.20	N.A.	184.60
All India	**89.90**	**36.20**	**11.70**	**137.90**	**93.50**	**36.70**	**7.90**	**138.10**

Note : 1. Consumption of Plant Nutrients/ hectare have been worked out on the basis of gross cropped area available for the year 2020-21; 2. N.A.: Not Available

Source : *Fertiliser Statistics 2022-23*, The Fertiliser Association of India, New Delhi.

Table 2.7: All India production of straight nitrogenous fertilisers during 1978-79 to 2022-23 (April-March)

('000 t)

Year	Ammonium sulphate (20.6% N)	Ammonium sulphate nitrate (26% N)	Urea** (46%N)	Calcium ammonium nitrate (25% N)	Ammonium chloride (25% N)	Total	
						Nutrient* N (straight)	Product
1978-79	508.6	N.A.	3,306.0	558.3	17.9	1,769.8	4,391.3
1979-80	479.3	N.A.	3,513.5	465.3	12.7	1,834.5	4,470.8
1980-81	436.2	N.A.	3,384.2	347.4	18.9	1,758.7	4,186.7
1981-82	443.2	N.A.	5,384.3	403.8	18.9	2,673.8	6,250.3
1982-83	477.7	N.A.	6,019.9	290.0	37.2	2,938.8	6,824.8
1983-84	424.8	N.A.	6,073.8	326.4	61.6	2,973.5	6,886.6
1984-85	454.0	N.A.	6,687.9	409.2	77.2	3,291.7	7,629.0
1985-86	518.9	N.A.	7,467.3	381.1	103.8	3,663.1	8,471.1
1986-87	534.4	N.A.	9,576.6	389.5	92.3	4,635.8	10,592.8
1987-88	538.7	N.A.	9,834.8	421.3	87.2	4,763.7	10,882.0
1988-89	610.1	N.A.	11,867.1	480.2	96.7	5,728.8	13,054.1
1989-90	586.2	N.A.	12,486.0	425.2	79.9	5,990.6	13,577.3
1990-91	557.5	N.A.	12,835.9	435.9	78.8	6,148.0	13,908.1
1991-92	553.5	N.A.	12,831.3	446.3	112.5	6,156.1	13,943.6
1992-93	563.2	N.A.	13,125.9	545.5	122.2	6,320.9	14,356.8
1993-94	620.3	N.A.	13,150.2	666.2	131.4	6,376.3	14,568.1
1994-95	584.8	N.A.	14,137.1	571.9	136.5	6,800.6	15,430.3
1995-96	634.5	N.A.	15,805.6	491.1	138.9	7,558.8	17,070.1
1996-97	665.6	N.A.	15,628.7	388.5	122.1	7,454.0	16,804.9
1997-98	561.5	N.A.	18,594.5	437.7	110.4	8,806.1	19,704.1
1998-99	550.6	N.A.	19,292.2	466.4	63.4	9,120.3	20,372.6
1999-00	592.4	N.A.	19,807.7	318.2	87.5	9,335.0	20,805.8
2000-01	593.4	N.A.	19,623.8	246.5	102.4	9,236.4	20,566.1
2001-02	574.7	N.A.	19,003.1	180.7	81.5	8,925.4	19,840.0
2002-03	544.4	N.A.	18,621.2	173.3	78.9	8,740.9	19,417.8
2003-04	600.7	N.A.	19,038.3	141.2	77.8	8,936.1	19,858.0
2004-05	615.9	N.A.	20,239.2	184.4	82.4	9,503.6	21,121.9
2005-06	619.3	N.A.	20,085.1	172.8	79.8	9,429.9	20,957.0
2006-07	634.8	N.A.	20,271.2	144.3	74.4	9,510.2	21,124.7
2007-08	483.1	N.A.	19,838.8	134.6	N.A.	9,259.0	20,456.5
2008-09	554.8	N.A.	19,923.2	138.5	N.A.	9,313.6	20,616.5
2009-10	620.8	N.A.	21,120.7	102.7	N.A.	9,869.1	21,844.2
2010-11	637.0	N.A.	21,872.5	98.7	23.1	10,223.0	22,631.3
2011-12	595.4	N.A.	21,992.3	115.0	78.4	10,287.4	22,781.1
2012-13	573.2	N.A.	22,586.6	106.9	50.1	10,547.2	23,316.8
2013-14	624.1	N.A.	22,718.7	44.4	7.7	10,592.2	23,394.9
2014-15	581.5	N.A.	22,592.9	N.A.	40.4	10,522.5	23,214.8
2015-16	560.1	N.A.	24,461.3	N.A.	45.6	11,379.0	25,067.0
2016-17	623.3	N.A.	24,200.8	N.A.	40.8	11,272.8	24,873.9
2017-18	688.7	N.A.	24,026.0	N.A.	43.0	11,204.6	24,757.7
2018-19	658.4	N.A.	23,899.2	N.A.	52.2	11,142.3	24,609.8
2019-20	793.7	N.A.	24,455.2	N.A.	42.8	11,423.6	25,291.7
2020-21	847.9	N.A.	24,603.1	N.A.	17.7	11,496.5	25,468.7
2021-22	750.3	N.A.	25,075.7	N.A.	37.4	11,698.7	25,863.4
2022-23	857.9	N.A.	28,495.3	N.A.	55.4	13,298.4	29,408.6

Note : 1. *: For agricultural purposes only, 2. **: Net production of saleable urea. Excludes urea used for manufacture of complex fertilisers, 3. N.A.: Not available.

Source : *Fertiliser Statistics 2022-23*, The Fertiliser Association of India, New Delhi.

Table 2.8: All India production of straight phosphates during 1977-78 to 2022-23 (April-March)

('000 t)

Year	Single super phosphate of grade			Triple super phosphate of grade		Total	
	16 % W.S. P_2O_5	Super phosphate other grades	Nutrient W.S. P_2O_5	46 % W.S. P_2O_5	Nutrient W.S. P_2O_5	Nutrient P_2O_5 (straight)	Product
1977-78	987.6	N.A.	158.0	7.2	3.3	161.3	994.8
1978-79	1,081.3	34.5 #	177.8	19.6	9.0	186.8	1,135.4
1979-80	1,033.1	16.8 #	167.7	22.4	10.3	178.0	1,072.3
1980-81	1,085.0	22.1 #	176.7	41.5	20.0	196.7	1,150.8
1981-82	1,202.6	6.6 #	193.3	48.0	22.1	215.4	1,257.2
1982-83	1,320.6	N.A.	211.3	23.4	10.8	222.1	1,344.0
1983-84	1,491.7	N.A.	238.7	21.1	9.7	248.4	1,512.8
1984-85	1,898.3	N.A.	303.7	10.0	4.6	308.2	1,908.4
1985-86	2,136.1	N.A.	341.8	1.1	0.5	342.3	2,137.2
1986-87	2,006.1	N.A.	321.0	N.A.	N.A.	321.0	2,006.1
1987-88	2,483.5	N.A.	397.4	N.A.	N.A.	397.4	2,483.5
1988-89	2,944.7	N.A.	471.2	N.A.	N.A.	471.2	2,944.7
1989-90	3,137.8	N.A.	502.1	N.A.	N.A.	502.1	3,137.8
1990-91	3,650.3	N.A.	584.0	N.A.	N.A.	584.0	3,650.3
1991-92	2,984.8	N.A.	477.6	N.A.	N.A.	477.6	2,984.8
1992-93	2,329.3	N.A.	372.7	N.A.	N.A.	372.7	2,329.3
1993-94	2,257.2	N.A.	361.2	N.A.	N.A.	361.2	2,257.2
1994-95	3,010.9	13.7 #	483.7	N.A.	N.A.	483.7	3,024.6
1995-96	3,200.2	1.7 #	512.3	N.A.	N.A.	572.3	3,201.9
1996-97	3,187.0	N.A.	509.9	N.A.	N.A.	509.9	3,187.0
1997-98	3,832.5	N.A.	613.2	N.A.	N.A.	613.2	3,832.5
1998-99	3,816.1	N.A.	610.5	N.A.	N.A.	610.5	3,816.1
1999-00	3,532.7	N.A.	565.2	N.A.	N.A.	565.2	3,532.7
2000-01	2,742.2	N.A.	438.8	N.A.	N.A.	438.8	2,742.2
2001-02	2,504.6	N.A.	400.7	N.A.	N.A.	400.7	2,504.6
2002-03	2,407.7	N.A.	385.2	N.A.	N.A.	385.2	2,407.7
2003-04	2,543.4	N.A.	406.9	N.A.	N.A.	406.9	2,543.4
2004-05	2,461.1	N.A.	393.8	N.A.	N.A.	393.8	2,461.1
2005-06	2,795.2	N.A.	447.2	N.A.	N.A.	447.2	2,795.2
2006-07	2,972.0	N.A.	475.5	N.A.	N.A.	475.5	2,972.0
2007-08	2,246.3	N.A.	359.4	N.A.	N.A.	359.4	2,246.3
2008-09	2,533.6	N.A.	405.4	N.A.	N.A.	405.4	2,533.6
2009-10	3,093.0	N.A.	494.9	N.A.	N.A.	494.9	3,093.0
2010-11	3,712.8	N.A.	594.0	N.A.	N.A.	594.0	3,712.8
2011-12	4,324.0	N.A.	691.8	N.A.	N.A.	691.8	4,324.0
2012-13	4,434.9	N.A.	709.6	N.A.	N.A.	709.6	4,434.9
2013-14	4,211.6	N.A.	673.8	N.A.	N.A.	673.8	4,211.5
2014-15	4,229.6	N.A.	676.7	N.A.	N.A.	676.7	4,299.6
2015-16	4,329.6	N.A.	692.7	N.A.	N.A.	692.7	4,329.6
2016-17	4,296.8	N.A.	687.5	N.A.	N.A.	687.5	4,296.8
2017-18	3,910.2	N.A.	625.6	N.A.	N.A.	625.6	3,905.9
2018-19	4,076.3	N.A.	652.2	N.A.	N.A.	652.2	4,076.3
2019-20	4,246.7	N.A.	679.5	N.A.	N.A.	679.5	4,246.7
2020-21	4,916.0	N.A.	786.6	N.A.	N.A.	786.6	4,916.0
2021-22	5,351.2	N.A.	856.2	N.A.	N.A.	856.2	5,351.2
2022-23	5,646.2	N.A.	903.4	4.0	1.8	905.2	5,650.2

Note : 1. #: 14% W.S. P_2O_5, 2. ( ): Pelofos, 3. N.A.: Not available.

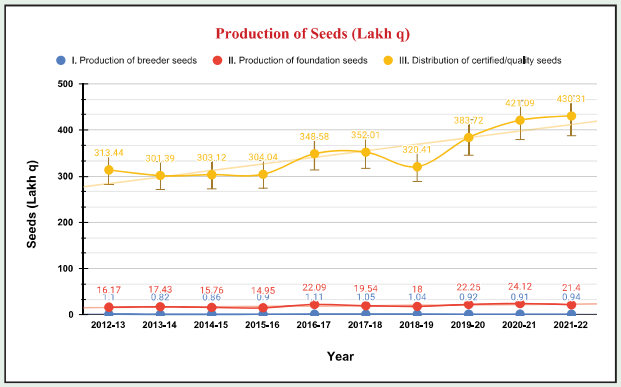
Source : *Fertiliser Statistics 2022-23*, The Fertiliser Association of India, New Delhi.

Table 2.9: Production and use of agricultural inputs in India

Programme	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
1. Seeds (lakh q)										
I. Production of breeder seeds	1.10	0.82	0.86	0.90	1.11	1.05	1.04	0.92	0.91	0.94
II. Production of foundation seeds	16.17	17.43	15.76	14.95	22.09	19.54	18.00	22.25	24.12	21.40
III. Distribution of certified/quality seeds	313.44	301.39	303.12	304.04	348.58	352.01	320.41	383.72	421.09	430.31
2. Consumption of chemical fertilisers (lakh t)										
I. Nitrogenous (N)	168.21	167.50	169.46	173.72	167.35	169.58	176.28	191.00	204.04	194.38
II. Phosphatic (P)	66.53	56.33	60.98	69.79	67.05	68.54	69.68	76.62	89.78	78.28
III. Potassic (K)	20.62	20.99	25.32	24.02	25.08	27.79	27.79	26.07	31.54	25.29
Total (I+II+III)	**255.36**	**244.82**	**255.76**	**267.53**	**259.49**	**265.91**	**273.75**	**293.69**	**325.36**	**297.96**
Per hectare (kg)	130.79	125.39	127.45	131.84	124.41	127.88	132.57	133.44	137.15	N.A.
3. Consumption of pesticides (technical grade material) (000' t)	45.62	60.28	56.12	56.72	58.63	63.41	59.67	61.70	62.19	58.72

Note : N.A.: Not Available

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.



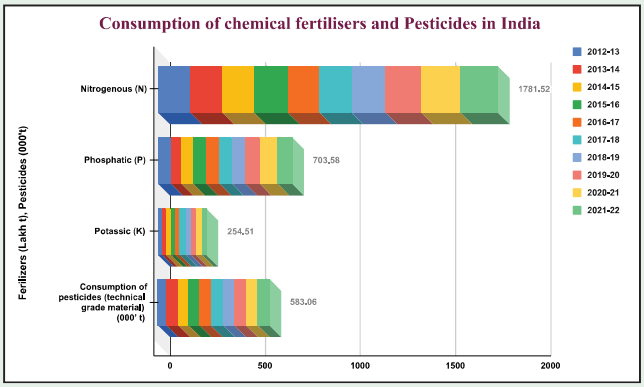


Table 2.10: Maximum retail prices of fertilisers in terms of nutrients (exclusive of Central vat/State sales tax and local taxes) (50 kg. packing)

(₹/kg of nutrient)

Year/effective dates	Maximum sale price of nutrient through					
	Ammonium sulphate (20.6% N)	Urea (46% N)	Calcium ammonium nitrate (25% N)	Diammonium phosphate@ (18% N-46%P_2O_5)	Single super phosphate (16% w.s. P_2O_5)	Muriate of potash (60% K_2O)
Nutrient	**(N)**	**(N)**	**(N)**	**(P_2O_5)**	**(P_2O_5)**	**(K_2O)**
1994-95 Kharif (prior 10-6-94)	N.A	6.00	N.A.	12.65-14.54	11.63-15.50	5.94-6.50
1994-95 w.e.f. 10-6-94	15.44	7.22	N.A.	12.18-14.07	11.63-15.50	5.94-6.50
1994-95 Rabi	15.44	7.22	N.A.	13.58-16.30	13.13-16.88	6.13-6.57
1995-96 Kharif	15.44	7.22	N.A.	16.96-18.48	14.29-17.66	6.03-7.57
1995-96 Rabi	18.45	7.22	N.A.	18.11-19.45	16.25-18.21	7.00-8.00
1996-97 Kharif	19.42	7.22	N.A.	13.64-16.18	13.93-19.25	6.19-7.17
1996-97 Rabi (prior 21-2-97)	19.42	7.22	N.A.	14.92-16.96	16.25-19.25	6.62-7.50
1996-97 Rabi w.e.f. 21-2-97)	19.42	7.96	N.A.	14.63-16.67	16.25-19.25	6.17
1997-98	19.42-20.39	7.96	N.A.	14.93	15.63-18.75	6.17
1998-99 Kharif (prior 29-1-99)	20.39-21.36	7.96	24.00#	14.93	15.63-18.75	6.17
1998-99 (w.e.f. 29-1-99)	20.39-21.37	8.70	24.00#	14.64	15.63-18.75	6.17
1999-2000 (prior 29-2-2000)	22.82-24.51	8.70	24.00#	14.64	15.63-18.75	6.17
1999-2000 (w.e.f. 29-2-2000)	22.82-24.52	10.00	24.00#	15.43	15.63-18.75	7.09
2000-01	23.54-24.51	10.00	32.00#	15.43	15.63-21.88	7.09
2001-02 (w.e.f. Feb 02)	24.07-26.33	10.50	32.00#	16.22	15.63-21.88	7.43
2002-03 (w.e.f. Feb 03)	25.58-27.45	11.02	36.00#	16.45	16.28-21.88	7.76
2002-03 (w.e.f. 12-3-03)	25.58-27.46	10.50	36.00#	16.22	16.25-21.88	7.43
2003-04	25.97-27.79	10.50	36.00#	16.22	16.25-23.94	7.43
2004-05	26.46-28.76	10.50	24.80-40.00	16.22	16.25-23.38	7.43
2005-06	28.28-30.22	10.50	25.93-31.70	16.22	16.25-26.88	7.43
2006-07	30.95-32.65	10.50	28.08-33.50	16.22	16.88-26.88	7.43
2007-08	32.65-48.83	10.50	31.58-36.10	16.22	16.88-26.88	7.43
2008-09	50.24[d]	10.50*	37.38-44.80	16.22	21.25[e]	7.43
2009-10	50.24[d]	10.50*	39.28-44.80	16.22	21.25[f]	7.43
2010-11	38.89-42.23[$]	11.54*	40.42-49.60	17.11-18.85[$]	20.00[$]	8.43[$]
2011-12	38.89-68.45[$]	11.54*	43.56-51.60	18.85-39.61[$]	20.00-39.29[$]	10.00-20.13[$]
2012-13	47.57-53.46[$]	11.65[a]*	52.86-62.00	47.62[$]	43.78[$]	28.33[$]
2013-14	53.91-56.74[$]	11.65*	N.A.	44.35[$]	41.43[$]	26.67[$]
2014-15	59.93-65.78[$]	11.65*	N.A.	46.96[$]	47.54[$]	27.50[$]
2015-16	58.25-61.89[$]	11.65*	N.A.	48.70[$]	46.76[$]	26.67[$]
2016-17	58.25-61.89[$]	11.65*	N.A.	43.27[$]	45.16[$]	18.33[$]
2017-18	62.92[$]	11.65*	N.A.	43.54[$]	45.44[$]	19.97[$]
2018-19	60.38[$]	11.65*	N.A.	54.14[$]	48.47[$]	26.67[$]
2019-20	61.91[$]	11.65*	N.A.	47.61[$]	49.05[$]	31.67[$]
2020-21	61.80[$]	11.65*	N.A.	47.61[$]	51.56[$]	29.17[$]
2021-22	77.94[$]	11.65**	N.A.	47.61[$]	46.88[$]	32.50[$]
2022-23	94.00[$]	11.65**	N.A.	54.14[$]	53.13[$]	56.67[$]

Note : 1. @: P_2O_5 prices of DAP worked out after deducting proportionate price of N (through urea) from prices of DAP, 2. #: inclusive of all taxes, 3. d: w.e.f. July 01, 2008, 4. *: GOI allowed the manufacturers of Neem Coated Urea to charge 5% extra on basic MRP of urea. MRP of Neem Coated Urea in Rs. 12.23 per kg. N, 5. e: w.e.f. May 1, 2008, 6. f: upto September 30, 2009. W.e.f. October 1, 2009 GOI has decided to leave the selling prices of SSP open, 7. a: w.e.f. November 01, 2012, 8. $: Nutrient Based Subsidy (NBS) on P&K fertiliser and A/S was introduced w.e.f. April 1, 2010. Under NBS, retail prices are market determined and announced by the individual companies. The prices shown for 2010-11 to 2018-19 are indicative average prices. The prices for 2017-18 and 2018-19 are inclusive of GST.

Source : *Fertiliser Statistics 2022-23*, The Fertiliser Association of India, New Delhi.

Table 2.11: State-wise consumption of pesticides (Technical Grade) in India

(Mt)

States/Union Territories	2015-16	2016-17	2017-18	2018-19	2019-20	2020-2021	2021-22
Andaman and Nicobar Islands	NR	NR	NR	NR	NR	1.42	NR
Andhra Pradesh	2713	2015	1738.00	1689.00	1558.63	1558.63	1759.26
Arunachal Pradesh	17	18	N.A	4.60	4.95	1.95	1.40
Assam	NA	306	240.50	256.05	410.39	419.50	474.18
Bihar	831	790	840.00	850.00	850.00	995.00	850.00
Chhattisgarh	1625	1660	1685.00	1770.00	1672.00	1639.00	1740.00
Delhi	NR	NR	NR	110.00	NR	NR	NR
Goa	48	22	24.06	25.33	30.00	30.22	32.40
Gujarat	1980	1713	1692.00	1608.00	1784.00	1573.00	1869.00
Haryana	NA	4050	4025.00	4015.00	4200.00	4050.00	4066.00
Himachal Pradesh	450	341	467.00	322.40	881.20	56.39	278.99
Jammu and Kashmir	2251	2188	2429.91	2458.69	2198.00	3352.00	4086.32
Jharkhand	493	541	618.76	646.40	681.00	1161.00	450.00
Karnataka	1434	1288	1502.00	1524.00	1568.00	1930.00	2224.00
Kerala	1123	895	1067.50	994.72	656.40	585.27	531.72
Madhya Pradesh	732	694	502.00	540.00	540.00	691.00	654.00
Maharashtra	11665	13496	15568.00	11746.00	12783.00	13243.00	13175.00
Manipur	30	33	26.85	NR	25.10	45.55	NR
Meghalaya	NR	#	#	#	#	#	#
Mizoram	NR	9	NR	26.01	27.44	NR	28.64
Nagaland	20	20	20.00	21.00	19.00	36.00	40.97
Odisha	723	1050	1633.00	1609.00	1115.00	1158.41	1239.93
Puducherry	43	43	43.33	42.31	40.00	NR	NR
Punjab	5743	5843	5835.00	5543.00	4995.00	5193.00	5376.00
Rajasthan	2475	2269	2307.00	2290.00	2088.00	2330.00	2104.00
Sikkim	NR.	#	#	#	#	#	#
Tamil Nadu	2096	2092	1929.00	1901.00	2225.00	1834.00	1851.00
Telangana	2950	3436	4865.74	4894.00	4915.00	4986.00	4920.00
Tripura	293	298	329.68	349.12	364.00	NR	NR
Uttar Pradesh	10457	10614	10824.00	11049.00	12217.00	11557.00	11688.00
Uttarakhand	217	198	210.41	195.28	223.77	135.48	213.24
West Bengal	3712	2624	2982.05	3190.02	3630.02	3629.80	3630.02
Total	**54121**	**58546**	**63406**	**59670**	**61702**	**62193**	**63284**

Note : 1. NR: Not Reported, 2. #: Organic State.

Source : *Statistical Database*, Directorate of Plant Protection, Quarantine and Storage, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India (http://ppqs.gov.in/statistical- database)

Table 2.12: Zone-wise Consumption of Fertilisers in Terms of Nutrients (N, P & K)

('000 t)

Zone	2020-2021				2021-2022			
	N	P	K	Total	N	P	K	Total
East Zone	2577.38	1213.64	676.89	**4467.91**	2449.35	1021.37	474.84	**3945.56**
North Zone	6849.18	2207.43	380.80	**9437.41**	6612.84	1926.39	320.28	**8859.51**
North-East Zone	194.92	63.65	53.43	**312.00**	200.84	57.14	36.87	**294.85**
South Zone	4230.34	2090.83	1079.49	**7400.66**	4114.18	1888.29	833.75	**6836.22**
West Zone	6552.16	3402.41	963.09	**10917.66**	6061.11	2935.29	863.71	**9860.11**
All India	20403.98	8977.96	3153.7	**32535.64**	19438.32	7828.48	2529.45	**29796.25**

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.

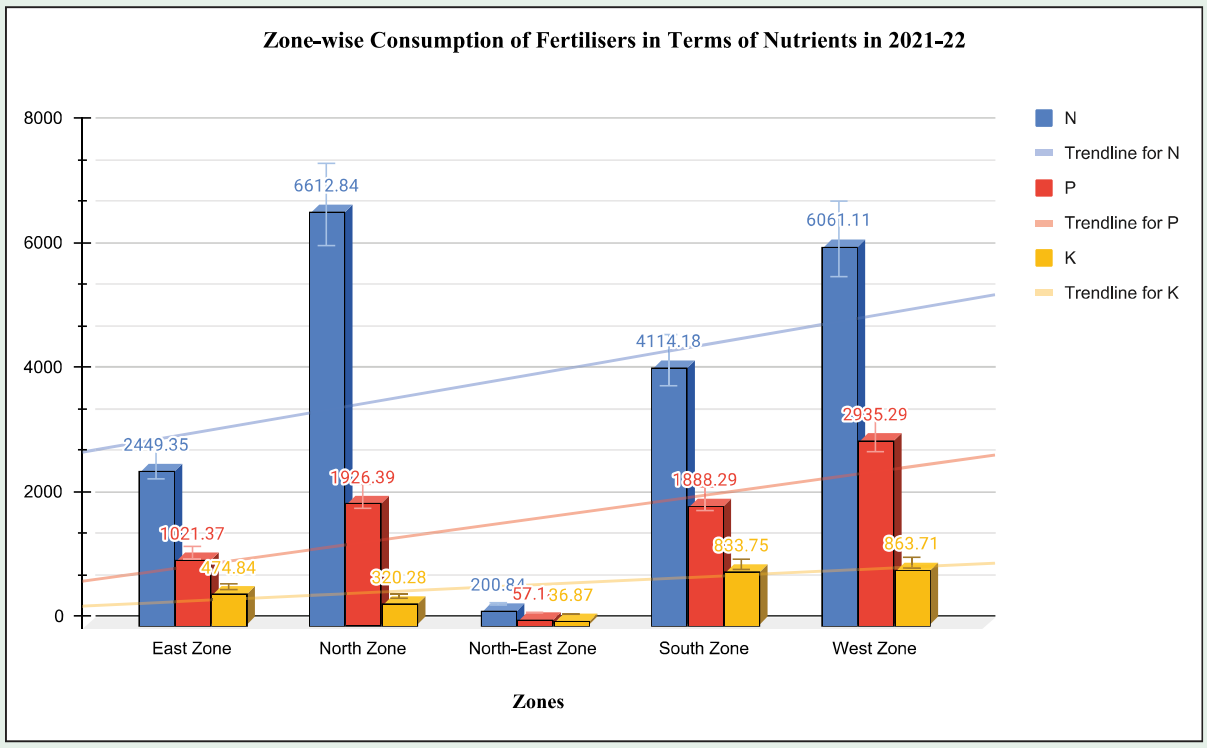


Table 2.13: State-wise area coverage under micro irrigation in India during 2019 and 2020

(Area in Ha.)

States	As on 31.03.2021			As on 31.03.2022		
	Drip	Sprinkler	Total	Drip	Sprinkler	Total
Andhra Pradesh	1388126	519165	1907291	1400780	521165	1921945
Arunachal Pradesh	4017	3494	7511	6245	4275	10520
Assam	4208	16217	20425	7603	25671	33274
Bihar	13763	106979	120742	15834	106995	122829
Chattisgarh	31311	331283	362594	35600	345634	381234
Goa	1386	1346	2732	1386	1346	2732
Gujarat	865959	764933	1630892	921010	788672	1709682
Haryana	40018	600461	640479	43868	639656	683524
Himachal Pradesh	7934	6403	14337	7934	6403	14337
Jammu & Kashmir	1779	280	2059	1780	293	2073
Jharkhand	25686	17713	43399	30056	18211	48267
Karnataka	788981	1304281	2093262	824916	1604399	2429315
Kerala	24168	9096	33264	24360	9289	33649
Madhya Pradesh	330335	258600	588935	357328	301497	658825
Maharashtra	1349979	576325	1926304	1414185	625598	2039783
Manipur	358	7039	7397	358	9933	10291
Meghalaya	308	307	615	308	307	615
Mizoram	5551	1744	7295	5914	1808	7722
Nagaland	3589	6210	9799	8040	7277	15317
Odisha	29425	115396	144821	32354	142798	175152
Punjab	36416	14055	50471	37682	16508	54190
Rajasthan	287619	1730876	2018495	318742	1777985	2096727
Sikkim	6667	7943	14610	7006	10518	17524
Tamil Nadu	805282	348010	1153292	867898	387723	1255621
Telangana	203279	74871	278150	222603	91085	313688
Tripura	444	1651	2095	2304	3204	5508
Uttar Pradesh	41273	227897	269170	57963	245138	303101
Uttrakhand	12737	10300	23037	14941	11796	26737
West Bengal	10347	92984	103331	10437	107259	117696
All India	**6320945**	**7155859**	**13476804**	**6679434**	**7812443**	**14491877**

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.

Table 2.14: Flow of institutional credit in agriculture sector

(million ₹)

Item	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Production (Short term) credit								
Co-operative Banks	1438030	1318800	1361020	1427500	1482870	1792670	2290930	1640340
Regional Rural Banks	1015790	1050010	1197900	1256540	1380690	1563690	1667820	2080580
Commercial Banks	4199300	4525760	4973220	4838050	5387950	5581210	7038040	6423490
Sub-total (A)	**6653120**	**6894570**	**7532140**	**7522090**	**8251510**	**8937570**	**10996790**	**10144410**
Medium/Long term credit								
Co-operative Banks	94920	108780	142190	95910	90800	114150	141270	112450
Regional Rural Banks	176810	182150	214260	240130	272570	336430	373980	395990
Commercial Banks	2230240	3472050	3737580	4710170	5312410	6365830	7121600	5241160
Sub-total (B)	**2501970**	**3762980**	**4094030**	**5046200**	**5675790**	**6816410**	**7636850**	**5749600**
Short term + Medium/Long term credit								
Co-operative Banks	1532950	1427580	1503210	1523400	1573670	1906820	2432200	1752790
Regional Rural Banks	1192600	1232160	1412160	1496670	1653260	1900120	2041800	2476570
Commercial Banks	6429540	7997810	8710800	9548230	10700360	11947040	14159640	11664650
Grand total (A+B)	**9155090**	**10657550**	**11626170**	**12568300**	**13927290**	**15753980**	**18633630**	**15894000**

Note : * Provisional as on 31-01-2023

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.

Table 2.15: State-wise crop area insured under all insurance schemes

(lakh ha)

States/ Union Territories	2018-19			2019-20			2020-21		
	Gross Area Sown*	Area Insured	% of Area Insured	Gross Area Sown*	Area Insured	% of Area Insured	Gross Area Sown*	Area Insured	% of Area Insured
Andhra Pradesh	74.18	18.89	25.47	74.18	19.87	26.79	74.18	N.A.	N.A.
Andaman & Nicobar Islands	0.44	0.01	1.26	0.44	0.00	0.14	0.44	0.00	0.59
Arunachal Pradesh	3.13	N.A.	N.A.	3.13	N.A.	N.A.	3.13	N.A.	N.A.
Assam	40.87	0.49	1.20	40.87	5.61	13.74	40.87	9.23	22.58
Bihar	76.54	N.A.	N.A.	76.54	N.A.	N.A.	76.54	N.A.	N.A.
Chandigarh	0.01	N.A.	N.A.	0.01	N.A.	N.A.	0.01	N.A.	N.A.
Chhattisgarh	56.73	22.75	40.09	56.73	24.35	42.91	56.73	24.76	43.64
Dadra & Nagar Haveli	0.23	N.A.	N.A.	0.23	N.A.	N.A.	0.23	N.A.	N.A.
Daman & Diu	0.03	N.A.	N.A.	0.03	N.A.	N.A.	0.03	N.A.	N.A.
Delhi	0.57	N.A.	N.A.	0.57	N.A.	N.A.	0.57	N.A.	N.A.
Goa	1.55	0.00	0.18	1.55	0.00	0.09	1.55	0.00	0.01
Gujarat	119.94	26.11	21.77	119.94	29.44	24.54	119.94	N.A.	N.A.
Haryana	64.52	20.55	31.85	64.52	22.50	34.87	64.52	18.85	29.22
Himachal Pradesh	9.59	0.90	9.38	9.59	0.94	9.81	9.59	0.80	8.36
Jammu & Kashmir	11.77	1.11	9.40	11.77	N.A.	N.A.	11.77	N.A.	N.A.
Jharkhand	20.45	6.32	30.93	20.45	6.45	31.54	20.45	N.A.	N.A.
Karnataka	117.79	22.38	19.00	117.79	21.67	18.40	117.79	16.12	13.69
Kerala	25.84	0.43	1.67	25.84	0.37	1.44	25.84	0.44	1.71
Lakshdweep	0.02	N.A.	N.A.	0.02	N.A.	N.A.	0.02	N.A.	N.A.
Madhya Pradesh	242.14	129.30	53.40	242.14	116.50	48.11	242.14	127.22	52.54
Maharashtra	239.47	88.62	37.01	239.47	79.22	33.08	239.47	68.10	28.44
Manipur	4.69	0.01	0.16	4.69	0.03	0.54	4.69	N.A.	N.A.
Meghalaya	3.09	0.01	0.28	3.09	0.00	0.10	3.09	0.00	0.03
Mizoram	1.86	N.A.	N.A.	1.86	N.A.	N.A.	1.86	N.A.	N.A.
Nagaland	5.21	N.A.	N.A.	5.21	N.A.	N.A.	5.21	N.A.	N.A.
Odisha	48.84	14.85	30.41	48.84	18.54	37.96	48.84	11.89	24.35
Puducherry	0.26	0.08	31.52	0.26	0.09	36.07	0.26	0.07	28.82
Punjab	78.04	N.A.	N.A.	78.04	N.A.	N.A.	78.04	N.A.	N.A.
Rajasthan	260.36	77.83	29.89	260.36	96.94	37.23	260.36	113.67	43.66
Sikkim	1.46	0.00	0.07	1.46	0.00	0.00	1.46	0.00	0.01
Tamil Nadu	51.29	14.16	27.62	51.29	14.20	27.70	51.29	17.01	33.18
Telangana	59.70	9.92	16.62	59.70	11.35	19.01	59.70	N.A.	N.A.
Tripura	4.91	0.00	0.06	4.91	0.06	1.24	4.91	0.30	6.17
Uttar Pradesh	269.49	51.34	19.05	269.49	35.56	13.20	269.49	31.53	11.70
Uttarakhand	10.82	1.09	10.07	10.82	1.14	10.50	10.82	9.84	90.97
West Bengal	96.18	17.67	18.37	96.18	N.A.	N.A.	96.18	N.A.	N.A.
Total	**2002.03**	**524.84**	**26.22**	**2002.03**	**504.84**	**25.22**	**2002.03**	**449.86**	**22.47**

Note : 1. Latest data for Gross Area Sown (also known as Gross Cropped Area) is available till 2016-17 and the same has been used for 2016-17 to 2020-21 for estimation purpose, 2. N.A.: Not Available.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India.

भाग-III
पशुपालन, डेरी उद्योग एवं मात्स्यिकी

SECTION-III
Animal Husbandry, Dairying and Fisheries

भाकृअनुप
ICAR

Table 3.1: Livestock and poultry population in India

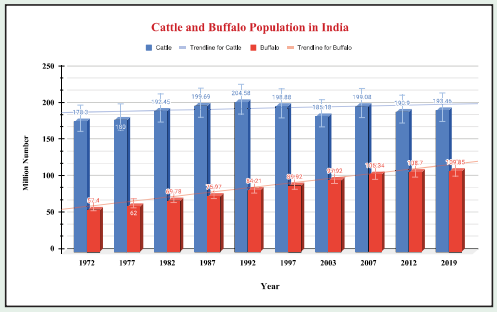
(Million Numbers)

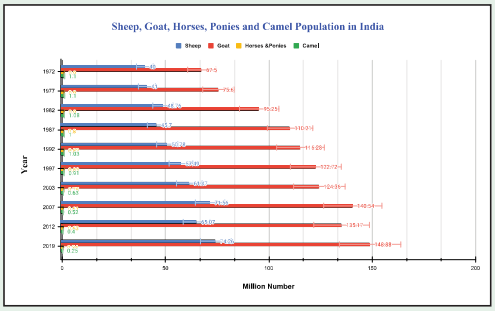
Species	1972	1977	1982	1987	1992	1997	2003	2007	2012	2019
Cattle	178.30	180.00	192.45	199.69	204.58	198.88	185.18	199.08	190.90	193.46
Buffalo	57.40	62.00	69.78	75.97	84.21	89.92	97.92	105.34	108.70	109.85
Sheep	40.00	41.00	48.76	45.70	50.78	57.49	61.47	71.56	65.07	74.26
Goat	67.50	75.60	95.25	110.21	115.28	122.72	124.36	140.54	135.17	148.88
Horses &Ponies	0.90	0.90	0.90	0.80	0.82	0.83	0.75	0.61	0.63	0.34
Camel	1.10	1.10	1.08	1.00	1.03	0.91	0.63	0.52	0.40	0.25
Pig	6.90	7.60	10.07	10.63	12.79	13.29	13.52	11.13	10.29	9.06
Mule	0.08	0.09	0.13	0.17	0.19	0.22	0.18	0.14	0.20	0.08
Donkey	1.00	1.00	1.02	0.96	0.97	0.88	0.65	0.44	0.32	0.12
Yak/Mithun	0.04	0.13	0.13	0.04	0.06	0.06	0.06	0.08	0.08	0.06
Total livestock	**353.60**	**369.00**	**419.59**	**445.29**	**470.86**	**485.39**	**485.00**	**529.70**	**512.06**	**536.76**
Poultry (Chicken & Duck)	138.50	159.20	207.74	275.32	307.07	347.61	489.01	648.83	729.21	851.81
Dog	NC	NC	18.54	17.95	21.77	25.48	16.51	19.09	11.67	9.43
Rabbit	NC	NC	NC	NC	NC	NC	0.48	0.42	0.59	0.55

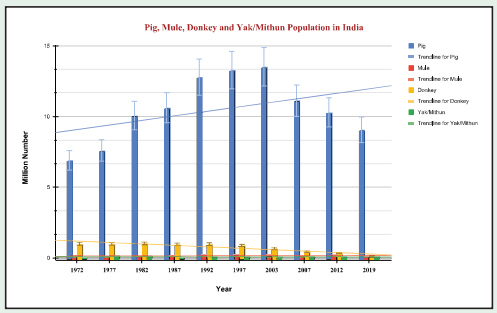
Note : 1. NC: Not collected, 2. Totals may not tally due to rounding off the figures, 3. Total livestock: Cattle + Buffalo + Yaks + Mithun + Sheep + Goats + Horses & Ponies + Mules + Donkeys + Camels + Pigs.

Source : 1. *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

2. *Agricultural Statistics at a Glance 2021*, Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare Ministry of Agriculture & Farmers Welfare, Govt. of India.







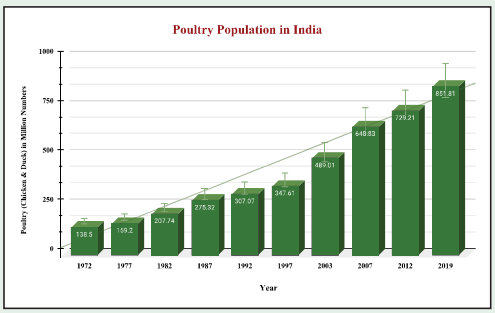


Table 3.2: Growth Pattern of Livestock and Poultry Population in India

Species	Compound Annual Growth Rate (% Change)										
	1961-66	1966-72	1972-77	1977-82	1982-87	1987-92	1992-97	1997-03	2003-07	2007-12	2012-19
Cattle	0.34	1.19	0.95	6.92	3.76	2.45	-2.79	-6.89	7.50	-4.10	1.34
Buffaloes	3.52	8.30	8.01	12.55	8.87	10.85	6.78	8.90	7.58	3.19	1.06
Sheep	5.47	-5.66	2.50	18.93	-6.28	11.12	13.21	6.92	16.41	-9.07	14.13
Goats	6.08	4.49	12.00	25.99	15.71	4.60	6.45	1.34	13.01	-3.82	10.14
Horses & Ponies	-15.38	-18.18	0.00	0.00	-11.11	2.50	1.22	-9.64	-18.60	2.12	-45.22
Camels	11.11	10.00	0.00	-1.82	-7.41	3.00	-11.65	-30.77	-18.20	-22.63	-37.05
Pigs	-3.85	38.00	10.14	32.50	5.56	20.32	3.91	1.73	-17.66	-7.54	-12.03
Mules	60.00	0.00	12.50	44.44	30.77	11.76	15.79	-18.18	-22.10	43.07	-57.09
Donkeys	0.00	-9.09	0.00	2.00	-5.88	1.04	-9.28	-26.14	-32.62	-27.17	-61.23
Yak	50.00	33.33	225.00	0.00	-69.23	50.00	0.00	0.00	28.00	-7.64	-24.90
Total livestock	**2.59**	**2.76**	**4.36**	**13.71**	**6.13**	**5.74**	**3.09**	**-0.08**	**9.22**	**-3.33**	**4.82**
Poultry	1.05	20.02	14.95	30.49	32.53	11.53	13.20	40.68	32.68	12.39	16.81
Dog	N.A.	N.A.	N.A.	N.A.	-3.18	21.28	17.04	13.92	14.20	-38.85	-19.19

Note : N.A.: Not available.

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in)

Table 3.3: Results of Livestock Census 2012 and 2019 in India

(million number)

I. CATTLE				
Exotic/Crossbred and Indigenous/Non-Descript Cattle Population-Male, Female and Total				
Category		**Population 2012**	**Population 2019**	**% Change**
Exotic/Crossbred				
Male		5.97	3.61	-39.50
Female		33.76	47.75	41.40
Total Exotic/Crossbred		**39.73**	**51.36**	**29.30**
Indigenous/Non-Descript				
Male		61.95	43.94	-29.10
Female		89.22	98.17	10.00
Total Indigenous/Non-Descript		**151.17**	**142.11**	**-6.00**
Total Cattle		**190.90**	**192.52**	**1.30**
In-milk, Dry and Milch Cattle for Exotic/Crossbred and Indigenous/Non-Descript				
Breed Group	**Category**	**Population 2012**	**Population 2019**	**% Change**
Exotic/Crossbred	In-milk	14.30	20.31	42.00
	Dry	5.12	5.77	12.70
	Milch	19.42	26.08	34.30
Indigenous/Non-Descript	In-milk	29.65	31.98	7.90
	Dry	18.47	16.53	-10.50
	Milch	48.12	48.51	0.80
II. BUFFALO				
Category		**Population 2012**	**Population 2019**	**% Change**
Male		16.10	9.28	-42.35
Female		92.60	100.57	8.61
In-milk		36.57	38.16	4.34
Dry		14.48	13.01	-10.19
Milch animals (In Milk + Dry)		51.05	51.17	0.22
Total Buffalo		**108.70**	**109.85**	**1.06**

III. SHEEP			
Category	**Population 2012**	**Population 2019**	**% Change**
Exotic/Crossbred	**3.78**	**4.09**	**8.12**
Exotic/ Crossbred Male	1.21	0.83	-31.32
Exotic/ Crossbred Female	2.57	3.26	26.62
Indigenous/Non-Descript	**61.29**	**70.17**	**14.50**
Indigenous/ Non-Descript Male	13.92	12.53	-9.93
Indigenous/ Non-Descript Female	47.37	57.64	21.67
Total sheep	**65.07**	**74.26**	**14.13**
IV. GOAT			
Category	**Population 2012**	**Population 2019**	**% Change**
Male	37.62	32.1	-14.65
Female	97.56	116.78	19.71
In-milk	36.25	41.83	15.38
Dry	25.31	27.82	9.95
Milch animals (In Milk + Dry)	61.56	69.65	13.15
Total goat	**135.17**	**148.88**	**10.14**
V. PIG			
Category	**Population 2012**	**Population 2019**	**% Change**
Exotic/Crossbred	2.46	1.90	-22.78
Indigenous/Non-Descript	7.84	7.16	-8.66
Total pig	**10.29**	**9.06**	**-12.03**
VI. CAMEL			
Category	**Population 2012**	**Population 2019**	**% Change**
Male	0.19	0.08	-56.40
Female	0.21	0.17	-19.46
Total camel	**0.40**	**0.25**	**-37.05**
VII. HORSES, PONIES, MULES & DONKEYS			
Category	**Population 2012**	**Population 2019**	**% Change**
Horses & Ponies	0.62	0.34	-45.22
Mules	0.20	0.08	-57.09
Donkeys	0.32	0.12	-61.23
Total	**1.14**	**0.55**	**-51.74**

VIII. MITHUN			
Category	**Population 2012**	**Population 2019**	**% Change**
Male	1.30	1.70	33.65
Female	1.70	2.10	26.36
Total mithun	**3.00**	**3.80**	**29.52**
IX. YAK			
Category	**Population 2012**	**Population 2019**	**% Change**
Male	35.11	26.02	-25.88
Female	41.56	31.55	-24.08
Total Yak	**76.66**	**57.57**	**-24.90**
X. POULTRY			
Category	**Population 2012**	**Population 2019**	**% Change**
Backyard poultry	217.49	317.07	45.79
Commercial poultry	511.72	534.74	4.50
Total poultry	**729.21**	**851.81**	**16.81**

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.

Table 3.4: State-wise total number of livestock and poultry during 20th Livestock Census 2019*

States/ Union Territories	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total Livestock	Total Poultry
Andaman & Nicobar Islands	36438	3700	5	64761	40488	0	0	2	0	0	0	145394	1289160
Andhra Pradesh	4600087	6219499	17626971	5522133	91958	1884	240	4678	166	0	0	34067616	107863152
Arunachal Pradesh	339221	6379	7345	159740	271463	3051	0	0	0	24075	350154	1161428	1599575
Assam	10909239	421715	332100	4315173	2099000	12783	724	900	567	0	0	18092201	46712341
Bihar	15397980	7719794	213377	12821216	343434	32176	1491	11264	88	0	0	36540820	16525349
Chandigarh	13440	12177	0	998	138	237	0	0	0	0	0	26990	48883
Chhattisgarh	9983954	1174722	180229	4005657	526901	675	21	142	1	0	0	15872302	18711824
D&N Haveli	39736	997	84	7548	0	39	0	0	0	0	0	48404	89671
Daman & Diu	1840	374	68	987	0	15	0	0	0	0	0	3284	18264
Delhi	86433	162142	932	30470	76346	2694	136	1087	157	0	0	360397	43831
Goa	60247	27207	8	9446	35480	15	1	0	2	0	0	132406	349543
Gujarat	9633637	10543250	1787263	4867744	658	21811	5	11286	27620	0	0	26893274	21773392
Haryana	1928682	4368023	288370	334640	108240	9683	2499	800	5154	0	0	7046091	46294965
Himachal Pradesh	1828017	646565	791345	1108413	2477	8851	20415	4797	26	1940	0	4412846	1341951
Jammu And Kashmir	2539240	690829	3247503	1730218	1215	63335	16722	9563	466	26221	12	8325324	7366308
Jharkhand	11223052	1350313	641183	9121173	1276973	1378	73	400	0	0	0	23614545	24832906
Karnataka	8469004	2984560	11050728	6169392	323836	7018	51	8790	33	0	0	29013412	59494481
Kerala	1341996	101504	1482	1359161	103863	560	0	65	26	0	0	2908657	29771905

States/ Union Territories	Cattle	Buffaloes	Sheep	Goats	Pigs	Horses and ponies	Mules	Donkeys	Camel	Yaks	Mithun	Total Livestock	Total Poultry
Lakshadweep	2493	16	0	43188	0	0	0	0	0	0	0	45697	226025
Madhya Pradesh	18750828	10307131	324585	11064524	164616	13260	2543	8135	1753	0	0	40637375	16659898
Maharashtra	13992304	5603692	2680329	10604883	161000	18892	681	17572	465	0	0	33079818	74297765
Manipur	224472	36230	5921	38697	235255	1083	0	2	0	0	9059	550719	5897637
Meghalaya	903570	15714	15679	397503	706364	273	0	0	0	0	0	2039103	5379532
Mizoram	45701	2109	485	14820	292465	159	8	0	0	0	3957	359704	2047810
Nagaland	78296	15654	361	31602	404695	70	0	2	0	0	23123	553803	2838944
Odisha	9903970	458324	1279149	6393452	135162	143	18	83	8	0	0	18170309	27439257
Puducherry	71984	2395	2445	73630	880	29	0	4	1	0	0	151368	235999
Punjab	2531460	4015947	85560	347949	52961	14243	1644	471	120	0	0	7050355	17649984
Rajasthan	13937630	13693316	7903857	20840203	154808	33679	1339	23374	212739	0	0	56800945	14622975
Sikkim	148010	1144	2016	90506	27320	115	0	2	0	5219	0	274332	580864
Tamil Nadu	9518660	518795	4500491	9888746	66772	5417	305	1428	7	0	0	24500621	120781100
Telangana	4232539	4226306	19063058	4934673	177992	3878	91	2031	71	0	0	32640639	79999404
Tripura	739031	7131	5460	360204	206035	17	2	10	2	0	0	1317892	4168246
Uttar Pradesh	19019641	33016785	984725	14480025	408678	75718	8933	16016	2424	0	0	68012945	12515704
Uttarakhand	1852123	866318	284615	1371971	17659	7452	26293	589	15	54	0	4427089	5018684
West Bengal	19077916	630921	952886	16279340	540356	1593	26	94	45	61	0	37483238	77322602
All India	**193462871**	**109851678**	**74260615**	**148884786**	**9055488**	**342226**	**84261**	**123587**	**251956**	**57570**	**386305**	**536761343**	**851809931**

Note : 1. * : Provisional, 2. 0: Negligible with respect to thousands/not reported, 3. Totals may not tally due to rounding up of figures

Source : *Basic Animal Husbandry Statistics 2023*, Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in)

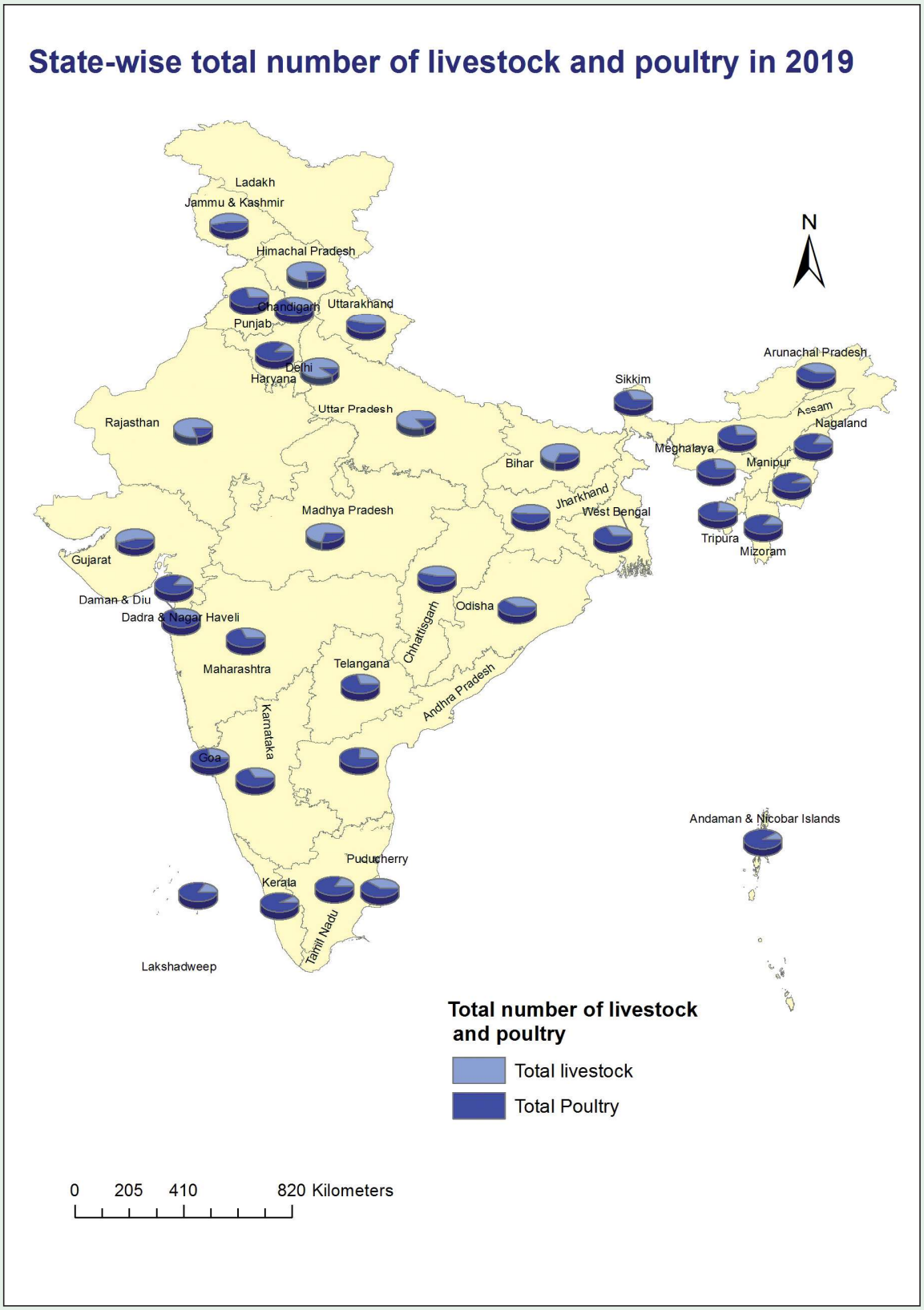

State-wise total number of livestock and poultry in 2019
Ladakh
Jammu & Kashmir
Himachal Pradesh
Chandigarh
Uttarakhand
Punjab
Delhi
Haryana
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Jharkhand
West Bengal
Madhya Pradesh
Tripura
Mizoram
Gujarat
Daman & Diu
Dadra & Nagar Haveli
Odisha
Chhattisgarh
Maharashtra
Telangana
Andhra Pradesh
Karnataka
Goa
Andaman & Nicobar Islands
Puducherry
Kerala
Tamil Nadu
Lakshadweep
N
Total number of livestock and poultry
Total livestock
Total Poultry
0 205 410 820 Kilometers

Table 3.5: State-wise number of Milch animals in 2012 and 2019

States/ Union Territories	Milch Cows						Milch Buffaloes		
	Crossbred			Indigenous					
	2012	2019*	% Change	2012	2019*	% Change	2012	2019*	% Change
Andaman & Nicobar Islands	7254	7870	8.49	8933	6890	-22.87	2129	1088	-48.90
Andhra Pradesh	932404	1078765	15.70	803295	682226	-15.07	3120746	2768832	-11.28
Arunachal Pradesh	8365	2870	-65.69	103978	73665	-29.15	1142	1580	38.35
Assam	158961	297235	86.99	2913811	3063395	5.13	136599	120552	-11.75
Bihar	1647733	2002372	21.52	2873504	4588998	59.70	3112563	3361571	8.00
Chandigarh	4533	5622	24.02	882	1838	108.39	9463	8230	-13.03
Chhattisgarh	71453	115998	62.34	2515320	2719723	8.13	315439	325659	3.24
D&N Haveli	284	488	71.83	7558	2888	-61.79	1087	541	-50.23
Daman & Diu	69	137	98.55	592	568	-4.05	210	248	18.10
Delhi	29644	29644	0.00	12538	12538	0.00	92043	92043	0.00
Goa	9712	15807	62.76	13397	11208	-16.34	15194	12384	-18.49
Gujarat	962841	1838840	90.98	2777362	2384172	-14.16	5078818	5311086	4.57
Haryana	485603	491461	1.21	269004	345087	28.28	2765259	1949410	-29.50
Himachal Pradesh	520863	619693	18.97	372325	266415	-28.45	396495	349950	-11.74
Jammu And Kashmir	664878	703095	5.75	481989	451366	-6.35	396387	380124	-4.10
Jharkhand	125010	269022	115.20	2065720	2824740	36.74	341429	390645	14.41
Karnataka	1732237	2298221	32.67	2200528	1490309	-32.27	1897904	1572196	-17.16
Kerala	604782	635754	5.12	32008	33243	3.86	9230	6683	-27.59
Lakshadweep	319	436	36.68	1021	304	-70.23	0	6	-

States/ Union Territories	Milch Cows						Milch Buffaloes		
	Crossbred			Indigenous					
	2012	2019*	% Change	2012	2019*	% Change	2012	2019*	% Change
Madhya Pradesh	383204	819096	113.75	5930211	5969149	0.66	3911587	4939159	26.27
Maharashtra	2037723	2746228	34.77	3053096	2687441	-11.98	3171475	3179751	0.26
Manipur	17053	7082	-58.47	62134	50355	-18.96	16874	6844	-59.44
Meghalaya	17569	21432	21.99	261024	224658	-13.93	3220	2536	-21.24
Mizoram	5270	8977	70.34	7377	6931	-6.05	1417	549	-61.26
Nagaland	39366	5809	-85.24	26920	9840	-63.45	6441	1767	-72.57
Odisha	528624	702928	32.97	2554719	2237559	-12.41	223539	140382	-37.20
Puducherry	29573	31163	5.38	844	2049	142.77	1309	1665	27.20
Punjab	1134098	1279073	12.78	102786	182720	77.77	2689206	2213034	-17.71
Rajasthan	860111	1197282	39.20	5007316	5134358	2.54	6321761	6590321	4.25
Sikkim	50532	50053	-0.95	4303	10996	155.54	290	401	38.28
Tamil Nadu	3082978	3820044	23.91	913978	685035	-25.05	377550	243865	-35.41
Telangana	220849	290463	31.52	1125111	999343	-11.18	1982037	1922790	-2.99
Tripura	42829	52175	21.82	229745	220960	-3.82	3185	2462	-22.70
Uttar Pradesh	1659780	2951281	77.81	6594960	5589174	-15.25	13949755	14620605	4.81
Uttarakhand	241519	303932	25.84	510018	478235	-6.23	545951	472955	-13.37
West Bengal	1101529	1376454	24.96	4285970	5062896	18.13	155991	174464	11.84
All India	**19419552**	**26076802**	**34.28**	**48124277**	**48511272**	**0.80**	**51053725**	**51166378**	**0.22**

Note : 1. Milch animals include animals in milk and dry, 2. Totals may not tally due to rounding up of figures.

Source : *Basic Animal Husbandry Statistics 2023*, Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in)

Table 3.6: All India production of Fish, Milk, Eggs, Wool and Meat

Year	Fish (lakh t)	Milk (million t)	Eggs (million no.)	Wool (million kg)	Meat (million t)
1984-85	28.01	41.50	14,252	38.00	N.A.
1985-86	28.76	44.00	16,128	39.10	N.A.
1986-87	29.42	46.10	17,310	40.00	N.A.
1987-88	29.59	46.70	17,795	40.10	N.A.
1988-89	31.52	48.40	18,980	40.80	N.A.
1989-90	36.77	51.40	20,204	41.70	N.A.
1990-91	38.36	53.90	21,101	41.20	N.A.
1991-92	41.57	55.70	21,983	41.60	N.A.
1992-93	43.65	58.00	22,929	38.80	N.A.
1993-94	46.44	60.60	24,167	39.90	N.A.
1994-95	47.89	63.80	25,975	40.60	N.A.
1995-96	49.49	66.20	27,198	42.40	N.A.
1996-97	53.48	69.10	27,496	44.40	N.A.
1997-98	53.88	72.10	28,689	45.60	N.A.
1998-99	52.98	75.40	29,476	46.90	1.90
1999-00	56.75	78.30	30,447	47.90	1.90
2000-01	56.56	80.60	36,632	48.40	1.90
2001-02	59.56	84.40	38,729	49.50	1.90
2002-03	62.00	86.20	39,823	50.50	2.10
2003-04	63.99	88.10	40,403	48.50	2.10
2004-05	63.05	92.50	45,201	44.60	2.20
2005-06	65.72	97.10	46,235	44.90	2.30
2006-07	68.69	102.60	50,663	45.10	2.30
2007-08	71.27	107.90	53,583	43.90	4.00
2008-09	76.16	112.20	55,562	42.80	4.20
2009-10	79.98	116.40	60,267	43.10	4.50
2010-11	82.31	121.80	63,024	43.00	4.90
2011-12	86.66	127.90	66,450	44.70	5.50
2012-13	90.40	132.40	69,731	46.10	5.90
2013-14	95.79	137.70	74,752	47.90	6.20
2014-15	102.60	146.31	78,484	48.14	6.69
2015-16	107.62	155.49	82,929	43.58	7.02
2016-17	114.31	165.40	88,137	43.54	7.39
2017-18	125.90	176.35	95,217	41.46	7.66
2018-19	135.73	187.75	1,03,318	40.42	8.11
2019-20	141.64	198.41	1,14,383	36.74	8.60
2020-21	147.25	210.00	1,22,050	36.90	8.79
2021-22	162.48	221.10	1,29,600	33.10	9.29
2022-23	175.45	230.06	1,38,376	33.60	9.77

Note : N.A.: Not available.

Source : 1. *Basic Animal Husbandry Statistics 2023*, Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
2. *Handbook on Fisheries Statistics 2023*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
3. *Agricultural Statistics at a Glance 2020*, Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 3.7: All India estimates of per capita availability of milk and egg during 1984-85 to 2022-23

Year (March to February)	Human Population (million no.)	Per capita availability of milk (g/day)	Per capita availability of egg (number/annum)
1984-85	739	154	19
1985-86	755	160	21
1986-87	771	164	22
1987-88	788	162	23
1988-89	805	165	24
1989-90	822	171	25
1990-91	839	176	25
1991-92	856	178	26
1992-93	872	182	26
1993-94	892	186	27
1994-95	910	192	29
1995-96	928	195	29
1996-97	946	200	29
1997-98	964	205	30
1998-99	983	210	30
1999-00	1001	214	30
2000-01	1019	217	36
2001-02	1040	222	37
2002-03	1056	224	38
2003-04	1072	225	38
2004-05	1089	233	42
2005-06	1106	241	42
2006-07	1122	251	45
2007-08	1138	260	47
2008-09	1154	266	48
2009-10	1170	273	51
2010-11	1186	281	53
2011-12	1210	290	55
2012-13	1212	299	57
2013-14	1228	307	60
2014-15	1244	322	62
2015-16	1260	337	66
2016-17	1275	355	68
2017-18	1290	375	73
2018-19	1305	394	79
2019-20	1334	406	86
2020-21	1349	427	90
2021-22	1363	446	95
2022-23	1376	459	101

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in)

Table 3.8: Species wise incidence of livestock diseases in India during 2022 (January-December)

(Number)

Disease	Species	Outbreak	Attack	Death
Foot & Mouth Disease	Bovine	24	338	29
Haemorrhagic Septicaemia	Bovine	117	517	48
	Buffalo	9	54	1
	Total	**126**	**571**	**49**
Anthrax	Bovine	2	2	2
	Ovine/Caprine	3	6	6
	Total	**5**	**8**	**8**
Sheep & Goat Pox	Ovine/Caprine	8	270	82
Blue Tongue	Bovine	2	15	0
Contagious Caprine Pleuropneumonia	Ovine/Caprine	1	16	16
Salmonellosis	Avian	43	238646	11604
Amphistomiasis	Bovine	3	129	
	Ovine/Caprine	1	75	
	Total	**4**	**204**	**0**
Coccidiosis	Bovine	1	100	0
	Avian	11	7790	269
	Total	**12**	**7890**	**269**
Swine Fever	Swine	17	335	118
Ranikhet Disease	Avian	14	6122	1371
Fowl Pox	Avian	21	6537	844
Marek's Disease	Avian	2	5	5
Infectious Bursal Disease	Avian	25	5715	2763
Coryza	Avian	2	110	0
Chronic Respiratory Disease	Avian	13	23923	2033
Canine Distemper	Canine	3	2518	69
Rabies	Canine	1	6	0
Babesiosis	Bovine	28	191	0
Trypanosomosis	Bovine	22	421	1
Pestedes Petits Ruminants	Ovine/Caprine	17	1099	224
Anaplasmosis	Bovine	25	41	0
Brucelliosis	Bovine	1	59	0
Theileriosis	Bovine	36	387	2
Avian Influenza (Domestic) *	Avian	--	--	--
Glanders #	Equine	4	7	4

Note : * Birds destroyed, # 3 Animal destroyed

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

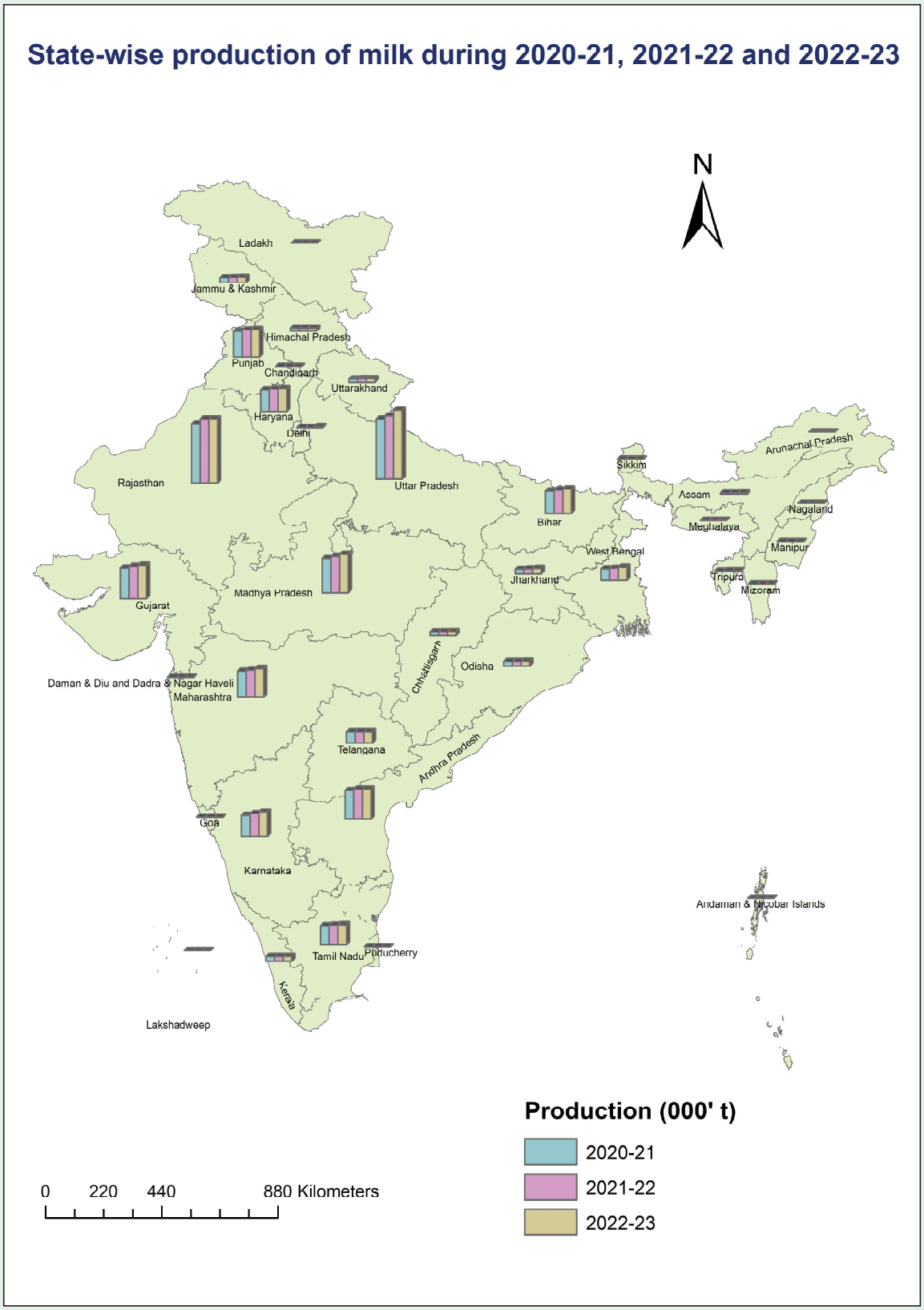

State-wise production of milk during 2020-21, 2021-22 and 2022-23
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
West Bengal
Jharkhand
Tripura
Mizoram
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Daman & Diu and Dadra & Nagar Haveli
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Andaman & Nicobar Islands
Tamil Nadu
Puducherry
Kerala
Lakshadweep
0 220 440 880 Kilometers
Production (000' t)
2020-21
2021-22
2022-23

Table 3.9: State-wise estimates of production of milk and per capita availability of Milk during 2020-21 to 2022-23

(Production: 000't, Per Capita Availability: g/day)

States/Union Territories	Year					
	2020-21		2021-22		2022-23	
	Production	Per Capita Availability	Production	Per Capita Availability	Production	Per Capita Availability
Andhra Pradesh	14713.84	768	15403.08	799	15448.42	799
Arunachal Pradesh	43.89	79	46.01	82	45.54	81
Assam	954.07	75	982.02	77	1006.42	78
Bihar	11501.58	260	12118.50	270	12502.70	274
Chhattisgarh	1747.28	164	1848.35	172	1955.51	180
Goa	60.14	106	63.21	111	64.18	112
Gujarat	15852.69	631	16722.11	656	17280.57	670
Haryana	11283.55	1063	11629.52	1081	11965.79	1098
Himachal Pradesh	1576.44	588	1615.29	599	1617.41	596
Jammu & Kashmir	2594.50	534	2726.79	557	2817.31	572
Jharkhand	2434.02	176	2629.37	187	2774.09	195
Karnataka	10936.44	452	11795.79	483	12829.29	523
Kerala	2533.88	197	2532.46	196	2579.76	198
Madhya Pradesh	17999.30	591	19004.25	616	20122.43	644
Maharashtra	13703.32	305	14304.51	315	15041.86	329
Manipur	71.05	62	75.55	65	71.87	62
Meghalaya	89.14	75	90.23	75	93.51	77
Mizoram	25.38	58	24.59	55	24.48	55
Nagaland	55.93	71	61.07	76	49.57	61
Odisha	2372.81	143	2402.06	144	2476.42	148
Punjab	13393.99	1219	14076.76	1271	14301.45	1283
Rajasthan	30723.11	1075	33264.70	1150	33306.80	1138
Sikkim	73.85	302	86.52	350	86.53	347
Tamil Nadu	9790.36	353	10107.43	362	10316.75	369
Telangana	5765.21	422	5807.78	422	5854.96	423
Tripura	206.17	140	216.96	146	230.12	153
Uttar Pradesh	31359.10	377	33005.02	392	36241.74	426
Uttarakhand	1797.45	437	1856.27	446	1858.55	442
West Bengal	6164.82	173	6414.48	179	6969.40	194
A&N Islands	14.67	101	16.78	115	17.20	117
Chandigarh	52.30	120	57.07	129	56.19	126
Ladakh	14.88	138	26.93	248	30.60	280
Daman & Diu and Dadra & Nagar Haveli	1.40	4	1.66	4	1.80	4
Delhi	N.A.	N.A.	N.A.	N.A.	487.74	64
Lakshadweep	3.81	154	0.42	17	0.41	16
Puducherry	49.50	88	49.97	87	49.65	85
All India	**209959.88**	**427**	**221063.50**	**444**	**230577.03**	**459**

Note : 1. N.A.: Not available, 2. *: Due to non-availability of data previous year estimates have been used, 3. Till 2019-20 Ladakh includes in J&K and Ladakh 2020-21 includes only Winter season data., 4. Till 2019-20 UTs namely D&N Haveli, Daman & Diu were separate UTs but in 2020 both UTs merged and become one i.e., Dadra & Nagar Haveli and Daman & Diu.

Source : *Basic Animal Husbandry Statistics 2022,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

State-wise production of egg during 2020-21, 2021-22 and 2022-23

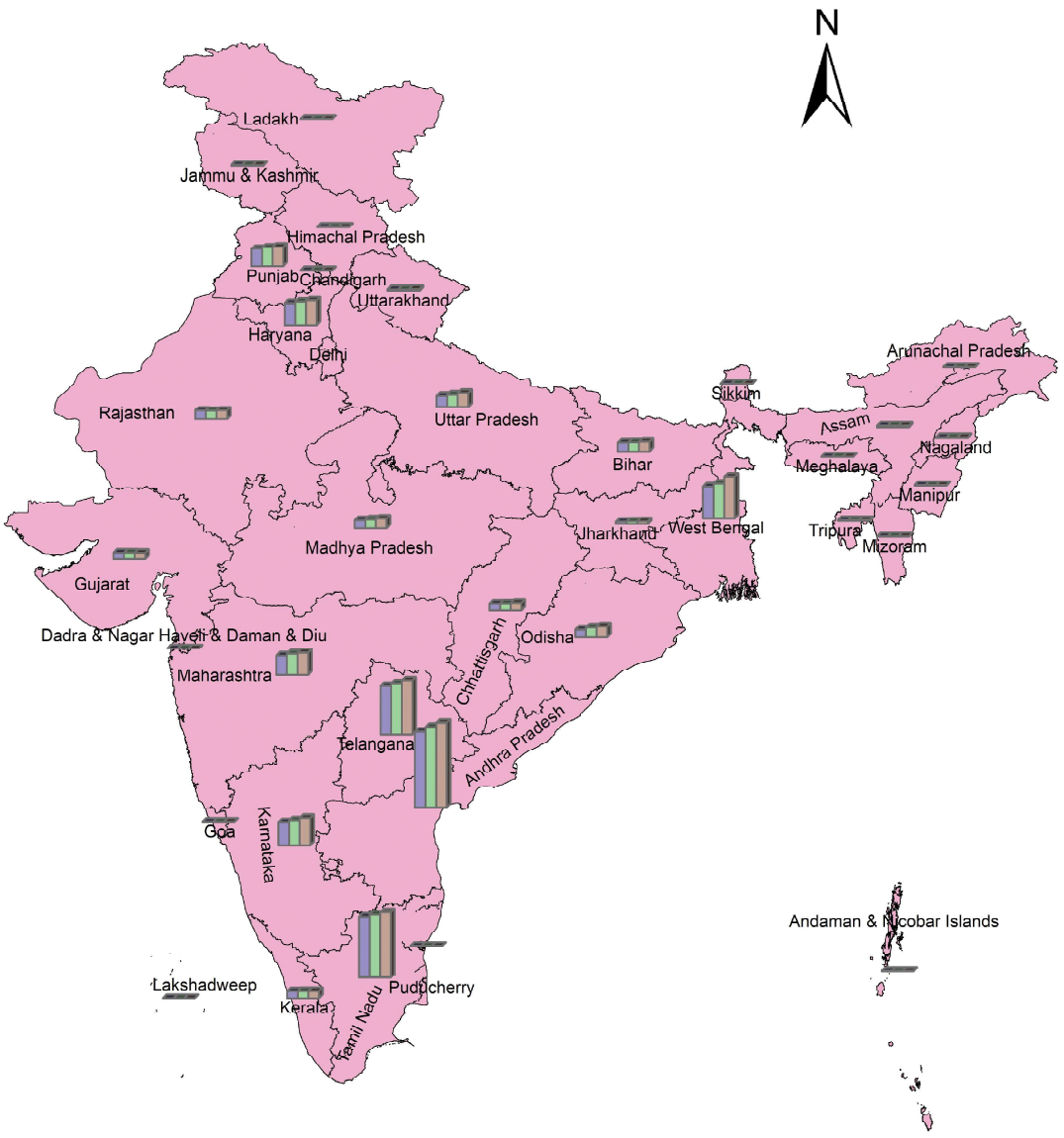


Table 3.10: State-wise estimates of production and per capita availability of eggs during 2020-21 to 2022-23

(Production: lakh numbers, Per Capita Availability: Number/Annum)

States/Union Territories	Year					
	2020-21		2021-22		2022-23	
	Production	Per Capita Availability	Production	Per Capita Availability	Production	Per Capita Availability
Andhra Pradesh	249639.17	475	264502.90	501	278498.00	526
Arunachal Pradesh	638.51	42	666.62	43	658.13	43
Assam	5253.04	15	5421.70	15	5590.00	16
Bihar	30132.16	25	30665.62	25	32743.47	26
Chhattisgarh	19787.84	68	20315.87	69	22101.52	74
Goa	400.18	26	438.32	28	423.70	27
Gujarat	19319.41	28	19494.28	28	18789.54	27
Haryana	72733.93	250	77475.78	263	81806.37	274
Himachal Pradesh	1111.00	15	1016.01	14	914.06	12
Jammu & Kashmir	2128.27	16	1830.88	14	1787.13	13
Jharkhand	7843.28	21	8769.83	23	9190.51	24
Karnataka	76199.44	115	82638.15	124	90087.04	134
Kerala	22134.89	63	22300.80	63	22475.11	63
Madhya Pradesh	26515.73	32	29092.25	34	31850.38	37
Maharashtra	64028.47	52	70182.86	56	73843.89	59
Manipur	1141.63	36	1148.39	36	1215.64	38
Meghalaya	1107.85	34	1114.62	34	1128.15	34
Mizoram	434.06	36	407.50	34	397.10	32
Nagaland	384.87	18	353.99	16	355.27	16
Odisha	24242.67	53	30785.18	67	34108.18	74
Punjab	56511.64	188	60663.83	200	62603.29	205
Rajasthan	27982.86	36	26884.00	34	27606.49	34
Sikkim	98.13	15	82.45	12	98.06	14
Tamil Nadu	201207.87	265	208335.87	273	215606.61	281
Telangana	158470.11	423	166708.39	442	176706.42	466
Tripura	3041.68	75	3153.37	77	3280.16	80
Uttar Pradesh	36288.91	16	40411.68	18	45585.48	20
Uttarakhand	4924.14	44	5136.96	45	5413.02	47
West Bengal	105008.00	108	114520.04	117	137541.42	139
A&N Islands	1361.84	341	1158.99	290	1096.63	273
Chandigarh	130.08	11	114.61	9	46.46	4
Ladakh	12.76	4	18.62	6	20.21	7
Daman & Diu and Dadra & Nagar Haveli	4.99	0.49	5.02	0.47	8.96	1
Delhi	0.00	N.A.	0.00	N.A.	0.00	0.00
Lakshadweep	163.23	240	71.97	106	72.42	106
Puducherry	113.79	7	113.87	7	113.96	7
All India	**1220496.44**	**90**	**1296001.26**	**95**	**1383762.78**	**101**

Note : 1. N.A.: Not available, 2. *: Due to non-availability of data previous year estimates have been used, 3. Till 2019-20 Ladakh includes in J&K and Ladakh 2020-21 includes only Winter season data., 4. Till 2019-20 UTs namely D&N Haveli, Daman & Diu were separate UTs but in 2020 both UTs merged and become one

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

State-wise production of meat during 2020-21, 2021-22 and 2022-23

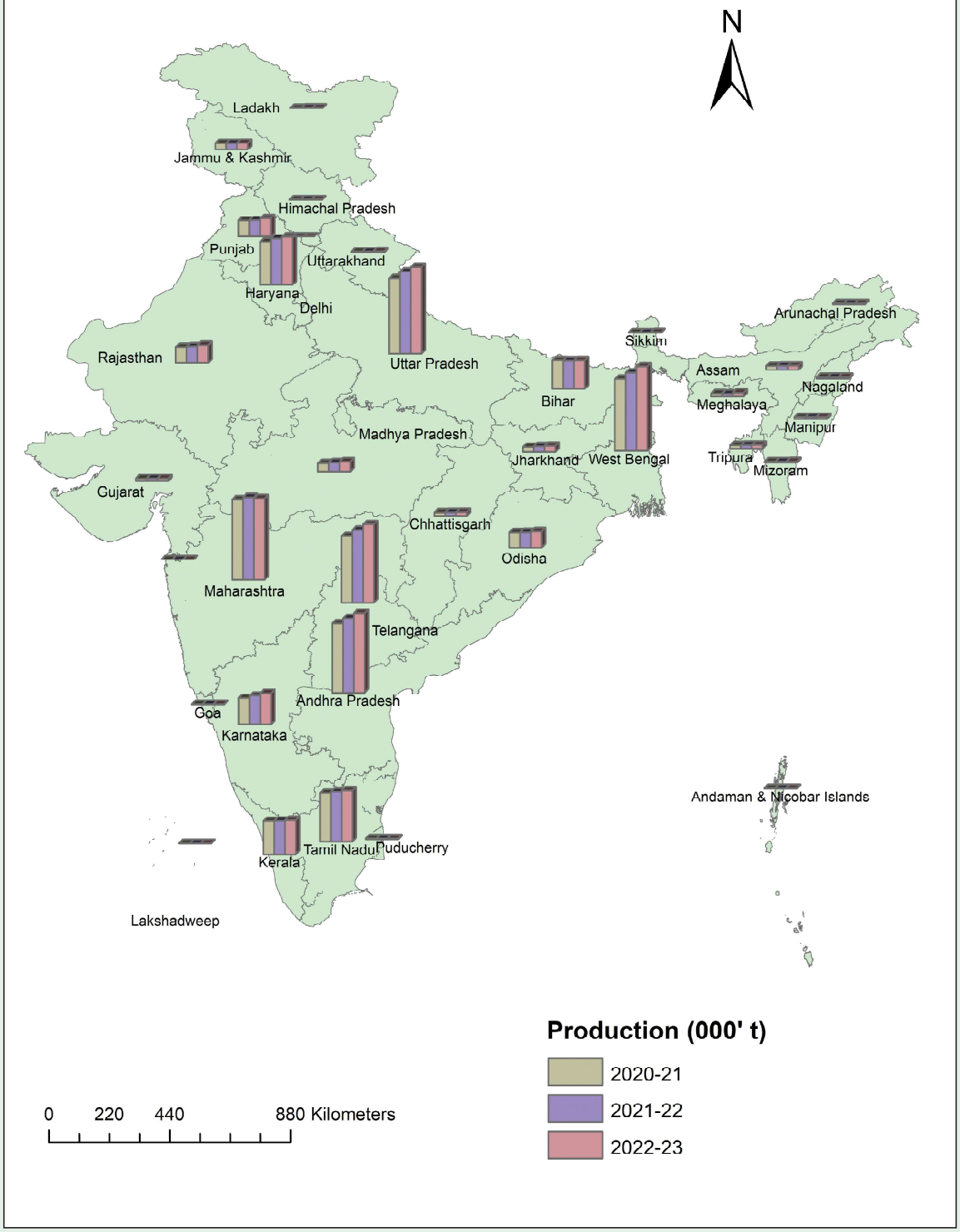


Table 3.11: State-wise estimates of meat production during 2017-18 to 2022-23

(000' t)

States/UT	Year					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Andhra Pradesh	708.77	780.61	850.39	954.11	1025.59	1094.26
Arunachal Pradesh	21.39	21.87	22.67	22.34	22.08	23.55
Assam	48.35	50.40	52.96	54.42	56.06	58.24
Bihar	343.00	364.85	383.51	397.03	392.44	396.29
Chhattisgarh	55.17	60.88	66.04	46.76	50.33	54.55
Goa	8.40	7.92	7.21	6.05	5.93	7.29
Gujarat	33.23	33.33	33.47	32.88	34.99	34.99
Haryana	470.38	511.99	553.87	596.60	641.06	665.24
Himachal Pradesh	4.49	4.60	4.76	4.31	4.73	5.43
Jammu & Kashmir	87.45	91.61	95.44	88.20	88.16	89.51
Jharkhand	57.55	62.39	67.25	70.24	78.68	83.52
Karnataka	228.01	253.60	304.85	364.28	395.53	433.31
Kerala	468.88	457.41	452.71	461.44	463.51	472.90
Madhya Pradesh	89.24	97.37	106.50	116.34	127.04	138.95
Maharashtra	924.93	1020.60	1139.88	1108.91	1138.22	1123.85
Manipur	27.70	28.05	28.70	29.30	29.42	29.37
Meghalaya	43.09	45.25	46.35	39.36	37.30	51.60
Mizoram	15.68	16.11	16.41	15.06	14.70	15.53
Nagaland	32.40	32.28	32.09	23.87	24.10	23.31
Odisha	183.42	201.82	205.17	213.10	216.20	226.87
Punjab	276.37	231.32	248.38	223.74	227.78	252.24
Rajasthan	188.49	191.66	199.59	212.58	220.61	240.28
Sikkim	4.40	3.72	3.76	3.12	3.06	4.99
Tamil Nadu	603.35	633.80	663.46	669.48	685.89	704.38
Telangana	645.03	754.06	848.16	920.25	1004.99	1080.62
Tripura	45.26	47.82	50.57	52.18	54.09	56.45
Uttar Pradesh	1151.12	1227.09	1166.00	1037.55	1127.60	1191.77
Uttarakhand	29.45	29.18	25.26	18.58	18.43	21.24
West Bengal	772.64	831.28	902.86	994.02	1080.37	1165.71
A&N Islands	5.21	5.43	5.63	5.65	5.78	5.55
Chandigarh	1.07	0.95	0.80	0.66	0.64	0.60
Ladakh	0.00	0.00	0.00	0.02	1.75	1.44
Daman & Diu and D&N Haveli	0.23	0.18	0.22	0.31	0.32	0.05
Delhi	66.44	0.00	0.00	0.00	0.00	0.00
Lakshadweep	0.41	0.42	0.43	0.55	0.12	0.12
Puducherry	14.61	14.63	14.64	14.63	14.64	14.64
All India	**7655.63**	**8114.45**	**8599.97**	**8797.91**	**9292.13**	**9768.64**

Note : 1. N.A.: Not available, 2. *: Due to non-availability of data previous year estimates have been used, 3. Till 2019-20 Ladakh includes in J&K and Ladakh 2020-21 includes only Winter season data., 4. Till 2019-20 UTs namely D&N Haveli, Daman & Diu were separate UTs but in 2020 both UTs merged and become one i.e., Dadra & Nagar Haveli and Daman & Diu.

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

State-wise production of wool during 2020-21, 2021-22 and 2022-23

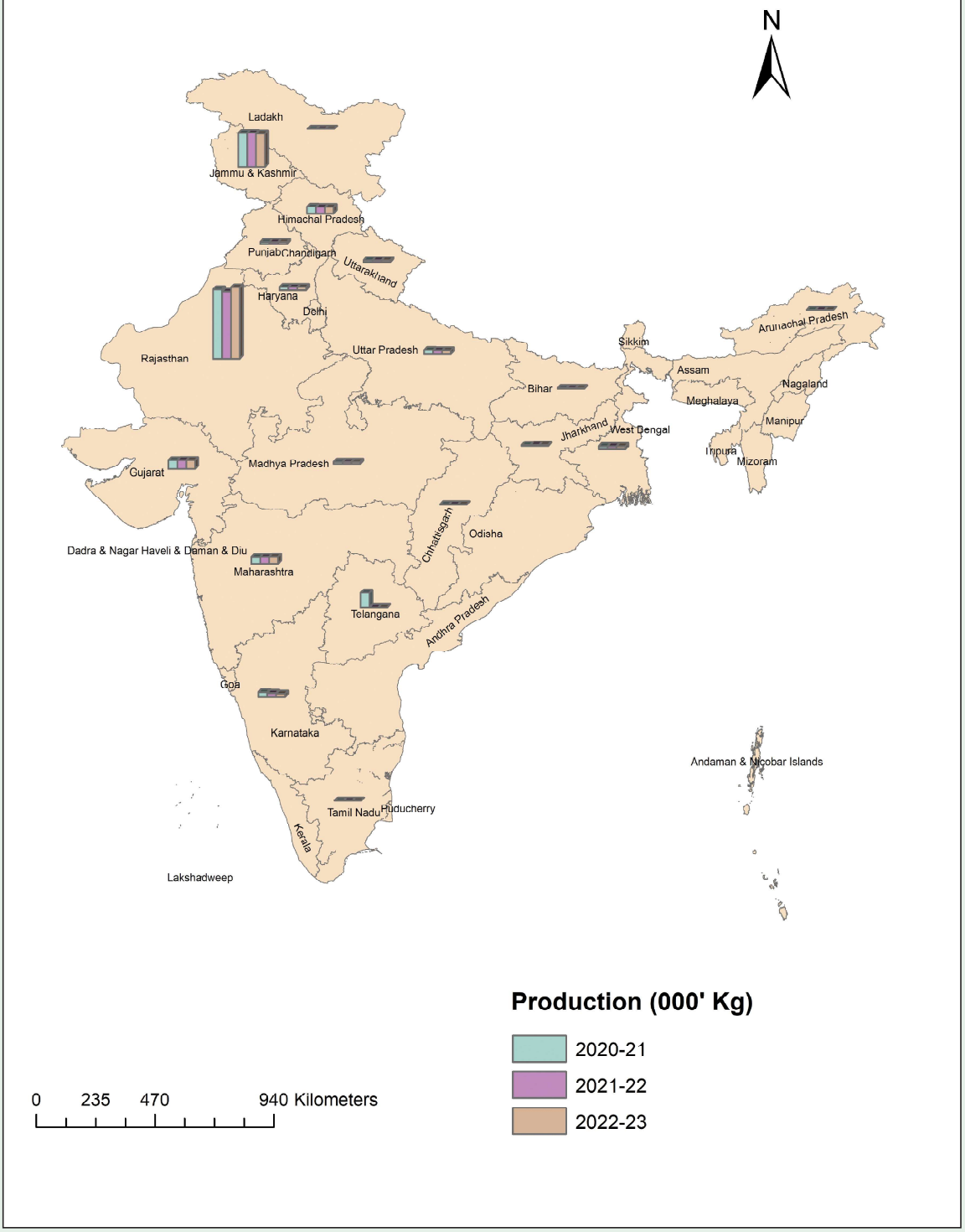


Table 3.12: State-wise estimates of wool production during 2017-18 to 2022-23

(000' kg.)

States/Union Territories	Year					
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Andhra Pradesh	794.39	797.12	801.14	0.00	0.00	0.00
Arunachal Pradesh	60.40	42.63	43.00	20.42	14.97	20.32
Bihar	298.10	312.38	310.78	170.16	171.74	175.26
Chhattisgarh	81.77	81.95	82.99	80.04	81.39	78.23
Gujarat	2294.96	2270.51	2232.72	2003.83	2027.41	2018.94
Haryana	693.39	718.50	729.52	687.22	700.54	687.58
Himachal Pradesh	1481.87	1503.14	1516.44	1482.24	1432.85	1434.90
Jammu & Kashmir	7489.43	7629.28	7477.12	7649.74	7680.82	7580.12
Jharkhand	186.59	198.59	209.97	216.87	231.52	236.97
Karnataka	4305.00	3057.92	1742.14	1051.79	862.26	732.67
Madhya Pradesh	408.16	410.17	411.85	431.07	439.80	425.61
Maharashtra	1436.77	1456.93	1412.27	1550.22	1584.81	1591.63
Punjab	514.70	524.85	525.36	455.81	449.10	459.22
Rajasthan	14287.42	14521.84	12716.83	15676.45	15207.33	16128.87
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	1.96	2.28	2.22	1.68	1.71	1.67
Telangana	4506.02	4263.51	3960.14	3366.06	0.00	0.00
Uttar Pradesh	1299.62	1315.97	1328.64	886.28	815.09	819.08
Uttarakhand	564.07	551.98	496.69	436.01	443.23	451.72
West Bengal	758.10	760.43	762.96	764.83	768.95	769.27
Ladakh	N.A	N.A	N.A	0.00	2.43	2.41
All India	**41462.71**	**40420.00**	**36760.57**	**36930.72**	**32915.93**	**33614.48**

Note : 1. N.A.: Not available, 2. *: Due to non-availability of data previous year estimates have been used, 3. Till 2019-20 Ladakh includes in J&K and Ladakh 2020-21 includes only Winter season data., 4. Till 2019-20 UTs namely D&N Haveli, Daman & Diu were separate UTs but in 2020 both UTs merged and become one i.e., Dadra & Nagar Haveli and Daman & Diu.

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

Table 3.13: State-wise number of Veterinary Institutions (as on 31.03.2023)

States/Union Territories	Veterinary Hospitals/ Polyclinics	Veterinary Dispensaries	Veterinary Aid Centre (Stockmen Centres/ Mobile dispensaries)	Total
Andhra Pradesh	337	1577	1558	3472
Arunachal Pradesh	16	183	311	510
Assam	21	421	767	1209
Bihar	1098	39	1595	2732
Chhattisgarh	350	835	72	1257
Goa	5	25	50	80
Gujarat	34	741	1057	1832
Haryana	1048	1815	22	2885
Himachal Pradesh	466	1762	1228	3456
Jammu & Kashmir	19	1256	225	1500
Jharkhand	35	424	433	892
Karnataka	697	2156	1381	4234
Kerala	279	870	15	1164
Madhya Pradesh	1064	1583	65	2712
Maharashtra	39	1976	2841	4856
Manipur	59	151	23	233
Meghalaya	4	126	121	251
Mizoram	11	67	69	147
Nagaland	11	55	100	166
Odisha	30	511	3553	4094
Punjab	1389	1489	20	2898
Rajasthan	2975	0	6434	9409
Sikkim	23	68	63	154
Tamil Nadu	189	2741	3446	6376
Telangana	107	909	1201	2217
Tripura	16	65	459	540
Uttarakhand	330	10	779	1119
Uttar Pradesh	2208	267	2575	5050
West Bengal*	113	613	2609	3335
A & N Islands*	10	13	49	72
Chandigarh	5	9	0	14
Ladakh	4	9	127	140
Dadra & Nagar Haveli and Daman & Diu	1	2	14	17
Delhi	49	29	0	78
Lakshadweep	0	9	0	9
Puducherry*	0	17	75	92
All India	**13042**	**22823**	**33337**	**69202**

Note : 1. --: Not available, 2. * : Previous year data used.

Source : *Basic Animal Husbandry Statistics 2023,* Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in).

State-wise number of Veterinary Institutions as on 31.03.2023

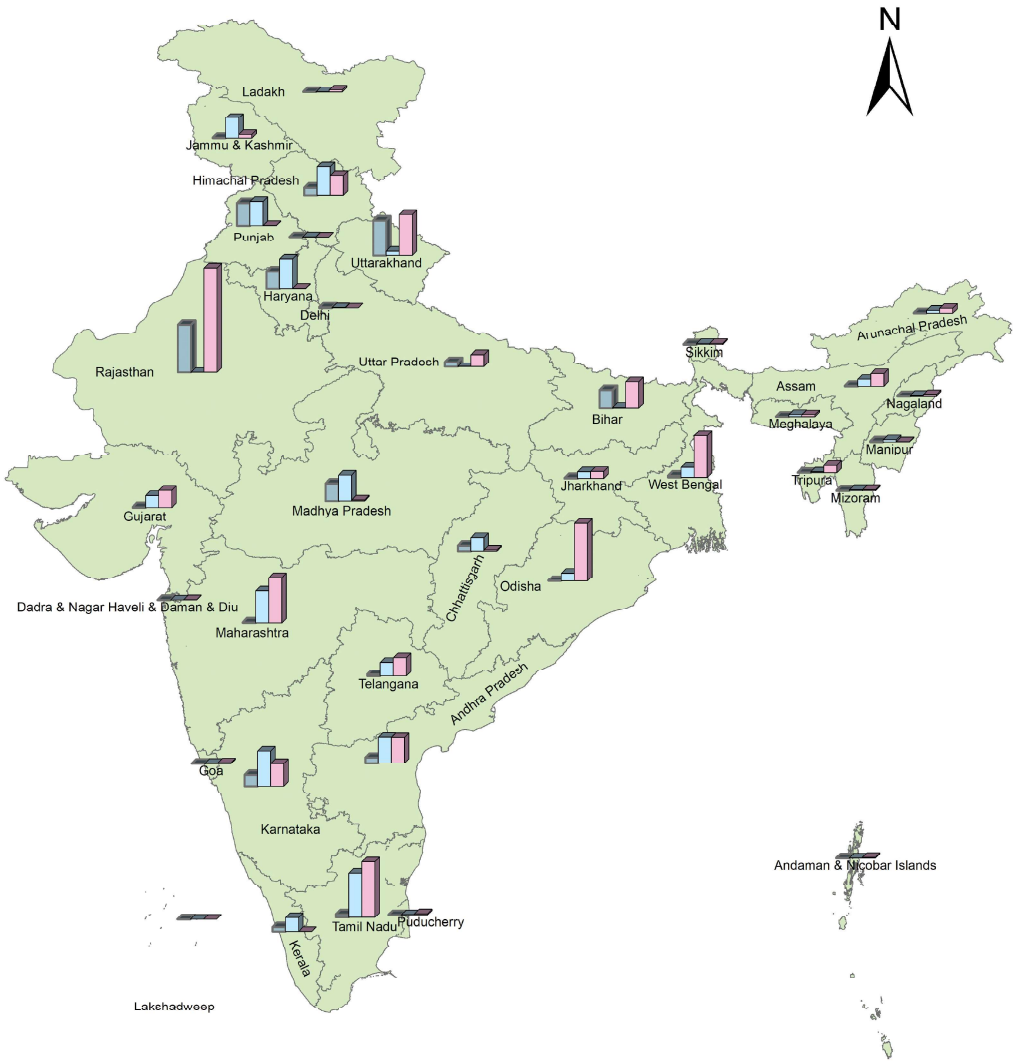


Table 3.14: Achievement of some of the key components of dairy development in different states under cooperative sector during 2011-12

State/Union Territories	DCS Organised (no.)	Farmer Members (000')	Rural Milk Procurement (000' Kg./Day)	Liquid Milk Sale (000' L/Day)
Andhra Pradesh	4979	854	1503	1680
Assam	188	5	7	33
Bihar	11131	614	1061	521
Chhattisgarh	794	33	30	35
Delhi	N.A.	N.A.	N.A.	3050
Goa	178	19	41	69
Gujarat	14631	3041	10450	3512
Haryana	7029	313	534	370
Himachal Pradesh	765	32	68	23
Jharkhand	53	1	5	271
Karnataka	12925	2191	4277	2892
Kerala	3695	859	802	1167
Madhya Pradesh	6744	285	721	525
Maharashtra	21631	1827	3130	2070
Nagaland	49	2	2	4
Odisha	3337	191	300	316
Puducherry	102	36	30	100
Punjab	7639	403	1110	866
Rajasthan	16809	683	1742	1544
Sikkim	289	10	13	21
Tamil Nadu	10418	2184	2161	941
Tripura	84	6	3	13
Uttar Pradesh	22450	978	497	349
West Bengal	3045	215	219	37
Total	**148965**	**14782**	**28706**	**20485**

Note : 1. Chhattisgarh and Jharkhand started reporting separately from 2003-04, 2. DCS: Dairy Cooperative Societies, 3. N.A.: Not available.

Source : *Basic Animal Husbandry Statistics 2013,* Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: http://www.dahd.nic.in)

Table 3.15: Trend of growth of fish production in India

(lakh t)

Year	Fish production			Annual growth rate (%)		
	Marine	Inland	Total	Marine	Inland	All India
1950-51	5.34	2.18	**7.52**	N.A.	N.A.	**N.A.**
1980-81	15.55	8.87	**24.42**	N.A.	N.A.	**N.A.**
1981-82	14.45	9.99	**24.44**	-7.07	12.63	**0.08**
1982-83	14.27	9.40	**23.67**	-1.25	-5.91	**-3.15**
1983-84	15.19	9.87	**25.06**	6.45	5.00	**5.87**
1984-85	16.98	11.03	**28.01**	11.78	11.75	**11.77**
1985-86	17.16	11.60	**28.76**	1.06	5.17	**2.68**
1986-87	17.13	12.29	**29.42**	-0.17	5.95	**2.29**
1987-88	16.58	13.01	**29.59**	-3.21	5.86	**0.58**
1988-89	18.17	13.35	**31.52**	9.59	2.61	**6.52**
1989-90	22.75	14.02	**36.77**	25.21	5.02	**16.66**
1990-91	23.00	15.36	**38.36**	1.10	9.56	**4.32**
1991-92	24.47	17.10	**41.57**	6.39	11.33	**8.37**
1992-93	25.76	17.89	**43.65**	5.27	4.62	**5.00**
1993-94	26.49	19.95	**46.44**	2.83	11.51	**6.39**
1994-95	26.92	20.97	**47.89**	1.62	5.11	**3.12**
1995-96	27.07	22.42	**49.49**	0.56	6.91	**3.34**
1996-97	29.67	23.81	**53.48**	9.60	6.20	**8.06**
1997-98	29.50	24.38	**53.88**	-0.57	2.39	**0.75**
1998-99	26.96	26.02	**52.98**	-8.61	6.73	**-1.67**
1999-00	28.52	28.23	**56.75**	5.79	8.49	**7.12**
2000-01	28.11	28.45	**56.56**	-1.44	0.78	**-0.33**
2001-02	28.30	31.26	**59.56**	0.68	9.88	**5.30**
2002-03	29.90	32.10	**62.00**	5.65	2.69	**4.10**
2003-04	29.41	34.58	**63.99**	-1.64	7.73	**3.21**
2004-05	27.79	35.26	**63.05**	-5.51	1.97	**-1.47**
2005-06	28.16	37.56	**65.72**	1.33	6.52	**4.23**
2006-07	30.24	38.45	**68.69**	7.39	2.37	**4.52**
2007-08	29.20	42.07	**71.27**	-3.44	9.41	**3.76**
2008-09	29.78	46.38	**76.16**	1.99	10.24	**6.86**
2009-10	31.04	48.94	**79.98**	4.23	5.52	**5.02**
2010-11	32.50	49.81	**82.31**	4.70	1.78	**2.91**
2011-12	33.72	52.94	**86.66**	3.75	6.28	**5.28**
2012-13	33.21	57.19	**90.40**	-1.51	8.03	**4.32**
2013-14	34.43	61.36	**95.79**	3.67	7.29	**5.96**
2014-15	35.69	66.91	**102.60**	3.66	9.04	**7.11**
2015-16	36.00	71.62	**107.62**	0.87	7.04	**4.89**
2016-17	36.25	78.06	**114.31**	1.14	8.63	**6.12**
2017-18	37.56	89.48	**127.07**	3.61	14.62	**11.13**
2018-19	38.53	97.20	**135.73**	2.58	8.62	**6.84**
2019-20	37.27	104.37	**141.64**	-3.20	7.37	**4.35**
2020-21	34.76	112.49	**147.25**	-6.7	7.80	**4.00**
2021-22	41.27	121.21	**162.48**	18.7	7.76	**10.34**
2022-23	44.32	131.13	**175.45**	7.39	8.18	**7.98**

Note : N.A. : Not available.

Source : *Handbook on Fisheries Statistics 2023*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (http://dof.gov.in/fisheries-statistics).

Table 3.16: State-wise marine and inland fish production

(lakh t)

States/ Union Territories	2019-20			2020-21			2021-22			2022-23		
	Inland	Marine	Total	Inland	Marine	Total	Inland	Marine	Total	Inland	Marine	Total
Andhra Pradesh	36.1	5.64	41.74	40.7	5.54	46.24	42.19	5.94	48.13	45.06	6.00	51.06
Arunachal Pradesh	0.05	0	0.05	0.05	0	0.05	0.05	0	0.05	0.09	0.00	0.09
Assam	3.73	0	3.73	3.93	0	3.93	4.17	0	4.17	4.43	0.00	4.43
Bihar	6.41	0	6.41	6.83	0	6.83	7.62	0	7.62	8.46	0.00	8.46
Chhattisgarh	5.72	0	5.72	5.77	0	5.77	5.91	0	5.91	6.52	0.00	6.52
Goa	0.04	1.01	1.05	0.05	1.06	1.11	0.05	1.11	1.16	0.06	1.34	1.4
Gujarat	1.58	7.01	8.59	1.57	6.83	8.4	1.86	6.88	8.74	1.94	7.03	8.97
Haryana	1.91	0	1.91	2.03	0	2.03	2.08	0	2.08	2.12	0.00	2.12
Himachal Pradesh	0.14	0	0.14	0.15	0	0.15	0.16	0	0.16	0.17	0.00	0.17
Jharkhand	2.23	0	2.23	2.38	0	2.38	2.57	0	2.57	2.80	0.00	2.8
Karnataka	2.29	4.03	6.32	2.61	3.47	6.08	4.85	5.89	10.74	4.95	7.30	12.25
Kerala	2.05	4.75	6.8	2.24	3.92	6.16	2.25	6.01	8.26	2.30	6.91	9.21
Madhya Pradesh	2	0	2	2.49	0	2.49	2.93	0	2.93	3.42	0.00	3.42
Maharashtra	1.18	4.43	5.61	1.25	3.99	5.24	1.57	4.33	5.9	1.44	4.46	5.9
Manipur	0.32	0	0.32	0.33	0	0.33	0.33	0	0.33	0.34	0.00	0.34
Meghalaya	0.14	0	0.14	0.16	0	0.16	0.18	0	0.18	0.19	0.00	0.19
Mizoram	0.07	0	0.07	0.05	0	0.05	0.05	0	0.05	0.05	0.00	0.05
Nagaland	0.09	0	0.09	0.09	0	0.09	0.09	0	0.09	0.09	0.00	0.09
Odisha	6.6	1.58	8.18	7.01	1.72	8.73	7.89	2.01	9.9	8.39	2.13	10.52
Punjab	1.51	0	1.51	1.65	0	1.65	1.9	0	1.9	1.85	0.00	1.85

States/ Union Territories	2019-20			2020-21			2021-22			2022-23		
	Inland	Marine	Total	Inland	Marine	Total	Inland	Marine	Total	Inland	Marine	Total
Rajasthan	1.16	0	1.16	0.6	0	0.6	0.66	0	0.66	0.79	0.00	0.79
Sikkim	0	0	0	0	0	0	0	0	0	0.01	0.00	0.01
Tamil Nadu	1.74	5.83	7.57	1.75	5.48	7.23	2.12	5.95	8.07	2.32	5.97	8.29
Telangana	3	0	3	3.49	0	3.49	3.9	0	3.9	4.38	0.00	4.38
Tripura	0.78	0	0.78	0.82	0	0.82	0.82	0	0.82	0.83	0.00	0.83
Uttar Pradesh	6.99	0	6.99	7.46	0	7.46	8.09	0	8.09	9.15	0.00	9.15
Uttarakhand	0.05	0	0.05	0.06	0	0.06	0.06	0	0.06	0.07	0.00	0.07
West Bengal	16.19	1.63	17.82	16.69	1.55	18.24	16.52	1.91	18.43	18.56	1.89	20.45
Andaman & Nicobar Islands	0	0.4	0.4	0	0.43	0.43	0	0.44	0.44	0.00	0.47	0.47
Chandigarh	0.01	0	0.01	0	0	0	0	0	0	0.00	0.00	0
Dadra & Nagar Haveli & Daman & Diu	0	0.32	0.32	0	0.3	0.3	0	0.3	0.3	0.00	0.29	0.29
Delhi	0.01	0	0.01	0	0	0	0	0	0	0.00	0.00	0
Jammu and Kashmir	0.21	0	0.21	0.21	0	0.21	0.25	0	0.25	0.27	0.00	0.27
Ladakh	0	0	0	0	0	0	0	0	0	0.00	0.00	0
Lakshadweep	0	0.2	0.2	0	0.15	0.15	0	0.12	0.12	0.00	0.11	0.11
Puducherry	0.07	0.44	0.51	0.05	0.34	0.39	0.08	0.39	0.47	0.05	0.42	0.47
All India	**104.37**	**37.27**	**141.64**	**112.48**	**34.77**	**147.25**	**121.21**	**41.27**	**162.48**	**131.13**	**44.32**	**175.45**

Source : *Handbook on Fisheries Statistics 2023*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (http://dof.gov.in/fisheries-statistics)

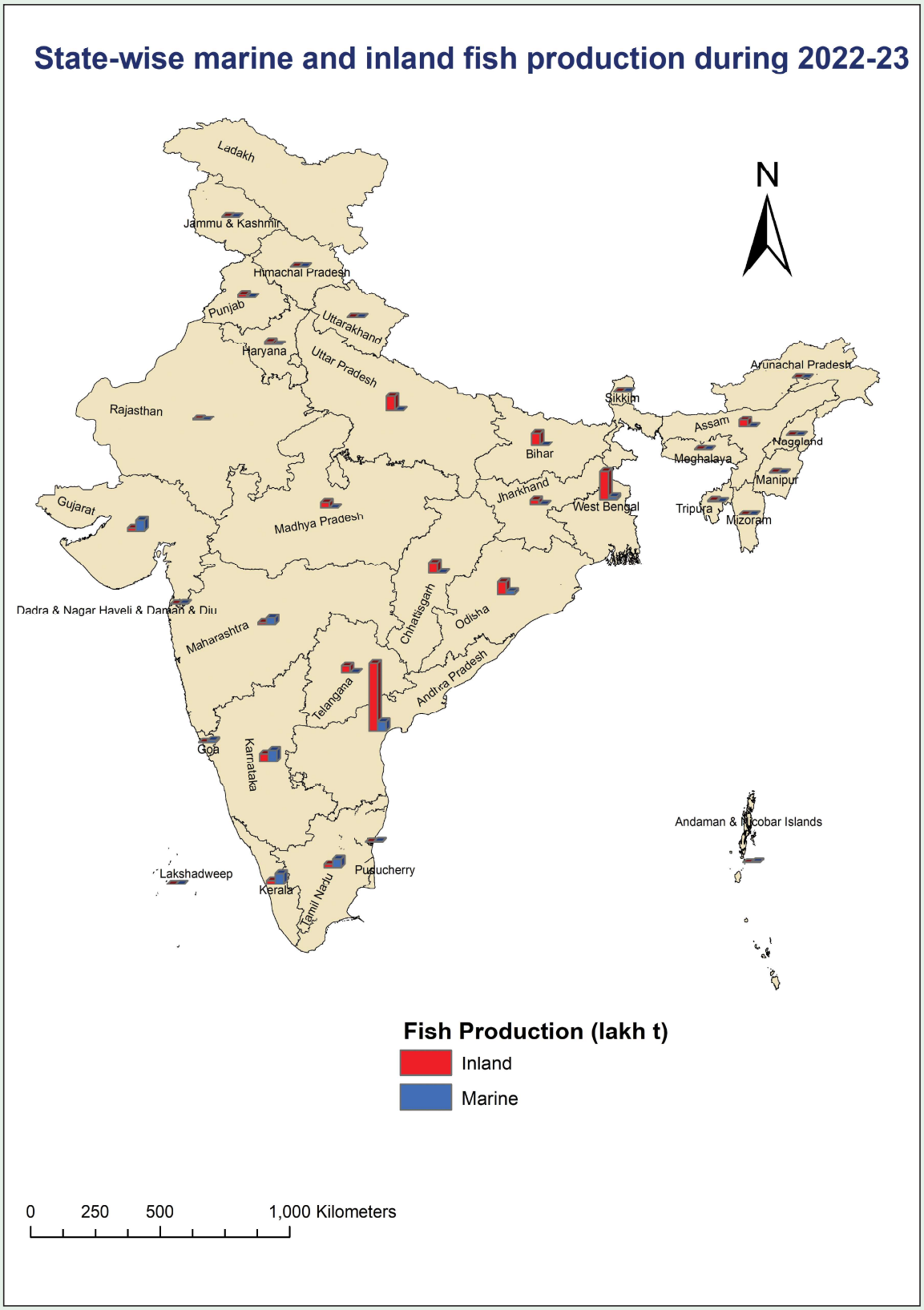

State-wise marine and inland fish production during 2022-23
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
Uttar Pradesh
Rajasthan
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Chhattisgarh
Odisha
Andhra Pradesh
Telangana
Goa
Karnataka
Andaman & Nicobar Islands
Lakshadweep
Kerala
Puducherry
Tamil Nadu
Fish Production (lakh t)
Inland
Marine
0
250
500
1,000 Kilometers

Table 3.17: State-wise trend of prawn production in India

Year	P/NP/T	Andhra Pradesh	Goa	Gujarat	Karnataka	Kerala	Maharashtra	Odisha	Tamil Nadu	West Bengal	A & N Islands	Daman & Diu	Puducherry	All India
2000-01	**P**	17162	2284	53983	2913	58275	28206	14585	20257	11760	298	196	3316	**213235**
	NP	8181	N.A.	N.A.	8951	10892	70051	3887	4594	5900	53	395	1177	**114081**
	T	25343	2284	53983	11864	69,167	98257	18472	24851	17660	351	591	4493	**327316**
2001-02	**P**	16450	2483	48773	2248	49151	33654	15105	21079	11700	434	135	3312	**204524**
	NP	7729	N.A.	N.A.	6496	3615	75875	4064	4671	6000	100	379	N.A.	**108929**
	T	24179	2483	48773	8744	52766	109529	19169	25750	17700	534	514	3312	**313453**
2002-03	**P**	1160	2284	6710	15251	53490	45442	18398	13151	12730	418	89	3430	**171553**
	NP	1061	N.A.	42794	318	3342	56965	2213	10875	6110	71	302	1560	**125611**
	T	2221	2284	49504	15569	56832	102407	20611	24026	18840	489	391	4990	**298164**
2003-04	**P**	1160	2284	46330	10826	53437	45442	21228	16848	13050	560	46	2398	**213609**
	NP	1061	N.A.	9150	464	3364	56965	3023	11755	7950	128	126	1072	**95058**
	T	2221	2284	55480	11290	56801	102407	24251	28603	21000	688	172	3470	**308667**
2004-05	**P**	21507	7703	9302	11841	57252	31537	23398	18636	23780	560	33	2348	**207897**
	NP	12185	N.A.	53303	N.A.	12655	68634	2031	4263	20000	128	89	1435	**174723**
	T	33692	7703	62605	11841	69907	100171	25429	22899	43780	688	122	3783	**382620**
2005-06	**P**	157094	5837	15683	11690	47752	58670	22790	42096	63297	568	127	1386	**426990**
	NP	28769	N.A.	57378	1398	11713	67696	2429	1250	57000	128	207	270	**228238**
	T	185863	5837	73061	13088	59465	126366	25219	43346	120297	696	334	1656	**655228**
2006-07	**P**	22160	10250	18449	7500	58008	42519	24968	44454	52,001	407	103	79	**280898**
	NP	9834	N.A.	58217	351	11592	51801	3161	1342	27,967	158	107	255	**164785**
	T	31994	10250	76666	7,851	69600	94320	28129	45796	79,968	565	210	334	**445683**

Year	P/NP/T	Andhra Pradesh	Goa	Gujarat	Karnataka	Kerala	Maharashtra	Odisha	Tamil Nadu	West Bengal	A & N Islands	Daman & Diu	Puducherry	All India
2007-08	**P**	24987	9545	19088	8251	55619	45352	26255	21701	54044	412	103	1674	**267031**
	NP	11745	N.A.	54980	549	11582	53869	2820	949	32851	173	107	609	**170234**
	T	36732	9545	74068	8800	67201	99221	29075	22650	86895	585	210	2283	**437265**
2008-09	**P**	27742	8693	13509	9071	68016	55956	28879	29863	43452	416	113	1578	**287288**
	NP	18494	N.A.	27591	741	N.A.	36231	2774	7982	25596	172	117	648	**120346**
	T	46236	8693	41100	9812	68016	92187	31653	37845	69048	588	230	2226	**407634**
2009-10	**P**	24329	11029	17488	16443	67573	38657	25603	30085	49734	349	139	1743	**283172**
	NP	19860	N.A.	30383	166	N.A.	68743	3974	8062	20988	150	34	717	**153077**
	T	44189	11029	47871	16609	67573	107400	29577	38147	70722	499	173	2460	**436249**
2010-11	**P**	28324	8584	22223	19873	70677	35091	27095	31947	67194	468	367	1018	**312861**
	NP	18884	N.A.	37182	3366	N.A.	67936	5281	8539	25105	184	110	467	**167054**
	T	47208	8584	59405	23239	70677	103027	32376	40486	92299	652	477	1485	**479915**
2011-12	**P**	36795	9179	16122	25088	NR	37561	27391	96272	79795	492	NR	2074	**330769**
	NP	16150	N.A.	41806	2557	NR	63186	4235	21443	27091	188	NR	680	**177336**
	T	52945	9179	57928	27645	0	100747	31626	117715	106886	680	0	2754	**508105**
2012-13	**P**	41922	8614	16605	NR	68399	42297	33199	32309	80122	520	466	2061	**326514**
	NP	20842	N.A.	42228	NR	1659	55964	4657	8636	31532	193	101	610	**166422**
	T	62764	8614	58833	0	70058	98261	37856	40945	111654	713	567	2671	**492936**
2013-14	**P**	43537	10230	16705	NR	60403	45373	28513	32314	85334	518	NR	2144	**325071**
	NP	21566	N.A.	42365	NR	1652	64263	5492	8686	34700	192	NR	847	**179763**
	T	65103	10230	59070	0	62055	109636	34005	41000	120034	710	0.00	2991	**504834**
2019-20	**P**	108000	5000	12000	22000	40000	43000	40000	2000	7000	NA	NA	3000	**282000**
	NP	18000	NA	41000	NA	3000	49000	4000	38000	3000	NA	NA	NA	**156000**
	T	126000	5000	53000	22000	43000	92000	44000	40000	10000	0	0	3000	**438000**

Note : 1. P: Penaeid (Penaeidae), 2. NP: Non-penaeid (Sergestidae), 3. T: Total, 4. NR: Not reported, 5. N.A.: Not available.

Source : *Handbook on Fisheries Statistics 2020,* Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

Table 3.18: Year-wise Disposition of Fish Catch in India

(lakh' t)

Year	Marketing fresh	Frozen	Curing	Canning	Reduction	Miscellaneous	Offal for reduction	Unspecified	Others	Total
1993-94	31.05	3.09	6.44	0.09	3.72	0.16	0.87	0	0	**45.42**
1994-95	32.5	3.1	6.51	0.12	3.97	0.39	0.74	0	0	**47.33**
1995-96	34.27	3.2	6.32	0.13	3.58	0.38	0.4	0	0	**48.28**
1996-97	37.84	3.92	6.39	0.11	3.13	0.22	0.39	0	0	**52**
1997-98	38.74	4.21	6.02	0.14	3.45	0.18	1.02	0	0	**53.76**
1998-99	38.66	3.9	5.68	0.12	3.03	0.19	0.83	0	0	**52.41**
1999-00	42.06	2.84	4.21	0.17	2.96	0.53	0.09	0.7	0.29	**53.85**
2000-01	42.87	2.76	3.39	0.5	3.17	0.01	0.34	0.69	2.36	**56.09**
2001-02	47.77	2.64	3.46	0.53	3.08	0.16	0.43	0.72	0.47	**59.26**
2002-03	47.89	3.32	3.88	0.23	2.65	0.42	0.01	0.16	0.16	**58.72**
2003-02	48.28	3.07	3.63	0.36	2.77	0.4	0.01	0.12	0.16	**58.8**
2004-05	52.83	3.85	3.3	0.45	2.69	0.01	0.4	0.16	0.17	**63.86**
2005-04	54.68	3.9	3.3	0.24	2.84	0.34	0.01	0.17	0.26	**65.74**
2006-07	55.59	3.96	3.44	0.24	2.95	0.36	0.01	0.14	0.15	**66.84**
2007-08	60.37	4.24	3.67	0.25	3.34	0.14	0.01	0.16	0.15	**72.33**
2008-09	58.04	3.78	3.35	0.31	3.13	0.45	0.01	0.17	0.15	**69.39**
2009-10	59.55	4.35	3.47	0.33	2.91	0.61	0	0.19	0.47	**71.88**
2010-11	61.18	7.33	4.11	0.47	2.83	0.74	0.01	1.37	1.83	**79.87**
2011-12	53.64	7.61	4.72	0.39	2.98	0	73	0.63	1.71	**144.68**
2012-13	58.11	9.48	3.32	0.42	3.01	0	1.51	0.71	1.68	**78.24**
2013-14	40.25	3.98	2.52	0.44	3.24	0	0.76	0.2	2	**53.39**
2014-15	46.17	4.59	2.45	0.43	3.33	0	0.9	0.21	2.18	**60.26**
2015-16	49.34	4.62	2.58	0.52	3.21	0	1.06	0.22	0.2	**61.75**
2016-17	56.12	4.61	2.67	0.5	3.25	0	1.2	0.29	2.4	**71.04**
2017-18	64.94	7.03	2.9	0.36	3.33	0	1.89	0.38	2.39	**83.22**
2018-19	74.23	9.36	6.38	1.02	3.28	2.28	0	0.05	1.43	**98.03**
2019-20	91.43	16.81	5.2	0.36	3.38	3.04	0.08	0.05	1.44	**121.79**
2020-21	105.64	18.49	3.92	0.45	3.08	3.27	0.10	0.01	2.12	**137.07**
2022-23	134.19	20.46	5.15	0.32	3.69	4.20	0.11	0.01	3.00	**171.13**

Source: *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
(Website: http://dof.gov.in/fisheries-statistics)

Table 3.19: State-wise disposition of fish catch in 2022-23 (lakh tons)

States/ Union Territories	Marketing fresh	Freezing	Curing	Canning	Reduction	Miscellaneous	Offal for reduction	Unspecified	Others	Total
Andhra Pradesh	34.51	12.65	1.08	0.16	0.27	2.28	0.11	0.00	0.00	51.06
Arunachal Pradesh	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Assam	4.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.05
Bihar	6.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	8.46
Chhattisgarh	6.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.52
Goa	1.07	0.00	O.Q7	0.16	0.00	O.Q3	0.00	0.00	0.00	1.34
Gujarat	2.80	1.80	1.79	0.00	2.59	0.00	0.00	0.00	0.00	8.97
Haryana	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12
Himachal Pradesh	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Jharkhand	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80
Karnataka	8.57	1.57	0.86	0.00	0.15	1.01	0.00	0.00	0.00	12.16
Kerala	6.80	1.60	0.00	0.00	0.00	0.80	0.00	0.00	0.00	9.21
Madhya Pradesh	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42
Maharashtra	3.84	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.58	4.46
Manipur	0.29	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Meghalaya	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Mizoram	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Nagaland	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Odisha	8.86	1.02	0.63	0.00	0.00	0.00	0.00	0.00	0.00	10.52
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.79
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

States/ Union Territories	Marketing fresh	Freezing	Curing	Canning	Reduction	Miscellaneous	Offal for reduction	Unspecified	Others	Total
Tamil Nadu	5.78	1.23	0.60	0.00	0.00	0.00	0.00	0.00	0.67	8.29
Telangana	4.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	4.38
Tripura	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Uttar Pradesh	9.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	9.15
Uttarakhand	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
West Bengal	19.27	0.46	0.00	0.00	0.65	0.07	0.00	0.00	0.00	20.45
Andaman & Nicobar Islands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dadra & Nagar Haveli & Daman & Diu	0.26	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jammu & Kashmir	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lakshadweep	0.05	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Puducherry	0.36	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.45
India	**134.10**	**20.45**	**5.07**	**0.32**	**3.7**	**4.16**	**0.11**	**0**	**2.99**	**171.01**

Source : *Handbook on Fisheries Statistics 2023*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
(Website: http://dof.gov.in/fisheries-statistics)

Table 3.20: State-wise preserved and processed fish commodities in 2022-23 (In Lakh tonnes)

States/ Union Territories	Tuna frozen	Marine fish frozen	Fish dried unsalted	Fish dried & salted or smoked	Shark fins, dried, salted etc.	Frozen whole cooked lobster	Shrimp & prawn frozen	Dried prawn/ shrimp	Frozen cuttlefish fillets	Fish Meals Soluble
1	2	3	4	5	6	7	8	9	10	11
Andhra Pradesh	0.02	0.07	0.00	0.00	0.00	0.00	2.99	0.00	0.02	0.00
Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chhattisgarh	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gujarat	0.00	1.32	2.21	1.36	0.00	0.00	0.06	0.00	0.00	0.00
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jharkhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Karnataka	0.05	0.76	0.12	0.83	0.00	0.00	0.06	0.01	0.01	0.00
Kerala	0.00	0.91	0.19	0.85	0.00	0.00	0.66	0.00	0.00	0.00
Madhya Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maharashtra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nagaland	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Odisha	0.00	0.01	0.00	0.00	0.00	0.00	0.84	0.00	0.01	0.00
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	0.08	0.49	0.00	0.00	0.00	0.00	0.85	0.00	0.04	0.00
Telangana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tripura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uttar Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uttarakhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West Bengal	0.00	0.00	0.08	0.06	0.00	0.00	0.00	0.00	0.07	0.00
A and N Islands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman and Diu, D & Nagar Haveli	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jammu&Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lakshadweep	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Puducherry	0.00	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
India	**0.16**	**3.65**	**2.62**	**3.14**	**0.00**	**0.00**	**5.48**	**0.01**	**0.15**	**0.00**

Continued...

States/ Union Territories	Frozen squids	Dried squids	Yellowfin tuna, frozen	Mackerels, frozen	Fish, salted & dried	Lobsters, whole, frozen	Jellyfish, dried, salted or in brine	Miscellaneous	Over all Total
	12	13	14	15	16	17	18	19	20
Andhra Pradesh	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.17	3.28
Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assam	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bihar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chhattisgarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gujarat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	5.52
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jharkhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Karnataka	0.12	0.00	0.00	0.41	0.02	0.00	0.00	1.34	3.73
Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.58	9.19
Madhya Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maharashtra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Manipur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Odisha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	0.05	0.00	0.00	0.00	0.39	0.00	0.00	0.60	2.51
Telangana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tripura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Uttar Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Uttarakhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West Bengal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	1.74
A and N Islands	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daman and Diu, D & Nagar Haveli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Puducherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08
India	**0.16**	**0.00**	**0.01**	**0.42**	**0.41**	**0.00**	**0.00**	**10.81**	**27.02**

Source: *Handbook on Fisheries Statistics 2023*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
(Website: http://dof.gov.in/fisheries-statistics)

Table 3.21: Fish seed production in India during 1985-86 to 2022-23

Year	Production (million fry)
1985-86	6,322
1986-87	7,601
1987-88	8,608
1988-89	9,325
1989-90	9,691
1990-91	10,332
1991-92	12,203
1992-93	12,500
1993-94	14,239
1994-95	14,544
1995-96	15,007
1996-97	15,852
1997-98	15,904
1998-99	15,156
1999-00	16,589
2000-01	15,608
2001-02	15,758
2002-03	16,333

Year	Production (million fry)
2003-04	19,231
2004-05	20,791
2007-08	24,144
2008-09	32,177
2009-10	29,313
2010-11	34,109
2011-12	36,565
2012-13	34,920
2013-14	41,448
2014-15	39,348
2015-16	35,435
2016-17	35,743
2017-18	44,420
2018-19	48,197
2019-20	52,187
2020-21	54,069
2021-22	291,384
2022-23	358,985

Source: *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

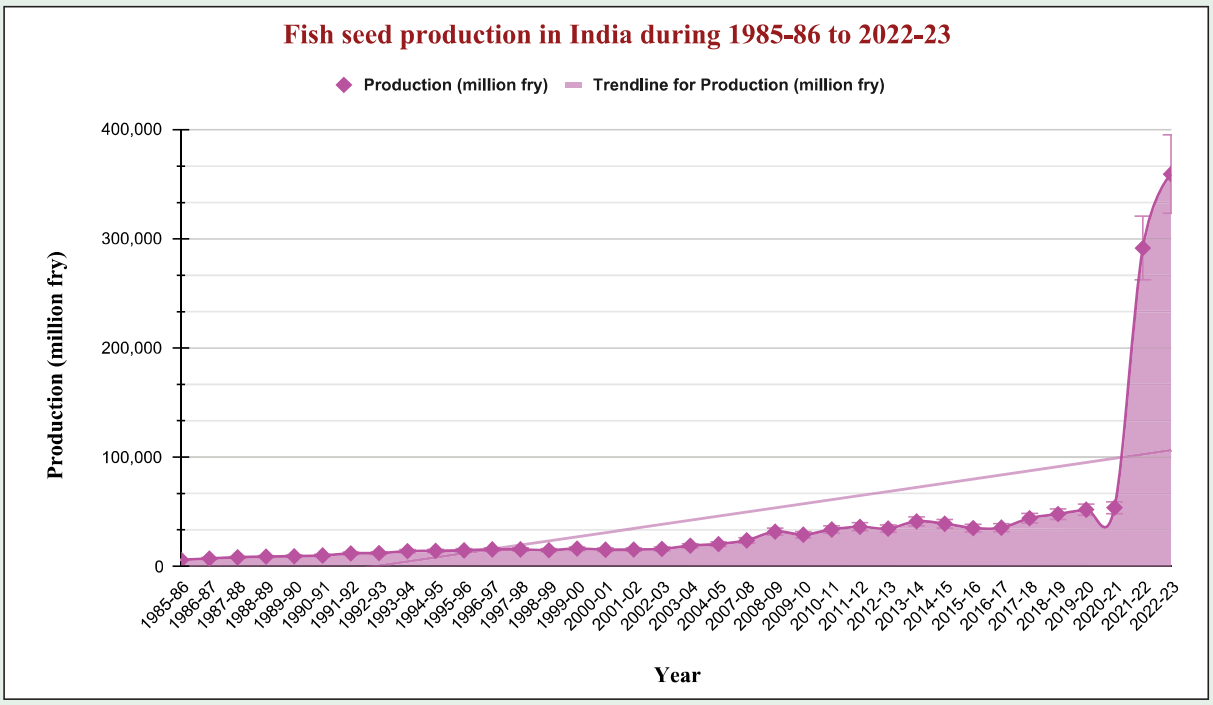


Table 3.22: Number of fishing crafts in maritime States/Union Territories (as on 31.07.2019)

(number)

States/ Union Territories	Deep Sea Fishing Vessel	Motorized non Mechanical	Motorized Mechanical	Non-motorized	Total
Andaman & Nicobar Islands	0	2006	114	1453	3573
Andhra Pradesh	0	23574	2093	15709	41376
Daman & Diu	2	315	1976	0	2293
Goa	0	1	2530	315	2846
Gujarat	0	11650	16513	77	28240
Karnataka	0	9185	4555	9065	22805
Kerala	51	30947	5802	2799	39599
Lakshadweep	0	1458	48	398	1904
Maharashtra	0	0	20667	7653	28320
Orissa	0	13003	1882	15039	29924
Puducherry	0	1970	1042	1834	4846
Tamil Nadu	0	36411	5878	5637	47926
West Bengal	0	6400	3098	5897	15395
Total	**53**	**136920**	**66198**	**65876**	**269047**

Source : *Handbook on Fisheries Statistics 2018*, Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

Table 3.23: State-wise fish seed production

(lakhs fry)

States/ Union Territories	2016-17	2017-18	2018-19	2019-20	2020-21	2021-2022	2022-2023	Total
Andhra Pradesh	7923	8845	8842	5358	38126	7800	6600	83494
Arunachal Pradesh	65	70	0.00	0.00	80	0.00	0.00	215
Assam	67580	80000	98930	95190	98860	182160	2084300	2707020
Bihar	7932.2	9206	9286.5	13727.18	17069.4	19614	26696.2	103531.48
Chhattisgarh	19750.4	22186	25131.8	27386.8	28805.3	301357	34465.4	459082.7
Goa	6	7	6	3	2.5	2.5	3	30
Gujarat	5529.3	1852.3	6340.5	26083.7	9585	771.95	651.32	50814.07
Haryana	7046	4776.8	4229.6	4538.06	7784.6	1927	2272	32574.06
Himachal Pradesh	625	47	18.3	6.8	15.6	174.73	166.3	1053.73
Jharkhand	41501	103349.1	103629	105692.4	114950	1116700	944340	2530161.5
Karnataka	4998.8	2481.1	6298	5816.5	7545.6	6693.5	7078.8	40912.3
Kerala	1770.9	1730.4	944.42	1282	1342	1293.1	765.50	9128.32
Madhya Pradesh	11113	11172.3	13729.83	14592.09	14837.5	17188	21006.52	103639.24
Maharashtra	1895.5	6250	2810.87	13662.7	1964.04	6477	5593.7	38653.81
Manipur	2150	2500	4060.8	2494.8	2788	2943	2872	19808.6
Meghalaya	75.6	97	65.23	162.38	137.9	194.419	219.978	952.507
Mizoram	310	426	406.6	400	200	2500	3500	7742.6
Nagaland	480	481	760	795	798	0.00	635	3949
Odisha	7782.8	8077.4	8962.4	9471.61	11943	15100	27863	89200.21
Punjab	2375	2779.8	2977.4	2642.35	2562.57	12937	12640.7	38914.82
Rajasthan	10988.6	10653	10329.3	12264.1	10870.9	11814	11977.4	78897.3
Sikkim	23.2	6.5	16.25	16.25	14.05	0.00	0.00	76.25
Tamil Nadu	5732	5572.8	13008.7	19426.88	6032	6568	6798	63138.38

Telangana	1876	4179	6500	5500	6720	600000	0.00	624775
Tripura	3137	4350	0.00	0.00	0.00	0.00	0.00	7487
Uttarakhand	746.5	678.8	655.6	289.6	299.85	540	1336.04	4546.39
Uttar Pradesh	27535.6	27128.7	29342.1	30287.8	32331.2	327108.2	34677.16	508410.76
West Bengal	115700	124550	124550	124550	124550	271500	352900	1238300
Andaman & Nicobar Islands	12.8	14.7	0.00	0.00	17	18	23	85.5
Chandigarh	8	8	0.8	0.8	0.8	0.00	0.00	18.4
Dadra & Nagar Haveli & Daman & Diu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delhi	0.00	20	2	15	0.00	0.00	0.00	37
Jammu & Kashmir	770	712	205.6	209.7	457	458	464	3276.3
Ladakh	0.00	0.00	0.00	0.00	0.01	0.8	0.8	1.61
Lakshadweep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Puducherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
India	**357439.20**	**444207.70**	**482039.60**	**521865.50**	**540689.82**	**2913840.20**	**3589845.82**	**8849927.84**

Source : *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
(Website: http://dof.gov.in/fisheries-statistics)

Table 3.24: Details of shrimp production during 2017-18

(Area: ha, Production: Mt, Productivity: Mt/ha/Yr)

States	Tiger shrimp			Whiteleg shrimp (*L. vannamei*)			Scampi		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
West Bengal	51084.00	49319.00	0.97	4127.00	22191.00	5.38	N.A.	5024.00	N.A.
Odisha	2624.00	3887.00	1.48	8862.00	37229.00	4.20	N.A.	1619.00	N.A.
Andhra Pradesh	1880.00	2714.00	1.44	62342.00	456300.00	7.32	N.A.	167.00	N.A.
Kerala	3144.00	1522.00	0.48	52.00	208.00	4.01	N.A.	0.00	N.A.
Gujarat	55.00	162.00	2.97	7542.00	55161.00	7.31	N.A.	1620.00	N.A.
Karnataka	302.00	59.00	0.19	399.00	1465.00	3.67	N.A.	0.00	N.A.
Tamil Nadu	10.00	28.00	2.80	8849.00	43622.00	4.93	N.A.	90.00	N.A.
Maharashtra	0.00	0.00	0.00	1291.00	6073.00	4.71	N.A.	1463.00	N.A.
Goa	0.00	0.00	0.00	32.00	78.00	2.47	N.A.	0.00	N.A.
Total	**59099.00**	**57691.00**	**0.98**	**93496.00**	**622327.00**	**6.66**	**N.A.**	**9983.00**	**N.A.**

Note : N.A.: Not Available

Source : *Handbook on Fisheries Statistics 2018,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

Table 3.25: State-wise fishermen population in 2019-20

(number)

State/UT	No. of Districts	Inland Fishermen Population		Marine Fishermen Population		Whole Population	Fishermen Population/District
		Male	Female	Male	Female		
Andhra Pradesh	13	333,558	288,293	461,712	413,125	5,39,03,393	1,15,129
Arunachal Pradesh	25	15,147	8,868	N.A.	N.A.	15,70,458	961
Assam	33	1,624,059	900,047	N.A.	N.A.	3,56,07,039	76,488
Bihar	38	3,127,733	2,899,642	N.A.	N.A.	12,47,99,926	1,58,615
Chhattisgarh	27	146,971	73,384	N.A.	N.A.	2,94,36,231	8,161
Goa	2	N.A.	N.A.	5,273	5,272	15,86,250	5,273
Gujarat	33	120,900	110,085	167,858	159,848	6,38,72,399	16,930
Haryana	22	117,934	521	N.A.	N.A.	2,82,04,692	5,384
Himachal Pradesh	12	10,739	1,067	N.A.	N.A.	74,51,955	984
Jharkhand	24	94,497	46,400	N.A.	N.A.	3,85,93,948	5,870
Karnataka	30	465,352	180,924	196,970	131,031	6,10,95,027	32,476
Kerala	14	122,377	117,819	431,447	372,718	3,56,99,443	74,597
Madhya Pradesh	52	1,232,957	999,865	N.A.	N.A.	8,53,58,964	42,939
Maharashtra	36	602,536	529,433	197,760	188,499	12,31,44,223	42,173
Manipur	16	3,278	44,433	N.A.	N.A.	30,91,545	2,982
Meghalaya	11	11,745	4,822	N.A.	N.A.	33,66,710	1,506
Mizoram	11	5,328	961	N.A.	N.A.	12,39,244	572
Nagaland	11	5,896	2,062	N.A.	N.A.	22,49,695	723
Odisha	30	549,806	371,613	314,069	282,086	4,63,56,334	50,586

Punjab	22	7,018	573	N.A.	N.A.	3,01,41,373	345
Rajasthan	33	31,880	25,380	N.A.	N.A.	8,10,32,689	1,735
Sikkim	4	488	93	N.A.	N.A.	6,90,251	145
Tamil Nadu	37	125,694	110,220	535,337	512,500	7,78,41,267	34,696
Telangana	33	483,094	379,127	N.A.	N.A.	3,93,62,732	26,128
Tripura	8	7,718	43	N.A.	N.A.	41,69,794	970
Uttarakhand	13	7,260	1,092	N.A.	N.A.	1,12,50,858	642
Uttar Pradesh	75	2,101,383	1,798,622	N.A.	N.A.	23,78,82,725	52,000
West Bengal	23	1,629,481	1,204,093	246,225	156,462	9,96,09,303	1,40,707
A and N Islands	3	2,807	946	12,024	10,164	4,17,036	8,647
Chandigarh	1	524	N.A.	N.A.	N.A.	11,58,473	524
D & Nagar Haveli and Daman & Diu	3	N.A.	N.A.	20,529	19,487	6,15,724	13,339
Delhi	11	3,316	30	N.A.	N.A.	1,87,10,922	304
Jammu & Kashmir	22	17,396	N.A.	N.A.	N.A.	1,36,06,320	791
Ladakh	2	22	N.A.	N.A.	N.A.	2,89,023	11
Lakshadweep	1	NA	N.A.	5,138	1,380	73,183	6,518
Puducherry	4	5,084	3,384	57,310	41,494	14,13,542	26,818
All India	**735**	**13,013,978**	**10,103,842**	**26,51,652**	**22,94,066**	**1,36,48,92,691**	**9,56,669**

Continued...

Number of Fishermen Population engaged in Marine Fisheries activities, 2019-20										
State/UT	**Full Time**		**Part Time**		**Occasional**		**Unspecified**		**Deep Sea**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Andaman and Nicobar Islands	23,629	239	2043	610	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Gujarat	71,777	36,840	19,348	12,362	0	0	0	0	0	0
Karnataka	57,440	43,460	56,155	40,059	6,033	3,721	57,710	45,102	21,602	0
Kerala	3,24,579	2,80,374	0	0	0	0	0	0	0	0
Maharashtra	89375	45495	32713	47527	6140	8196	5234	1127	23008	0
Tamil Nadu	2,00,268	N.A.	65,389	2,01,084	41,748	10,633	37,087	49,015	19,500	N.A.
Daman and Diu	5,093	0	68	0	52	0	0	0	0	0
Lakshadweep	2620	481	2518	899	0	0	0	0	0	0
Puducherry	25,024	12,153	6,359	4,396	1000	800	2,581	10,257	25	0
All India	**12,18,847**		**4,91,530**		**78,323**		**2,08,113**		**64,135**	

Continued...

Number of Fishermen Population engaged in Inland Fisheries activities, 2019-20								
State/UT	**Full Time**		**Part Time**		**Occasional**		**Unspecified**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Arunachal Pradesh	0	0	15347	8918	0	0	0	0
Assam	65693	60628	281107	259530	15357	13979	N.A.	N.A.
Bihar	39067	17734	66404	22890	49380	22164	1984507	1885950
Chhattisgarh	159406	25340	11897	5806	7028	2911	5960	2952
Gujarat	35118	15413	22569	4843	0	0	0	0
Haryana	2349	2348	2790	2789	900	900	2100	2100
Himachal Pradesh	5574	0	6301	0	0	0	0	0
Jharkhand	14500	3200	34450	12800	35700	16200	21400	18700

Karnataka	108656	38462	202460	83229	59665	59665	15800	1378
Kerala	93699	90141	0	0	0	0	0	0
Maharashtra	72641	5333	80325	18807	0	0	0	0
Meghalaya	158108	44595	64610	24331	28952	7487	19537	2093
Mizoram	2241	742	4184	2175	412	715	615	1553
Nagaland	1925	710	3775	2368	5480	1461	401	57
Odisha	1358	251	2358	458	1012	100	600	152
Rajasthan	176	79	197	340	2122	651	2122	915
Sikkim	165270	58994	140217	57040	124373	3441	139457	111183
Tamil Nadu	6265	0	14128	N.A.	920	N.A.	N.A.	N.A.
Telangana	2500	127	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Tripura	3727	524	4289	604	592	83	N.A.	N.A.
Uttarakhand	1898	442	5738	1226	1171	82	398	69
Uttar Pradesh	102316	18055	38000	N.A.	N.A.	N.A.	N.A.	N.A.
Chandigarh	5	5	0	N.A.	N.A.	N.A.	N.A.	N.A.
Daman and Diu	405	391	292	672	142	278	N.A.	N.A.
Delhi	277	N.A.	489	N.A.	115	N.A.	N.A.	N.A.
Jammu & Kashmir	16286	N.A.	880	N.A.	N.A.	N.A.	230	N.A.
Puducherry	1530	510	510	204	250	100	100	50
All India	**13,51,316**	**4,94,969**	**12,49,414**	**5,99,289**	**2,10,531**	**2,10,531**	**22,41,254**	**20,82,054**

Note : NA: Not Available.

Source : *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India.
(Website: http://dof.gov.in/fisheries-statistics)

Table 3.26: Marine fisheries Resources-Coastal States and Union Territories of India

State/Union Territory	Coastal length (Km)	Landing Centre	Fishing Village
Andaman & Nicobar Islands	1912	51	169
Andhra Pradesh	974	350	555
Dadra & Nagar Haveli and Daman and Diu	27	8	12
Goa	104	32	60
Gujarat	1600	107	260
Karnataka	300	115	162
Kerala	590	174	220
Lakshadweep	132	20	10
Maharashtra	720	173	456
Odisha	480	55	739
Puducherry	45	22	39
Tamil Nadu	1076	301	608
West Bengal	158	49	171
Total	**8,118**	**1,457**	**3,461**

Source: *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

Table 3.27: State-wise brackish water area and productivity

States/Union Territories	Total brackish water area (ha)	Area under culture through BFDAs (ha)	Productivity (kg/ha/annum)
Andhra Pradesh	60,000	846	680
Goa	Neg.	574	2000
Gujarat	1,00,000	968	1276
Karnataka	10,000	3022	1826
Kerala	2,40,000	4589	1700
Maharashtra	10,000	1539	600
Odisha	4,30,000	14670	1300
Tamil Nadu	60,000	7548	2000
West Bengal	2,10,000	5994	1106
Puducherry	Neg.	*	N.A.
A & N Islands	1,20,000	N.A.	N.A.
Total	**12,40,000**	**39750**	**12488**

Note : 1. N.A.: Not available, 2. *: No BFDA sanctioned, 3. Neg.: Negligible.
Source : *Handbook on Fisheries Statistics 2014,* Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: http://www.dahd.nic.in)

Table 3.28: Fish processing industries

Facilities	Number	Capacity
Preservation, processing including freezing plant	372	52.5 t/day*
Ice making plants	148	1800 t/day*
Cold storage	450	80000 t/day*
Fish meal plant	15	330 t/day*
Prawn peeling sheds	900 (Registered)	2684 t/day*

Note : *: Workshop proceedings of NCAER, March 2003.
Source : 1. Central Institute of Agricultural Engineering, NabiBagh, Berasia Road, Bhopal.
2. A profile of people – technological and policies and fisheries sector in India. (Workshop proceedings of NCAER, March 2003).

Table 3.29: State-wise inland fishery resources during 2022-23

States/ Union Territories	Rivers and Canals (Km)	Small Reservoirs		Medium & Large Reservoirs		Tanks and Ponds (Ha)	Brackish Water (Ha)	Beels/ Oxbow Lakes/ Derelict Water (Ha)	Any other than rivers and canals (Ha)
		Number	Area(ha)	Number	Area(ha)				
Andhra Pradesh	11514	90	34693	26	130698	347888	56215	130000	0
Arunachal Pradesh	11157	4	226	0	0	0	0	3277	0
Assam	11304.48	4	3096	2	1863	94693.47	0	71843.5	259369
Bihar	21354	0	0	48	64466	122418.96	0	950000	0
Chhattisgarh	3573	1757	43565	13	39035	120100	0	0	0
Goa	578.5	4	484	1	2964	101	198.86	0	0
Gujarat	3865	686	22427	227	203679	22000	187000	0	0
Haryana*	7197	14	645	0	0	16174	0	0	0
Himachal Pradesh*	3000	0	0	5	43785	878.4	0	0	0
Jharkhand	1800	412	28789.6	23	104363	86539	0	0	19936
Karnataka*	9630	34	7595	49	265063	313304	8000	0	0
Kerala	3220	37	10491	10	23714	27625	65213	0	60926
Madhya Pradesh	17088	3385	13034	27	230703	79312	0	0	0
Maharashtra	26065	2415	131366.72	81	128535	80190.3	12024.8	NA	5560
Manipur	1647	5	960	1	1182	11894.8	0	29161	0
Meghalaya*	4757.76	7	717.53	0	0	4690.94	0	303.11	302.54
Mizoram	1750	3	10	2	8000	5759.1	0	10	0
Nagaland	1600	0	0	1	2258	3623	0	1110	0
Odisha*	24877.75	603	34608	8	165771	154808	32587	180000	0

States/ Union Territories	Rivers and Canals (Km)	Small Reservoirs		Medium & Large Reservoirs		Tanks and Ponds (Ha)	Brackish Water (Ha)	Beels/ Oxbow Lakes/ Derelict Water (Ha)	Any other than rivers and canals (Ha)
		Number	Area(ha)	Number	Area(ha)				
Punjab	868	12	686.75	1	3100	16812.5	156.8	0	0
Rajasthan	30000	2388	145823	48	254475	30266	50	0	0
Sikkim	1600	9	200.56	0	0	1579	0	0	0
Tamil Nadu*	7420	54	16059	8	62015	21869113	56000	7000	35283.84
Telangana	3492	53	27017	39	156815	520302	0	0	0
Tripura	1080	0	0	1	3049.35	30171.4	0	100	1753.72
Uttarakhand*	2686	0	0	7	20587	916.14	0	0	50
Uttar Pradesh	70000	53	12899.59	29	144693	145808.68	NA	34935.1	1458000
West Bengal	27859	8	245	31	14077	288385	91130	42081	150000
Andaman and Nicobar Islands	0	7	367	0	0	195.4	618.806	0	0
Chandigarh	0	0	0	3	300	2.06	0	0	0
Dadra & Nagar Haveli and Daman and Diu	0	0	0	0	0	0	0	0	0
Delhi	50	0	0	0	0	10	0	0	0
Jammu & Kashmir*	26211	6	4230	2	6000	1701	0	0	21396
Ladakh*	4570	1	1.5	1	250	7.52	97700	0	0
Lakshadweep	0	0	0	0	0	184	0	0	0
Puducherry	92.09	N.A.	303.33	NA	1357.12	473.09	82.49	0	0
All India	**341906.58**	**12906**	**754832.81**	**694**	**2082797.47**	**2747504.89**	**606976.756**	**1449820.71**	**2012577.1**

Note : 1. * Meghalaya: Beeels= 225.23 Lakes= 60.95, Swamps and low- lying areas= 66.94 2. * Karnataka: Saline/ Alkaline= 238893 Ha 3. *Uttarakhand : Raceways 3.38 Ha 4. * Himanchal Pradesh Raceways 4.42 Ha, 5. * Jammu & Kashmir: Raceways= 35 Ha, 6. * Ladakh: Raceways= 3.8 Ha, 7. * Odisha:Brackish Water area suitable for culture - 32587 Ha, Backwater - 8100 Ha, Brackish Water Chilika Lake - 79000 Ha, Estuaries - 297850 Ha, 8.* Haryana:Saline /Alkaline= 344 Ha, 9.* Tamil Nadu: Saline /Alkaline= 6263 Ha

Source : *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India (Website: http://dof.gov.in/fisheries-statistics)

Table 3.30: Major and Minor Fishing Harbours-Outlays and Expenditure, since inception of the scheme in 1964

(In Lakhs)

Plan Period	Major Harbours		Minor Harbours and fish landing center	
	Outlay	Expenditure	Outlay	Expenditure
Third Plan	5	17	0.00	0.00
Three Annual Plan (1966-67 to 1968-69)	253	3	295	157
Fourth Plan	1350	158	600	485
Fifth Plan	1800	1210	1200	321
Annual Plan				
i) 1978-79	500	308	600	394
ii) 1979-80	550	206	0.00	1
Sixth Plan	1700	1320	1900	1795
Annual Plan				
i) 1990-91	492	492	432	432
ii) l991-92	500	545	600	600
Eighth Plan	5213	4575	4675	4903
Ninth Plan	0.00	0.00	11000	6144.96
Tenth Plan	0.00	0.00	10000	7666.84
Eleventh Plan (2007-08 to 2011-12)	0.00	0.00	21571.79	21571.79
12th Plan (Implemented from 2012-13 to 2016-17)				
2012-13	0.00	0.00	5375.86	5375.86
2013-14	0.00	0.00	5234.605	5234.605
2014-15	0.00	0.00	5393.78	5393.78
Blue Revolution Scheme for new projects (2015-16 to 2019-20)				
2015-16	0.00	0.00	10076.85	10076.85
2016-17	0.00	0.00	9210	9210
Total of 12th Plan	0.00	0.00	35291.095	35291.095
2017-18	0.00	0.00	14815	14814.97
2018-19	0.00	0.00	29356.17	29356.17
2019-20	0.00	0.00	10273.5	10273.5
Pradhan Mantri Matsya Sampada Yojana (PMMSY)				
2020-21	0.00	0.00	6661.5	6661.5
2021-22	0.00	0.00	10433.2	10433.2
2022-23	12143	12143	2515.55	2515.55
Total	**26206**	**22661**	**164119.81**	**155986.58**

Source : *Handbook on Fisheries Statistics 2023,* Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://dof.gov.in/fisheries-statistics)

भाकृअनुप
ICAR

भाग-IV
बागवानी

SECTION-IV
Horticulture

भाकृअनुप
ICAR

Table 4.1: All India area, production and productivity of horticulture crops

(Area: 000' ha, Production: 000't, Productivity: t/ha)

Year	Fruits			Vegetables			Flowers & Aromatics		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
2001-02	4010	43001	10.72	6156	88622	14.40	106	535	5.05
2002-03	3788	45203	11.93	6092	84815	13.92	70	735	10.50
2003-04	4661	45942	9.86	6082	88334	14.52	101	580	5.74
2004-05	5049	50867	10.07	6744	101246	15.01	118	659	5.58
2005-06	5324	55356	10.40	7213	111399	15.44	391	856	2.19
2006-07	5554	59563	10.72	7581	114993	15.17	468	1058	2.26
2007-08	5857	65587	11.20	7848	128449	16.37	563	1264	2.25
2008-09	6101	68466	11.22	7981	129077	16.17	597	1417	2.37
2009-10	6329	71516	11.30	7985	133738	16.75	692	1593	2.30
2010-11	6383	74878	11.73	8495	146554	17.25	701	1636	2.33
2011-12	6705	76424	11.40	8989	156325	17.39	760	2218	2.92
2012-13	6982	81285	11.64	9205	162187	17.62	790	2647	3.35
2013-14	7216	88977	12.33	9396	162897	17.34	748	3192	4.27
2014-15	6110	86602	14.17	9542	169478	17.76	908	3143	3.46
2015-16	6301	90183	14.31	10106	169064	16.73	912	3206	3.52
2016-17	6373	92918	14.58	10238	178172	17.40	970	3364	3.47
2017-18	6506	97358	14.96	10259	184394	17.97	1044	3651	3.49
2018-19	6597	97967	14.85	10073	183170	18.18	930	3705	3.98
2019-20	6744	102080	15.14	10310	188284	18.26	964	3734	3.87
2020-21	6930	102481	14.79	10859	200445	18.46	975	3805	3.90
2021-22	7064	107507	15.22	11374	209143	18.39	950	3477	3.66
2022-23	7025	110207	15.69	11309	212548	18.79	1039	3705	3.57
2023-24*	7046	112628	15.98	11112	204958	18.44	1039	3876	3.73

Continued...

Year	Plantation Crops			Spices			Total		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
2001-02	2984	9697	3.25	3220	3765	1.17	16592	145785	8.79
2002-03	2984	9697	3.25	3220	3765	1.17	16270	144380	8.87
2003-04	3102	13161	4.24	5155	5113	0.99	19208	153302	7.98
2004-05	3147	9835	3.13	3150	4001	1.27	18445	166939	9.05
2005-06	3283	11263	3.43	2366	3705	1.57	18707	182816	9.77
2006-07	3207	12007	3.74	2448	3953	1.61	19389	191813	9.89
2007-08	3190	11300	3.54	2617	4357	1.66	20207	211235	10.45
2008-09	3217	11336	3.52	2629	4145	1.58	20662	214716	10.39
2009-10	3265	11928	3.65	2464	4016	1.63	20876	223089	10.69
2010-11	3306	12007	3.63	2940	5350	1.82	21825	240531	11.02
2011-12	3577	16359	4.57	3212	5951	1.85	23243	257277	11.07
2012-13	3641	16985	4.66	3076	5744	1.87	23694	268848	11.35
2013-14	3675	16301	4.44	3163	5908	1.87	24198	277352	11.46
2014-15	3534	15575	4.41	3317	6108	1.84	23410	280986	12.00
2015-16	3680	16658	4.53	3474	6988	2.01	24472	286188	11.69
2016-17	3598	17972	4.99	3671	8122	2.21	24851	300643	12.10
2017-18	3744	18082	4.83	3878	8124	2.09	25431	311714	12.26
2018-19	4069	16592	4.08	4067	9500	2.34	25737	311052	12.09
2019-20	4143	16116	3.89	4291	10137	2.36	26482	320471	12.10
2020-21	4255	16629	3.91	4457	11117	2.49	27476	334603	12.18
2021-22	4293	15764	3.67	4360	11155	2.56	28042	347179	12.38
2022-23	4551	17049	3.75	4515	11830	2.62	28438	355482	12.50
2023-24*	4643	18374	3.96	4789	12248	2.56	28629	352231	12.30

Note : * *Figures are as per 2nd Advance Estimates*

Source : 1. 2001-02 to 2010-11: *Indian Horticulture Database,* National Horticulture Board.

2. 2011-12 to 2017-18: *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India.

3. Website: https://agriwelfare.gov.in/en/StatHortEst.

Table 4.2: All India area and production of fruit crops

(Area: 000' ha, Production: 000' Mt)

Crop	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Almond	10.28	12.05	9.92	12.46	9.89	12.22
Aonla/ Gooseberry	104.71	1278.19	105.70	1317.55	98.14	1273.78
Apple	315.13	2589.18	304.17	2875.81	304.20	2674.68
Banana	962.64	34527.93	994.14	36614.04	995.19	37474.18
Ber	51.55	546.86	52.23	530.64	47.92	512.03
Citrus.						
(i) Lime/ Lemon	312.66	3776.35	312.37	3786.72	317.26	3902.52
(ii) Mandarin	454.18	6302.55	459.91	6178.07	446.26	6170.37
(iii) Sweet Orange (Mosambi)	228.35	3895.43	231.45	3927.07	232.57	3945.84
(iv) Others	103.11	782.25	96.70	713.37	94.68	721.64
Citrus total (i to iv)	**1098.30**	**14756.58**	**1100.43**	**14605.22**	**1090.78**	**14740.37**
Custard apple	48.14	418.45	51.72	460.10	56.38	510.03
Dragon Fruit (Kamalam)	N.A.	N.A.	5.30	21.22	13.77	52.47
Grapes	163.42	3400.54	169.35	3739.65	175.93	3896.46
Guava	353.81	5526.62	351.90	5364.49	345.48	5449.47
Jackfruit	194.87	3301.04	190.22	3260.18	185.60	3249.48
Kiwi	5.09	15.84	5.44	18.01	5.45	18.41
Litchi	99.33	737.22	96.18	746.00	98.56	764.64
Mango	2350.30	20772.33	2346.09	20872.22	2405.88	22547.70
Muskmelon	68.50	1498.13	66.72	1497.61	65.73	1485.66
Papaya	149.56	5341.17	148.20	5239.64	148.81	5341.83
Passion fruit	11.33	55.89	11.20	56.53	11.16	56.36
Peach	19.17	121.24	16.49	101.71	16.34	107.93
Pear	43.86	309.10	34.78	270.74	35.05	273.16
Picanut	0.91	0.49	1.47	0.31	1.47	0.31
Pineapple	108.50	1850.73	108.01	1827.98	104.53	1801.57
Plum	23.87	86.42	17.78	65.11	17.80	67.54
Pomegranate	270.48	3086.42	257.91	3097.72	234.57	2933.85
Sapota	77.94	940.68	72.80	875.13	73.46	897.06
Strawberry	2.57	11.38	2.42	18.87	2.41	13.92
Walnut	103.55	288.93	97.09	316.01	97.09	315.86
Watermelon	119.95	3308.13	126.18	3626.23	125.45	3594.55
Other Fruits	306.21	2725.72	280.86	2776.27	279.02	2562.48
Total fruits	**7063.94**	**107507.24**	**7024.70**	**110207.45**	**7046.08**	**112627.99**

Note : ** Figures are as per Second Advance Estimates; N.A.: Not Available*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

Table 4.3: All India area and production of vegetable crops

(Area: 000' ha, Production: 000't)

Crops	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Beans	299.72	2725.85	308.82	2831.17	312.06	2884.48
Bitter Gourd	109.51	1375.82	114.77	1428.65	134.83	1751.45
Bottle Gourd	194.84	3209.54	200.80	3363.66	222.77	3720.20
Brinjal	674.70	12764.93	680.65	12972.39	680.78	12810.33
Cabbage	423.41	9824.99	432.68	10048.62	435.96	10254.20
Capsicum	37.20	585.55	39.98	642.85	39.73	631.53
Carrot	133.55	2283.95	122.66	2399.01	126.46	2664.43
Cauliflower	481.33	9566.20	491.49	9548.01	501.47	9687.14
Cucumber	119.13	1694.21	127.49	1711.72	139.70	1922.31
Chillies (Green)	426.56	4699.88	412.97	4495.73	416.53	4498.46
Elephant Foot Yam	42.10	1040.23	38.92	987.37	39.58	979.39
Mushroom	N.A.	280.38	N.A.	314.84	N.A.	336.17
Okra/ Lady Finger	550.02	6873.32	548.95	7157.64	553.95	7252.51
Onion	1941.12	31687.19	1739.98	30207.89	1537.38	24212.33
Parwal/ Pointed Gourd	80.91	763.48	62.51	752.46	76.04	986.68
Peas	589.95	6182.40	608.70	6592.02	607.02	6609.12
Potato	2225.75	56175.75	2332.16	60141.60	2326.77	56761.79
Radish	205.13	3214.41	200.82	3099.71	199.58	3146.43
Pumpkin/ Kaddu/Sitaphal	111.18	2364.09	113.35	2426.50	120.73	2659.07
Sweet Potato	106.87	1184.23	110.18	1288.87	110.66	1306.14
Tapioca	172.15	6212.92	166.29	5937.54	177.98	6272.92
Tomato	842.75	20694.30	848.71	20425.32	872.88	21238.15
Other Vegetables	1606.52	23739.77	1605.84	23774.87	1478.72	22372.85
Total vegetables	**11374.40**	**209143.40**	**11308.73**	**212548.44**	**11111.57**	**204958.08**

Note : * *Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

Table 4.4: State-wise area and production of fruit crops

(Area: 000' ha, Production: 000't)

States/ Union Territories	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	788.22	18999.02	780.32	18112.01	796.19	17790.45
Arunachal Pradesh	30.09	138.16	30.09	138.16	30.09	138.16
Assam	163.54	2539.77	164.59	2608.47	149.19	2367.97
Bihar	363.77	4986.74	371.22	5059.04	366.82	4671.73
Chhattisgarh	222.57	2473.63	223.88	2473.36	222.10	2455.58
Gujarat	432.52	8260.78	441.51	8284.32	430.03	8226.55
Haryana	73.08	1263.72	69.14	1010.49	10.92	662.70
Himachal Pradesh	234.78	796.79	236.47	814.61	236.47	721.98
Jammu & Kashmir	337.57	2254.80	343.75	2721.61	344.29	2631.69
Jharkhand	108.14	1312.18	112.35	1272.63	113.00	1268.44
Karnataka	416.22	8016.25	376.29	7142.38	394.81	7477.10
Kerala	310.97	1918.06	301.98	3070.22	294.79	3072.10
Madhya Pradesh	432.24	8939.47	450.11	9142.76	456.96	9611.12
Maharashtra	831.18	12466.98	839.25	13662.06	860.01	15174.55
Manipur	43.12	468.16	43.12	468.16	43.12	468.16
Meghalaya	37.38	378.16	39.55	395.11	40.02	400.45
Mizoram	66.45	345.36	67.70	345.39	68.40	345.59
Nagaland	34.02	312.29	35.34	344.19	35.40	344.97
Odisha	366.66	2782.60	367.95	2789.52	386.23	2948.41
Punjab	106.43	2328.14	109.88	2412.26	113.70	2507.36
Rajasthan	80.75	735.78	88.29	953.25	87.97	1013.74
Sikkim	20.17	51.35	20.18	50.80	20.18	50.80
Tamil Nadu	323.61	6761.93	333.57	7443.18	334.25	7528.63
Telangana	178.43	2394.51	179.64	2289.04	187.34	2384.02
Tripura	55.70	570.01	59.00	616.49	41.45	441.15
Uttar Pradesh	505.13	11113.86	524.62	11838.78	570.97	13166.24
Uttarakhand	181.07	648.90	81.69	369.45	81.59	292.22
West Bengal	289.74	3862.26	313.67	4233.39	314.70	4229.86
Others	15.87	121.86	19.58	146.31	15.11	236.26
Total	**7049.40**	**107241.51**	**7024.70**	**110207.45**	**7046.08**	**112627.99**

Note : * *Figures are as per Second Advance Estimates; NA: Not Applicable*
Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of fruit crops

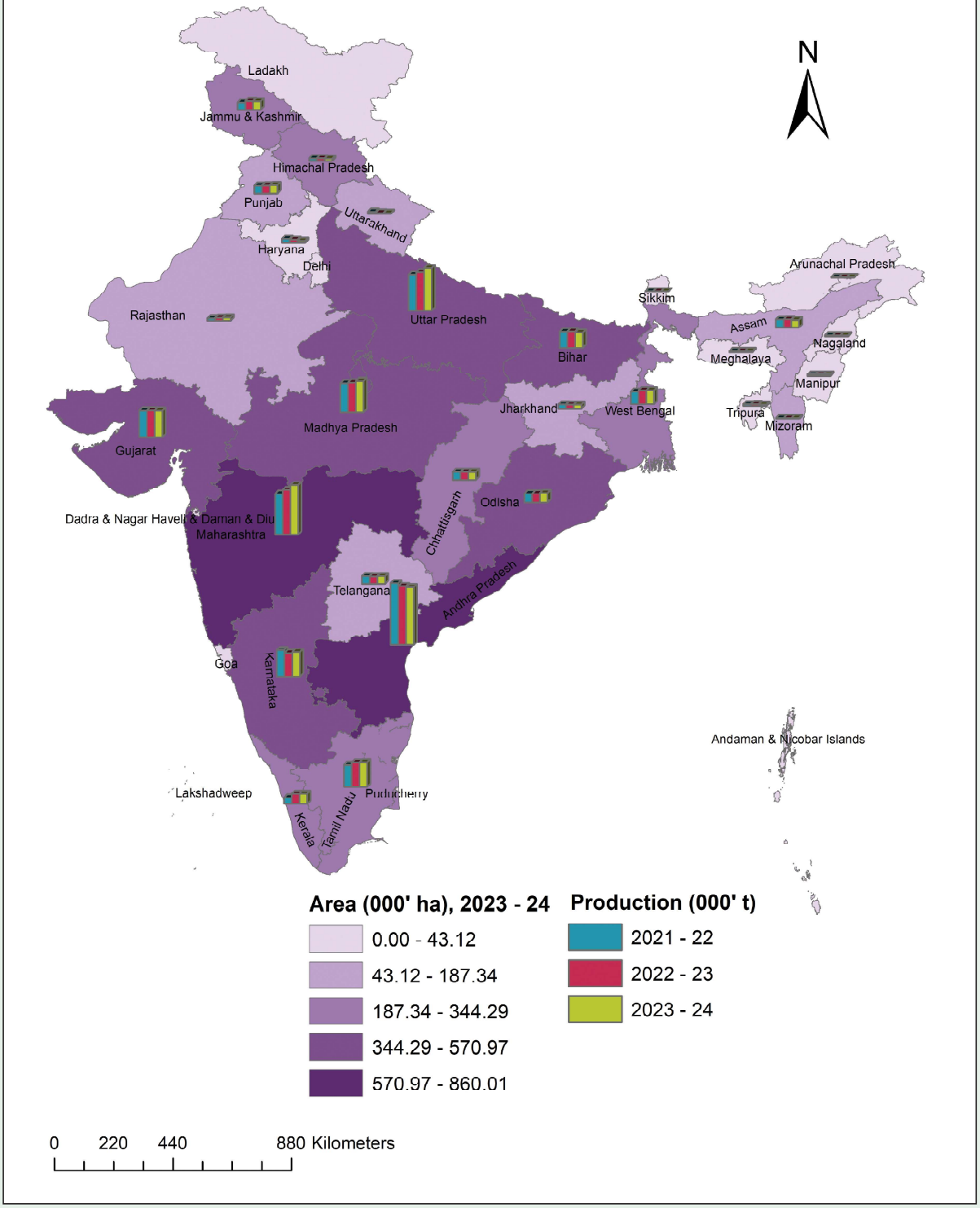


Table 4.5: State-wise area, production and productivity of Mango

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	393.94	4727.32	12.00	398.82	4985.28	12.50	398.82	4985.28	12.50
Arunachal Pradesh	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Assam	4.83	63.63	13.17	4.86	63.98	13.16	4.84	64.32	13.29
Bihar	160.24	1549.97	9.67	162.99	1576.06	9.67	164.23	1584.31	9.65
Chhatisgarh	77.44	465.45	6.01	78.24	471.15	6.02	78.51	473.55	6.03
Gujarat	166.33	917.20	5.51	173.52	960.17	5.53	177.62	1089.16	6.13
Haryana	9.65	108.77	11.27	7.77	87.22	11.23	0.04	75.51	1887.75
Himachal Pradesh	42.38	39.11	0.92	42.48	45.50	1.07	42.48	36.17	0.85
Jammu & Kashmir	13.96	29.41	2.11	14.36	31.36	2.18	14.39	31.15	2.16
Jharkhand	55.93	459.38	8.21	60.97	522.75	8.57	61.39	527.97	8.60
Karnataka	166.71	1620.21	9.72	148.38	1462.25	9.85	157.28	1549.99	9.85
Kerala	75.84	470.04	6.20	76.69	475.59	6.20	74.30	504.91	6.80
Madhya Pradesh	60.33	842.33	13.96	62.94	885.49	14.07	64.68	946.94	14.64
Maharashtra	164.40	459.15	2.79	169.76	390.94	2.30	169.30	522.18	3.08
Manipur	0.09	0.89	9.89	0.09	0.89	9.89	0.09	0.89	9.89
Meghalaya	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Mizoram	0.96	4.27	4.45	0.96	4.27	4.45	0.96	4.27	4.45
Nagaland	0.54	3.70	6.85	0.56	3.94	7.04	0.56	3.94	7.04
Odisha	218.59	850.30	3.89	219.32	850.36	3.88	229.34	888.32	3.87
Punjab	8.90	156.20	17.55	9.00	164.58	18.29	9.13	173.95	19.05
Rajasthan	5.67	70.85	12.50	5.14	70.65	13.75	5.41	71.93	13.30
Sikkim	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Tamil Nadu	147.98	943.37	6.37	145.89	924.85	6.34	145.55	916.75	6.30
Telangana	129.82	1165.13	8.97	131.23	1024.46	7.81	134.78	1114.11	8.27
Tripura	10.36	52.72	5.09	10.16	51.14	5.03	6.68	34.78	5.21
Uttar Pradesh	279.31	4662.45	16.69	279.31	4662.45	16.69	323.07	5807.19	17.98
Uttarakhand	36.60	150.67	4.12	21.05	113.41	5.39	21.08	112.08	5.32
West Bengal	113.90	942.99	8.28	116.01	1027.58	8.86	116.37	1012.28	8.70
Others	5.61	16.85	3.00	5.62	15.92	2.83	4.99	15.81	3.17
Total	**2350.30**	**20772.33**	8.84	**2346.09**	**20872.22**	8.90	**2405.88**	**22547.70**	9.37

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Mango during 2023-24

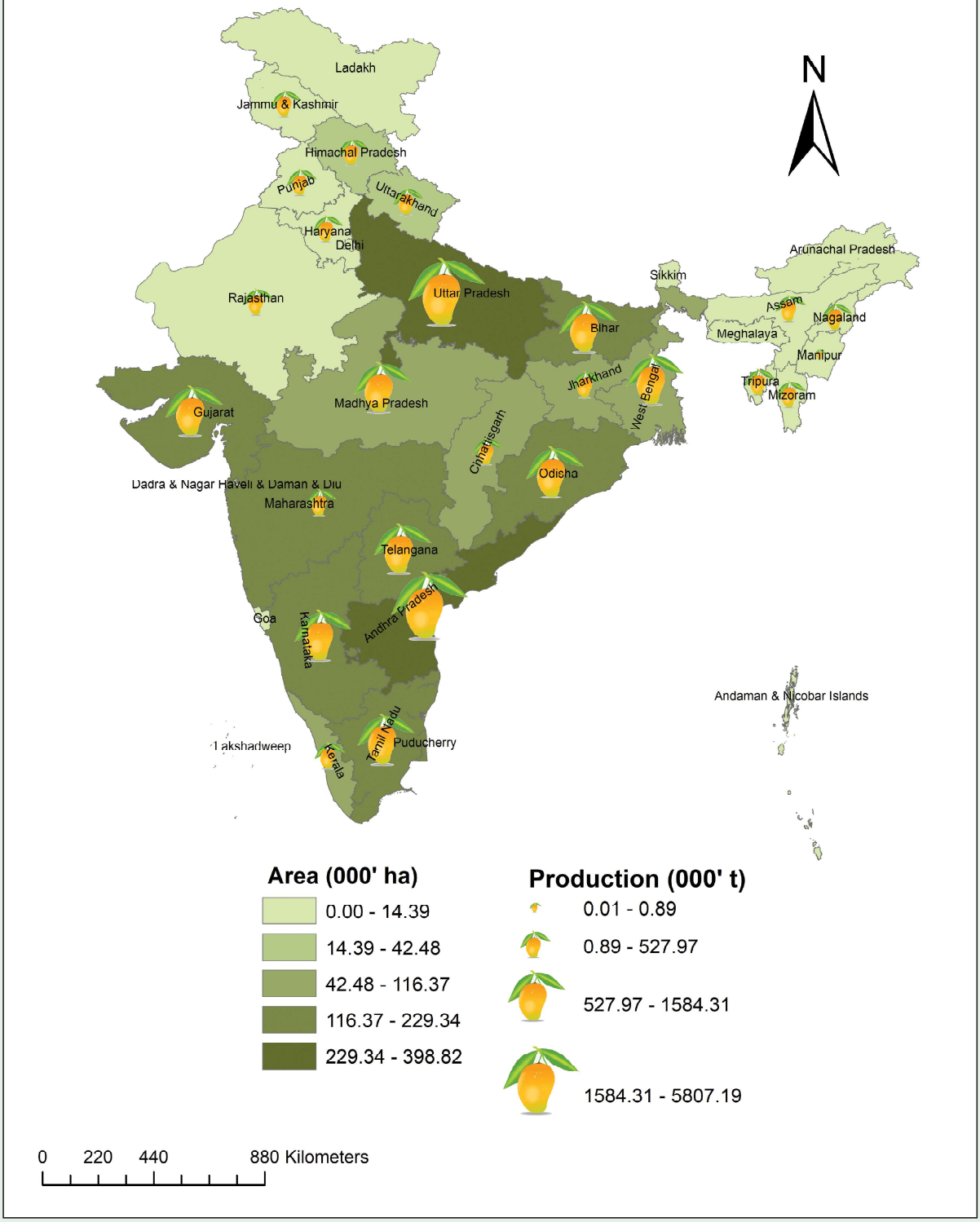


Table 4.6: State-wise area, production and productivity of Banana

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	109.32	5684.47	52.00	111.22	6116.94	55.00	106.02	5830.93	55.00
Arunachal Pradesh	2.54	16.29	6.41	2.54	16.29	6.41	2.54	16.29	6.41
Assam	58.33	1108.00	19.00	58.71	1115.45	19.00	50.34	997.02	19.81
Bihar	42.92	1968.21	45.86	44.08	2004.27	45.47	42.63	1619.06	37.98
Chhatisgarh	24.61	587.15	23.86	24.54	590.15	24.05	24.25	586.65	24.19
Gujarat	60.09	3971.56	66.09	60.60	3994.55	65.92	59.41	3992.20	67.20
Haryana	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
Himachal Pradesh	0.07	0.10	1.43	0.06	0.10	1.67	0.06	0.17	2.83
Jammu & Kashmir	N.A	N.A	N.A	0.06	0.13	2.17	0.06	0.13	2.17
Jharkhand	5.71	33.07	5.79	5.86	41.02	7.00	5.82	42.09	7.23
Karnataka	129.64	3430.22	26.46	108.31	2973.30	27.45	113.73	3121.97	27.45
Kerala	100.92	871.26	8.63	101.94	878.14	8.61	102.80	892.99	8.69
Madhya Pradesh	32.24	2219.28	68.84	34.34	2060.20	59.99	33.62	2355.46	70.06
Maharashtra	90.37	4910.93	54.34	101.12	5626.26	55.64	111.00	6525.87	58.79
Manipur	6.02	86.49	14.37	6.02	86.49	14.37	6.02	86.49	14.37
Meghalaya	7.42	95.85	12.92	7.77	100.48	12.93	7.90	102.60	12.99
Mizoram	11.68	140.50	12.03	11.68	140.50	12.03	11.68	140.50	12.03
Nagaland	7.00	86.62	12.37	7.24	94.78	13.09	7.24	94.78	13.09
Odisha	23.67	504.04	21.29	23.70	504.06	21.27	23.93	508.65	21.26
Punjab	0.19	11.36	59.79	0.19	11.76	61.89	0.20	12.40	62.00
Rajasthan	0.03	0.39	13.00	0.04	0.33	8.25	0.04	0.36	9.00
Sikkim	1.30	5.54	4.26	1.30	5.55	4.27	1.30	5.55	4.27
Tamil Nadu	102.19	3953.67	38.69	109.37	4522.62	41.35	112.90	4684.53	41.49
Telangana	2.33	84.95	36.46	2.30	109.61	47.66	2.02	91.08	45.09
Tripura	10.68	110.47	10.34	11.67	114.22	9.79	8.83	92.05	10.42
Uttar Pradesh	73.86	3391.01	45.91	89.93	4037.90	44.90	91.13	4191.85	46.00
Uttarakhand	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
West Bengal	55.10	1203.73	21.85	65.15	1416.13	21.74	65.63	1436.63	21.89
Others	4.42	52.78	11.94	4.41	52.83	11.98	4.09	45.87	11.22
Total	**962.64**	**34527.93**	**35.87**	**994.14**	**36614.04**	**36.83**	**995.19**	**37474.18**	37.66

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Banana during 2023-24

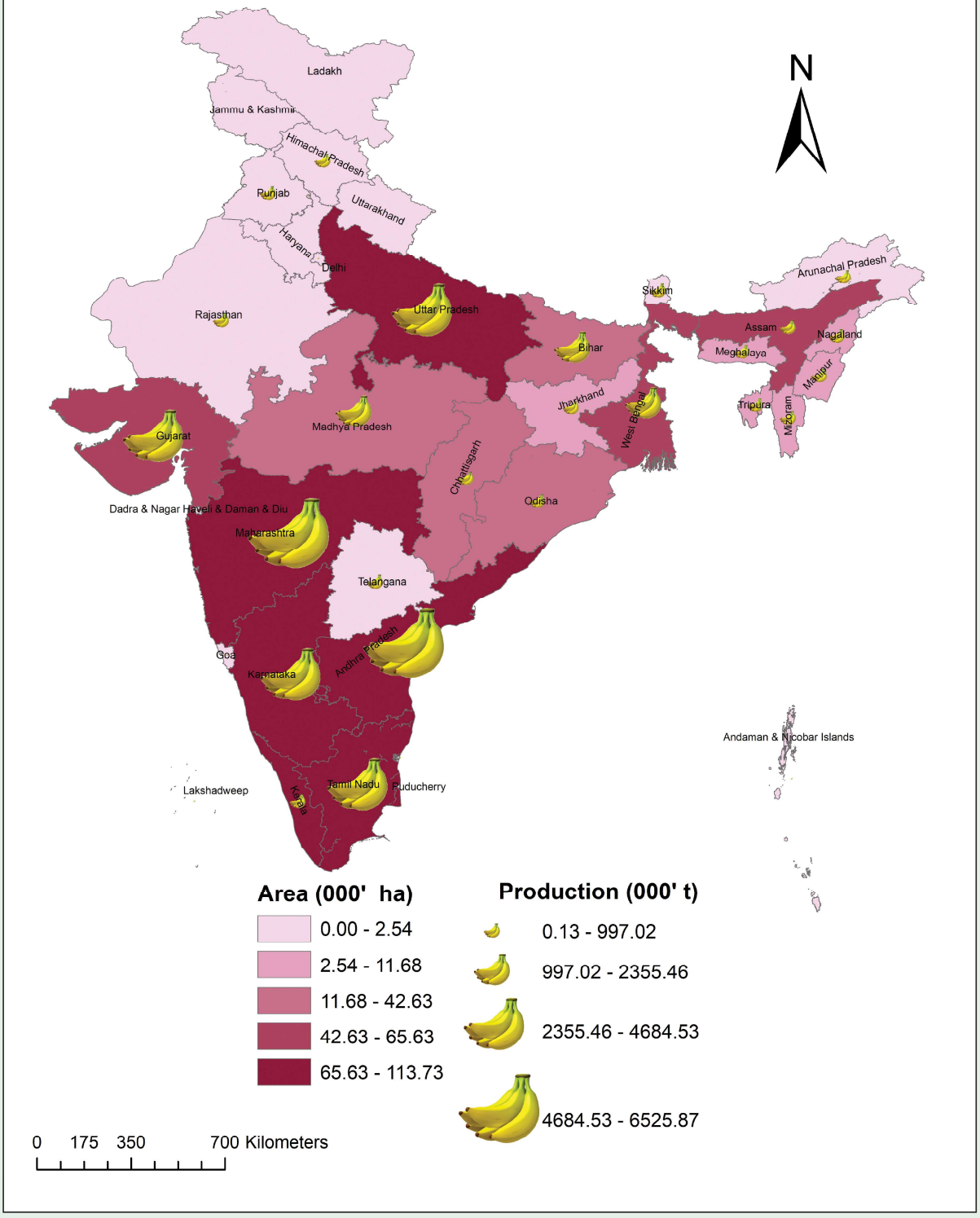


Table 4.7: State-wise area, production and productivity of Total Citrus Fruits

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	157.25	3369.07	21.42	158.13	3162.68	20.00	158.71	3174.16	20.00
Arunachal Pradesh	14.79	84.86	5.74	14.79	84.86	5.74	14.79	84.86	5.74
Assam	33.01	369.56	11.20	31.24	375.19	12.01	28.80	339.56	11.79
Bihar	48.94	378.58	7.74	49.86	380.80	7.64	46.62	362.80	7.78
Chhatisgarh	15.83	133.78	8.45	16.00	134.64	8.42	15.31	127.52	8.33
Gujarat	49.54	637.09	12.86	49.95	643.68	12.89	49.86	636.50	12.77
Haryana	24.40	570.88	23.40	23.92	470.85	19.68	1.18	289.15	245.04
Himachal Pradesh	25.90	32.93	1.27	26.37	31.94	1.21	26.37	37.16	1.41
Jammu & Kashmir	15.68	31.79	2.03	18.01	36.02	2.00	18.11	35.86	1.98
Jharkhand	7.04	90.26	12.82	5.80	94.18	16.24	5.89	94.77	16.09
Karnataka	23.60	543.77	23.04	18.53	425.02	22.94	19.09	437.77	22.93
Kerala	1.02	2.00	1.96	0.97	1.92	1.98	0.96	2.04	2.13
Madhya Pradesh	166.55	2749.76	16.51	167.21	2755.87	16.48	166.93	2741.62	16.42
Maharashtra	213.78	1859.45	8.70	226.09	2335.10	10.33	241.64	2594.29	10.74
Manipur	10.71	111.15	10.38	10.71	111.15	10.38	10.71	111.15	10.38
Meghalaya	12.65	55.87	4.42	13.94	62.02	4.45	13.70	61.19	4.47
Mizoram	28.34	91.03	3.21	28.44	91.03	3.20	28.67	91.07	3.18
Nagaland	6.58	52.25	7.94	6.83	56.15	8.22	6.84	56.15	8.21
Odisha	27.30	303.02	11.10	27.33	303.15	11.09	27.79	314.89	11.33
Punjab	53.67	1312.41	24.45	54.99	1344.60	24.45	56.45	1380.69	24.46
Rajasthan	42.13	672.94	15.97	41.57	467.56	11.25	41.87	540.37	12.91
Sikkim	13.26	26.68	2.01	13.27	26.69	2.01	13.27	26.69	2.01
Tamil Nadu	16.42	241.84	14.73	14.70	211.77	14.41	14.34	206.14	14.38
Telangana	31.33	745.94	23.81	31.93	742.51	23.25	35.85	772.93	21.56
Tripura	11.26	47.72	4.24	10.84	49.50	4.57	7.33	38.90	5.31
Uttar Pradesh	4.97	19.68	3.96	5.29	21.07	3.98	5.33	21.24	3.98
Uttarakhand	21.75	86.85	3.99	9.99	36.91	3.69	10.01	12.94	1.29
West Bengal	20.41	134.50	6.59	23.09	146.40	6.34	23.72	146.03	6.16
Others	0.19	0.91	4.79	0.66	1.98	3.00	0.66	1.95	2.95
Total	**1098.30**	**14756.58**	**13.44**	**1100.43**	**14605.22**	**13.27**	**1090.78**	**14740.37**	**13.51**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Total Citrus Fruits during 2023-24

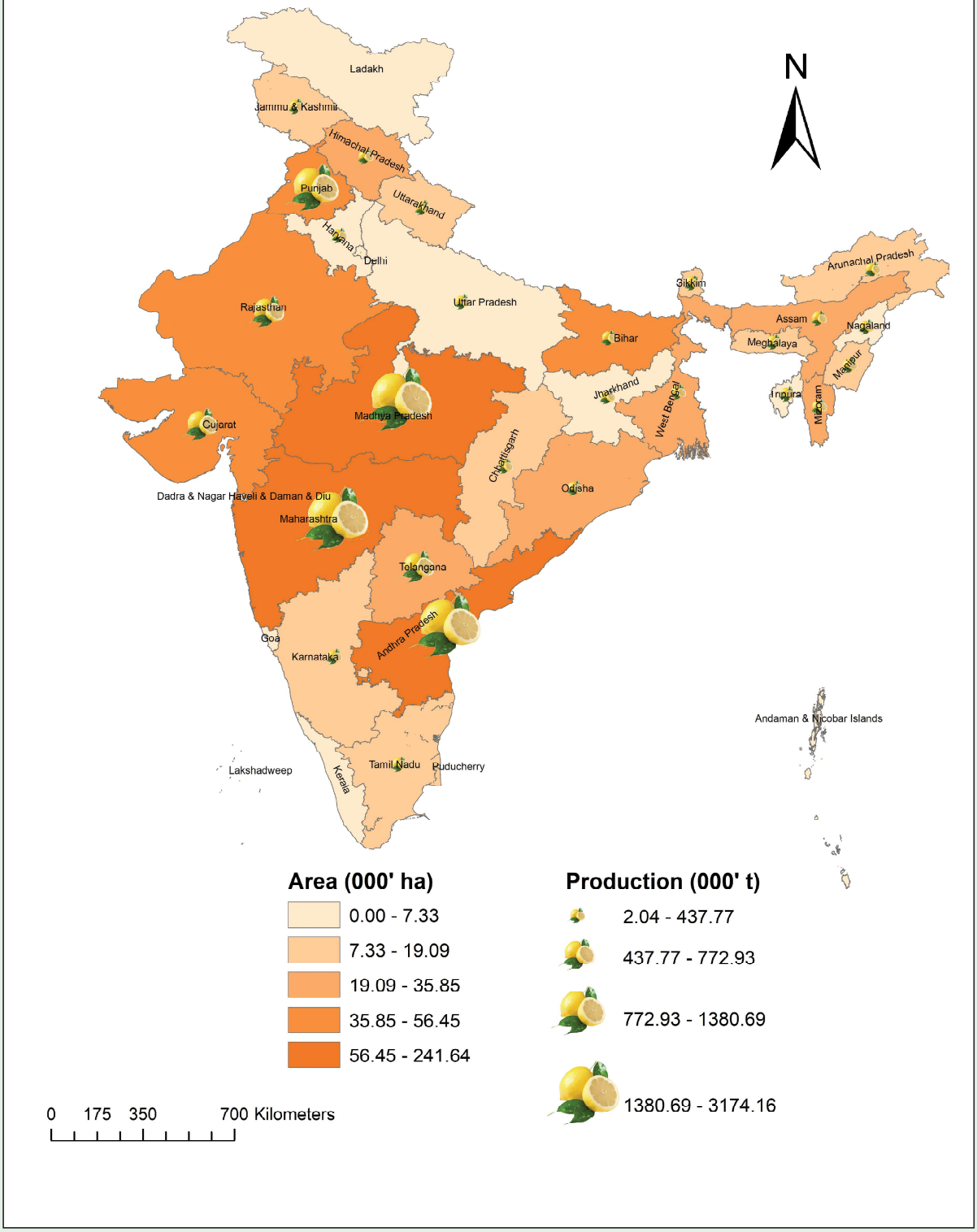


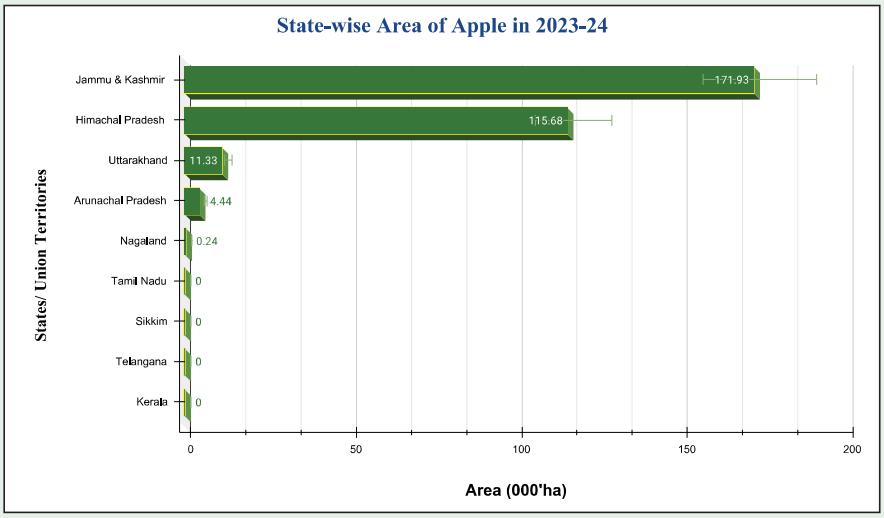
Table 4.8: State-wise area, production and productivity of Apple

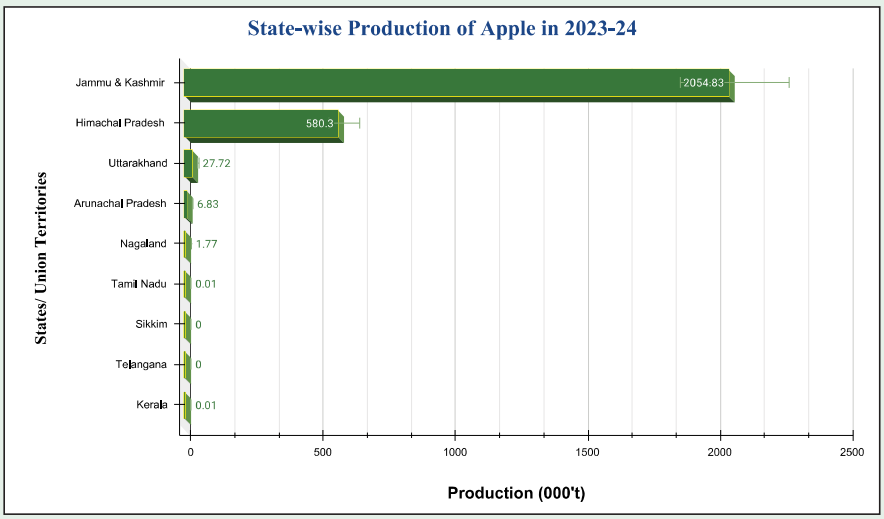
(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Jammu & Kashmir	168.57	1898.59	11.26	171.61	2146.35	12.51	171.93	2054.83	11.95
Himachal Pradesh	115.02	611.90	5.32	115.68	672.34	5.81	115.68	580.30	5.02
Uttarakhand	25.98	64.88	2.50	11.33	43.33	3.82	11.33	27.72	2.45
Arunachal Pradesh	4.44	6.83	1.54	4.44	6.83	1.54	4.44	6.83	1.54
Nagaland	0.24	1.78	7.42	0.24	1.77	7.38	0.24	1.77	7.38
Tamil Nadu	0.00	0.01	N.A.	0.00	0.01	N.A.	0.00	0.01	N.A.
Sikkim	0.00	0.00	N.A.	N.A	N.A	N.A.	0.00	0.00	N.A.
Telangana	0.00	0.01	N.A.	0.00	0.00	N.A.	0.00	0.00	N.A.
Kerala	0.00	0.01	N.A.	0.00	0.01	N.A.	0.00	0.01	N.A.
Total	**314.25**	**2584.01**	**8.22**	**303.30**	**2870.64**	**9.46**	**303.62**	**2671.47**	**8.79**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.





State-wise area and production of Apple during 2023-24

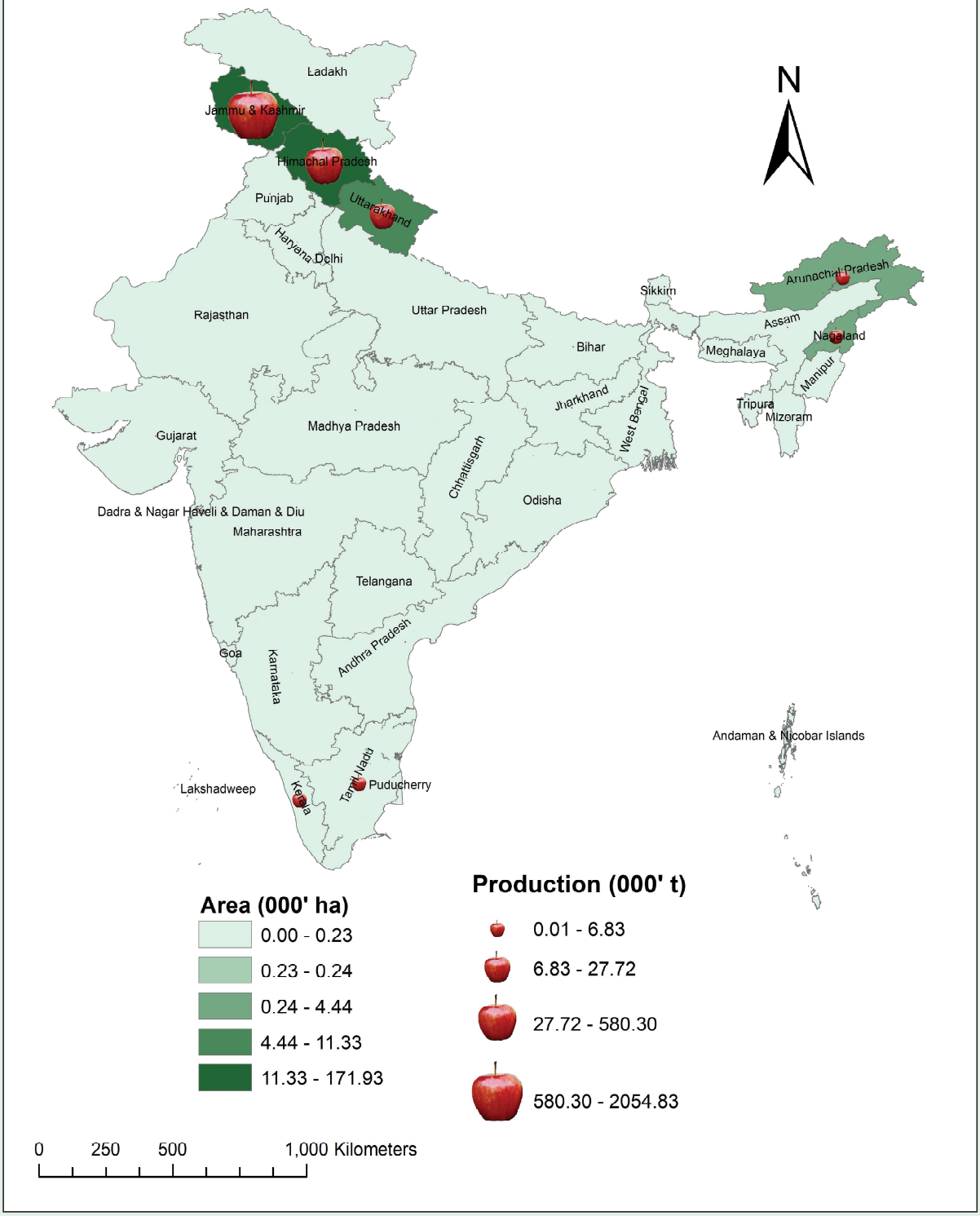


Table 4.9: State-wise area, production and productivity of Papaya

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	16.24	893.25	55.00	13.04	978.00	75.00	12.55	934.68	74.48
Arunachal Pradesh	0.10	0.50	5.00	0.10	0.50	5.00	0.10	0.50	5.00
Assam	7.53	152.73	20.28	7.57	154.09	20.36	8.36	172.84	20.67
Bihar	3.29	95.84	29.13	3.62	99.14	27.39	3.37	99.30	29.47
Chhatisgarh	14.13	368.57	26.08	14.37	373.85	26.02	14.19	372.09	26.22
Gujarat	18.10	1105.52	61.08	18.29	1067.66	58.37	18.27	1061.04	58.08
Haryana	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Himachal Pradesh	0.20	0.91	4.55	0.20	0.87	4.35	0.20	0.94	4.70
Jammu & Kashmir	N.A.	N.A.	N.A.	0.20	0.37	1.85	0.21	0.38	1.81
Jharkhand	3.84	127.90	33.31	3.18	47.09	14.81	3.22	47.28	14.68
Karnataka	6.84	455.50	66.59	4.35	301.44	69.30	4.53	313.49	69.20
Kerala	14.81	88.20	5.96	16.81	100.29	5.97	14.81	95.92	6.48
Madhya Pradesh	12.92	530.09	41.03	13.39	550.01	41.08	13.75	571.20	41.54
Maharashtra	15.90	502.02	31.57	15.20	554.73	36.50	17.62	642.29	36.45
Manipur	0.10	4.47	44.70	0.10	4.47	44.70	0.10	4.47	44.70
Meghalaya	0.89	7.06	7.93	0.90	7.17	7.97	0.93	7.33	7.88
Mizoram	1.37	22.72	16.58	1.47	22.72	15.46	1.47	22.72	15.46
Nagaland	1.04	11.49	11.05	1.06	12.18	11.49	1.06	12.07	11.39
Odisha	5.73	100.61	17.56	5.76	100.65	17.47	6.32	110.36	17.46
Punjab	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Rajasthan	0.57	9.09	15.95	0.66	11.15	16.89	0.61	10.12	16.59
Sikkim	1.12	1.74	1.55	1.12	1.74	1.55	1.12	1.74	1.55
Tamil Nadu	3.24	221.98	68.51	3.19	217.77	68.27	3.21	219.21	68.29
Telangana	2.38	184.16	77.38	2.31	132.75	57.47	2.32	149.46	64.42
Tripura	3.50	35.30	10.09	3.47	33.42	9.63	2.67	26.37	9.88
Uttar Pradesh	2.32	111.85	48.21	2.51	120.96	48.19	2.52	121.72	48.30
Uttarakhand	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
West Bengal	13.25	307.32	23.19	15.16	344.30	22.71	15.13	341.99	22.60
Others	0.17	2.36	13.88	0.20	2.36	11.80	0.20	2.34	11.70
Total	**149.56**	**5341.17**	**35.71**	**148.20**	**5239.64**	**35.36**	**148.81**	**5341.83**	**35.90**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Papaya during 2023-24

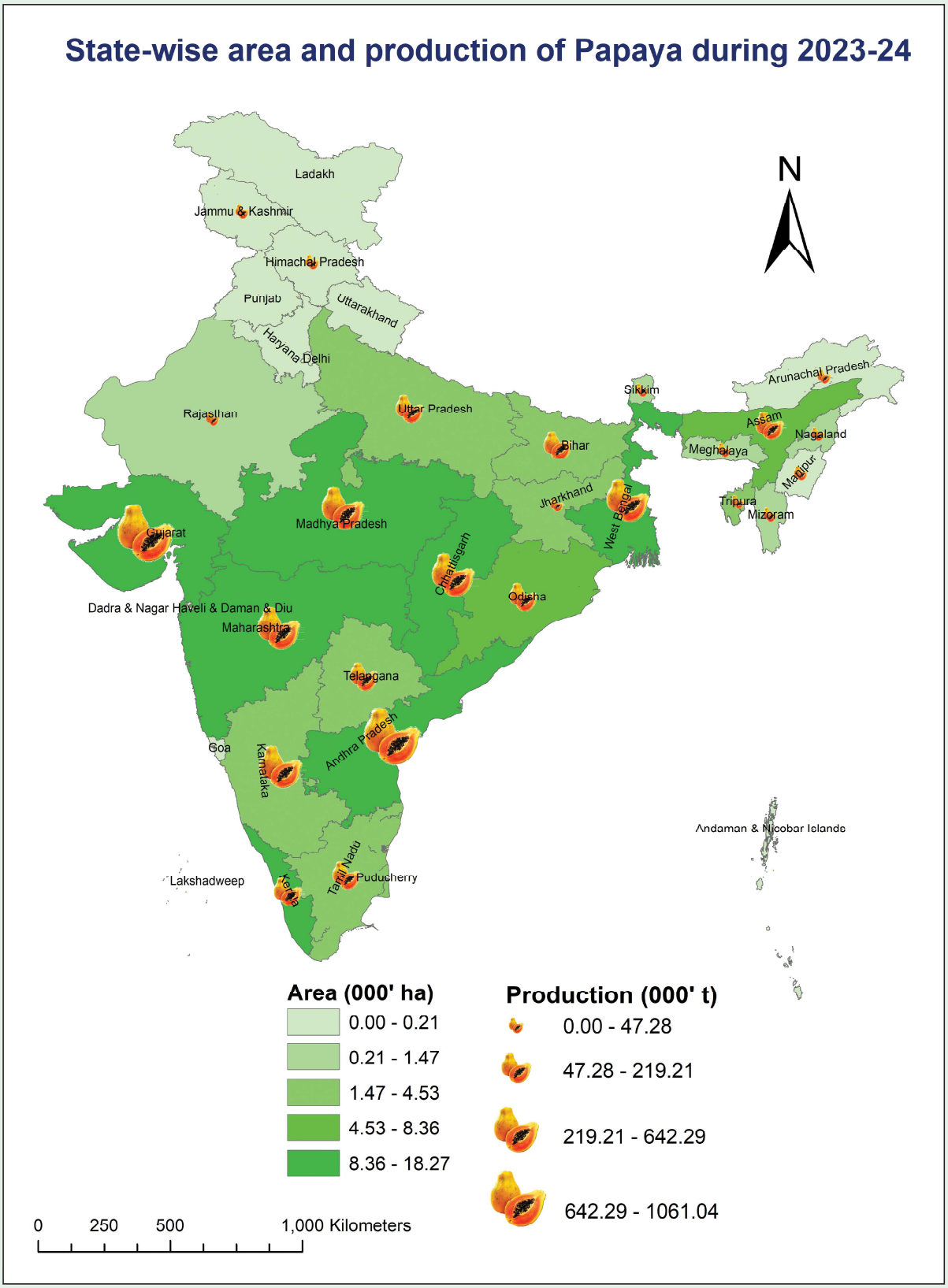


Table 4.10: State-wise area and production of vegetables

States/ Union Territories	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	210.00	6366.35	221.25	7154.17	188.06	7557.00
Arunachal Pradesh	2.62	17.41	2.62	17.34	2.62	17.34
Assam	306.235	3747.482	304.10	3703.40	302.26	3673.93
Bihar	904.56	17855.39	920.38	18020.61	907.21	17093.20
Chhattisgarh	499.33	7094.46	493.72	6695.35	493.71	6860.22
Gujarat	832.42	16614.82	777.22	15676.29	688.55	14298.35
Haryana	325.95	5402.88	342.55	5376.10	331.96	5191.94
Himachal Pradesh	91.99	1878.13	93.64	1875.21	92.30	1819.48
Jammu & Kashmir	83.67	1889.62	83.67	1995.78	83.67	1996.18
Jharkhand	297.00	3965.08	309.11	4269.80	310.66	4303.02
Karnataka	492.65	7708.69	431.48	7486.92	412.82	6381.03
Kerala	101.49	3042.83	106.40	2962.30	100.41	2805.83
Madhya Pradesh	1161.41	22206.31	1179.90	23260.26	1249.27	23668.31
Maharashtra	1192.469	17189.501	1045.19	15236.43	903.02	12145.04
Manipur	38.35	376.58	38.35	376.57	38.35	376.57
Meghalaya	49.61	520.15	51.05	538.91	51.72	548.15
Mizoram	40.67	224.64	40.67	224.64	40.93	224.91
Nagaland	41.51	455.96	42.21	462.79	42.28	473.70
Odisha	658.10	9280.52	703.09	9782.11	757.24	10561.32
Punjab	300.40	6171.46	316.58	6509.00	334.37	6883.64
Rajasthan	193.78	2207.72	186.75	2344.37	192.44	2402.94
Sikkim	22.44	129.37	20.20	121.22	24.00	135.77
Tamil Nadu	377.49	9490.97	362.29	9203.81	361.91	9160.51
Telangana	73.377	1615.693	55.62	1378.63	50.33	1072.30
Tripura	54.74	1179.22	61.83	1287.81	39.29	750.12
Uttar Pradesh	1350.39	32505.07	1413.94	34766.65	1424.20	34196.37
Uttarakhand	99.83	1041.35	75.35	708.06	66.67	652.66
West Bengal	1532.77	28450.07	1590.44	30574.49	1585.22	29220.72
Others	39.18	515.69	39.13	539.45	36.12	487.54
Total	**11374.40**	**209143.40**	**11308.73**	**212548.44**	**11111.57**	**204958.08**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

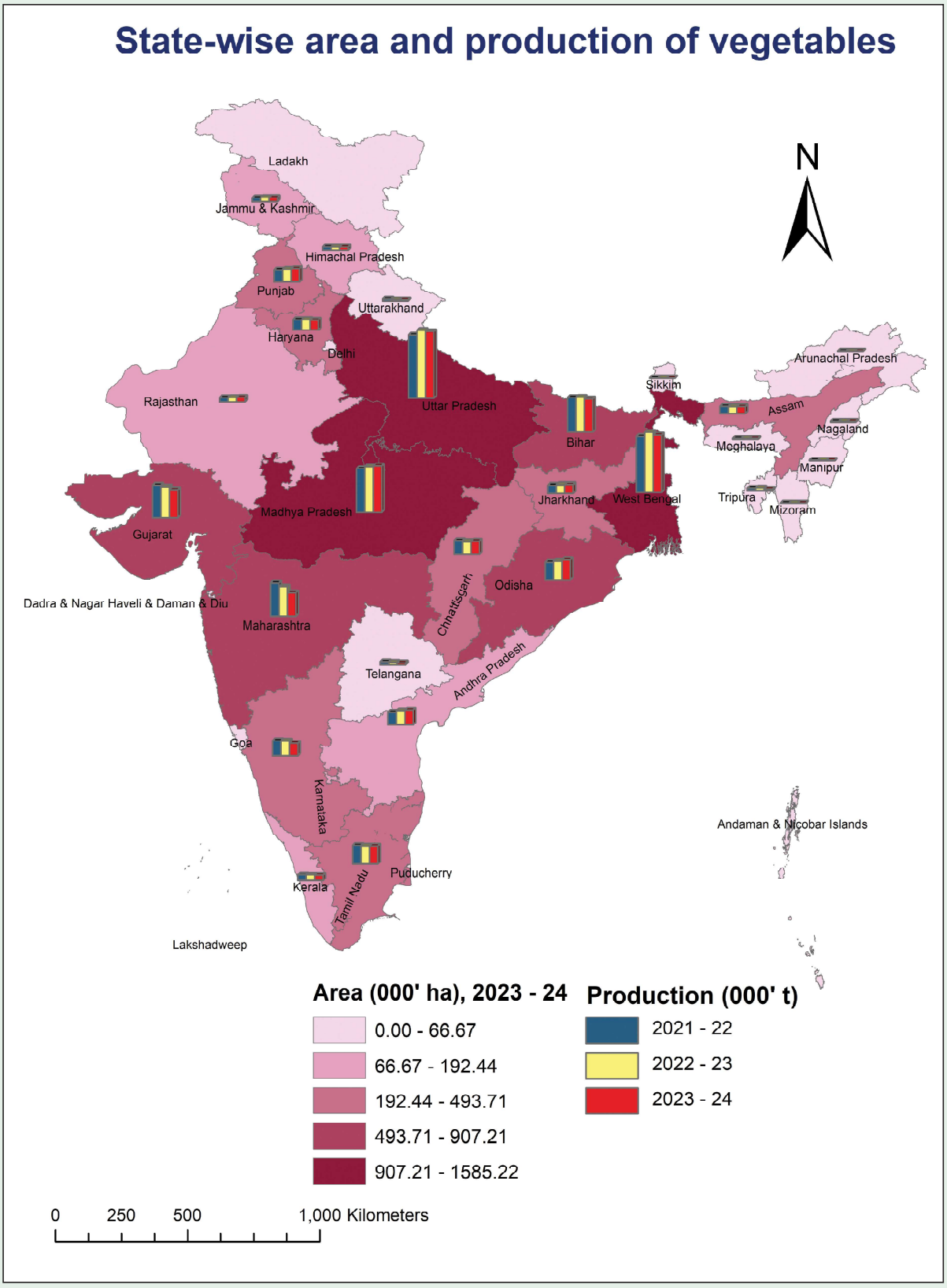

State-wise area and production of vegetables
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Madhya Pradesh
Gujarat
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Chhattisgarh
Odisha
Telangana
Andhra Pradesh
Goa
Karnataka
Kerala
Tamil Nadu
Puducherry
Lakshadweep
Andaman & Nicobar Islands
Area (000' ha), 2023 - 24
0.00 - 66.67
66.67 - 192.44
192.44 - 493.71
493.71 - 907.21
907.21 - 1585.22
Production (000' t)
2021 - 22
2022 - 23
2023 - 24
0
250
500
1,000 Kilometers

Table 4.11: State-wise area, production and productivity of Potato

(Area-000' Hectares, Production- 000'tonnes, Productivity: t/ha)

States/ Union Territories	2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	0.44	13.14	29.86	0.59	17.76	30.10
Arunchal Pradesh	0.02	0.44	22.00	0.02	0.44	22.00
Assam	103.64	773.37	7.46	102.24	746.94	7.31
Bihar	330.00	9075.00	27.50	327.78	8200.00	25.02
Chhattisgarh	42.78	655.44	15.32	41.70	642.59	15.41
Gujarat	131.43	4025.76	30.63	134.86	4000.00	29.66
Haryana	30.20	818.91	27.12	31.91	750.00	23.50
Himachal Pradesh	15.10	194.50	12.88	15.10	194.50	12.88
Jammu & Kashmir	8.81	165.96	18.84	8.81	165.96	18.84
Jharkhand	50.73	757.31	14.93	51.25	766.15	14.95
Karnataka	22.18	333.44	15.03	23.29	350.11	15.03
Kerala	0.45	5.95	13.22	0.43	5.61	13.05
Madhya Pradesh	172.21	3954.91	22.97	155.56	3630.00	23.34
Maharashtra	15.45	278.91	18.05	14.38	380.34	26.45
Manipur	1.59	11.25	7.08	1.59	11.25	7.08
Meghalaya	19.54	196.23	10.04	19.55	196.33	10.04
Mizoram	0.10	0.95	9.50	0.10	0.95	9.50
Nagaland	4.44	55.91	12.59	4.44	55.99	12.61
Odisha	27.21	325.56	11.96	35.76	427.92	11.97
Punjab	114.00	3156.00	27.68	117.07	3237.00	27.65
Rajasthan	10.15	197.38	19.45	10.13	199.66	19.71
Sikkim	6.16	44.62	7.24	6.16	44.62	7.24
Tamil Nadu	4.77	91.17	19.11	4.80	91.71	19.11
Telangana	1.39	34.65	24.93	1.04	25.86	24.87
Tripura	7.58	141.30	18.64	4.60	62.74	13.64
Uttar Pradesh	694.10	20126.00	29.00	696.00	19173.00	27.55
Uttarakhand	17.08	183.92	10.77	26.87	367.31	13.67
West Bengal	500.00	14508.56	29.02	490.00	13000.00	26.53
Others	0.61	15.08	24.72	0.74	17.05	23.04
Total	**2332.16**	**60141.60**	**25.79**	**2326.77**	**56761.79**	**24.40**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

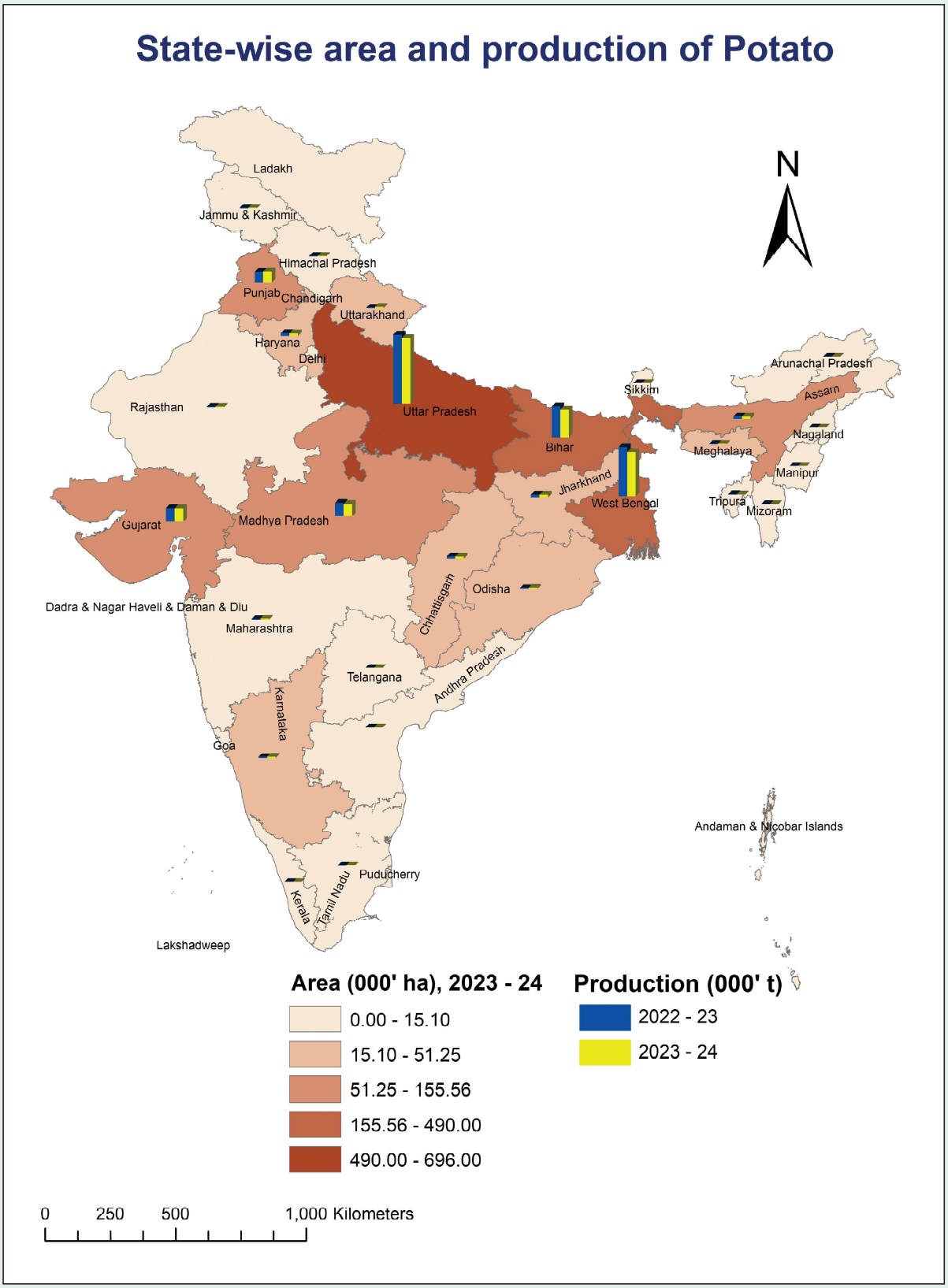

State-wise area and production of Potato
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Odisha
Chhattisgarh
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Karnataka
Goa
Andaman & Nicobar Islands
Puducherry
Kerala
Tamil Nadu
Lakshadweep
Area (000' ha), 2023 - 24
0.00 - 15.10
15.10 - 51.25
51.25 - 155.56
155.56 - 490.00
490.00 - 696.00
Production (000' t)
2022 - 23
2023 - 24
0
250
500
1,000 Kilometers

Table 4.12: State-wise area, production and productivity of Onion

(Area-000' Hectares, Production-000'tonnes, Productivity: t/ha)

States/ Union Territories	2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	40.73	956.09	23.47	32.88	512.79	15.60
Arunchal Pradesh	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Assam	8.34	92.77	11.12	7.97	89.18	11.19
Bihar	57.14	1344.41	23.53	57.80	1387.76	24.01
Chhattisgarh	23.68	393.25	16.61	22.94	380.31	16.58
Gujarat	80.28	2046.52	25.49	79.25	2057.00	25.96
Haryana	24.16	537.78	22.26	21.64	541.00	25.00
Himachal Pradesh	3.37	59.84	17.76	3.37	59.84	17.76
Jammu & Kashmir	5.85	163.56	27.96	5.85	163.56	27.96
Jharkhand	18.50	284.36	15.37	18.51	284.65	15.38
Karnataka	188.74	2665.33	14.12	151.94	1637.89	10.78
Kerala	0.02	0.11	5.50	0.01	0.04	4.00
Madhya Pradesh	213.75	5262.05	24.62	198.92	4166.31	20.94
Maharashtra	808.72	12033.04	14.88	667.44	8602.00	12.89
Manipur	0.54	5.20	9.63	0.54	5.20	9.63
Meghalaya	0.59	5.28	8.95	0.60	5.45	9.08
Mizoram	0.27	1.80	6.67	0.27	1.80	6.67
Nagaland	0.60	5.75	9.58	0.60	5.76	9.60
Odisha	31.81	368.96	11.60	31.81	368.96	11.60
Punjab	10.68	249.42	23.35	11.28	267.31	23.70
Rajasthan	92.17	1615.20	17.52	92.80	1630.50	17.57
Sikkim	0.273	1.681	6.16	0.27	1.68	6.22
Tamil Nadu	43.98	524.88	11.93	42.87	437.50	10.21
Telangana	6.46	128.80	19.94	5.02	100.39	20.00
Tripura	N.A.	N.A.	N.A.	0.18	1.06	5.89
Uttar Pradesh	30.27	510.88	16.88	34.10	576.50	16.91
Uttarakhand	4.01	41.76	10.41	3.37	26.04	7.73
West Bengal	44.17	892.03	20.20	44.29	884.50	19.97
Others	0.88	17.14	19.48	0.85	17.38	20.45
Total	**1739.98**	**30207.89**	**17.36**	**1537.38**	**24212.33**	**15.75**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Onion during 2023-24

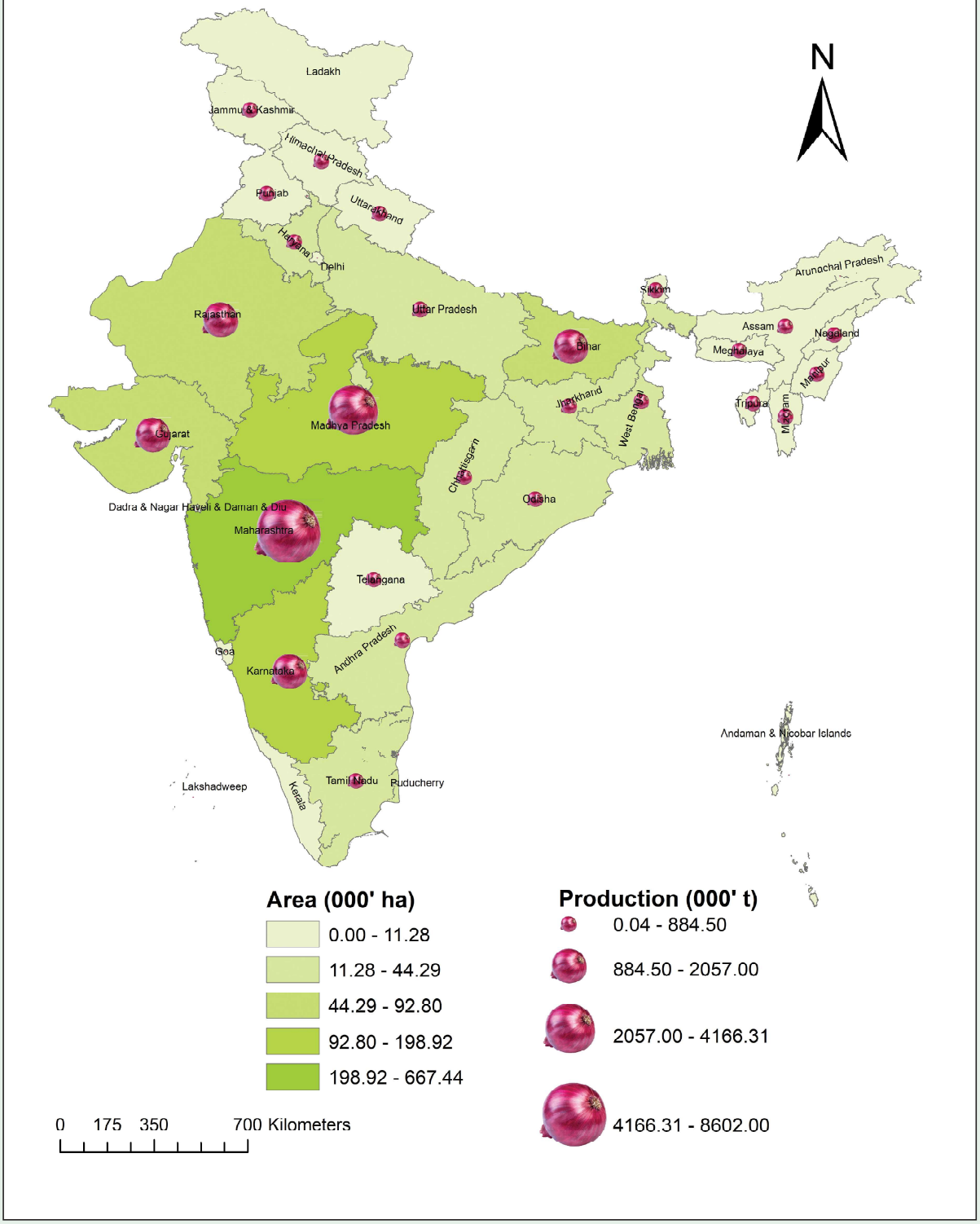


Table 4.13: State-wise area, production and productivity of Tomato

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	54.16	2337.66	43.16	54.18	2438.28	45.00
Arunchal Pradesh	0.25	2.15	8.60	0.25	2.15	8.60
Assam	18.85	432.40	22.94	18.85	432.40	22.94
Bihar	62.81	1166.87	18.58	63.20	1168.62	18.49
Chhattisgarh	56.40	856.11	15.18	61.87	1048.18	16.94
Gujarat	51.50	1444.38	28.05	66.57	1809.68	27.18
Haryana	22.98	400.00	17.41	22.27	434.53	19.51
Himachal Pradesh	15.06	532.34	35.35	13.72	474.34	34.57
Jammu & Kashmir	3.85	102.00	26.49	3.85	102.00	26.49
Jharkhand	24.31	309.64	12.74	24.45	311.54	12.74
Karnataka	68.34	2198.04	32.16	78.83	2007.33	25.46
Kerala	0.51	4.37	8.57	0.32	2.93	9.16
Madhya Pradesh	113.77	3249.82	28.56	119.67	3498.26	29.23
Maharashtra	57.00	1111.42	19.50	55.23	1332.09	24.12
Manipur	3.33	36.94	11.09	3.33	36.94	11.09
Meghalaya	2.27	36.42	16.04	2.31	37.10	16.06
Mizoram	2.80	27.13	9.69	3.00	27.33	9.11
Nagaland	2.70	21.42	7.93	2.70	21.48	7.96
Odisha	107.16	1609.09	15.02	98.13	1496.33	15.25
Punjab	10.70	277.60	25.94	11.17	291.00	26.05
Rajasthan	20.62	255.99	12.41	20.47	260.75	12.74
Sikkim	0.444	4.618	10.40	0.44	4.62	10.50
Tamil Nadu	41.53	1249.74	30.09	38.85	1169.23	30.10
Telangana	14.64	393.71	26.89	12.69	346.07	27.27
Tripura	2.24	67.86	30.29	2.42	70.53	29.14
Uttar Pradesh	23.41	920.14	39.31	23.50	940.12	40.01
Uttarakhand	6.01	71.46	11.89	8.74	91.59	10.48
West Bengal	60.20	1292.68	21.47	61.03	1369.67	22.44
Others	0.88	13.31	15.13	0.84	13.11	15.61
Total	**848.71**	**20425.32**	**24.07**	**872.88**	**21238.15**	**24.33**

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of Tomato during 2023-24

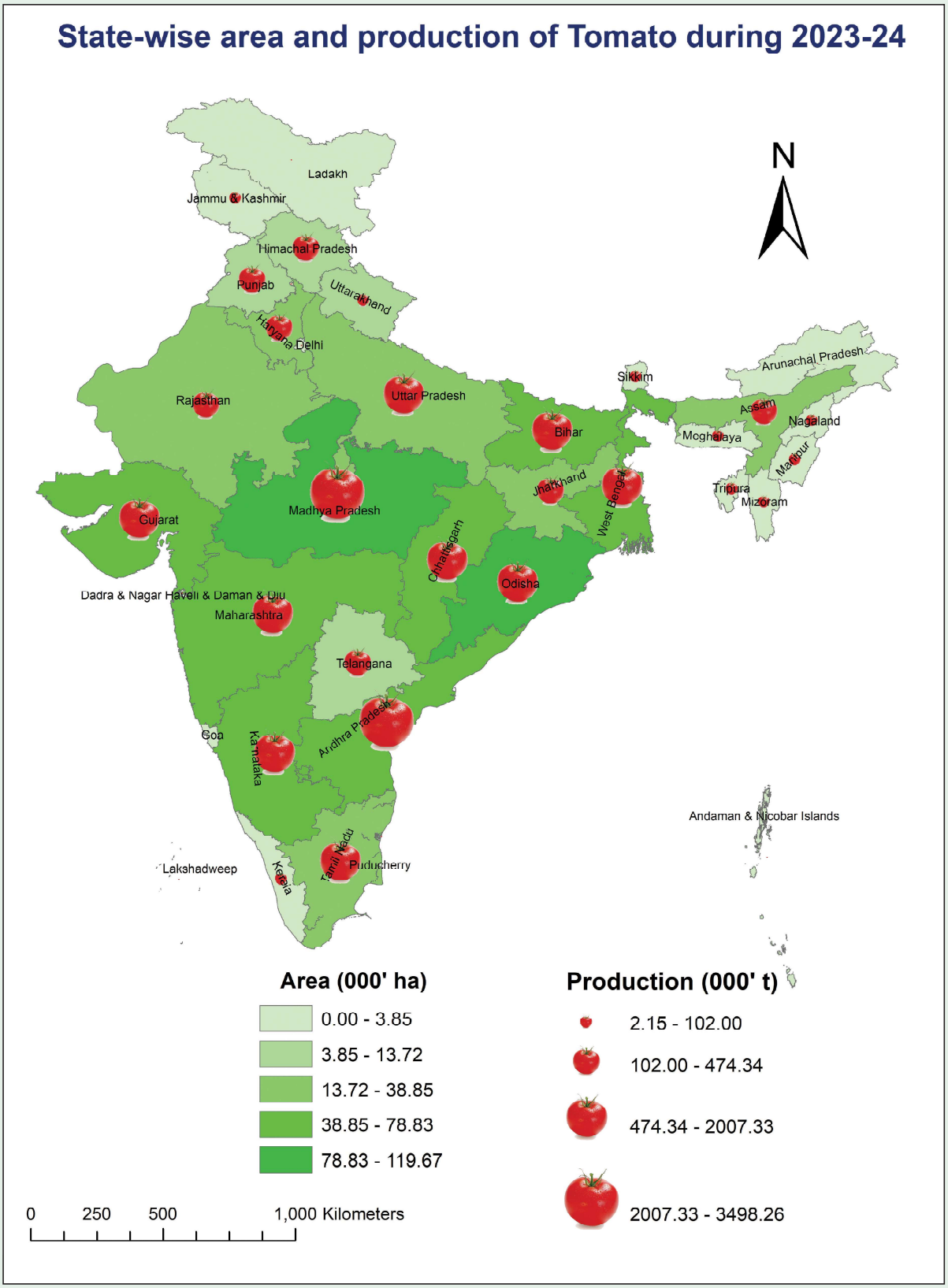


Table 4.14: State-wise area and production of flowers (loose)

(Area: 000' ha, Production: 000' Mt)

States/ Union Territories	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	14.58	113.26	14.58	113.26	14.58	113.26
Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
Assam	5.307	35.583	5.33	35.67	5.32	35.70
Bihar	1.21	10.95	1.57	16.45	1.26	11.48
Chhattisgarh	12.23	57.20	13.64	63.85	13.39	63.22
Gujarat	20.57	194.83	21.33	232.47	21.71	199.15
Haryana	1.61	17.12	1.76	21.95	1.83	31.06
Himachal Pradesh	0.38	1.55	0.26	1.82	0.26	1.82
Jammu & Kashmir	0.10	0.15	0.26	18.58	0.10	0.13
Jharkhand	1.13	2.14	2.10	4.10	2.20	4.39
Karnataka	46.66	417.55	42.00	348.83	43.42	360.86
Kerala	0.35	0.63	0.26	0.29	0.89	0.36
Madhya Pradesh	37.65	426.62	39.49	451.76	41.05	471.58
Maharashtra	11.93	73.37	10.56	61.42	11.06	60.14
Manipur	0.07	0.01	0.07	0.01	0.07	0.01
Meghalaya	12.47	0.00	12.47	0.00	12.47	0.00
Mizoram	0.08	0.00	0.08	0.00	0.08	0.00
Nagaland	0.04	0.04	0.09	0.34	0.04	0.00
Odisha	5.64	31.72	5.71	32.10	7.78	46.80
Punjab	2.20	13.78	2.32	14.45	2.61	16.42
Rajasthan	3.67	8.42	3.49	8.06	3.58	8.31
Sikkim	0.24	16.50	0.24	16.50	0.24	16.50
Tamil Nadu	45.61	590.32	44.16	586.79	46.51	631.37
Telangana	4.06	58.57	3.55	71.91	3.54	64.64
Tripura	0.00	0.00	0.81	4.06	0.56	2.75
Uttar Pradesh	22.76	49.66	23.16	50.47	23.32	51.05
Uttarakhand	1.61	3.02	0.67	2.35	1.61	3.02
West Bengal	30.04	74.95	34.41	83.90	37.05	89.87
Others	0.21	0.88	0.24	0.99	0.20	0.57

Note : ** Figures are as per Second Advance Estimates; NA: Not Applicable*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of flowers (loose)

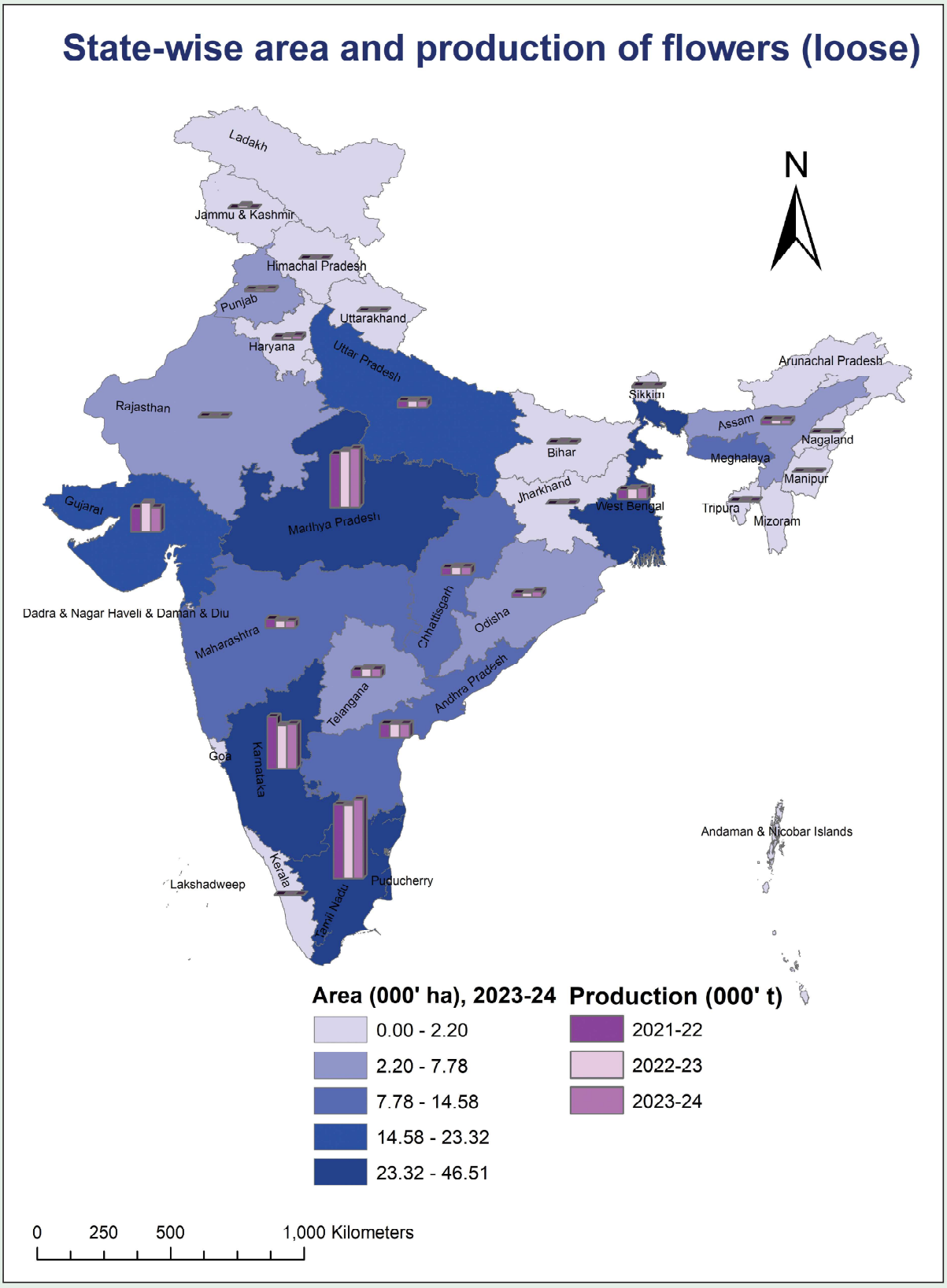


Table 4.15: State-wise area and production of major spices in India

(Area: 000' ha, Production: 000' Mt)

States/ Union Territories	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	260.16	511.81	306.67	1578.59	282.72	1545.54
Arunachal Pradesh	12.33	18.59	11.21	17.79	9.53	16.15
Assam	100.14	317.24	102.64	324.56	100.26	292.95
Bihar	7.97	11.87	8.33	12.97	8.33	12.97
Chhattisgarh	10.59	16.01	10.68	8.96	8.98	12.69
Gujarat	583.50	1018.12	644.06	1107.65	863.07	1290.01
Haryana	8.02	56.51	5.69	30.42	6.72	39.78
Himachal Pradesh	10.94	30.29	11.58	31.78	11.54	31.66
Jammu & Kashmir	4.85	1.16	4.91	1.18	4.85	1.13
Jharkhand	4.62	90.57	5.21	95.65	5.17	95.02
Karnataka	407.02	978.69	384.31	684.66	426.10	739.02
Kerala	152.06	167.96	151.71	156.63	151.04	157.82
Madhya Pradesh	732.67	3538.20	739.05	3573.22	744.88	3628.05
Maharashtra	130.207	589.491	116.91	545.86	115.34	537.11
Manipur	9.34	66.48	8.74	64.41	8.74	64.41
Meghalaya	14.52	72.02	17.71	81.46	18.00	82.68
Mizoram	27.82	100.93	26.41	99.93	27.82	101.21
Nagaland	12.03	40.84	12.22	49.55	10.46	48.05
Odisha	152.45	418.70	155.35	440.51	155.35	440.51
Punjab	34.31	128.81	34.86	133.42	32.99	130.28
Rajasthan	815.85	1045.94	931.07	952.60	946.30	1100.75
Sikkim	42.44	102.95	42.44	102.97	42.44	102.97
Tamil Nadu	113.45	219.83	115.95	262.80	107.71	242.03
Telangana	196.11	916.30	139.21	773.18	171.91	835.76
Tripura	7.26	27.43	7.39	30.80	7.08	26.50
Uttar Pradesh	430.55	319.69	433.30	326.09	435.40	330.99
Uttarakhand	13.88	81.57	17.29	70.65	17.29	70.65
West Bengal	63.87	265.42	68.34	269.71	67.58	269.33
Others	1.54	1.75	1.73	2.18	1.50	2.18
Total	**4360.46**	**11155.14**	**4514.96**	**11830.16**	**4789.11**	**12248.20**

Note : ** Figures are as per Second Advance Estimates*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of major spices

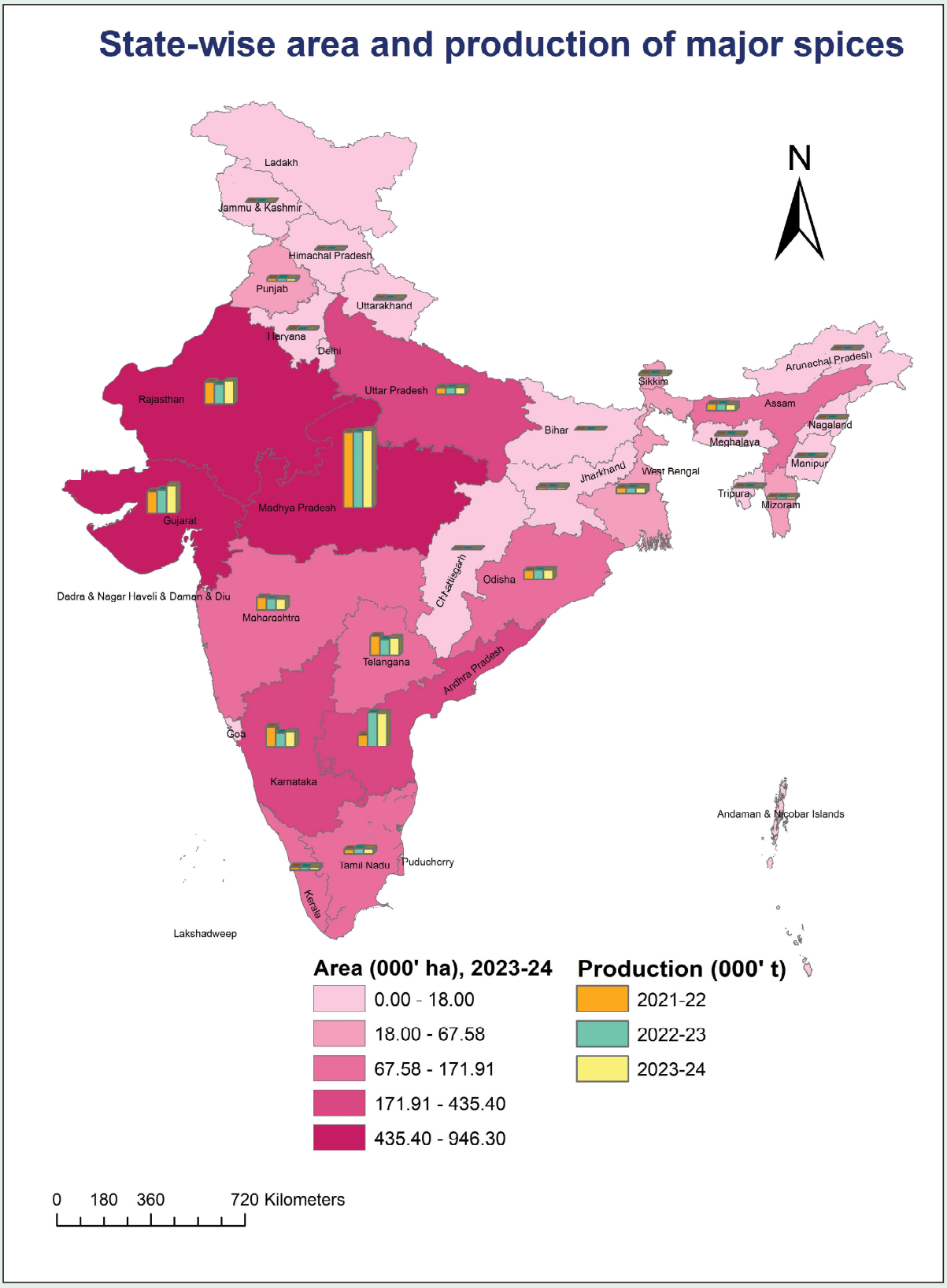


Table 4.16: State-wise area, production and productivity of plantation crops

(Area: 000' ha, Production: 000'Mt, Productivity: Mt/ha)

States/ Union Territories	2021-22			2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	349.45	1311.20	3.75	354.80	1366.65	3.85	355.10	1369.86	3.86
Arunachal Pradesh	1.60	7.05	4.41	0.89	3.89	4.37	1.80	6.88	3.82
Assam	90.482	163.000	1.80	90.19	153.23	1.70	89.24	166.94	1.87
Bihar	12.16	54.06	4.45	12.27	54.27	4.42	12.18	54.08	4.44
Chhattisgarh	34.06	31.61	0.93	34.25	32.52	0.95	33.83	29.38	0.87
Gujarat	35.40	153.38	4.33	38.32	152.75	3.99	39.10	170.11	4.35
Haryana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jharkhand	15.58	6.35	0.41	15.58	6.60	0.42	15.58	6.73	0.43
Karnataka	1359.60	4998.47	3.68	1536.70	5233.89	3.41	1606.39	6237.90	3.88
Kerala	983.69	3994.10	4.06	982.53	4072.41	4.14	981.52	4090.90	4.17
Madhya Pradesh	0.00	0.00	0.00	0.61	0.36	0.59	0.62	0.36	0.58
Maharashtra	225.059	358.370	1.59	225.75	340.12	1.51	226.36	372.24	1.64
Manipur	0.90	0.32	0.36	0.90	0.33	0.37	0.90	0.34	0.38
Meghalaya	27.73	35.07	1.26	43.19	62.03	1.44	43.22	62.28	1.44
Mizoram	21.45	33.64	1.57	21.45	33.64	1.57	21.45	33.64	1.57
Nagaland	3.41	7.12	2.09	3.45	9.31	2.70	3.44	9.01	2.62
Odisha	276.27	395.47	1.43	279.67	443.11	1.58	281.76	445.99	1.58
Punjab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rajasthan	0.00	0.00	0.00	0.15	0.35	2.33	0.01	0.35	35.00
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	660.38	3604.85	5.46	692.58	3866.18	5.58	717.23	4115.91	5.74
Telangana	0.90	6.54	7.27	0.91	6.60	7.25	1.20	0.27	0.23
Tripura	16.21	37.21	2.30	16.85	45.38	2.69	14.92	41.06	2.75
Uttar Pradesh	0.00	0.00	0.00	0.27	21.25	78.70	0.27	21.25	78.70
Uttarakhand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West Bengal	59.25	317.68	5.36	79.19	880.83	11.12	79.11	883.77	11.17
Others	119.38	248.08	2.08	120.35	263.73	2.19	117.76	255.09	2.17
Total	**4292.95**	**15763.56**	**3.67**	**4550.85**	**17049.43**	**3.75**	**4642.98**	**18374.32**	**3.96**

Note : ** Figures are as per Second Advance Estimates*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of plantation crops

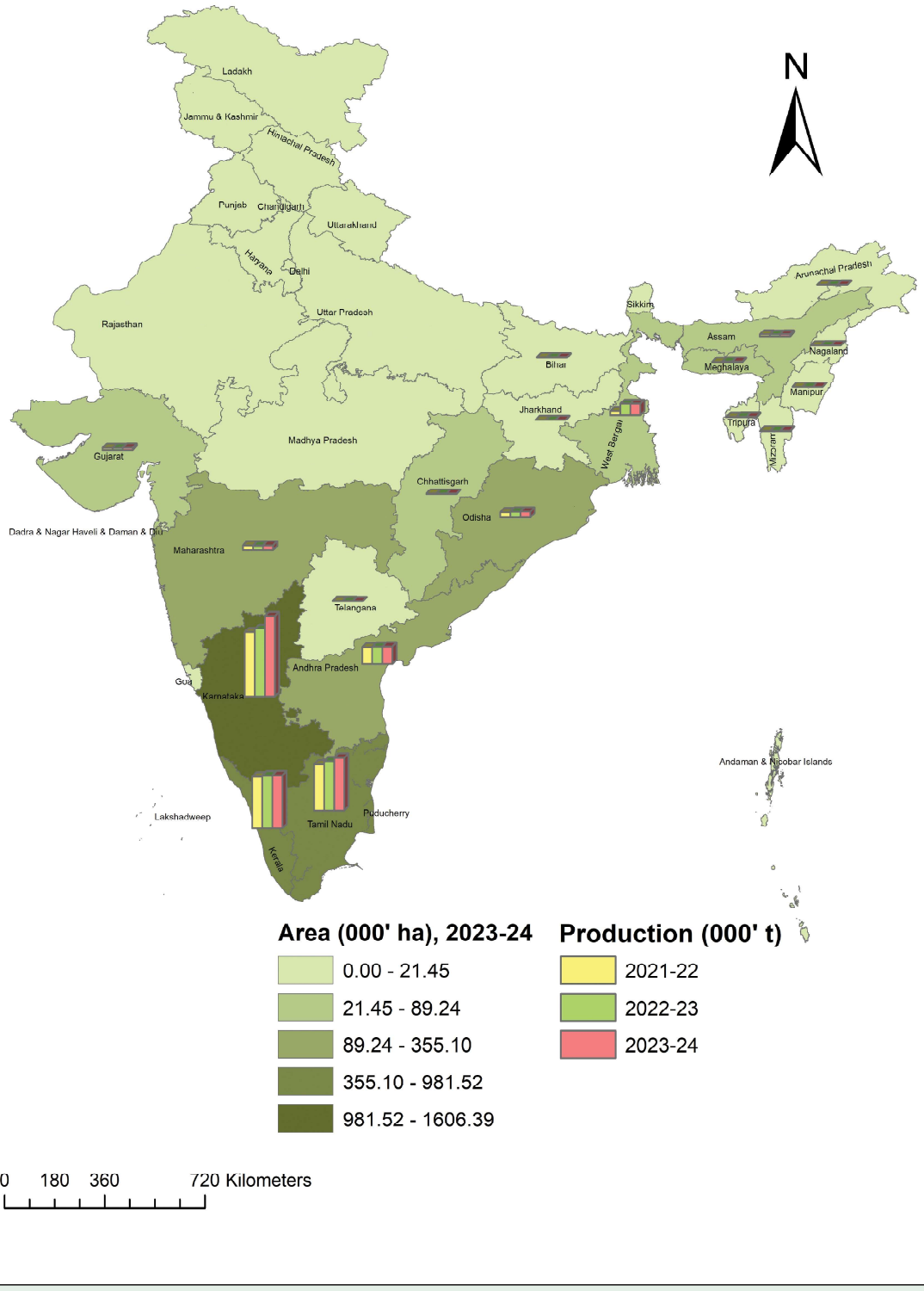


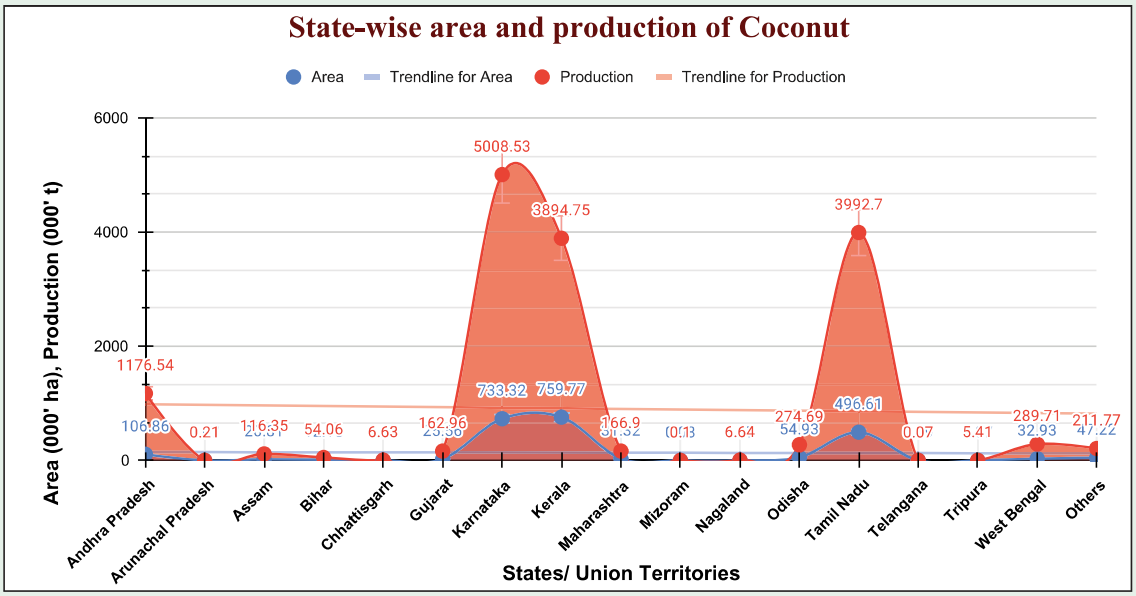
Table 4.17: State-wise area, production and productivity of Coconut in Major Producing States

(Area: 000' ha, Production: 000't, Productivity: t/ha)

States/ Union Territories	2022-23			2023-24*		
	Area	Production	Productivity	Area	Production	Productivity
Andhra Pradesh	106.86	1176.54	11.01	106.86	1176.54	11.01
Arunachal Pradesh	0.07	0.21	3.00	0.07	0.21	3.00
Assam	21.58	108.22	5.01	20.81	116.35	5.59
Bihar	12.27	54.27	4.42	12.16	54.06	4.45
Chhattisgarh	1.67	10.22	6.12	1.24	6.63	5.35
Gujarat	24.78	145.74	5.88	25.56	162.96	6.38
Karnataka	705.11	4103.08	5.82	733.32	5008.53	6.83
Kerala	760.35	3881.67	5.11	759.77	3894.75	5.13
Maharashtra	30.54	138.64	4.54	31.32	166.90	5.33
Mizoram	0.03	0.10	3.33	0.03	0.10	3.33
Nagaland	1.07	6.64	6.21	1.07	6.64	6.21
Odisha	52.84	274.33	5.19	54.93	274.69	5.00
Tamil Nadu	472.71	3739.14	7.91	496.61	3992.70	8.04
Telangana	0.90	6.47	7.19	1.19	0.07	0.06
Tripura	4.70	9.22	1.96	2.87	5.41	1.89
West Bengal	32.46	289.20	8.91	32.93	289.71	8.80
Others	49.23	219.00	4.45	47.22	211.77	4.48
Total	**2277.18**	**14162.68**	**6.22**	**2327.95**	**15368.01**	**6.60**

Note : ** Figures are as per Second Advance Estimates*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.



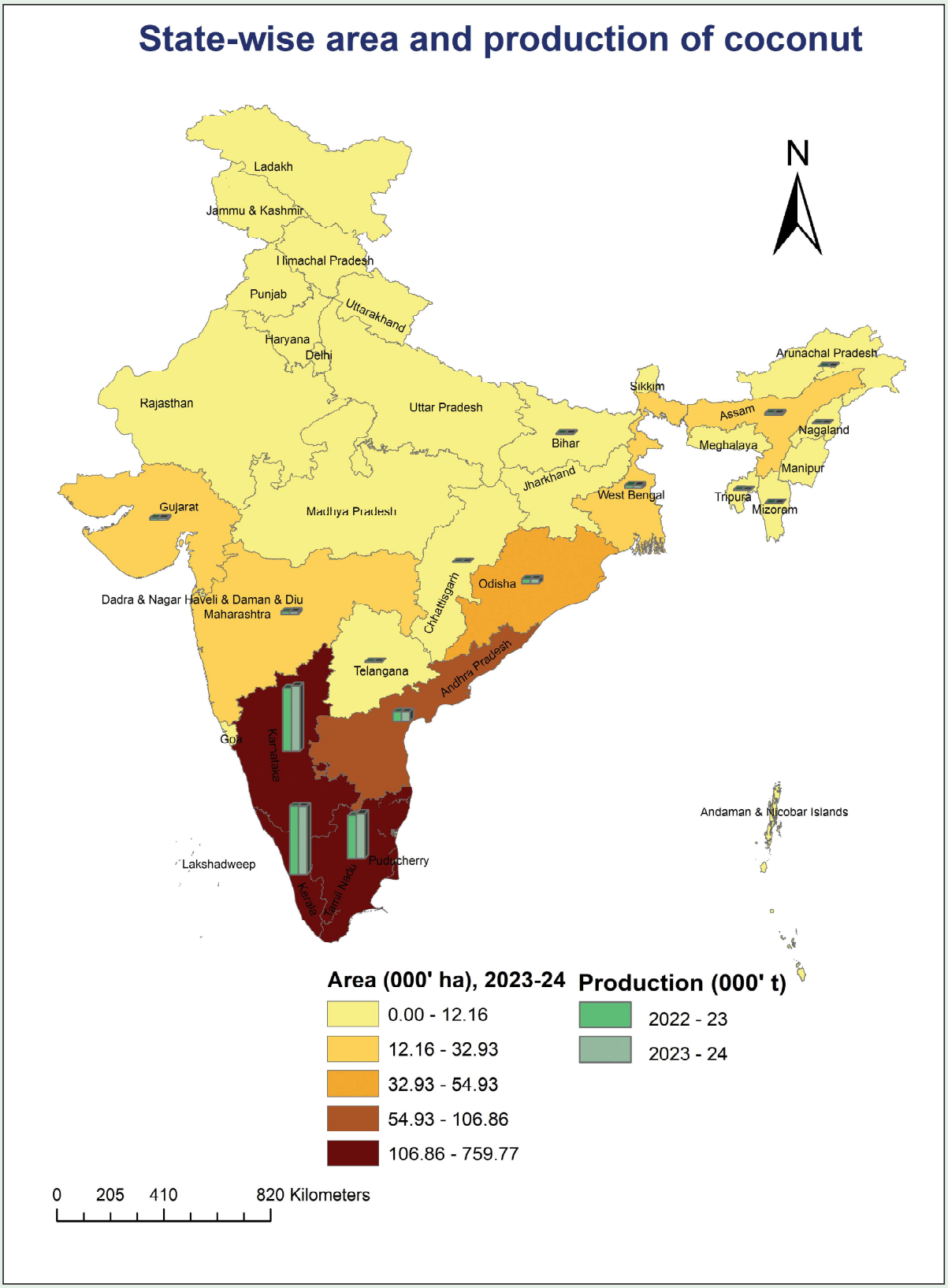

State-wise area and production of coconut
N
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Odisha
Chhattisgarh
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Andaman & Nicobar Islands
Lakshadweep
Puducherry
Kerala
Tamil Nadu
Area (000' ha), 2023-24
0.00 - 12.16
12.16 - 32.93
32.93 - 54.93
54.93 - 106.86
106.86 - 759.77
Production (000' t)
2022 - 23
2023 - 24
0 205 410 820 Kilometers

Table 4.18: State-wise area and production of aromatics & medicinal plants

(Area: 000' ha, Production: 000'Mt)

States/ Union Territories	2021-22		2022-23		2023-24*	
	Area	Production	Area	Production	Area	Production
Andhra Pradesh	3.37	11.37	3.37	11.37	3.37	11.37
Arunachal Pradesh	0.24	0.16	0.24	0.16	0.24	0.16
Assam	4.620	0.179	4.65	0.18	4.65	0.18
Bihar	4.85	22.49	5.08	22.93	4.89	22.54
Chhatisgarh	5.30	33.32	6.61	46.17	6.22	45.12
Gujarat	0.00	0.00	0.00	0.00	0.00	0.00
Haryana	0.16	1.60	0.17	2.18	0.35	2.13
Himachal Pradesh	1.12	0.91	1.12	0.91	1.12	0.91
Jammu & Kashmir	3.83	0.01	3.83	0.01	3.83	0.01
Jharkhand	0.35	2.75	0.42	4.25	0.40	3.95
Karnataka	2.91	15.98	1.18	9.27	1.19	9.37
Kerala	0.01	0.00	0.01	0.00	0.01	0.00
Madhya Pradesh	46.59	121.10	47.37	122.50	47.98	124.92
Maharashtra	1.20	2.41	1.12	4.21	0.81	3.22
Manipur	0.04	0.12	0.04	0.12	0.04	0.12
Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00
Mizoram	0.77	0.78	0.77	0.78	0.77	0.78
Nagaland	0.08	0.66	0.08	0.67	0.01	0.67
Odisha	1.92	0.61	1.92	0.61	1.92	0.61
Punjab	13.37	3.02	13.37	3.02	13.37	3.02
Rajasthan	424.96	254.68	513.67	217.23	499.76	232.46
Sikkim	0.00	0.00	0.00	0.00	0.00	0.00
Tamil Nadu	16.43	171.80	14.13	143.33	16.02	168.51
Telangana	0.39	6.03	0.24	4.61	0.11	1.71
Tripura	0.00	0.00	0.00	0.00	0.00	0.00
Uttar Pradesh	135.04	13.53	135.04	13.53	135.04	13.53
Uttarakhand	0.00	0.00	0.00	0.00	0.00	0.00
West Bengal	0.00	0.00	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00	0.00	0.00
Total	**667.55**	**663.51**	**754.42**	**608.03**	**742.09**	**645.27**

Note : ** Figures are as per Second Advance Estimates*

Source : Website: https://agriwelfare.gov.in/en/StatHortEst.

State-wise area and production of aromatics & medicinal plants

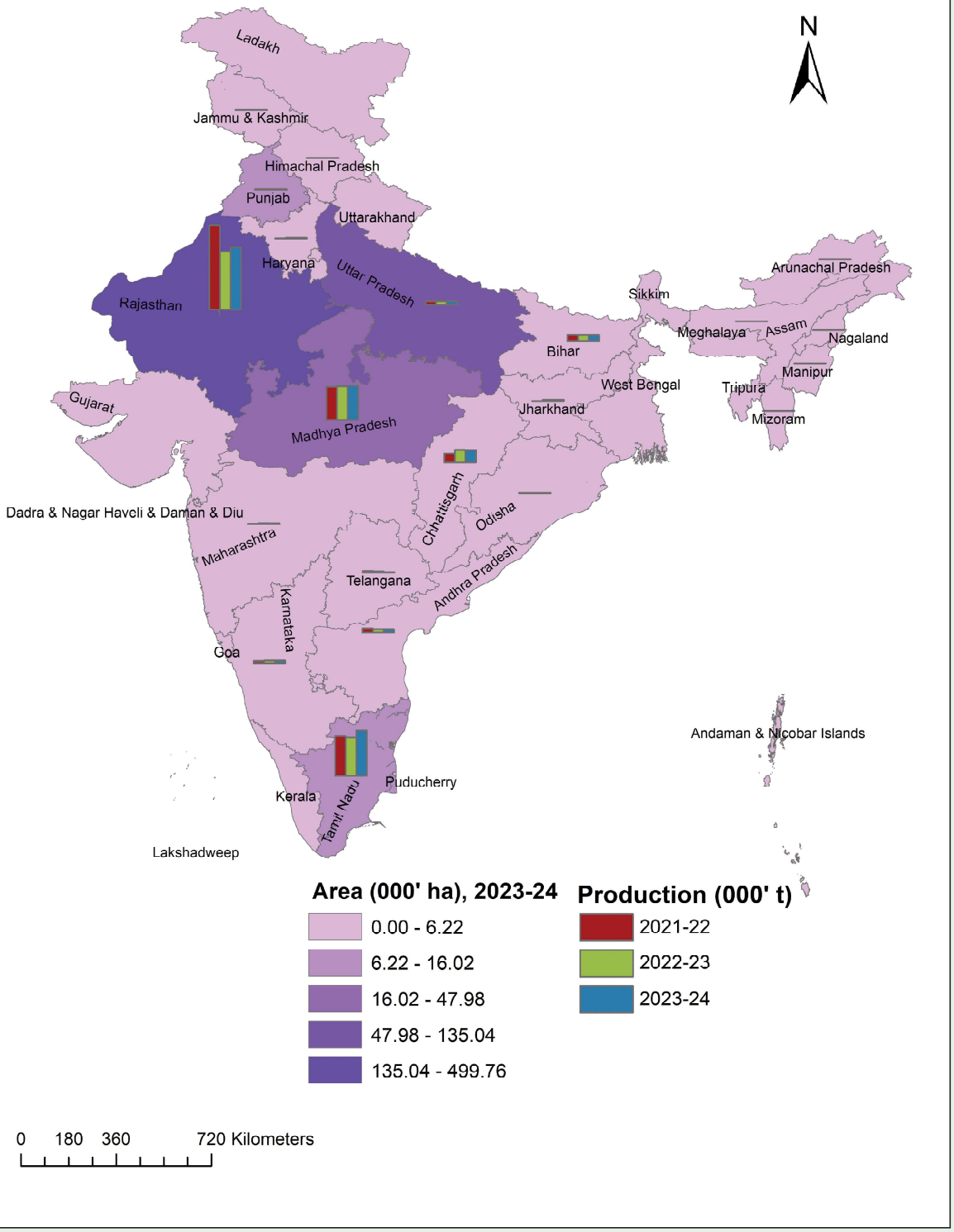


Table 4.19: Percent share of production of major horticulture crops

Crops	Percent share of production				
	2013-14	2014-15	2015-16	2016-17	2017-18
Fruits	32.1	30.8	31.5	30.9	31.2
Vegetables	58.7	60.3	59.1	59.3	59.2
Flowers & Aromatics	1.0	1.1	1.1	1.1	1.2
Plantation crops	5.9	5.5	5.8	6.0	5.8
Spices	2.1	2.2	2.4	2.7	2.6
Total (Horticulture)	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: *Horticultural Statistics at a Glance 2018*, Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. (Website: agricoop.nic.in/imagedefault/hortstat_glance.pdf)

Table 4.20: Quantity and value of export of major horticulture crops

(Quantity: MT, Value: Lakh ₹)

Horticultural Product	2018-19		2019-20		2020-21	
	Quantity	Value	Quantity	Value	Quantity	Value
Floriculture						
Floriculture	19726.56	57141.25	16949.39	54161.01	15695.29	57598.40
Fruits & vegetables seeds	16151.15	84923.08	14796.09	72343.69	17177.18	80840.15
Total	**35877.71**	**142064.33**	**31745.48**	**126504.70**	**32872.47**	**138438.55**
Fresh fruits and vegetables						
Fresh onions	2183766.42	346887.38	1149896.84	232069.63	1578016.57	282653.44
Other fresh vegetables	735743.10	206965.62	754007.57	206477.47	682085.80	214320.11
Walnuts	1874.86	6677.26	1648.22	5277.52	1069.66	2978.69
Fresh Mangoes	46510.22	40649.55	49658.68	40021.35	21033.56	27187.82
Fresh grapes	246133.77	233525.09	193690.51	217686.83	246107.37	229845.05
Other fresh fruits	372213.73	183457.17	496577.66	206581.74	609612.92	223331.33
Others (Betel Leaves & Nuts)	17364.51	17427.48	14003.48	13712.52	10151.60	13778.78
Total	**3603606.61**	**1035589.55**	**2659482.96**	**921827.06**	**3148077.48**	**994095.22**
Processed fruits and vegetables						
Cucumber and Gherkins (Prepared & Preserved)	212819.85	143713.31	189342.90	124120.61	223515.51	165181.82
Processed Vegetables	248122.33	247399.74	253276.97	276053.24	403355.38	371862.95
Mango Pulp	105873.22	65767.02	85725.57	58431.95	98369.75	71440.84
Processed Fruits, Juices & Nuts	339606.57	280496.87	360488.14	308643.54	306990.51	317342.41
Pulses	289617.95	182257.98	235699.03	153373.64	296169.79	211669.06
Total	**1196039.92**	**919634.92**	**1124532.61**	**920622.98**	**1328400.94**	**1137497.08**

Source : DGCIS Annual Data (http://www.apeda.gov.in/apedawebsite/index.asp)

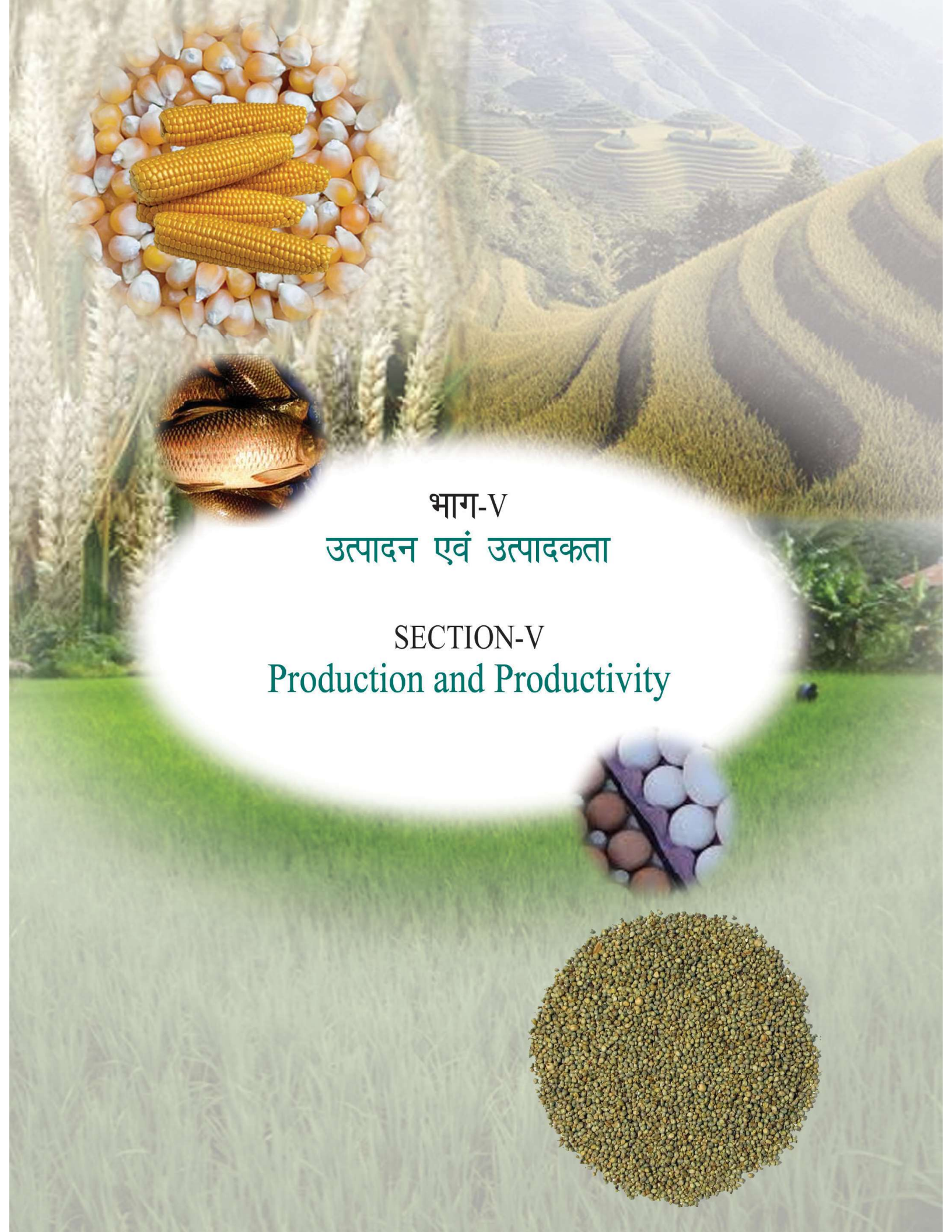
Table 4.21: Production of Horticulture vis-à-vis Foodgrains

Year	Production (In Million Tonnes)	
	Total Horticulture	Total Food grains
2001-02	145.8	212.9
2002-03	144.4	174.8
2003-04	153.3	213.2
2004-05	166.9	198.4
2005-06	182.8	208.6
2006-07	191.8	217.3
2007-08	211.2	230.8
2008-09	214.7	234.5
2009-10	223.1	218.1
2010-11	240.5	244.5
2011-12	257.3	259.3
2012-13	268.8	257.1
2013-14	277.4	265.6
2014-15	281.0	252.0
2015-16	286.2	251.6
2016-17	300.6	275.1
2017-18	311.7	284.8
2018-19	313.9	285.2
2019-20	320.5	297.5
2020-21	331.1	308.7
2021-22*	342.3	315.7

Note : * *Figures are as per 3rd Advance Estimates*

Source : *Agricultural Statistics at a Glance 2022*, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW), Directorate of Economics & Statistics, Ministry of Agriculture & Farmers Welfare, Government of India.

भाकृअनुप
ICAR



भाग-V
उत्पादन एवं उत्पादकता

SECTION-V
Production and Productivity

भाकृअनुप
ICAR

Table 5.1: Production and productivity in Indian agriculture during past seven decades

(Area: million ha, Production & Consumption: million t, Yield: kg/ha)

Crops		1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24*
All foodgrains	Area	97.32	115.58	124.32	126.67	127.84	121.05	126.67	129.23	127.52	124.78	126.99	129.80	130.53	N.A.	N.A.
	Production	50.82	82.02	108.42	129.59	176.39	196.81	244.49	275.11	285.01	285.21	297.50	310.74	315.61	329.69	328.85
	Yield	522	710	872	1023	1380	1626	1930	2129	2235	2286	2343	2394	2419	N.A.	N.A.
Rice	Production	20.58	34.58	42.22	53.63	74.29	84.98	95.98	109.70	112.76	116.48	118.87	124.37	129.47	135.76	136..70
	Yield	668	1013	1123	1336	1740	1901	2239	2494	2576	2638	2722	2717	2809	N.A.	N.A.
Wheat	Production	6.46	11.00	23.83	36.31	55.14	69.68	86.87	98.51	99.87	103.60	107.86	109.59	106.84	110.55	112.93
	Yield	663	851	1307	1630	2281	2708	2988	3200	3368	3533	3440	3521	3507	N.A.	N.A.
Nutri cereals	Production	15.38	23.74	30.55	29.02	32.70	31.08	43.40	43.77	46.97	43.06	47.75	51.32	51.10	57.32	54.73
	Yield	408	528	665	695	900	1027	1531	1750	1934	1944	1991	2128	2247	N.A.	N.A.
Sugarcane	Production	57.05	110.00	126.37	154.25	241.05	295.96	342.38	306.07	379.90	405.42	370.50	405.40	439.43	490.53	442.52
	Yield	33422	45549	48322	57844	65395	68577	70091	69001	80198	80105	80497	83566	83887	N.A.	N.A.
Pulses	Production	8.41	12.70	11.82	10.63	14.26	11.08	18.24	23.13	25.42	22.08	23.03	25.46	27.30	26.06	24.49
	Yield	441	539	524	473	578	544	691	786	853	757	823	885	892	N.A.	N.A.
Oilseeds	Production	5.16	6.98	9.63	9.37	18.61	18.44	32.48	31.28	31.46	31.52	33.22	35.95	37.96	41.36	39.59
	Yield	481	507	579	532	771	810	1193	1195	1284	1271	1224	1247	1292	N.A.	N.A.
Milk	Production	17.00	20.00	22.00	31.60	53.90	80.60	121.80	165.40	176.35	187.75	198.44	210.10	222.10	230.60	N.A.
Fish	Production	0.75	1.16	1.76	2.44	3.84	5.66	8.42	11.43	12.59	13.57	14.16	14.73	16.25	17.55	N.A.
Gross cropped area		131.89	152.77	165.79	172.63	185.74	185.34	198.13#	201.16#	200.88#	201.18#	211.36#	N.A.	N.A.	N.A.	N.A.
Gross irrigated area		22.56	27.98	38.20	49.78	63.20	76.19	89.32#	99.44#	101.27#	104.49#	112.23#	N.A.	N.A.	N.A.	N.A.
Fertiliser consumption		0.07	0.29	2.18	5.52	12.55	16.70	28.12	25.94	26.59	27.29	29.37	32.54	29.80	N.A.	N.A.

Note : 1. N.A.: Not available, 2. *: Third Advance estimates.

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

2. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

3. Basic Animal Husbandry Statistics 2023, Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (Website: http://www.dahd.nic.in)

Table 5.2: Season-wise all India normal estimates of area, production and yield of major crops

(Area: million ha, Production: million t, Yield: kg/ha)

Crops	Area			Production			Yield		
	Kharif	Rabi	Total	Kharif	Rabi	Total	Kharif	Rabi	Total
Foodgrains									
Rice	39.94	4.78	44.72	103.53	16.86	120.39	2592	3524	2692
Wheat	N.A.	30.38	30.38	N.A.	105.73	105.73	N.A.	3480	3480
Jowar	1.73	2.69	4.42	1.86	2.54	4.40	1071	947	995
Bajra	7.32	N.A.	7.32	9.78	N.A.	9.78	1335	N.A.	1335
Ragi	1.09	N.A.	1.09	1.74	N.A.	1.74	1587	N.A.	1587
Maize	7.57	1.99	9.56	20.64	9.48	30.12	2726	4756	3149
Nutri Cereals	18.19	5.26	23.45	34.38	13.66	48.04	1890	2599	2049
Total Cereals	**58.13**	**40.42**	**98.56**	**137.91**	**136.25**	**274.16**	**2372**	**3371**	**2782**
Arhar (Tur)	4.63	N.A.	4.63	4.01	N.A.	4.01	866	N.A.	866
Gram	N.A.	10.11	10.11	N.A.	11.57	11.57	N.A.	1145	1145
Total Pulses	**13.97**	**15.32**	**29.29**	**8.43**	**16.22**	**24.65**	**604**	**1059**	**842**
Total Foodgrains	**72.10**	**55.75**	**127.85**	**146.35**	**152.47**	**298.82**	**2030**	**2735**	**2337**
Oilseeds									
Groundnut	4.50	0.73	5.23	7.67	1.59	9.26	1702	2189	1770
Rapeseed & Mustard	N.A.	6.73	6.73	N.A.	9.80	9.80	N.A.	1456	1456
Soybean	11.74	N.A.	11.74	12.20	N.A.	12.20	1039	N.A.	1039
Sunflower	0.12	0.13	0.25	0.09	0.13	0.22	739	1028	888
Castor seed	0.87	N.A.	0.87	1.57	N.A.	1.57	1814	N.A.	1814
Total Nine Oilseeds	**18.98**	**7.86**	**26.84**	**22.32**	**11.70**	**34.02**	**1176**	**1488**	**1267**
Other Cash Crops									
Sugarcane	4.89	N.A.	4.89	400.12	N.A.	400.12	81901	N.A.	81901
Cotton[@]	12.87	N.A.	12.87	32.65	N.A.	32.65	431	N.A.	431
Jute[$]	0.65	N.A.	0.65	9.45	N.A.	9.45	2633	N.A.	2633
Mesta[$]	0.04	N.A.	0.04	0.40	N.A.	0.04	1631	N.A.	1631

Note : 1. @: Production in million bales of 170 kg each, 2. $: Production in million bales of 180 kg each, 3. N.A.: Not available, 4. Normal estimates = Average of estimates from 2017-18 to 2021-22.

Source : *Normal Estimates of Area, Production and Yield of Selected Principal Crops, May 2023,* Economics & Statistics Division, Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/normal-estimates)

Table 5.3: Targets and achievements of production of major crops

(million t)

Crops	XIth Five Year Plan		XIIth Five Year Plan		2017-18		2018-19		2019-20	
	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements	Targets	Achievements
Rice	494.50	486.24	529.60	531.48	108.50	112.76	114.00	116.48	116.00	118.87
Wheat	399.00	421.80	465.75	466.69	97.50	99.87	102.20	103.60	100.50	107.86
Nutri Cereals	208.60	200.03	215.55	207.88	45.65	46.97	48.10	43.06	48.30	47.75
Pulses	81.00	79.32	97.54	94.19	22.90	25.42	25.95	22.08	26.30	23.03
Foodgrains	1183.10	1187.43	1308.44	1300.85	274.55	285.01	290.25	285.21	291.10	297.50
Oilseeds	160.15	144.85	165.50	147.73	35.50	31.46	36.00	31.52	36.10	33.22
Sugarcane	1655.00	1628.94	1747.00	1710.19	355.00	379.90	385.00	405.42	385.50	370.50
Cotton$^{\#}$	134.00	140.38	176.15	167.52	35.50	32.81	35.50	28.04	35.75	36.07
Jute & Mesta$^{@}$	57.00	55.42	58.60	55.23	11.70	10.03	11.20	9.82	11.20	9.88

Note : 1. #: Million Bales of 170 kg each, 2. @: Million Bales of 180 kg each.

Source : *Agricultural Statistics at a Glance 2020 & 2021,* Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

Table 5.4: All India estimates of yield of major crops

(q/ha)

Crops	1950-51	1990-91	2000-01	2010-11	2015-16	2016-17	2017-18	2018-19	2019- 20	2020-21	2021-22*
Rice	6.68	17.40	19.01	22.39	24.00	24.94	25.76	26.38	27.22	27.17	28.09
Wheat	6.63	22.81	27.08	29.88	30.34	32.00	33.68	35.33	34.40	35.21	35.07
Jowar	3.53	8.14	7.64	9.49	6.97	8.12	9.56	8.49	9.89	10.99	11.10
Bajra	2.88	6.58	6.88	10.79	11.32	13.05	12.31	12.19	13.74	14.20	14.36
Maize	5.47	15.18	18.22	25.40	25.63	26.89	30.65	30.70	30.06	31.99	33.49
Nutri Cereals	4.08	9.00	10.27	15.31	15.79	17.50	19.34	19.44	19.91	21.88	22.47
Gram	4.82	7.12	7.44	8.95	8.40	9.74	10.78	10.41	11.42	11.92	12.60
Tur or Arhar	7.88	6.73	6.18	6.55	6.46	9.13	9.67	7.29	8.59	9.14	8.59
Total Pulses	**4.41**	**5.78**	**5.44**	**6.91**	**6.56**	**7.86**	**8.53**	**7.57**	**8.23**	**8.85**	**8.92**
Total Foodgrains	**5.22**	**13.80**	**16.26**	**19.30**	**20.42**	**21.29**	**22.35**	**22.86**	**23.43**	**23.94**	**24.19**
Sugarcane	334.22	653.95	685.78	700.91	707.95	690.01	801.98	801.05	804.97	835.66	838.87
Groundnut	7.75	9.04	9.77	14.11	14.65	13.98	18.93	14.22	20.63	17.03	17.59
Rapeseed & Mustard	3.68	9.04	9.36	11.85	11.83	13.04	14.10	15.11	13.31	15.24	14.58
Soybean	4.26	10.15	8.23	13.27	7.38	11.77	10.58	11.92	9.21	9.76	10.59
Sunflower	6.53	5.35	6.05	7.01	6.08	6.60	7.82	8.26	9.31	10.11	9.05
Nine oilseeds	**4.81**	**7.71**	**8.10**	**11.93**	**9.68**	**11.95**	**12.84**	**12.71**	**12.24**	**12.47**	**12.92**
Cotton	0.88	2.25	1.90	4.99	4.15	5.12	4.43	3.78	4.55	4.51	4.45
Tobacco	7.31	13.53	13.18	16.87	17.81	20.16	23.17	16.10	19.82	21.15	N.A.

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimate.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

Table 5.5: All India area, production and yield of total foodgrains

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	125.17	0.9	203.61	5.9	1627	4.8	43.3
1999-00	123.10	-1.7	209.80	3.0	1704	4.7	44.6
2000-01	121.05	-1.7	196.81	-6.2	1626	-4.6	43.7
2001-02	122.78	1.4	212.85	8.2	1734	6.6	43.6
2002-03	113.86	-7.3	174.77	-17.9	1535	-11.5	43.4
2003-04	123.45	8.4	213.19	22.0	1727	12.5	42.6
2004-05	120.08	-2.7	198.36	-7.0	1652	-4.3	44.6
2005-06	121.60	1.3	208.60	5.2	1715	3.8	45.7
2006-07	123.71	1.7	217.28	4.2	1756	2.4	47.1
2007-08	124.07	0.3	230.78	6.2	1860	5.9	47.3
2008-09	122.83	-1.0	234.47	1.6	1909	2.6	48.5
2009-10	121.33	-1.2	218.11	-7.0	1798	-5.8	47.8
2010-11	126.67	4.4	244.49	12.1	1930	7.3	48.2
2011-12	124.75	-1.5	259.29	6.1	2078	7.7	49.9
2012-13	120.78	-3.2	257.13	-0.8	2129	2.5	51.4
2013-14	125.05	3.5	265.05	3.1	2120	-0.4	52.0
2014-15	124.30	-0.6	252.02	-4.9	2028	-4.3	53.6
2015-16	123.22	-0.9	251.54	-0.2	2042	0.7	53.0
2016-17	129.23	4.9	275.11	9.4	2129	4.3	52.4
2017-18	127.52	-1.3	285.01	3.6	2235	5.0	53.4
2018-19	124.78	-2.1	285.21	0.1	2286	2.3	54.7
2019-20	126.99	1.8	297.50	4.3	2343	2.5	57.0
2020-21	129.80	2.2	310.74	4.5	2394	2.2	N.A.
2021-22	130.53*	0.6	315.62	1.6	2419*	1.0	N.A.
2022-23	N.A.	N.A.	329.69	4.5	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	328.85	-0.3	N.A.	N.A.	N.A.
2024-25#			**311.22-353.49**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/ advance-estimates/)

2. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

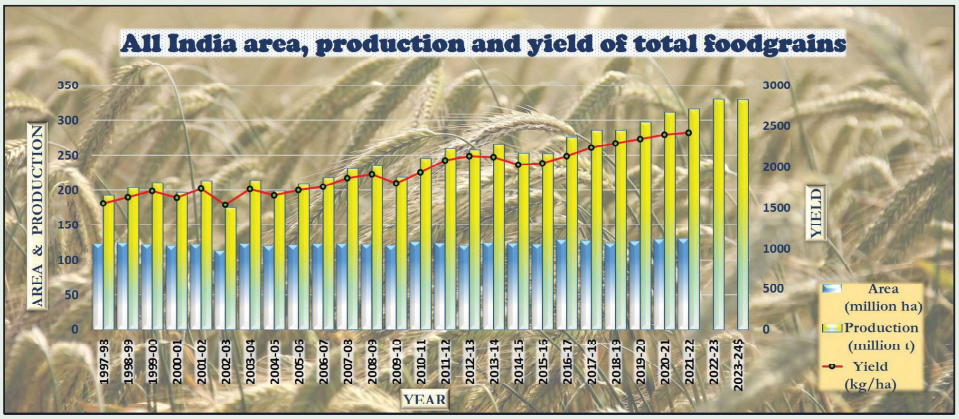


Table 5.6: State-wise area, production and yield of total foodgrains during 2020-21 and 2021-22 along with coverage under irrigation

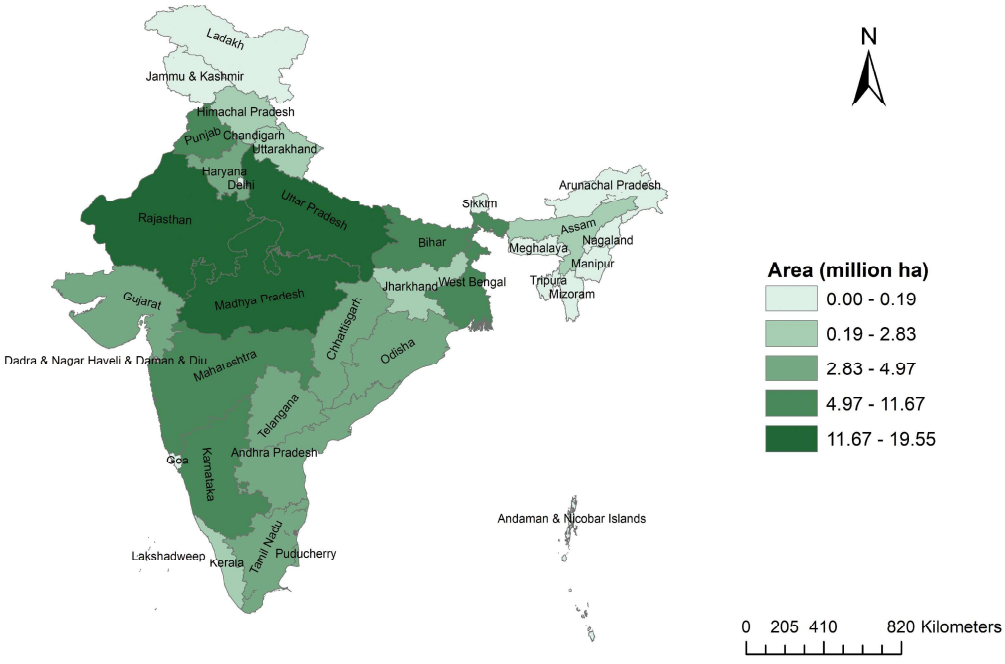
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Uttar Pradesh	19.55	14.98	56.11	17.77	2870	19.93	15.36	58.11	18.70	2915	84.89
Madhya Pradesh	16.17	12.39	39.05	12.37	2415	15.01	11.57	32.84	10.57	2188	67.06
Punjab	6.67	5.11	28.21	8.94	4233	6.60	5.09	30.42	9.79	4606	98.78
Rajasthan	14.71	11.27	21.05	6.67	1431	15.56	11.99	24.28	7.81	1561	34.39
West Bengal	6.64	5.09	20.50	6.49	3088	6.61	5.09	20.00	6.44	3025	53.74
Maharashtra	11.67	8.94	17.14	5.43	1469	11.35	8.74	15.77	5.07	1390	19.09
Haryana	4.23	3.24	16.33	5.17	3864	4.60	3.54	18.31	5.89	3985	94.99
Bihar	6.45	4.94	16.19	5.13	2511	6.36	4.90	15.38	4.95	2419	75.19
Telangana	4.73	3.63	15.10	4.78	3189	4.15	3.19	12.75	4.10	3075	81.82
Karnataka	7.99	6.12	13.81	4.37	1728	8.24	6.34	14.55	4.68	1767	27.40
Tamil Nadu	3.96	3.04	12.05	3.82	3040	3.82	2.94	10.82	3.48	2834	56.19
Andhra Pradesh	3.97	3.04	11.27	3.57	2841	4.07	3.14	11.30	3.64	2773	63.39
Gujarat	4.59	3.52	10.06	3.19	2189	4.23	3.26	8.97	2.89	2121	67.62
Odisha	4.97	3.81	9.95	3.15	2001	4.98	3.84	9.52	3.06	1913	28.90
Chhattisgarh	4.76	3.65	8.90	2.82	1869	4.80	3.70	8.23	2.65	1712	35.35
Assam	2.57	1.97	5.54	1.75	2154	2.56	1.97	5.49	1.77	2145	17.25
Jharkhand	2.83	2.17	4.98	1.58	1759	2.81	2.17	4.87	1.57	1733	10.27
Uttarakhand	0.79	0.60	1.92	0.61	2431	0.81	0.62	2.00	0.64	2474	49.27
Himachal Pradesh	0.73	0.56	1.54	0.49	2119	0.73	0.56	1.54	0.49	2112	23.83
Kerala	0.20	0.15	0.63	0.20	3199	0.21	0.16	0.64	0.20	3064	76.04
Others	23.80	18.24	48.91	15.49	2055	23.50	18.11	46.21	14.87	1966	-
All India	**130.53**	**100.00**	**315.72**	**100.00**	**2419**	**129.80**	**100.00**	**310.74**	**100.00**	**2394**	**56.96**

Note : 1. States have been arranged in descending order of percentage share of production during 2020-21, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of total foodgrains during 2021-22



State-wise production of total foodgrains during 2021-22

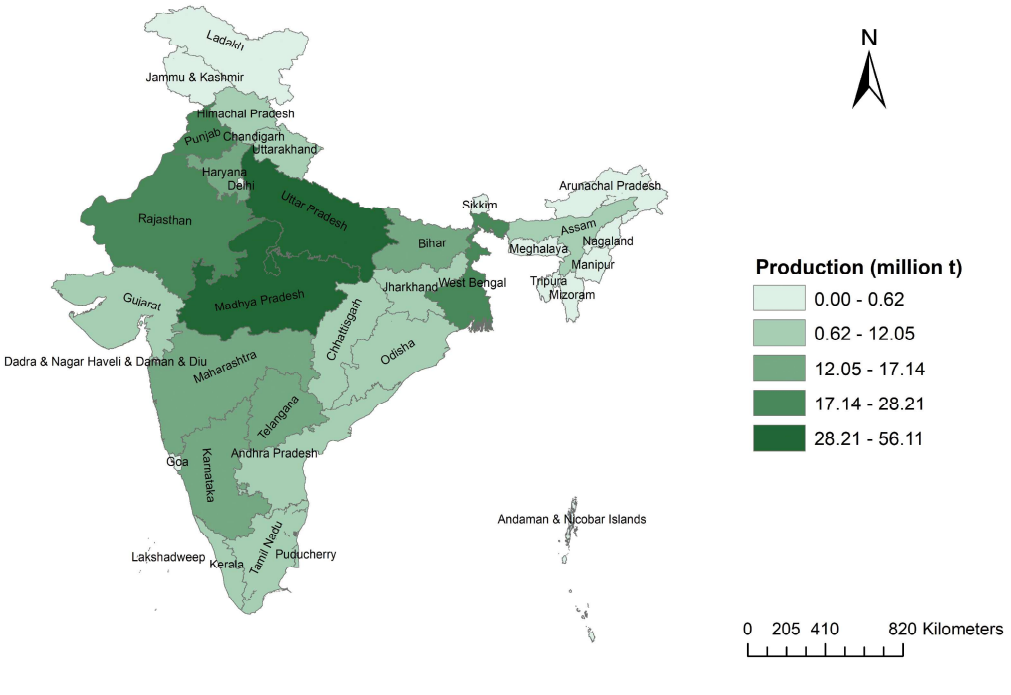


Table 5.7: All India area, production and yield of Rice

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	44.80	3.1	86.08	4.3	1921	1.1	55.1
1999-00	45.16	0.8	89.68	4.2	1986	3.4	55.1
2000-01	44.71	-1.0	84.98	-5.2	1901	-4.3	54.4
2001-02	44.90	0.4	93.34	9.8	2079	9.4	54.6
2002-03	41.18	-8.3	71.82	-23.1	1744	-16.1	51.3
2003-04	42.59	3.4	88.53	23.3	2077	19.1	52.9
2004-05	41.91	-1.6	83.13	-6.1	1984	-4.5	55.2
2005-06	43.66	4.2	91.79	10.4	2102	5.9	56.8
2006-07	43.81	0.3	93.36	1.7	2131	1.4	58.0
2007-08	43.91	0.2	96.69	3.6	2202	3.3	57.7
2008-09	45.54	3.7	99.18	2.6	2178	-1.1	58.8
2009-10	41.92	-7.9	89.09	-10.2	2125	-2.4	56.9
2010-11	42.86	2.2	95.98	7.7	2239	5.4	58.8
2011-12	44.01	2.7	105.30	9.7	2393	6.9	58.6
2012-13	42.75	-2.9	105.23	-0.1	2461	2.8	58.5
2013-14	44.14	3.3	106.65	1.3	2416	-1.8	59.6
2014-15	44.11	-0.1	105.48	-1.1	2391	-1.0	60.2
2015-16	43.50	-1.4	104.41	-1.0	2400	0.4	60.4
2016-17	43.99	1.1	109.70	5.1	2494	3.9	60.7
2017-18	43.77	-0.5	112.76	2.8	2576	3.3	61.5
2018-19	44.16	0.9	116.48	3.3	2638	2.4	63.0
2019-20	43.66	-1.1	118.87	2.1	2722	3.2	65.0
2020-21	45.77	4.8	124.37	4.6	2717	-0.2	N.A.
2021-22	46.38*	1.3	129.47	4.1	2809*	3.4	N.A.
2022-23	N.A.	N.A.	135.76	4.9	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	136.70	0.7	N.A.	N.A.	N.A.
2024-25#			**126.41-146.25**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. Agricultural Statistics at a Glance 2022, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

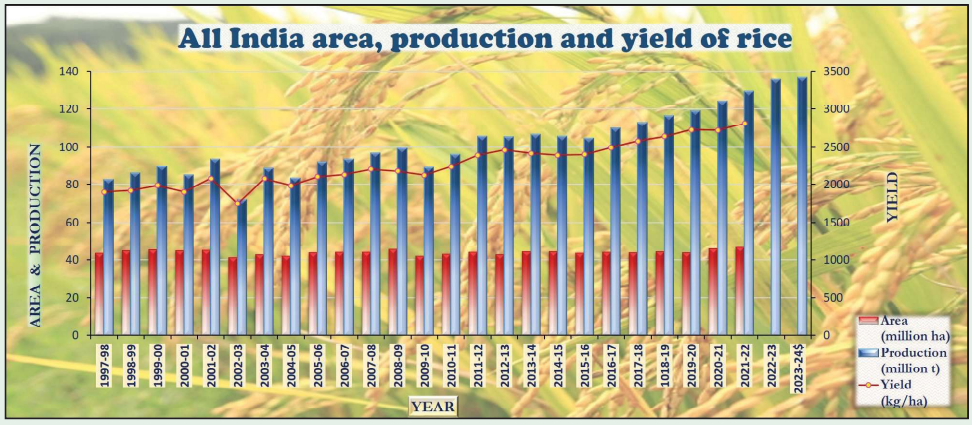


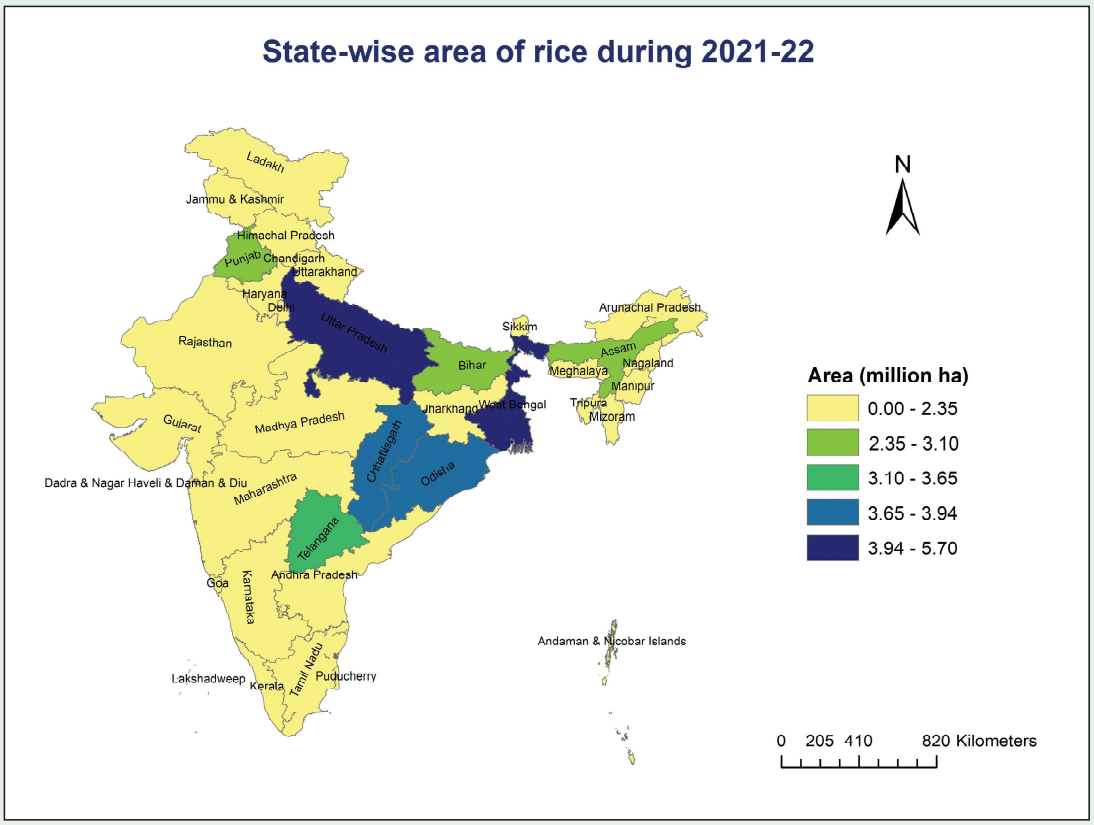
Table 5.8: State-wise area, production and yield of Rice during 2020-21 and 2021-22 along with coverage under irrigation

(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
West Bengal	5.60	12.06	16.76	12.87	2996	5.59	12.20	16.52	13.29	2958	51.08
Uttar Pradesh	5.70	12.29	15.27	11.72	2679	5.68	12.41	15.52	12.48	2733	90.23
Punjab	2.97	6.40	12.89	9.89	4340	2.93	6.40	12.78	10.28	4366	99.70
Telangana	3.65	7.88	12.30	9.44	3366	3.19	6.96	10.22	8.22	3206	99.41
Odisha	3.94	8.50	9.14	7.01	2318	4.04	8.82	8.81	7.08	2182	31.91
Tamil Nadu	2.21	4.76	8.07	6.19	3658	2.04	4.45	6.88	5.53	3379	93.40
Chattisgarh	3.76	8.10	7.90	6.06	2101	3.79	8.28	7.16	5.76	1889	36.64
Andhra Pradesh	2.25	4.84	7.79	5.98	3470	2.32	5.08	7.88	6.34	3393	97.27
Bihar	3.10	6.67	7.06	5.42	2282	2.96	6.47	6.61	5.32	2232	71.13
Assam	2.36	5.08	5.27	4.04	2236	2.36	5.16	5.21	4.19	2209	18.08
Others	10.86	23.41	27.84	21.37	2565	10.88	23.77	26.76	21.52	2460	-
All India	**46.38**	**100.00**	**130.29**	**100.00**	**2809**	**45.77**	**100.00**	**124.37**	**100.00**	**2717**	**64.97**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)


State-wise area of rice during 2021-22
N
Area (million ha)
0.00 - 2.35
2.35 - 3.10
3.10 - 3.65
3.65 - 3.94
3.94 - 5.70
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Uttar Pradesh
Rajasthan
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Bihar
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Tamil Nadu
Puducherry
Kerala
Lakshadweep
Andaman & Nicobar Islands
0 205 410 820 Kilometers

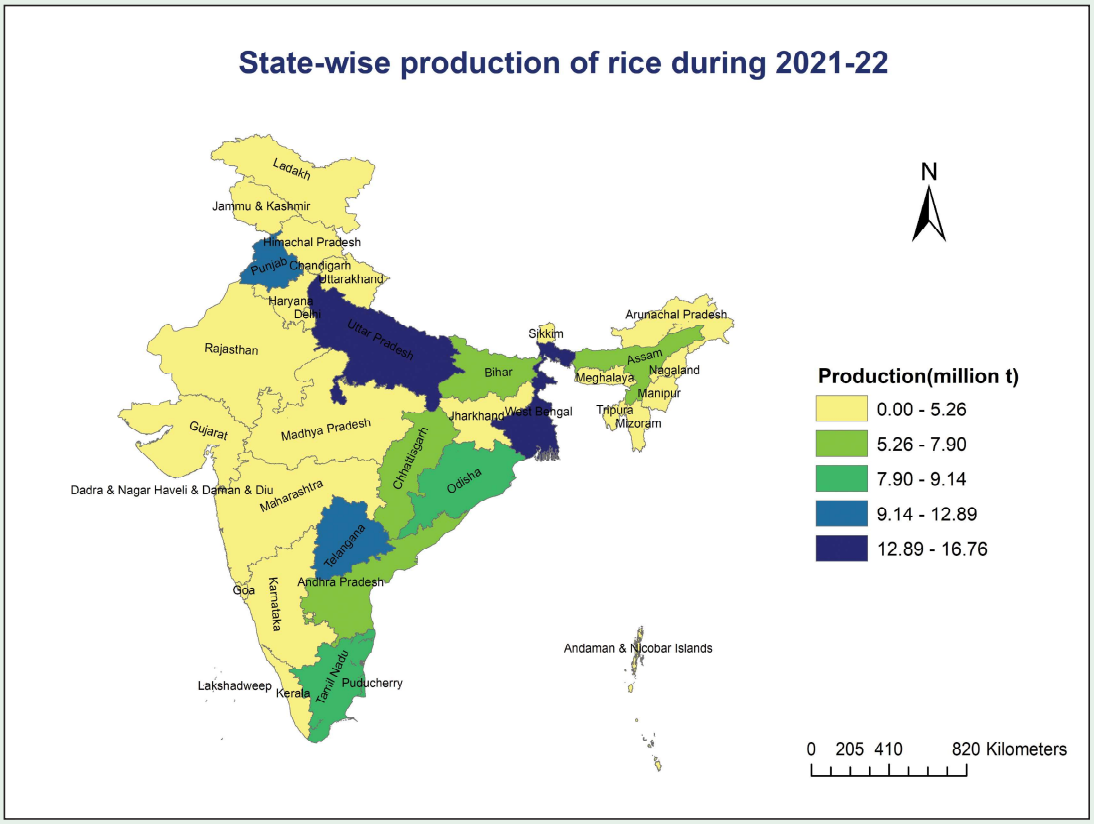

State-wise production of rice during 2021-22
N
Production(million t)
0.00 - 5.26
5.26 - 7.90
7.90 - 9.14
9.14 - 12.89
12.89 - 16.76
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Uttar Pradesh
Rajasthan
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Bihar
Jharkhand
West Bengal
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Tamil Nadu
Puducherry
Kerala
Lakshadweep
Andaman & Nicobar Islands
0 205 410 820 Kilometers

Table 5.9: All India area, production and yield of Wheat

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	27.52	3.1	71.29	7.4	2590	4.2	86.6
1999-00	27.49	-0.1	76.37	7.1	2778	7.3	87.2
2000-01	25.73	-6.4	69.68	-8.8	2708	-2.5	88.4
2001-02	26.34	2.4	72.77	4.4	2762	2.0	88.6
2002-03	25.20	-4.3	65.76	-9.6	2610	-5.5	88.8
2003-04	26.60	5.6	72.16	9.7	2713	3.9	89.6
2004-05	26.38	-0.8	68.64	-4.9	2602	-4.1	89.9
2005-06	26.48	0.4	69.35	1.0	2619	0.7	90.6
2006-07	27.99	5.7	75.81	9.3	2708	3.4	90.9
2007-08	28.04	0.2	78.57	3.6	2802	3.5	91.3
2008-09	27.75	-1.0	80.68	2.7	2907	3.7	91.7
2009-10	28.46	2.6	80.80	0.1	2839	-2.3	91.8
2010-11	29.07	2.1	86.87	7.5	2988	5.2	91.6
2011-12	29.86	2.7	94.88	9.2	3177	6.3	92.2
2012-13	30.00	0.5	93.51	-1.4	3117	-1.9	92.7
2013-14	30.47	1.6	95.85	2.5	3146	0.9	92.8
2014-15	31.47	3.3	86.53	-9.7	2750	-12.6	94.4
2015-16	30.42	-3.3	92.29	6.7	3034	10.3	94.4
2016-17	30.79	1.2	98.51	6.7	3200	5.5	94.6
2017-18	29.65	-3.7	99.87	1.4	3368	5.3	94.7
2018-19	29.32	-1.1	103.60	3.7	3533	4.9	95.5
2019-20	31.36	7.0	107.86	4.1	3440	-2.6	95.8
2020-21	31.13	-0.7	109.59	1.6	3521	2.4	N.A.
2021-22	30.47*	-2.1	107.74	-1.7	3507*	-0.4	N.A.
2022-23	N.A.	N.A.	110.55	2.6	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	112.93	2.2	N.A.	N.A.	N.A.
2024-25#			**107.48-120.50**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. *(Website: https://desagri.gov.in/statistics-type/advance-estimates)*

2. *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

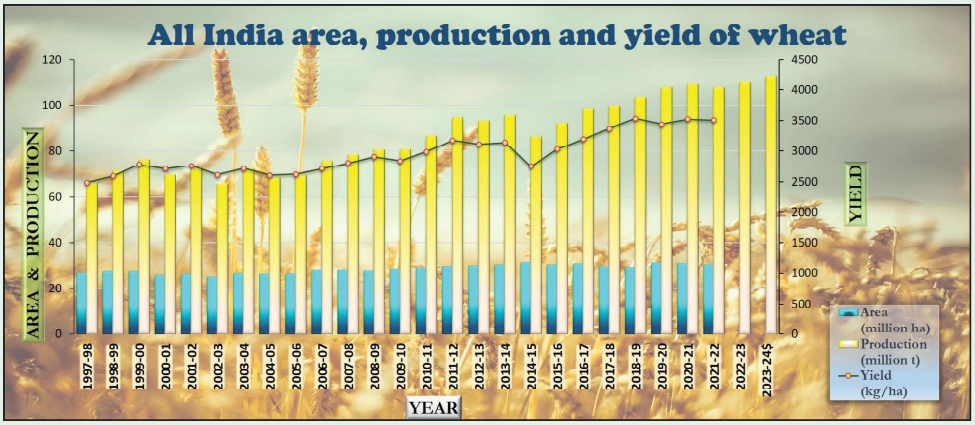


Table 5.10: State-wise area, production and yield of Wheat during 2020-21 and 2021-22 along with coverage under irrigation

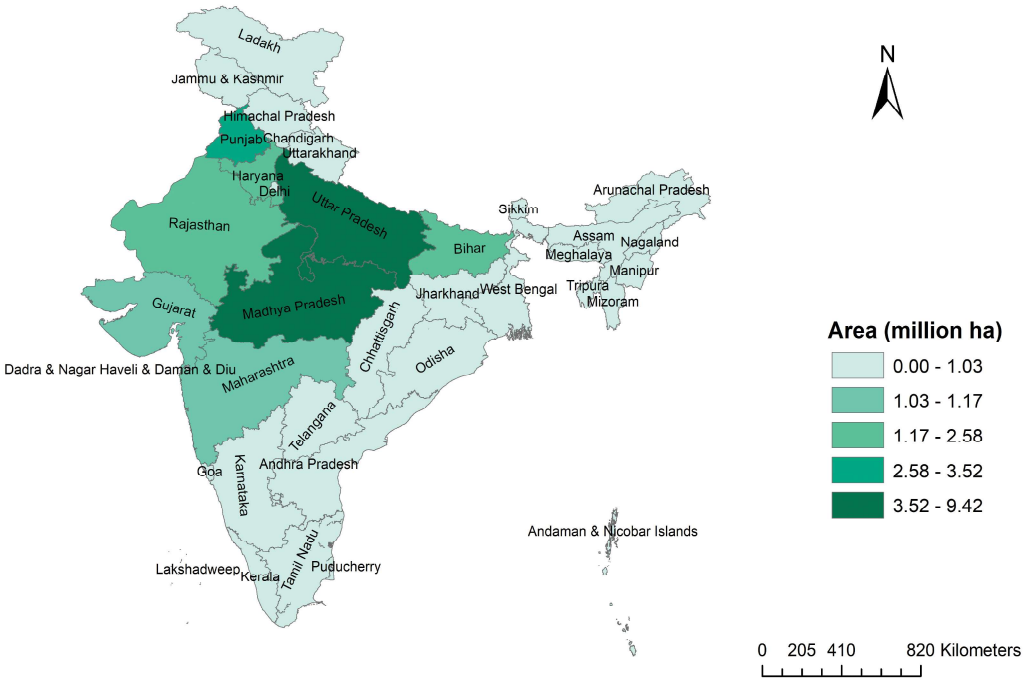
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Uttar Pradesh	9.42	30.92	33.95	31.77	3604	9.85	31.65	35.51	32.40	3604	98.61
Madhya Pradesh	6.50	21.33	22.42	20.98	3449	6.08	19.54	18.18	16.59	2989	97.21
Punjab	3.52	11.57	14.82	13.87	4206	3.53	11.34	17.19	15.68	4868	99.07
Haryana	2.30	7.56	10.45	9.78	4533	2.56	8.24	12.39	11.31	4834	99.69
Rajasthan	2.58	8.47	9.48	8.88	3676	3.00	9.64	11.04	10.07	3676	99.38
Bihar	2.24	7.35	6.22	5.83	2780	2.22	7.14	6.15	5.61	2767	95.60
Gujarat	1.04	3.41	3.33	3.12	3206	1.02	3.27	3.26	2.97	3205	97.10
Maharashtra	1.17	3.83	2.47	2.32	2117	1.13	3.62	2.07	1.89	1839	73.89
Others	1.69	5.56	3.69	3.46	2180	1.73	5.55	3.80	3.47	2200	-
All India	**30.47**	**100.00**	**106.84**	**100.00**	**3507**	**31.13**	**100.00**	**109.59**	**100.00**	**3521**	**95.76**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of wheat during 2021-22



State-wise production of wheat during 2021-22

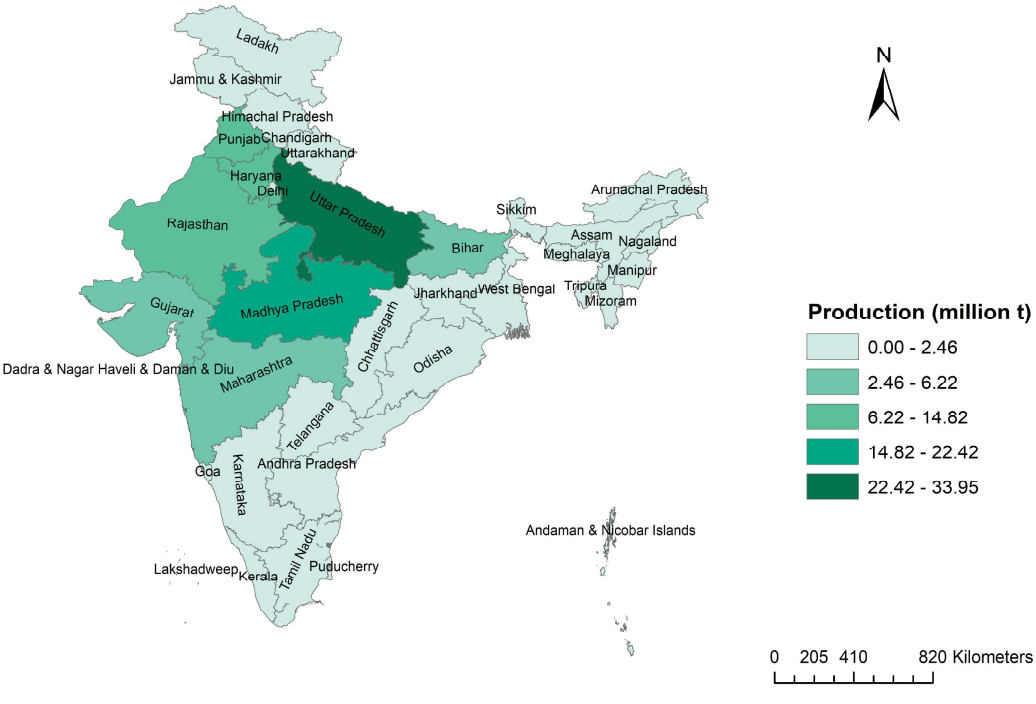


Table 5.11: All India area, production and yield of Jowar

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	9.80	-9.4	8.42	11.8	859	23.2	8.1
1999-00	10.25	4.7	8.68	3.1	847	-1.4	8.3
2000-01	9.86	-3.8	7.53	- 13.2	764	-9.8	8.3
2001-02	9.81	-0.6	7.56	0.4	771	0.9	7.4
2002-03	9.30	-5.1	7.01	- 7.3	754	-2.2	7.9
2003-04	9.33	0.3	6.68	- 4.7	716	-5.0	7.6
2004-05	9.08	-2.6	7.24	8.4	797	11.3	8.8
2005-06	8.23	-4.6	7.24	0.0	880	10.4	8.5
2006-07	8.47	-2.3	7.15	-1.2	844	-4.1	8.3
2007-08	7.77	-8.4	7.93	10.9	1021	21.0	8.9
2008-09	7.54	-3.0	7.25	-8.6	962	-5.8	9.3
2009-10	7.79	3.5	6.70	-7.6	860	-10.6	8.8
2010-11	7.38	-5.3	7.00	4.5	949	10.3	8.7
2011-12	6.25	-15.3	5.98	-14.6	957	0.8	10.2
2012-13	6.21	-0.6	5.28	-11.7	850	-11.2	10.1
2013-14	5.79	-6.8	5.54	4.9	957	12.6	10.1
2014-15	6.17	6.4	5.45	-1.6	884	-7.6	9.8
2015-16	6.08	-1.3	4.24	-22.2	697	-21.2	10.3
2016-17	5.62	-7.6	4.57	7.8	812	16.5	9.8
2017-18	5.02	-10.7	4.80	5.0	956	17.7	10.3
2018-19	4.09	-18.5	3.48	-27.5	849	-11.2	10.7
2019-20	4.82	17.8	4.77	37.1	989	16.5	11.1
2020-21	4.38	-9.1	4.81	0.8	1099	11.1	N.A.
2021-22	3.81*	-13.0	4.15	-13.7	1110*	1.0	N.A.
2022-23	N.A.	N.A.	3.81	-8.2	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	4.74	24.4	N.A.	N.A.	N.A.
2024-25#			**1.88-6.74**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

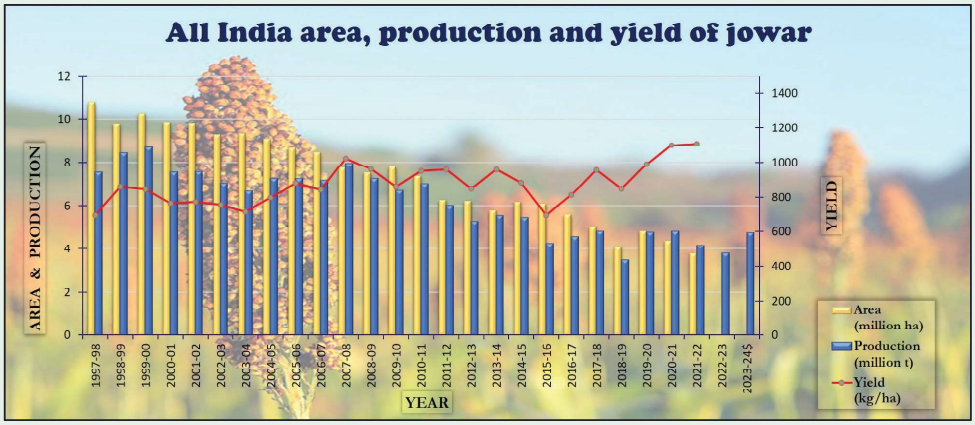


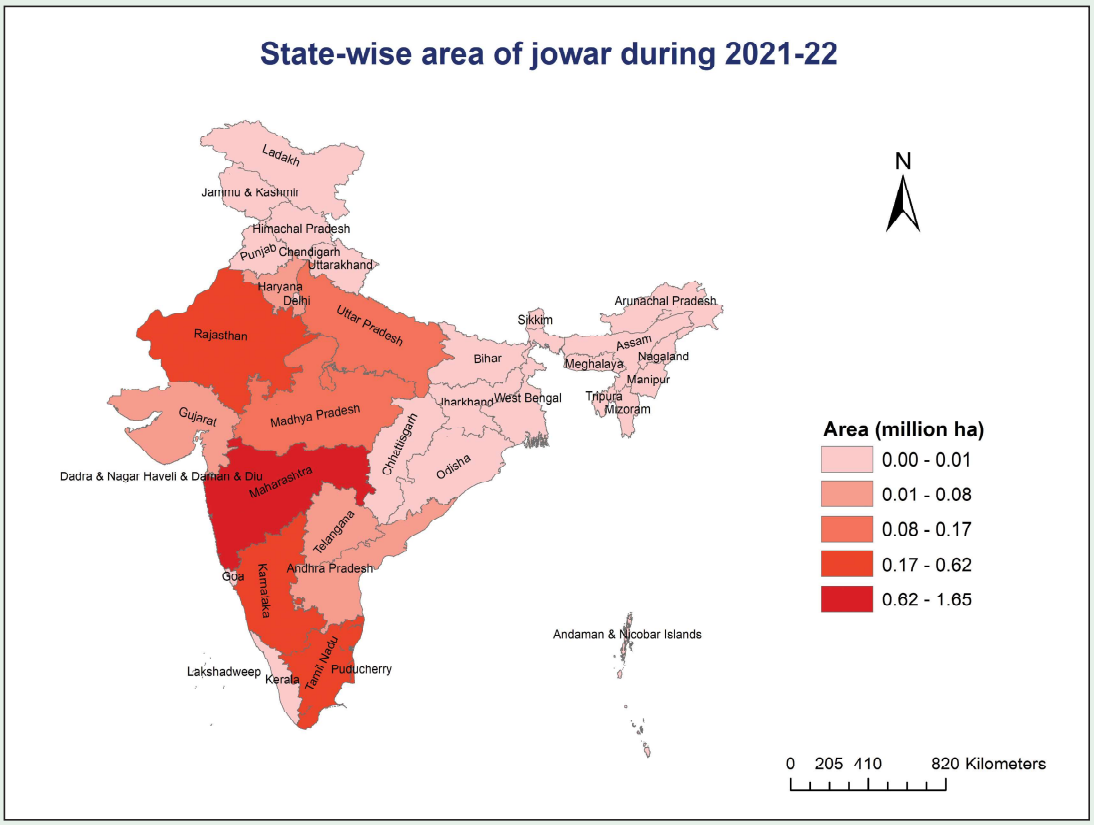
Table 5.12: State-wise area, production and yield of Jowar during 2020-21 and 2021-22 along with coverage under irrigation

(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Maharashtra	1.65	43.30	1.71	40.49	1038	2.08	47.49	1.75	36.30	840	9.54
Karnataka	0.62	16.36	0.75	17.75	1204	0.75	17.13	0.90	18.78	1205	16.16
Rajasthan	0.62	16.28	0.54	12.67	864	0.56	12.78	0.59	12.26	1054	0.15
Tamil Nadu	0.40	10.42	0.29	6.90	735	0.41	9.26	0.43	8.88	1054	9.76
Uttar Pradesh	0.17	4.49	0.27	6.38	1578	0.17	3.97	0.27	5.71	1578	9.94
Andhra Pradesh	0.08	2.02	0.24	5.77	3166	0.12	2.74	0.41	8.55	3428	37.33
Madhya Pradesh	0.12	3.26	0.24	5.69	1941	0.11	2.56	0.22	4.51	1938	0.65
Telengana	0.07	1.76	0.10	2.44	1537	0.09	2.08	0.16	3.24	1711	25.50
Gujarat	0.04	1.12	0.06	1.36	1346	0.04	0.94	0.06	1.19	1398	30.73
Haryana	0.02	0.61	0.01	0.29	527	0.03	0.71	0.02	0.34	525	60.39
Others	0.01	0.37	0.01	0.25	755	0.01	0.33	0.01	0.26	848	-
All India	**3.81**	**100.00**	**4.23**	**100.00**	**1110**	**4.38**	**100.00**	**4.81**	**100.00**	**1099**	**11.10**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)


State-wise area of jowar during 2021-22
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Sikkim
Arunachal Pradesh
Assam
Bihar
Meghalaya
Nagaland
Manipur
Jharkhand
West Bengal
Tripura
Mizoram
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Andaman & Nicobar Islands
Lakshadweep
Kerala
Tamil Nadu
Puducherry
N
Area (million ha)
0.00 - 0.01
0.01 - 0.08
0.08 - 0.17
0.17 - 0.62
0.62 - 1.65
0 205 410 820 Kilometers

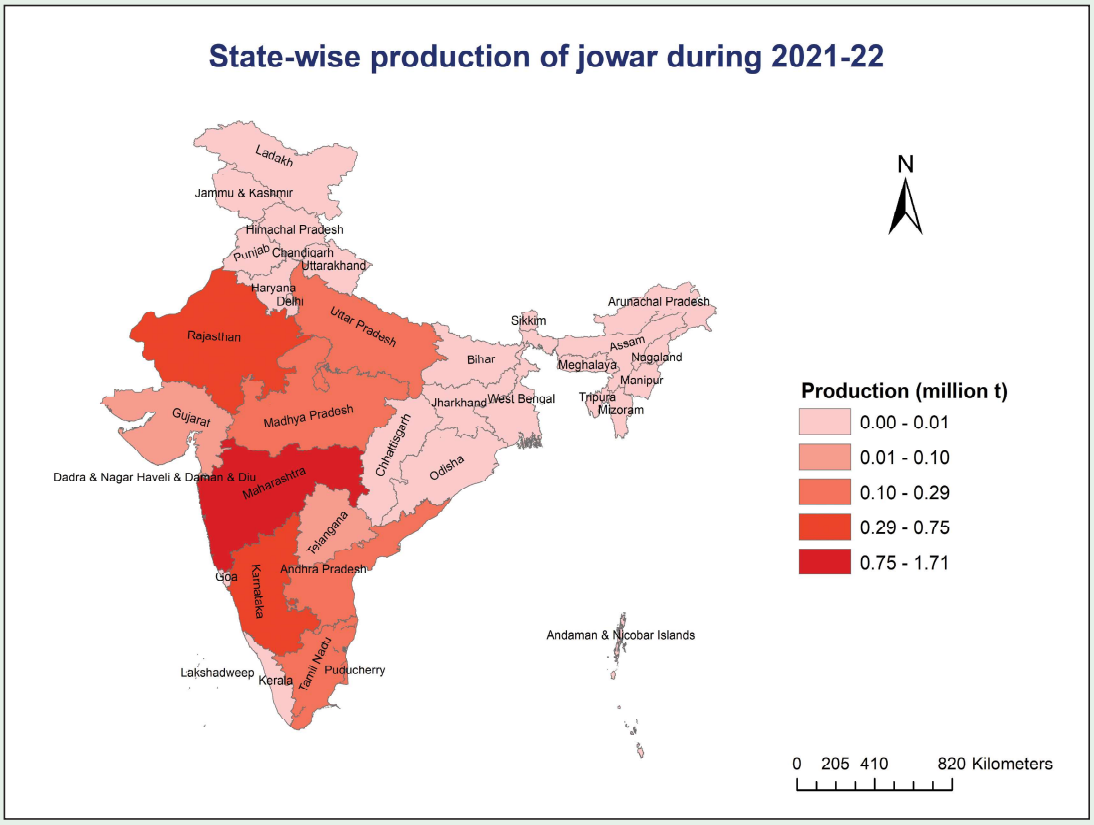

State-wise production of jowar during 2021-22
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Sikkim
Arunachal Pradesh
Assam
Bihar
Meghalaya
Nagaland
Manipur
Jharkhand
West Bengal
Tripura
Mizoram
Gujarat
Madhya Pradesh
Chhattisgarh
Odisha
Dadra & Nagar Haveli & Daman & Diu
Maharashtra
Telangana
Andhra Pradesh
Goa
Karnataka
Andaman & Nicobar Islands
Lakshadweep
Kerala
Tamil Nadu
Puducherry
N
Production (million t)
0.00 - 0.01
0.01 - 0.10
0.10 - 0.29
0.29 - 0.75
0.75 - 1.71
0 205 410 820 Kilometers

Table 5.13: All India area, production and yield of Bajra

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	9.30	-3.8	6.96	-8.9	748	-5.4	7.0
1999-00	8.90	-4.3	5.78	-17.0	650	-13.1	8.1
2000-01	9.83	10.4	6.76	17.0	688	5.8	7.8
2001-02	9.53	-3.1	8.28	22.5	869	26.3	6.6
2002-03	7.74	-18.8	4.72	-43.0	610	-29.8	9.6
2003-04	10.61	37.1	12.11	156.6	1141	87.0	6.3
2004-05	9.23	-13.0	7.93	-34.5	859	-24.7	8.2
2005-06	9.58	3.8	7.68	-3.2	802	-6.6	9.1
2006-07	9.51	-0.7	8.42	9.6	886	10.5	9.6
2007-08	9.57	0.6	9.97	18.4	1042	17.6	10.3
2008-09	8.75	-8.6	8.89	-10.8	1015	-2.6	9.3
2009-10	8.90	1.7	6.51	-26.8	731	-28.0	9.2
2010-11	9.61	8.0	10.37	59.3	1079	47.6	10.2
2011-12	8.78	-8.6	10.28	-0.9	1171	8.5	11.1
2012-13	7.30	-16.9	8.74	-15.0	1198	2.3	12.4
2013-14	7.81	7.0	9.25	5.8	1184	-1.2	12.2
2014-15	7.32	-6.3	9.18	-0.8	1255	6.0	11.4
2015-16	7.13	-2.6	8.07	-12.1	1132	-9.8	13.2
2016-17	7.46	4.6	9.73	20.6	1305	15.3	12.6
2017-18	7.48	0.3	9.21	-5.3	1231	-5.7	12.3
2018-19	7.11	-4.9	8.66	-6.0	1219	-1.0	11.6
2019-20	7.54	6.0	10.36	19.6	1374	12.7	15.2
2020-21	7.65	1.5	10.86	4.8	1420	3.3	N.A.
2021-22	6.70*	-12.4	9.78	-9.9	1436*	1.1	N.A.
2022-23	N.A.	N.A.	11.43	16.9	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	10.67	-6.6	N.A.	N.A.	N.A.
2024-25#			**7.53-12.70**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

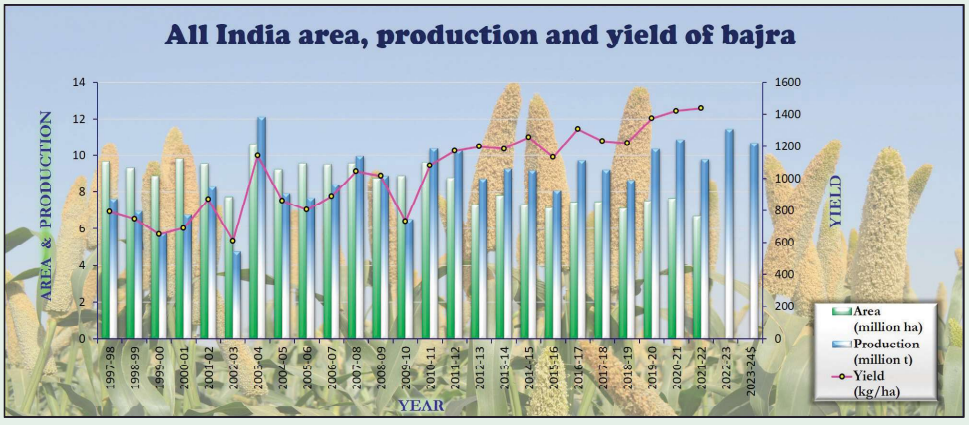


Table 5.14: State-wise area, production and yield of Bajra during 2020-21 and 2021-22 along with coverage under irrigation

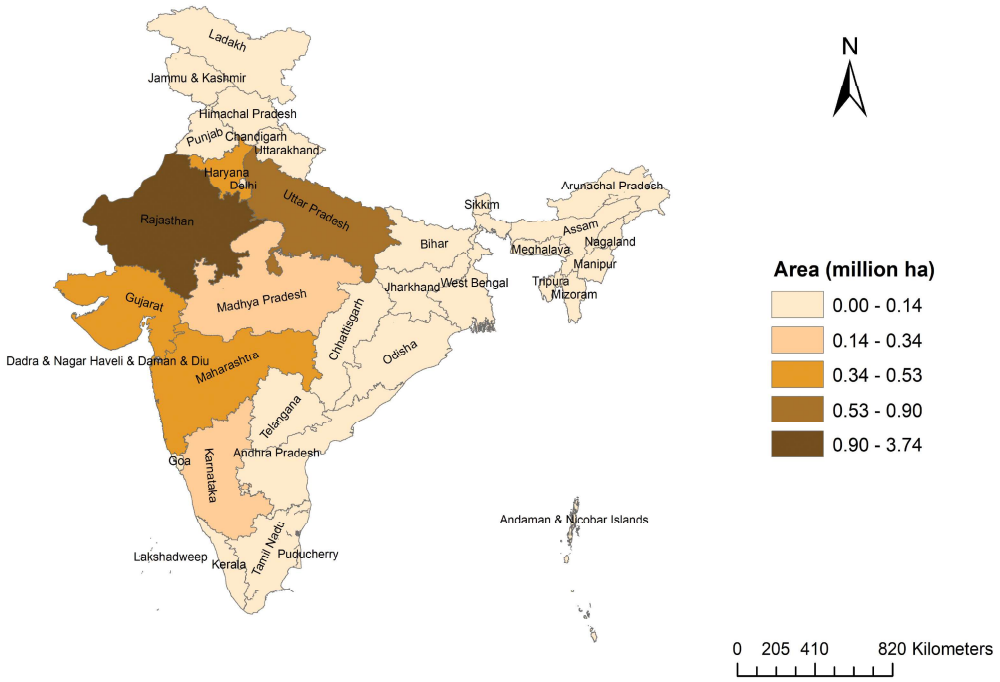
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Rajasthan	3.74	55.74	3.75	38.98	1004	4.35	56.83	4.56	42.00	1049	4.99
Uttar Pradesh	0.90	13.49	1.95	20.25	2156	0.91	11.85	2.01	18.55	2221	21.34
Haryana	0.48	7.21	1.12	11.64	2318	N.A.	7.44	1.35	12.43	2373	65.31
Gujarat	0.45	6.65	1.06	10.97	2368	0.46	6.01	1.01	9.29	2192	63.85
Madhya Pradesh	0.34	5.12	0.87	9.03	2533	0.33	4.27	0.74	6.79	2256	1.66
Maharashtra	0.53	7.85	0.48	4.94	903	0.69	8.98	0.66	6.05	955	5.04
Karnataka	0.15	2.19	0.17	1.77	1161	0.22	2.90	0.28	2.54	1241	19.03
Others	0.12	1.75	0.23	2.42	1989	0.13	1.71	0.26	2.35	1950	-
All India	**6.70**	**100.00**	**9.62**	**100.00**	**1436**	**7.65**	**100.00**	**10.86**	**100.00**	**1419**	**15.20**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates, 4. N.A.: Not available.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of bajra during 2021-22



State-wise production of bajra during 2021-22

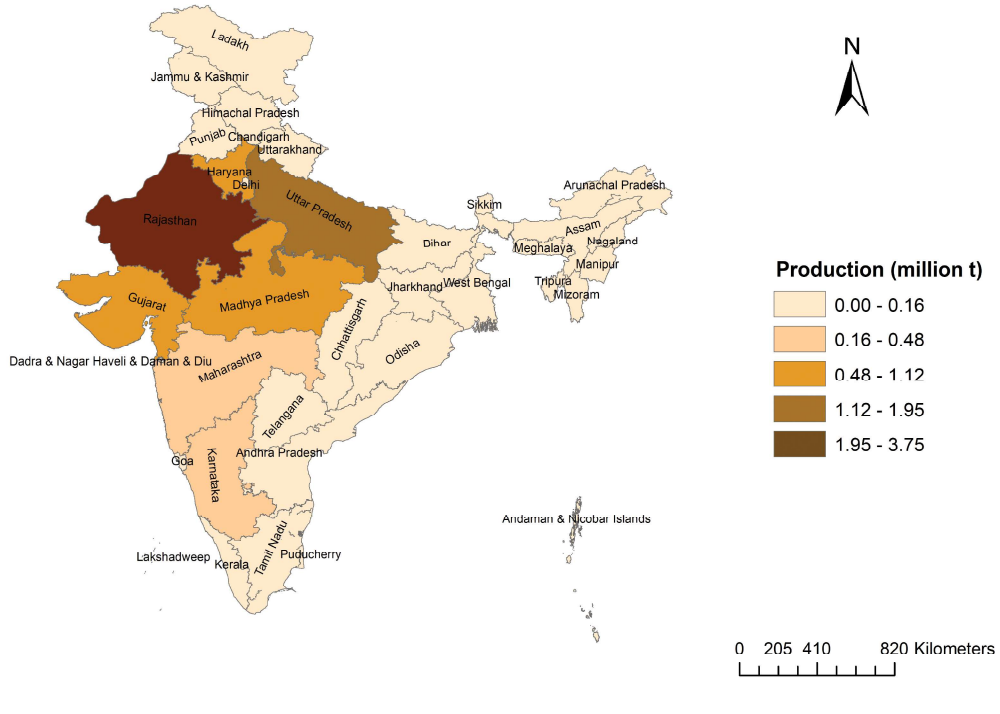


Table 5.15: All India area, production and yield of Maize

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	6.20	-1.9	11.15	3.0	1797	5.0	21.7
1999-00	6.42	3.5	11.51	3.2	1792	-0.3	22.3
2000-01	6.61	3.0	12.04	4.6	1822	1.7	21.8
2001-02	6.58	-0.5	13.16	9.3	2000	9.8	20.5
2002-03	6.63	0.8	11.15	-15.3	1681	-16.0	20.1
2003-04	7.34	10.7	14.98	34.3	2041	21.4	19.3
2004-05	7.43	1.2	14.17	-5.4	1907	-6.6	21.1
2005-06	7.59	2.2	14.71	3.8	1938	1.6	22.7
2006-07	7.90	4.1	15.10	2.7	1912	-1.3	22.3
2007-08	8.12	2.8	18.96	25.6	2335	22.1	24.3
2008-09	8.17	0.6	19.73	4.1	2414	3.4	25.1
2009-10	8.26	1.1	16.72	-15.3	2024	-16.2	24.2
2010-11	8.55	3.5	21.73	30.0	2542	25.6	24.4
2011-12	8.78	2.7	21.76	0.1	2478	-2.5	25.8
2012-13	8.67	-1.3	22.26	2.3	2566	3.6	25.9
2013-14	9.07	4.6	24.26	9.0	2676	4.3	27.2
2014-15	9.18	1.2	24.17	-0.4	2632	-1.6	27.4
2015-16	8.81	-4.0	22.57	-6.6	2563	-2.6	27.3
2016-17	9.63	9.3	25.90	14.8	2689	4.9	27.0
2017-18	9.38	-2.6	28.75	11.0	3065	14.0	29.0
2018-19	9.03	-3.7	27.72	-3.6	3070	0.2	27.0
2019-20	9.57	6.0	28.77	3.8	3006	-2.1	29.3
2020-21	9.89	3.3	31.65	10.0	3199	6.4	N.A.
2021-22	10.04*	1.5	33.73	6.6	3349*	4.7	N.A.
2022-23	N.A.	N.A.	38.09	12.9	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	35.67	-6.4	N.A.	N.A.	N.A.
2024-25#			**33.74-39.43**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance Estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

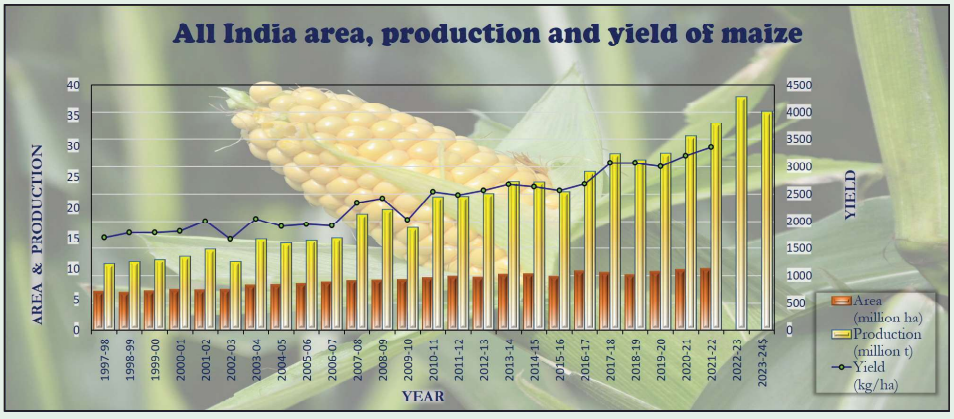


Table 5.16: State-wise area, production and yield of Maize during 2020-21 and 2021-22 along with coverage under irrigation

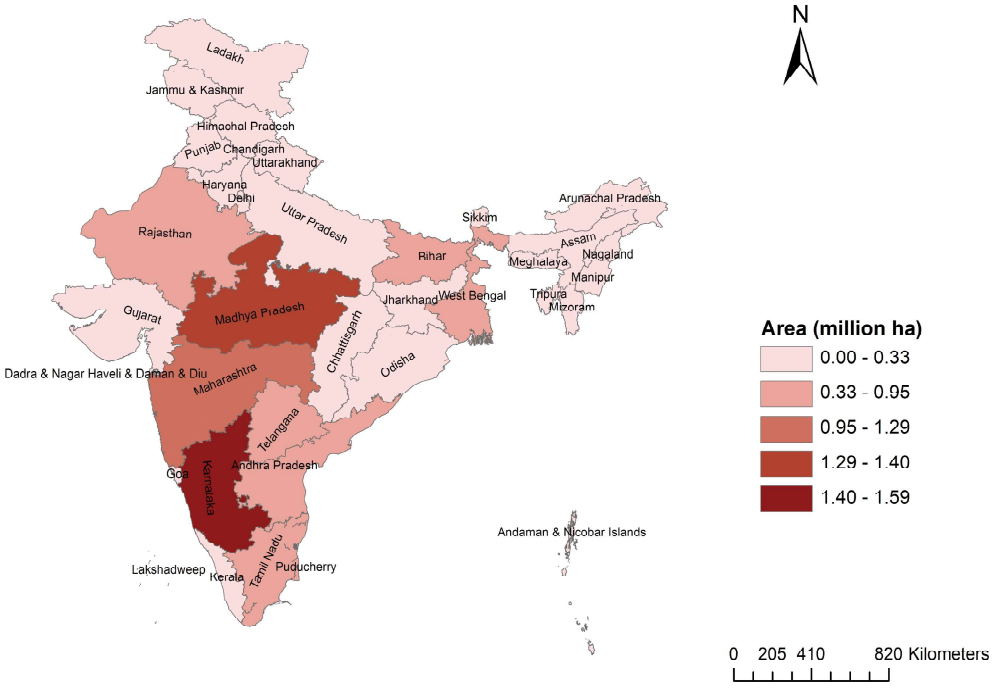
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Karnataka	1.59	15.87	5.22	15.53	3279	1.73	17.45	5.36	16.94	3107	32.57
Madhya Pradesh	1.40	13.98	4.57	13.59	3256	1.41	14.20	3.88	12.27	2763	3.70
Maharashtra	1.29	12.90	3.53	10.51	2730	1.18	11.95	3.52	11.12	2978	12.72
Tamil Nadu	0.40	3.99	2.81	8.36	7008	0.40	4.05	0.56	1.78	1411	33.60
West Bengal	0.37	3.68	2.64	7.86	7158	0.36	3.65	2.44	7.70	6752	85.74
Bihar	0.66	6.60	2.52	7.51	3809	0.65	6.56	2.08	6.59	3211	73.28
Telangana	0.41	4.11	2.13	6.35	5178	0.26	2.62	1.76	5.55	6782	54.09
Andhra Pradesh	0.34	3.41	2.05	6.09	5990	0.30	3.04	1.78	5.63	5917	75.80
Rajasthan	0.95	9.48	2.04	6.08	2149	0.99	10.04	2.27	7.17	2285	1.86
Others	2.61	25.99	6.09	18.12	2335	2.62	26.44	7.99	25.25	3055	-
All India	**10.04**	**100.00**	**33.62**	**100.00**	**3349**	**9.89**	**100.00**	**31.65**	**100.00**	**3199**	**29.30**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of maize during 2021-22



State-wise production of maize during 2021-22

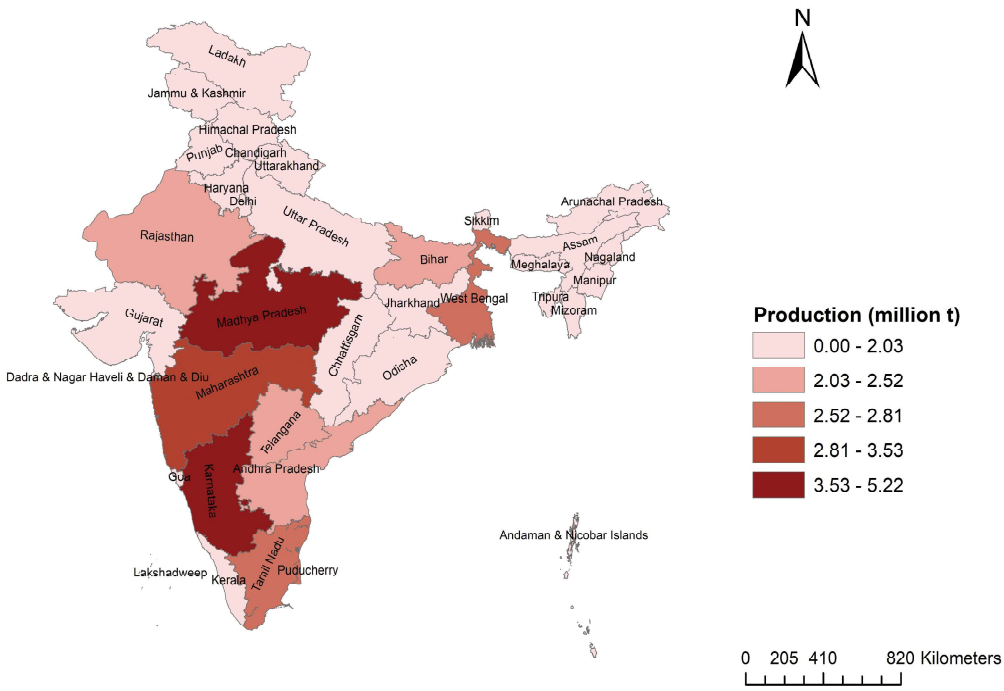


Table 5.17: All India area, production and yield of total pulses

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	23.50	2.8	14.91	14.9	634	11.8	12.1
1999-00	21.12	- 10.1	13.42	- 10.0	635	0.2	13.0
2000-01	20.35	- 3.6	11.08	- 17.4	544	- 14.3	12.6
2001-02	22.01	8.2	13.37	20.7	607	11.6	13.3
2002-03	20.50	- 6.9	11.13	- 16.8	543	- 10.5	14.0
2003-04	23.46	14.4	14.91	34.0	635	16.9	13.7
2004-05	22.76	- 3.0	13.13	- 11.9	577	- 9.1	14.0
2005-06	22.39	- 1.6	13.39	2.0	598	3.6	14.6
2006-07	23.19	3.6	14.20	6.0	612	2.3	15.5
2007-08	23.63	1.9	14.76	3.9	625	2.1	15.9
2008-09	22.09	- 6.5	14.57	-1.3	659	5.4	16.5
2009-10	23.28	5.4	14.66	0.6	630	-4.4	16.2
2010-11	26.40	13.4	18.24	24.4	691	9.7	14.9
2011-12	24.46	-7.3	17.09	-6.3	699	1.2	16.4
2012-13	23.26	-4.9	18.34	7.3	789	12.9	18.9
2013-14	25.21	8.5	19.25	5.0	764	-3.2	19.9
2014-15	23.55	-6.6	17.15	-10.9	728	-4.7	20.1
2015-16	24.91	5.8	16.32	-4.8	655	-10.0	19.5
2016-17	29.45	18.2	23.13	41.7	786	20.0	19.1
2017-18	29.81	1.2	25.42	9.9	853	8.5	23.3
2018-19	29.16	-2.2	22.08	-13.1	757	-11.3	23.6
2019-20	27.99	-4.0	23.03	4.3	823	8.7	2.3.1
2020-21	28.78	2.8	25.46	10.6	885	7.5	N.A.
2021-22	31.03*	7.8	27.30	7.2	892*	0.8	N.A.
2022-23	N.A.	N.A.	26.06	-4.5	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	24.49	-6.0	N.A.	N.A.	N.A.
2024-25#			**22.62-29.35**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

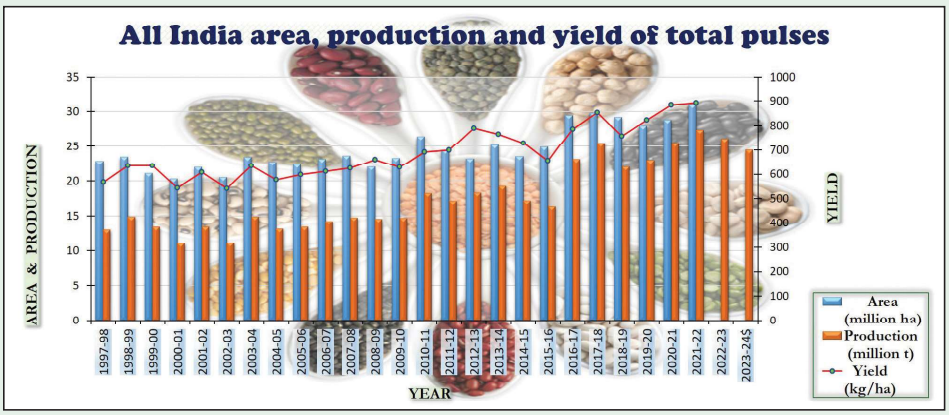


Table 5.18: State-wise area, production and yield of total pulses during 2020-21 and 2021-22 along with coverage under irrigation

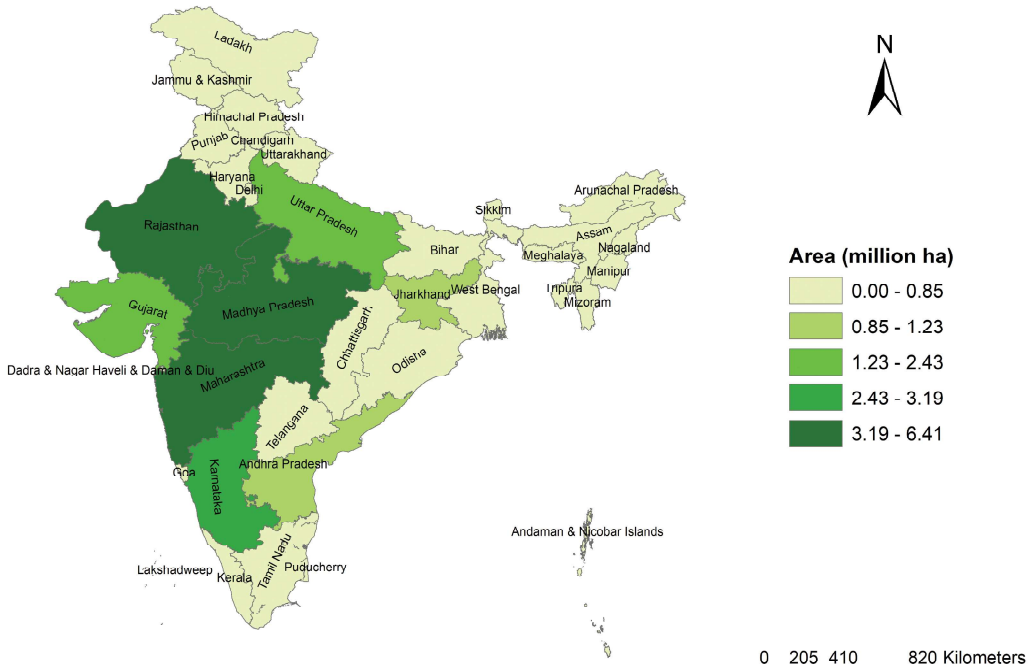
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Madhya Pradesh	5.59	18.01	6.03	21.78	1080	4.87	16.91	5.29	20.79	1088	43.75
Maharashtra	5.22	16.81	5.19	18.75	995	4.53	15.73	4.32	16.97	954	12.49
Rajasthan	6.41	20.65	4.02	14.51	627	6.15	21.35	4.25	16.70	692	22.16
Gujarat	1.76	5.68	2.69	9.71	1526	1.40	4.86	1.81	7.11	1295	41.09
Uttar Pradesh	2.43	7.84	2.56	9.25	1053	2.38	8.27	2.48	9.72	1040	33.83
Karnataka	3.19	10.27	1.97	7.11	617	3.13	10.86	2.07	8.11	661	10.84
Andhra Pradesh	1.23	3.95	1.09	3.93	887	1.24	4.32	1.09	4.30	880	2.54
Jharkhand	0.86	2.76	0.90	3.24	1050	0.85	2.95	0.91	3.56	1067	11.79
Others	4.35	14.02	3.24	11.71	745	4.25	14.75	3.25	12.74	764	-
All India	**31.03**	**100.00**	**27.69**	**100.00**	**892**	**28.78**	**100.00**	**25.46**	**100.00**	**885**	**23.10**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of total pulses during 2021-22



State-wise production of total pulses during 2021-22

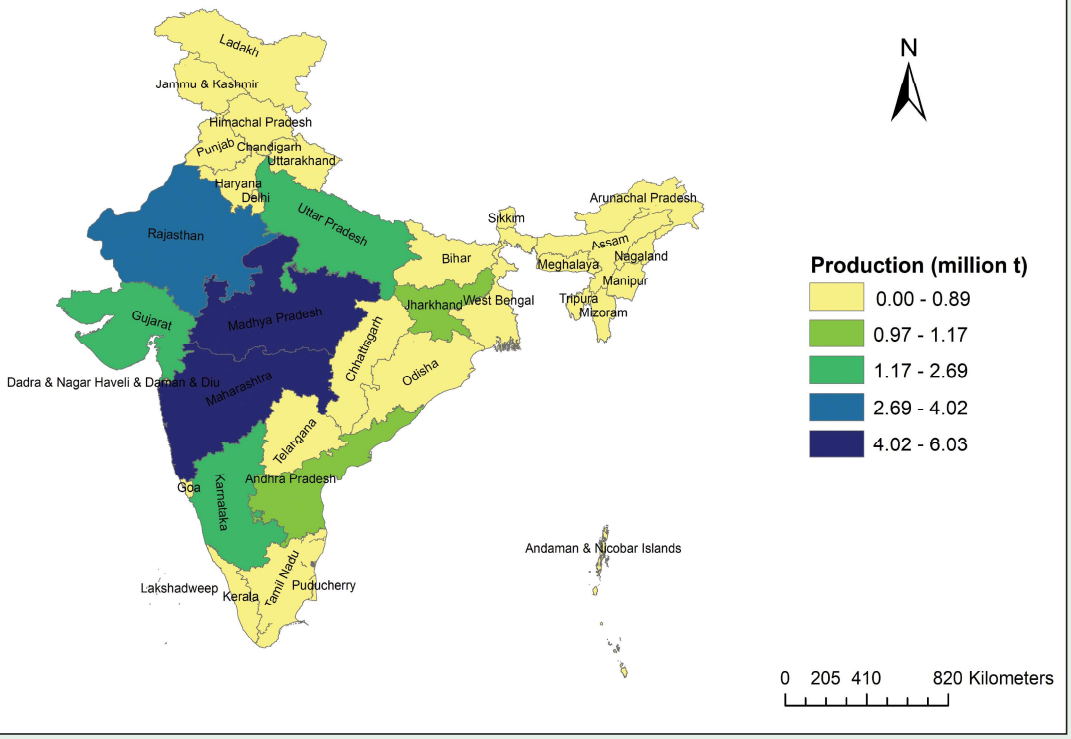


Table 5.19: All India area, production and yield of nine oilseeds

Year	Area		Production		Yield		% Coverage under irrigation
	(million ha)	Growth rate (%)	(million t)	Growth rate (%)	(kg/ha)	Growth rate (%)	
1998-99	26.23	0.4	24.75	16.1	944	15.7	23.2
1999-00	24.28	- 7.4	20.72	- 16.3	853	- 9.6	25.2
2000-01	22.77	- 6.2	18.44	- 11.0	810	- 5.0	23.0
2001-02	22.64	- 0.6	20.66	12.0	913	12.7	24.3
2002-03	21.49	- 5.1	14.84	- 28.2	691	- 24.3	22.7
2003-04	23.66	10.1	25.19	69.7	1064	54.0	24.5
2004-05	27.52	16.3	24.35	- 3.3	885	- 16.8	27.0
2005-06	27.86	1.2	27.98	14.9	1004	13.4	28.4
2006-07	26.51	-4.8	24.29	-13.2	916	-8.8	29.0
2007-08	26.69	0.7	29.76	22.5	1115	21.7	27.2
2008-09	27.56	3.3	27.72	-6.9	1006	-9.8	27.1
2009-10	25.96	-5.8	24.88	-10.2	959	-4.8	25.9
2010-11	27.22	4.9	32.48	30.5	1193	24.5	24.9
2011-12	26.31	-3.3	29.80	-8.3	1135	-4.9	27.5
2012-13	26.48	0.6	30.94	3.8	1168	3.1	28.2
2013-14	28.05	5.9	32.75	5.9	1168	0.0	27.3
2014-15	25.59	-8.8	27.51	-16.0	1075	-8.0	27.4
2015-16	26.09	2.0	25.25	-8.2	968	-10.0	28.5
2016-17	26.18	0.3	31.28	23.9	1195	23.5	27.8
2017-18	24.51	-6.4	31.46	0.6	1284	7.4	30.2
2018-19	24.79	1.1	31.52	0.2	1271	-1.0	31.4
2019-20	27.14	9.5	33.22	5.4	1224	-3.7	N.A.
2020-21	28.83	6.2	35.95	8.2	1247	1.9	N.A.
2021-22	29.17*	1.2	37.96	5.6	1292*	3.6	N.A.
2022-23	N.A.	N.A.	41.36	9.0	N.A.	N.A.	N.A.
2023-24$	N.A.	N.A.	39.59	-4.3	N.A.	N.A.	N.A.
2024-25#			**36.39-45.81**				

Note : 1. N.A.: Not available, 2. *: Fourth Advance estimates, 3. $: Third Advance Estimates, 4. #: Projections are based on statistical models using past years data since 1950-51, 5. Nine oilseeds include groundnut, castorseed, sesamum, rapeseed & mustard, linseed, soybean, sunflower, nigerseed and safflower.

Source : 1. Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/advance-estimates)

2. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

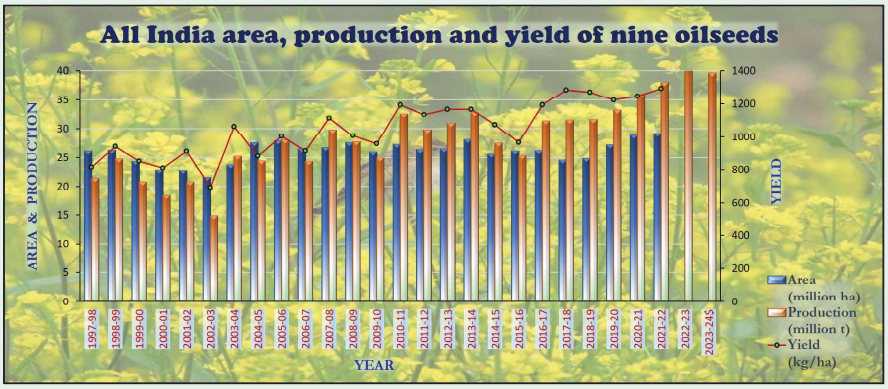


Table 5.20: State-wise area, production and yield of nine oilseeds during 2020-21 and 2021-22 along with coverage under irrigation

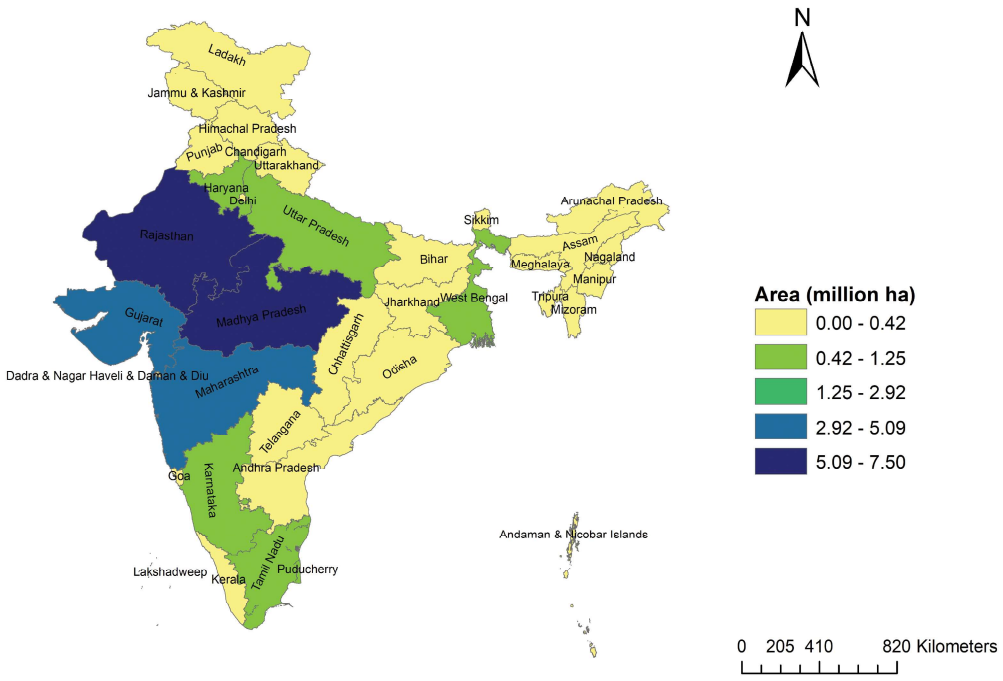
(Area: million ha, Production: million t, Yield: kg/ha)

State	2021-22#					2020-21					Area under irrigation (%) 2019-20*
	Area	% to all India	Production	% to all India	Yield	Area	% to all India	Production	% to all India	Yield	
Rajasthan	5.76	19.75	8.39	22.25	1456	5.19	18.01	7.98	22.21	1538	57.96
Madhya Pradesh	7.50	25.70	7.92	21.02	1057	8.20	28.45	6.33	17.62	772	6.82
Gujarat	3.32	11.40	6.90	18.30	2075	3.36	11.64	6.19	17.22	1844	39.52
Maharashtra	5.09	17.47	5.90	15.64	1158	4.72	16.39	6.72	18.69	1422	1.92
Haryana	0.74	2.54	1.40	3.74	1890	0.67	2.33	1.35	3.75	2008	91.57
Uttar Pradesh	1.21	4.14	1.24	3.29	1026	1.20	4.15	1.28	3.55	1066	60.14
West Bengal	0.96	3.28	1.19	3.16	1247	0.94	3.24	1.11	3.09	1189	87.84
Karnataka	1.25	4.27	1.17	3.11	942	1.21	4.19	1.25	3.48	1033	32.01
Tamil Nadu	0.43	1.47	0.98	2.60	2290	0.47	1.64	1.06	2.96	2244	66.84
Others	2.92	10.00	2.61	6.91	894	2.87	9.95	2.67	7.43	931	-
All India	**29.17**	**100.00**	**37.70**	**100.00**	**1292**	**28.83**	**100.00**	**35.95**	**100.00**	**1247**	**31.85**

Note : 1. States have been arranged in descending order of percentage share of production during 2021-22, 2. *: Provisional, 3. #: Fourth Advance Estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

State-wise area of nine oilseeds during 2021-22



State-wise production of nine oilseeds during 2021-22

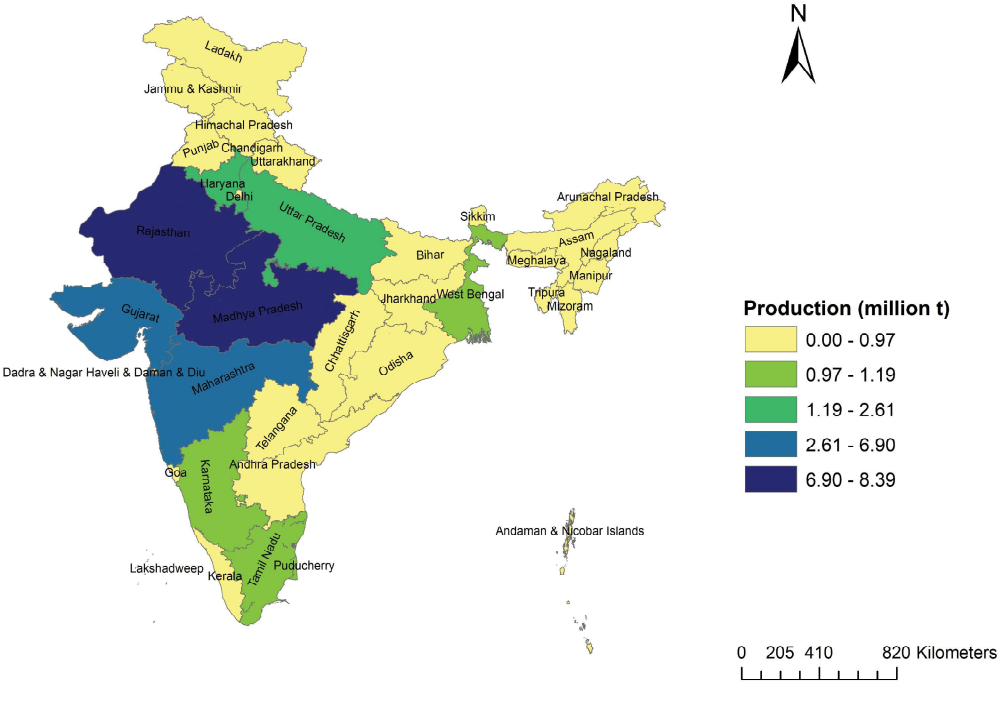


Table 5.21: Production of oilseeds/oils and net domestic availability of edible oils

(in lakh t)

Vegetable Oils	2016-17		2017-18		2018-19		2019-20		2020-21		2021-22*	
	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils	Oilseeds	Oils
A. Primary source												
Groundnut	79.17	24.74	84.30	25.81	92.56	28.97	91.24	28.28	102.10	31.66	117.46	36.44
Rapeseed & Mustard	131.59	22.10	109.33	17.59	132.68	22.09	112.26	17.97	126.10	20.20	129.95	20.82
Soybean	74.62	17.16	92.53	20.82	67.27	15.18	99.52	22.90	102.44	23.23	101.07	22.92
Sunflower	2.51	0.80	2.22	0.70	2.16	0.73	2.13	0.72	2.28	0.76	2.52	0.84
Sesamum	7.47	2.45	7.55	2.34	6.89	2.36	6.58	2.34	8.17	2.55	7.62	2.38
Niger seed	0.85	0.24	0.70	0.21	0.45	0.19	0.41	0.12	0.42	0.12	0.34	0.10
Safflower	0.94	0.22	0.55	0.14	0.25	0.07	0.44	0.09	0.36	0.10	0.57	0.16
Castor	13.76	4.99	15.68	5.51	11.97	4.27	18.42	6.50	16.47	5.79	16.11	5.66
Linseed	1.84	0.39	1.74	0.44	0.99	0.40	1.21	0.28	1.11	0.28	1.35	0.34
Sub-total	**312.76**	**73.09**	**314.59**	**73.56**	**315.22**	**74.26**	**332.19**	**79.20**	**359.45**	**84.70**	**376.57**	**89.66**
B. Secondary source												
Coconut		5.20		6.01		5.90		5.95		5.95		5.56
Palm oil		2.30		2.20		2.70		2.77		2.77		3.58
Cottonseed		12.24		12.64		11.23		12.71		12.21		10.81
Ricebran		10.31		10.69		10.68		10.68		10.68		10.90
Solvent extracted oils		2.85		3.50		3.25		3.50		3.50		3.50
Tree & forest origin		1.50		1.50		1.50		1.50		1.50		1.50
Sub-total		**34.40**		**36.54**		**35.26**		**37.11**		**36.61**		**35.85**
Total (A+B)		**107.49**		**110.10**		**109.52**		**116.31**		**121.31**		**125.51**
C. Less: Exports & industrial use		**6.50**		**6.30**		**6.00**		**9.76**		**9.80**		**9.80**
D. Net domestic availability of edible oils		**100.99**		**103.80**		**103.52**		**106.55**		**111.51**		**115.71**
E. Import of edible oils		**153.17**		**145.92**		**155.70**		**134.16**		**134.52**		**141.94**
F. Total availability/ consumption of edible oils		**254.16**		**249.72**		**259.22**		**240.71**		**246.03**		**257.65**

Note : *: Fourth advance estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

Table 5.22: All India area, production and yield of commercial crops

(Area: million ha, Production: million t, Yield: kg/ha)

Crops		2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22*
Groundnut	Area	4.60	5.34	4.89	4.73	4.83	6.01	5.75
	Production	6.73	7.46	9.25	6.73	9.95	10.24	10.11
	Yield	1465	1398	1893	1422	2063	1703	1759
Rapeseed & Mustard	Area	5.75	6.07	5.98	6.12	6.86	6.70	8.06
	Production	6.80	7.92	8.43	9.26	9.12	10.21	11.75
	Yield	1183	1304	1410	1511	1331	1524	1458
Sunflower	Area	0.49	0.38	0.28	0.26	0.23	0.23	0.28
	Production	0.30	0.25	0.22	0.22	0.21	0.23	0.25
	Yield	609	660	782	826	931	1011	905
Soybean	Area	11.60	11.18	10.33	11.13	12.19	12.92	12.27
	Production	8.57	13.16	10.93	13.27	11.23	12.61	12.99
	Yield	738	1177	1058	1192	921	976	1059
Nine Oilseeds	Area	26.09	26.18	24.51	24.79	27.14	28.83	29.17
	Production	25.25	31.28	31.46	31.52	33.22	35.95	37.70
	Yield	968	1195	1284	1271	1224	1247	1292
Cotton@	Area	12.29	10.83	12.59	12.61	13.48	13.29	11.91
	Production	30.01	32.58	32.81	28.04	36.07	35.25	31.20
	Yield	415	512	443	378	455	451	445
Jute & Mesta**	Area	0.78	0.76	0.74	0.70	0.67	0.66	0.69
	Production	10.52	10.96	10.03	9.82	9.88	9.35	10.32
	Yield	2421	2585	2435	2508	2641	2542	2709
Sugarcane	Area	4.93	4.44	4.74	5.06	4.60	4.85	5.15
	Production	348.45	306.07	379.90	405.42	370.50	405.40	431.81
	Yield	70720	69001	80198	80105	80497	83566	83887
Potato	Area	2.12	2.18	2.14	2.17	2.05	2.20	2.20#
	Production	43.42	48.60	51.31	50.19	48.56	56.17	53.39#
	Yield	20509	22303	23957	23129	23688	25498	24243#
Onion	Area	1.32	1.31	1.28	1.22	1.43	1.62	1.91#
	Production	20.93	22.43	23.26	22.82	26.09	26.64	31.27#
	Yield	15857	17178	18103	18705	18245	16402	16339#
Coconut	Area	2.09	2.08	2.10	2.15	2.17	2.20	2.16#
	Production	15.26	16.49	16.41	14.68	14.00	14.30	13.28#
	Yield	7305	7918	7828	6826	6445	6503	6151#
Tobacco	Area	0.45	0.40	0.41	0.41	0.40	0.36	N.A.
	Production	0.80	0.81	0.95	0.66	0.80	0.76	N.A.
	Yield	1781	2016	2317	1610	1982	2115	N.A.

Note : 1. #: Third Advance Estimates, 2. *: Fourth Advance Estimates, 3. @: Production in million bales of 170 kg each, 4. **: Production in million bales 180 kg each, 5. N.A.: Not available.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

Table 5.23: Three largest producing states of important crops during 2021-22*

(Production: million t)

Crops	States	Production	% Share of production to all India	Cumulative % share of production
Foodgrains				
Rice	West Bengal	16.76	12.87	12.87
	Uttar Pradesh	15.27	11.72	24.59
	Punjab	12.89	9.89	34.48
Wheat	Uttar Pradesh	33.95	31.77	31.77
	Madhya Pradesh	22.42	20.98	52.75
	Punjab	14.82	13.87	66.62
Maize	Karnataka	5.22	15.53	15.53
	Madhya Pradesh	4.57	13.59	29.12
	Maharashtra	3.53	10.51	39.63
Total Nutri Cereals	Karnataka	7.30	14.34	14.34
	Rajasthan	7.07	13.89	28.23
	Maharashtra	5.84	11.47	39.70
Total Pulses	Madhya Pradesh	6.03	21.78	21.78
	Maharashtra	5.19	18.75	40.53
	Rajasthan	4.02	14.51	55.04
Total Foodgrains	Uttar Pradesh	56.11	17.77	17.77
	Madhya Pradesh	39.05	12.37	30.14
	Punjab	28.21	8.94	39.08
Oilseeds				
Groundnut	Gujarat	4.49	44.48	44.48
	Rajasthan	1.70	16.83	61.31
	Tamil Nadu	0.95	9.36	70.67
Rapeseed & Mustard	Rajasthan	5.48	46.63	46.63
	Madhya Pradesh	1.69	14.36	60.99
	Haryana	1.37	11.63	72.62
Soybean	Maharashtra	5.47	42.12	42.12
	Madhya Pradesh	5.39	41.50	83.62
	Rajasthan	0.93	7.12	90.74
Sunflower	Karnataka	0.14	54.35	54.35
	Telangana	0.02	8.32	62.67
	Odisha	0.02	7.56	70.23
Total Oilseeds	Rajasthan	8.39	22.25	22.25
	Madhya Pradesh	7.92	21.02	43.27
	Gujarat	6.90	18.30	61.57
Other Cash Crops				
Sugarcane	Uttar Pradesh	177.43	41.09	41.09
	Maharashtra	110.54	25.60	66.69
	Karnataka	61.15	14.16	80.85

Crops	States	Production	% Share of production to all India	Cumulative % share of production
Cotton @	Gujarat	7.48	23.98	23.98
	Maharashtra	7.12	22.81	46.79
	Telangana	6.07	19.44	66.23
Jute & Mesta $	West Bengal	8.36	81.00	81.00
	Assam	0.91	8.78	89.78
	Bihar	0.82	7.94	97.72

Note : 1. @: Production in million bales of 170 kg each, 2. $: Production in million bales of 180 kg each, 3. *: Fourth advance estimates.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

Table 5.24: Area, production and yield of principal condiments and spices

(Area: '000 ha; Production: '000 t, Yield: kg/ha)

Crops		2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22*
Pepper	Area	128.59	132.35	134.29	245.00	259.00	309.00	288.00
	Production	54.64	72.25	66.26	137.00	104.00	141.00	97.00
	Yield	425.00	546.00	493.00	559.00	401.54	456.31	336.81
Cardamom	Area	85.66	84.68	84.20	81.00	85.00	85.00	86.00
	Production	24.07	27.66	28.24	23.00	21.00	34.00	27.00
	Yield	281.00	327.00	335.00	284.00	247.06	400.00	313.95
Coriander	Area	581.60	674.00	532.00	470.00	529.00	656.00	639.00
	Production	584.98	883.00	709.84	592.00	701.00	891.00	824.00
	Yield	1006.00	1310.00	1333.00	1260.00	1325.14	1358.23	1289.51
Chillies (Dried)	Area	811.14	840.11	751.61	780.00	626.00	702.00	852.00
	Production	1520.39	2096.10	2149.23	1743.00	1835.00	2049.00	1578.00
	Yield	1874.00	2495.00	2860.00	2235.00	2931.31	2918.80	1852.11
Cumin	Area	808.00	781.00	966.00	1027.00	1276.00	1087.00	934.00
	Production	503.00	493.00	689.00	699.00	912.00	795.00	629.00
	Yield	623.00	631.00	713.00	681.00	714.73	731.37	673.45
Turmeric@	Area	185.90	221.78	237.96	253.00	296.00	293.00	349.00
	Production	943.30	1056.10	1132.72	961.00	1153.00	1124.00	1334.00
	Yield	5074.00	4762.00	4760.00	3798.00	3895.27	3836.18	3822.35
Garlic	Area	280.95	320.93	316.98	358.00	352.00	392.00	429.00
	Production	1617.34	1693.20	1610.62	2910.00	2925.00	3190.00	3498.00
	Yield	5757.00	5276.00	5081.00	8128.00	8309.66	8137.76	8153.85
Ginger#	Area	163.62	167.59	160.14	164.00	178.00	205.00	193.00
	Production	1109.18	1069.55	1118.16	1788.00	1868.00	2225.00	2127.00
	Yield	6779.00	6382.00	6982.00	10902.00	10494.38	10853.66	11020.73

Note : 1. *: Third Advance Estimate, 2. @: Data in terms of Dry Turmeric, 3. #: Data in terms of Fresh Ginger.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

Table 5.25: State-wise production of Lac in India

(t)

States	2015-16	2016-17	2017-18*	2018-19**	2019-20	2020-21	2021-22
Andhra Pradesh	172.0	88.0	9.0	10.0	12.0	15.0	10.0
Assam	315.0	105.0	9.0	21.0	15.0	25.0	20.0
Chhattisgarh	3187.0	2693.0	2252.0	3450.0	3478.0	4328.0	4028.0
Gujarat	48.0	22.0	22.0	16.0	27.0	23.0	23.0
Jharkhand	9950.0	8926.0	7746.0	10551.0	10343.0	11598.0	9801.0
Madhya Pradesh	2222.0	2274.0	2235.5	2136.0	2468.0	2660.0	2060.0
Maharashtra	1465.0	875.0	865.0	722.0	852.0	860.0	660.0
Meghalaya	127.0	20.0	6.0	6.0	8.0	11.0	10.0
Odisha	623.0	354.0	364.5	646.5	673.0	851.0	451.0
Uttar Pradesh	55.0	15.0	12.0	16.0	12.0	12.0	8.0
West Bengal	582.0	980.0	794.0	962.0	1056.0	1207.0	907.0
Total	**18746.0**	**16352.0**	**14315.0**	**18536.5**	**18944.0**	**21590.0**	**17978.0**

Note : 1: * Figures may vary from the previous due to updation in the production estimates of Odisha state; 2: ** Figures may vary from the previous due to updation in the production estimates of Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha & West Bengal States, 3. Estimates are based on the five year moving average forecasting model.

Source : Information received from ICAR-Indian Institute of Secondary Agriculture, Namkum, Ranchi.

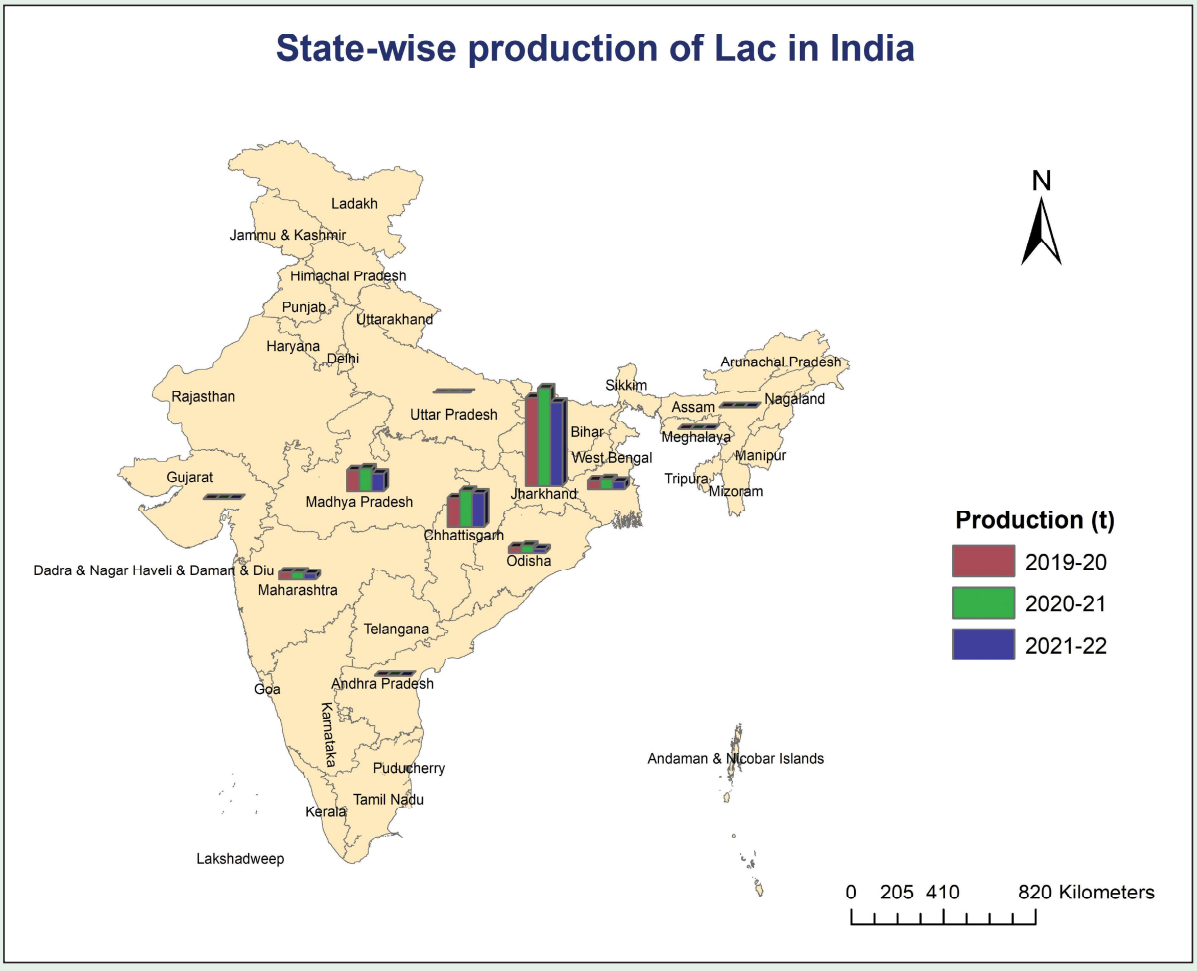


Table 5.26: Per capita net availability of foodgrains (per day) in India

(g per day)

Year	Rice	Wheat	Other Cereals	Cereals	Pulses	Foodgrains
1951	158.9	65.7	109.6	334.2	60.7	394.8
1961	201.1	79.1	119.5	399.7	69.0	468.7
1971	192.6	103.6	121.4	417.6	51.2	468.8
1981	197.8	129.6	89.9	417.3	37.5	454.8
1991	221.7	166.8	80.0	468.5	41.6	510.1
2001	190.5	135.8	56.2	386.2	30.0	416.2
2002	228.7	166.6	63.4	458.7	35.4	494.1
2003	181.4	180.4	46.7	408.5	29.1	437.6
2004	195.4	162.2	69.3	426.9	35.8	462.7
2005	177.3	154.3	59.4	390.9	31.5	422.4
2006	198.0	154.3	60.5	412.8	32.5	445.3
2007	194.0	157.8	55.5	407.4	35.5	442.8
2008	175.4	145.1	54.1	394.2	41.8	436.0
2009	188.4	154.7	63.9	407.0	37.0	444.0
2010	182.0	168.2	51.4	401.7	35.4	437.1
2011	181.6	163.6	65.5	410.7	43.0	468.2
2012	190.2	158.4	60.0	408.6	41.7	463.8
2013	197.4	183.1	52.7	433.2	43.3	491.9
2014	198.0	183.0	61.8	442.9	46.4	489.3
2015	186.0	168.0	77.7	421.4	43.8	465.1
2016	184.1	199.7	71.5	443.8	43.0	486.8
2017	183.0	182.7	80.5	434.0	54.8	488.8
2018	189.6	168.5	83.8	441.9	51.2	493.4
2019	186.3	178.1	75.1	439.7	42.5	482.2
2020	197.3	175.9	84.7	458.1	43.8	501.6
2021	200.8	183.6	82.7	467.1	44.7	511.8
2022(P)	190.7	188.5	81.6	460.8	53.7	514.5

Note : 1. Net availability of foodgrains is estimated to be Gross Production (-) seed, feed & wastage (-) export (+) import (+/-) change in stocks, 2. The net availability of foodgrains divided by the population estimates for a particular year indicates per capita availability of foodgrains in terms of kg/year. Net availability, thus, worked out further divided by the number of days in a year i.e. 365 days, which is taken as net availability of foodgrains in terms of gram/day, 3. Figures in respect of per capita net availability given above are not strictly representative of actual level of consumption in the country especially as they do not take into account any change in stocks in possession of traders, producers and consumers, 4. Cereals include rice, wheat and other cereals, 5. Pulses include all Kharif and Rabi pulses, 6. Foodgrains includes rice, wheat, other cereals and all pulses, 7. P: Provisional figures based on Fourth Advance Estimates of production for 2021-22. Net imports during Apr 2021- Mar 2022 and Stock position as on 23-11-2022, 8. The per capita net availability of foodgrains is calculated on Financial Year basis from 2022 onwards and is not comparable with the old series which was based on calendar year.

Source: *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

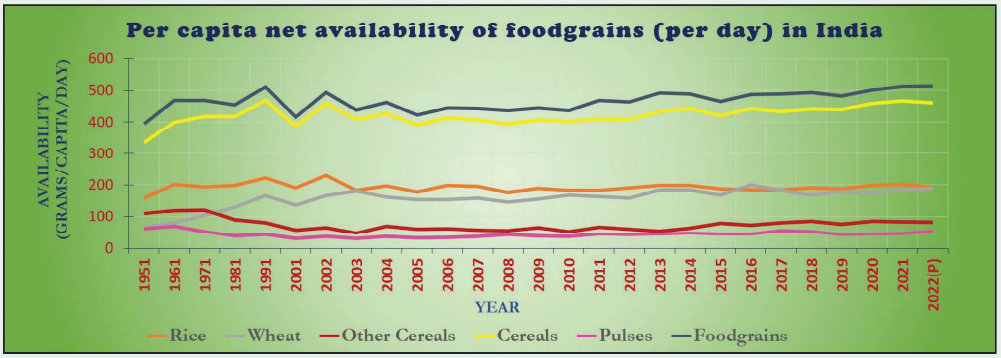


Table 5.27: Projected cost of production (A_2+FL) of principal crops in India

(₹/quintal)

Crops	States	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cereals							
Paddy	Andhra Pradesh	1062	1067	1089	1108	1005	1061
	Assam	1230	1259	1341	1371	1450	1500
	Bihar	1053	1065	1077	1119	1167	1201
	Chhattisgarh	915	1002	1063	1095	1129	1185
	Gujarat	1061	1080	1114	1128	1182	1230
	Haryana	1049	1068	1093	1113	1158	1197
	Himachal Pradesh	-	1071	1177	1225	1289	1345
	Jharkhand	1359	1369	1333	1359	1407	1470
	Karnataka	1062	1095	1088	1132	1180	1237
	Kerala	1252	1342	1355	1518	1560	1650
	Madhya Pradesh	1027	1306	1369	1397	1456	1490
	Maharashtra	1569	2102	2196	2275	2405	2619
	Odisha	1327	1382	1444	1500	1548	1597
	Punjab	672	702	717	729	759	808
	Tamil Nadu	1146	1174	1255	1282	1345	1409
	Telangana	-	-	-	-	1319	1385
	Uttar Pradesh	1073	1119	1194	1240	1287	1353
	Uttarakhand	1009	1012	1018	1032	1076	1129
	West Bengal	1409	1379	1483	1537	1584	1658
	All India	**1117**	**1166**	**1208**	**1245**	**1293**	**1360**
Wheat	Bihar	948	972	1024	1063	1108	1160
	Chhattisgarh	-	-	-	1226	1345	1418
	Gujarat	1040	1122	1168	1204	1251	1309
	Haryana	736	783	824	850	888	937
	Himachal Pradesh	-	1485	1563	1525	1596	1666
	Jharkhand	-	1149	1212	1345	1467	1561
	Karnataka	-	-	-	-	1741	1898
	Madhya Pradesh	786	845	897	928	969	1008
	Maharashtra	1615	1717	1846	1916	1996	2115
	Punjab	642	654	690	714	748	786
	Rajasthan	871	903	956	997	1038	1101
	Uttar Pradesh	835	917	992	1033	1082	1129
	Uttrakhand	-	913	968	1012	1056	1110
	West Bengal	1777	-	-	-	1397	1455
	All India	**817**	**866**	**923**	**960**	**1008**	**1065**
Jowar	Andhra Pradesh	1486	1302	1342	1406	1290	1349
	Karnataka	1928	1936	2061	2120	2165	2270
	Madhya Pradesh	1311	1412	1432	1497	1477	1539
	Maharashtra	1529	1685	1753	1794	1852	1981
	Rajasthan	1119	1147	1271	1354	1533	1788
	Tamil Nadu	1396	1410	1515	1578	1661	1941
	Telangana	-	-	-	-	2925	3047
	All India	**1556**	**1619**	**1698**	**1746**	**1825**	**1977**
Bajra	Gujarat	981	982	1037	1067	1112	1169
	Haryana	1078	1085	1100	1124	1173	1230
	Maharashtra	1573	2119	2210	2245	2335	2437
	Rajasthan	857	867	1038	1199	1250	1308
	Uttar Pradesh	809	811	822	844	881	944
	All India	**949**	**990**	**1083**	**1175**	**1213**	**1268**

Production and productivity

Crops	States	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Maize	Andhra Pradesh	800	803	839	873	934	867
	Bihar	813	814	877	896	934	972
	Gujarat	1533	1819	1928	1999	2061	2093
	Himachal Pradesh	1449	1526	1609	1666	1748	1830
	Jharakhand	-	-	-	-	989	1034
	Karnataka	1009	1010	1056	1071	1112	1164
	Madhya Pradesh	1001	1011	1117	1160	1194	1247
	Maharashtra	-	1415	1445	1499	1386	1444
	Punjab	919	961	1045	1139	1202	1261
	Rajasthan	1610	1612	1737	1776	1853	1945
	Tamil Nadu	1107	1111	1221	1268	1330	1395
	Telangana	-	-	-	-	1020	1074
	Uttar Pradesh	1278	1279	1315	1366	1438	1502
	All India	**1044**	**1131**	**1171**	**1213**	**1246**	**1308**
Ragi	Karnataka	1950	2139	2228	2300	2384	2519
	Maharashtra	2088	2097	-	-	3080	3224
	Odisha	-	-	-	-	3034	3254
	Tamil Nadu	1447	1471	-	-	1576	1643
	Uttarakhand	-	1050	1161	1463	1908	2000
	All India	**1861**	**1931**	**2100**	**2194**	**2251**	**2385**
Barley	Rajasthan	849	850	908	954	1005	1070
	Himachal Pradesh	-	-	-	1645	1771	1882
	Madhya Pradesh	-	-	-	-	1022	1084
	Uttar Pradesh	834	881	939	951	993	1053
	All India	**845**	**860**	**919**	**971**	**1019**	**1082**
Pulses							
Arhar	Andhra Pradesh	4142	4552	4777	5114	4529	4751
	Gujarat	3509	3772	4000	3857	4018	4252
	Karnataka	3096	3276	3369	3463	3616	3805
	Madhya Pradesh	2531	2704	2913	3120	3226	3440
	Maharashtra	3642	3693	-	4078	4261	4484
	Odisha	3810	4304	-	5062	5246	5359
	Tamil Nadu	-	-	-	-	4675	4934
	Telangana	-	-	-	-	3940	4160
	Uttar Pradesh	3042	3320	3170	3314	3390	3585
	All India	**3318**	**3432**	**3636**	**3796**	**3886**	**4131**
Moong	Andhra Pradesh	3065	3411	4116	4361	3699	3910
	Bihar	-	-	-	-	3671	3557
	Gujarat	-	-	4621	4814	5147	5450
	Karnataka	4589	4724	4305	4525	4860	5102
	Madhya Pradesh	-	-	-	-	4188	4436
	Maharashtra	5955	6688	6803	6016	6433	6756
	Odisha	4320	4497	4810	5111	5376	5650
	Rajasthan	4407	4587	4402	4618	4970	5237
	Tamil Nadu	3910	3921	-	-	4533	4805
	Telangana	-	-	-	-	5164	5470
	Uttar Pradesh	-	-	-	-	4673	4931
	West Bengal	-	-	-	-	4081	4305
	All India	**4286**	**4650**	**4699**	**4797**	**4850**	**5167**
Urad	Andhra Pradesh	1762	1860	2018	2156	2622	2769
	Chattisgarh	-	2567		4284	4512	4698
	Gujarat	-	-	-	-	4521	4715
	Madhya Pradesh	2276	2812	3176	3276	3347	3516
	Maharashtra	5355	5697	6264	6281	6496	6732
	Odisha	4327	4700	5052	5293	5538	5722

Crops	States	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	Rajasthan	4889	4927	-	-	3637	3887
	Tamil Nadu	4140	4152	4530	4740	4880	5122
	Uttar Pradesh	3927	4004	4125	4296	4421	4614
	All India	**3265**	**3438**	**3477**	**3660**	**3816**	**4155**
Gram	Andhra Pradesh	3052	3245	3503	3004	3303	3488
	Bihar	-	-	-	2034	2124	2255
	Chhattisgarh	2266	2443	2645	2801	2932	3121
	Gujarat	-	-	-	2416	2545	2705
	Haryana	-	-	-	2059	2148	2284
	Jharkhand	-	-	-	2077	2177	2680
	Karnataka	2820	3064	3223	3428	3579	3818
	Madhya Pradesh	2284	2402	2551	2713	2835	3015
	Maharashtra	2689	2942	3182	3379	3543	3769
	Rajasthan	2084	2277	2432	2590	2728	2901
	Telangana	-	-	-	2518	2633	2801
	Uttar Pradesh	3084	3362	3548	3274	3439	3650
	West Bengal	-	-	-	-	3729	3901
	All India	**2461**	**2637**	**2801**	**2866**	**3004**	**3206**
Lentil	Bihar	1853	1951	2054	2149	2260	2456
	Madhya Pradesh	2241	2281	2401	2490	2630	2808
	Uttar Pradesh	2877	3103	3370	3489	3626	3849
	West Bengal	2486	2626	2768	2899	3023	3284
	All India	**2366**	**2532**	**2727**	**2864**	**3079**	**3239**
Oilseeds							
Groundnut	Andhra Pradesh	2598	2757	2919	3221	4666	4910
	Gujarat	3341	3364	3458	3566	3619	3809
	Karnataka	4543	4767	4869	5073	5227	5524
	Madhya Pradesh	-	-	-	-	3381	3581
	Maharashtra	3213	4253	5659	5902	6223	6542
	Odisha	-	3543	3940	4357	4695	4935
	Rajasthan	1534	1554	1658	1755	1824	2114
	Tamil Nadu	4093	4240	4376	4491	4564	4799
	Telangana	-	-	-	-	3541	3750
	All India	**3159**	**3260**	**3394**	**3515**	**3699**	**3873**
Soybean	Chhattisgarh	-	2679	-	2863	2999	3162
	Karnataka	-	-	-	-	2419	2559
	Madhya Pradesh	1727	1984	2092	2257	2322	2442
	Maharashtra	2753	2777	2796	2950	3006	3161
	Rajasthan	2353	2378	3102	2760	2769	2909
	Telangana	-	-	-	-	2917	3079
	All India	**2121**	**2266**	**2473**	**2587**	**2633**	**2805**
Sunflower seed	Andhra Pradesh	3392	3667	3769	3919	4109	3890
	Karnataka	3616	3682	3766	3922	-	4353
	Odisha	-	-	-	-	3485	3698
	All India	**3481**	**3592**	**3767**	**3921**	**4010**	**4113**
Sesamum	Andhra Pradesh	5384	5752	6000	6424	-	5566
	Gujarat	5790	5912	6194	5771	5965	6255
	Karnataka	-	-	-	-	4388	4605
	Madhya Pradesh	3523	3685	3823	4033	4560	4765
	Odisha	-	5427	-	4948	4681	4952
	Rajasthan	5112	5205	5626	6388	6623	6886
	Tamilnadu	5410	5825	-	-	6585	6695
	Uttar Pradesh	-	4516	4724	5041	5131	5354
	West Bengal	2821	2823	3203	3619	3854	4104
	All India	**4067**	**4166**	**4322**	**4570**	**4871**	**5220**

Crops	States	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Nigerseed	Odisha	3912	3918	3960	4462	4620	4858
	All India	**3912**	**3918**	**3960**	**4462**	**4620**	**4858**
Rapeseed & Mustard	Assam	3990	4195	4408	4586	4226	4557
	Bihar	2053	1904	2012	2097	2213	2382
	Gujarat	2060	2140	2245	2344	2456	2632
	Haryana	1718	1788	1879	1913	2009	2156
	Madhya Pradesh	1329	1475	1556	1640	1729	1851
	Punjab	-	-	-	2003	2109	2281
	Rajasthan	2193	2269	2393	2473	2625	2799
	Uttar Pradesh	2215	2315	2443	2530	2639	2794
	West Bengal	2740	2922	3117	3257	3416	3658
	All India	**2123**	**2212**	**2323**	**2415**	**2523**	**2670**
Safflower	Karnataka	1863	1992	2129	2767	2962	3765
	Maharashtra	4207	4438	4491	4544	4893	-
	All India	**3125**	**3294**	**3470**	**3551**	**3627**	**3765**
Other crops							
Cotton	Andhra Pradesh	3344	3562	3639	3769	3674	3905
	Gujarat	2998	3018	3082	3182	3279	3476
	Haryana	2729	3114	3216	3378	3482	3660
	Karnataka	3253	3272	3327	3454	3577	3799
	Madhya Pradesh	2625	3653	-	4177	4304	4523
	Maharashtra	3982	3990	4039	4201	4323	4573
	Odisha	-	4056	4201	4360	4564	4759
	Punjab	3050	3304	3382	3462	3606	3606
	Rajasthan	2457	2656	2948	3022	3238	3415
	Tamil Nadu	4282	4342	4576	4741	4916	5122
	Telangana	-	-	-	-	4286	4510
	All India	**3276**	**3433**	**3501**	**3676**	**3817**	**4053**
Copra	Karnataka	-	-	6577	6443	6491	-
	Kerala	6042	7819	8041	8295	8642	-
	Tamil Nadu	3953	4704	4860	4999	5225	-
	All India	**5007**	**6347**	**6639**	**6805**	**6974**	**-**
Jute	Assam	2706	2712	3044	3205	3303	3427
	Bihar	1696	1761	1937	2008	1992	2105
	West Bengal	2196	2310	2580	2757	2879	3000
	All India	**2160**	**2267**	**2534**	**2709**	**2832**	**2959**
Sugarcane	Andhra Pradesh	146	184	192	203	216	236
	Karnataka	104	122	126	133	131	125
	Maharashtra	127	136	146	158	165	180
	Tamil Nadu	184	199	214	212	222	234
	Uttar Pradesh	161	165	157	158	154	163
	Uttarakhand	121	134	139	133	124	129
	All India	**145**	**155**	**156**	**159**	**155**	**162**

Note : 1. Cost A2 includes all actual expenses in cash and kind incurred in production by owner and rent paid for leased-in land,
2. FL: Family Labour is calculated on the basis of statutory wage rate or the actual market rate, whichever is higher.

Source : *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/document-report-category/agriculture-statistics-at-a-glance/)

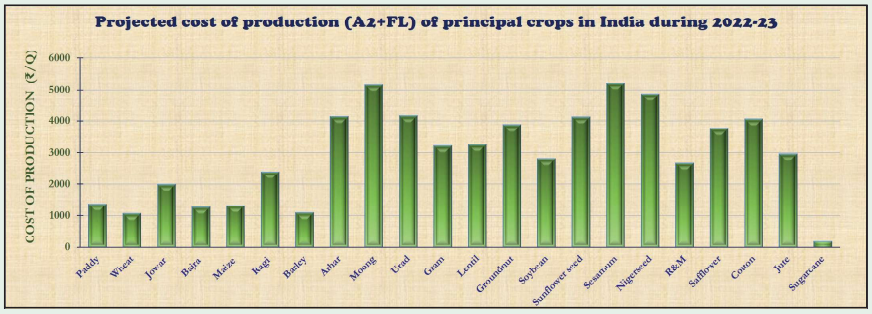


Table 5.28: Cost of cultivation of principal crops during 2020-21

(₹/ha)

Item	Rice					
	A.P.	M.P.	Punjab	T. Nadu	U.P.	W.B.
I Operational cost	**62,916.36**	**43,481.36**	**47,131.62**	**64,652.75**	**51,667.36**	**67,082.18**
Human labour	29,011.16	17,777.74	19,534.36	24,235.67	24,268.51	43,086.69
Animal labour	165.27	2,024.08	11.55	86.03	14.61	1,471.64
Machine labour	13,784.15	10,073.28	10,541.14	16,405.69	7,805.39	8,174.49
Seed	2,231.57	2,769.41	1,812.38	7,931.47	4,878.51	2,612.47
Fertilizers and manure	9154.75	6,386.25	4,193.45	7,396.08	4,956.84	6,294.13
Fertilizers	8,275.75	4,127.97	3,729.48	6,817.61	4,915.38	5,064.93
Manure	879.00	2,258.28	463.97	578.47	41.46	1,229.20
Insecticides	5,871.79	2,127.54	5,353.01	1,824.53	590.81	2,101.44
Crop Insurance	-	252.15	-	75.76	-	-
Irrigation charges	523.49	824.36	4,320.46	4,688.35	7,902.90	1,979.64
Interest on working capital	1,709.81	1,034.98	1,220.17	1,734.84	1,210.42	1,303.19
Miscellaneous	464.37	211.57	145.10	274.33	39.37	58.49
II Fixed cost	**32,885.82**	**17,627.17**	**50,446.65**	**21,417.74**	**19,896.90**	**18,465.88**
Rental value of owned land	30,375.42	14,274.02	40,553.99	14,928.13	15,770.15	17,281.58
Rent paid for leased in land	1,569.98	-	5,580.14	163.71	154.25	251.00
Land revenue, cesses & taxes	-	2.66	-	6.75	1.35	0.93
Depreciation on implements & farm buildings	113.06	678.19	357.74	614.75	673.38	338.66
Interest on fixed capital	827.36	2,672.30	3,954.78	5,704.40	3,297.77	593.71
Total I+II	**95,802.19**	**61,108.53**	**97,578.27**	**86,070.49**	**71,564.26**	**85,548.06**
III (a) Yield and value per ha						
1) Yield (q/ha)	60.32	41.18	71.93	45.91	39.16	42.73
2) Value of the main-product (₹/ha)	99,389.09	72,919.13	1,40,263.94	76,239.18	51,096.54	61,576.59
3) Value of the by-product (₹/ha)	6,287.19	5,884.28	431.22	5,398.01	3,714.82	8,715.89
III (b) Material and labour inputs per ha						
1) Seeds (kg/ha)	62.42	50.78	-	70.54	20.93	57.85
2) Fertilizers (kg/ha of nutrients)	267.14	161.05	181.68	213.37	180.88	165.87
3) Manure (q/ha)	10.09	12.47	21.22	3.44	0.47	10.44
4) Human labour (man-hours/ha)	383.88	504.33	331.79	422.56	644.39	978.33
5) Animal labour (pair-hours/ha)	1.12	15.29	0.12	0.39	0.19	9.97

Continued...

Item	Wheat					Jowar
	Bihar	M.P.	Punjab	Rajasthan	U.P	A.P.
I Operational cost	**36,042.42**	**32,590.19**	**30,779.29**	**53,938.38**	**45,339.24**	**50,536.74**
Human labour	14,253.72	10,423.88	4,933.29	24,446.95	15,106.10	21,701.37
Animal labour	-	581.01	7.30	440.76	78.75	1,370.56
Machine labour	7,590.62	9,366.08	12,837.01	9,668.42	11,076.68	8,436.80
Seed	4,210.39	3,378.05	3,066.05	4,344.10	4,202.61	2,746.64
Fertilizers and manure	4,687.58	3,265.89	5,812.12	4,188.02	4,806.32	5,719.57
Fertilizers	4,396.23	3,265.89	5,792.65	3,692.43	4,776.57	5,719.57
Manure	291.35	-	19.47	495.59	29.75	-
Insecticides	103.44	175.74	2,311.83	334.60	189.39	6,941.76
Crop Insurance	-	255.02	-	-	-	-
Irrigation charges	4,310.65	4,257.32	737.74	9,400.13	8,712.54	1,902.77
Interest on working capital	871.11	775.74	839.62	1,038.78	1,093.35	1,392.60
Miscellaneous	14.91	110.80	234.33	76.62	73.50	324.67
II Fixed cost	**21,810.96**	**18,899.19**	**41,471.24**	**20,113.73**	**27,209.35**	**31,820.92**
Rental value of owned land	18,311.72	14,832.13	30,343.11	14,239.72	22,687.76	29,536.00
Rent paid for leased in land	-	-	5,470.60	285.13	181.23	1,610.48
Land revenue, cesses & taxes	184.46	4.05	-	1.36	2.28	-
Depreciation on implements & farm buildings	526.21	553.90	511.61	524.37	683.51	67.12
Interest on fixed capital	2,788.57	3,509.11	5,145.92	5,063.15	3,654.57	607.32
Total I+II	**57,853.38**	**51,489.38**	**72,250.53**	**74,052.11**	**72,548.59**	**82,357.66**
III (a) Yield and value per ha						
1) Yield (q/ha)	29.87	36.97	48.07	38.55	38.27	52.69
2) Value of the main-product (₹/ha)	48,751.39	65,855.06	94,951.72	69,640.34	66,520.05	1,00,199.46
3) Value of the by-product (₹/ha)	13,994.57	9,397.26	7,638.53	17,120.28	15,333.37	2,250.15
III (b) Material and labour inputs per ha						
1) Seeds (kg/ha)	112.00	119.49	121.52	154.79	139.64	13.38
2) Fertilizers (kg/ha of nutrients)	145.96	133.84	248.49	147.84	186.90	175.71
3) Manure (q/ha)	1.99	-	0.96	4.39	0.24	-
4) Human labour (man-hours/ha)	378.21	272.93	89.96	470.34	379.97	312.70
5) Animal labour (pair-hours/ha)	-	3.16	0.06	1.82	0.30	8.32

Continued...

Item	Jowar	Bajra		Maize		
	Maharashtra	Gujarat	Maharashtra	A.P.	Bihar	Rajasthan
I Operational cost	**38,895.63**	**47,454.83**	**49,475.95**	**57,909.64**	**40,636.73**	**50,889.73**
Human labour	19,586.37	25,071.91	24,723.20	17,712.33	16,337.10	27,300.36
Animal labour	4,092.60	879.36	1,151.13	1,670.46	-	1,899.22
Machine labour	9,351.71	8,612.39	14,827.76	12,283.59	7,464.46	9,501.51
Seed	1,053.57	2,545.39	1,175.96	7,269.55	3,778.41	4,428.46
Fertilizers and manure	2,362.98	4,815.99	4,327.94	10,150.99	5,062.35	6,284.21
Fertilizers	2,328.14	3,690.84	3,725.78	10,143.43	4,729.09	2,341.85
Manure	34.84	1,125.15	602.16	7.56	333.26	3,942.36
Insecticides	13.38	183.82	30.68	5,060.04	-	258.93
Crop Insurance	-	-	-	-	-	-
Irrigation charges	1,539.90	4,069.49	2,023.99	1,860.50	6,972.55	406.69
Interest on working capital	870.28	1,112.57	1,157.72	1,585.22	1,021.86	801.85
Miscellaneous	24.84	163.91	57.57	316.96	-	8.50
II Fixed cost	**11,122.61**	**14,709.60**	**12,752.22**	**38,530.62**	**18,521.22**	**12,139.97**
Rental value of owned land	6,577.09	10,953.31	8,054.55	29,156.68	16,650.48	8,349.23
Rent paid for leased in land	-	92.23	-	6,954.44	-	-
Land revenue, cesses & taxes	37.67	4.02	24.33	-	189.71	1.51
Depreciation on implements & farm buildings	346.75	262.82	444.41	216.94	359.90	724..69
Interest on fixed capital	4,161.10	3,397.22	4,228.93	2,202.56	1,321.13	3,064.54
Total I+II	**50,018.24**	**62,164.43**	**62,228.17**	**96,440.26**	**59,157.95**	**63,029.70**
III (a) Yield and value per ha						
1) Yield (q/ha)	8.32	28.90	23.53	75.59	43.69	21.52
2) Value of the main-product (₹/ha)	26,471.40	45,406.12	40,843.37	1,13,811.00	58,989.41	37,726.50
3) Value of the by-product (₹/ha)	12,983.22	20,687.28	7,474.23	98.92	8,709.38	12,358.85
III (b) Material and labour inputs per ha						
1) Seeds (kg/ha)	11.76	7.82	3.89	22.05	20.48	28.60
2) Fertilizers (kg/ha of nutrients)	70.36	151.18	136.25	343.83	156.89	106.38
3) Manure (q/ha)	0.23	9.37	1.72	0.04	1.67	16.90
4) Human labour (man-hours/ha)	461.05	682.92	567.08	286.13	530.32	578.22
5) Animal labour (pair-hours/ha)	21.90	5.38	8.77	11.48	-	12.42

Continued ...

Item	Tur (Arhar)			Groundnut		Cotton
	U.P.	Karnataka	Gujarat	A.P.	Gujarat	Haryana
I Operational cost	**33,015.48**	**32,027.99**	**39,734.38**	**58,560.30**	**69,724.27**	**49,986.96**
Human labour	23,618.03	11,424.63	21,570.49	23,090.87	26,148.25	26,481.85
Animal labour	-	3,887.05	715.04	2,133.30	2,168.28	163.25
Machine labour	4,270.99	8,875.38	8,916.48	6,718.23	12,105.03	8,417.02
Seed	2,524.14	820.69	1,179.99	16,354.11	14,699.72	3,549.70
Fertilizers and manure	559.48	3,024.38	1,653.36	6,185.76	7,504.39	3,699.01
Fertilizers	559.48	3,024.38	1,286.11	5,835.28	3,673.18	3,699.01
Manure	-	-	364.25	350.48	3,831.21	-
Insecticides	-	2,960.72	1,915.92	1,734.65	3,841.02	3,071.87
Crop Insurance	-	-	-	-	-	-
Irrigation charges	1,482.80	60.73	2,774.00	520.31	1,147.07	3,483.14
Interest on working capital	543.77	839.05	908.68	1,587.34	1,868.48	1,066.23
Miscellaneous	16.27	135.36	100.42	235.73	242.03	54.89
II Fixed cost	**39,367.82**	**12,400.92**	**14,723.70**	**17,956.60**	**16,612.34**	**24,211.00**
Rental value of owned land	31,644.66	10,121.55	10,238.08	14,466.87	13,131.99	19,445.08
Rent paid for leased in land	-	-	744.17	1,419.89	376.65	-
Land revenue, cesses & taxes	11.52	8.07	17.15	-	5.31	-
Depreciation on implements & farm buildings	1,858.61	264.86	466.32	281.90	276.81	633.08
Interest on fixed capital	5,853.03	2,006.44	3,257.98	1,787.94	2821.58	4,132.84
Total I+II	**72,383.30**	**44,428.91**	**54,458.08**	**76,516.90**	**86,336.61**	**74,197.96**
III (a) Yield and value per ha						
1) Yield (q/ha)	14.30	7.08	10.23	10.35	14.35	11.92
2) Value of the main-product (₹/ha)	86,782.81	41,511.07	64,123.02	48,632.38	69,802.11	64,650.02
3) Value of the by-product (₹/ha)	9,083.42	1,382.98	2,369.40	2,614.63	10,893.68	2,771.69
III (b) Material and labour inputs per ha						
1) Seeds (kg/ha)	19.83	11.68	13.04	159.53	144.51	2.60
2) Fertilizers (kg/ha of nutrients)	16.79	79.91	37.94	145.40	124.45	137.11
3) Manure (q/ha)	-	-	6.07	2.22	28.92	-
4) Human labour (man-hours/ha)	642.36	286.13	810.45	369.20	666.93	500.92
5) Animal labour (pair-hours/ha)	-	21.15	5.02	11.63	11.15	1.14

Continued...

Item	Cotton		Sugarcane			
	A.P.	Gujarat	A.P.	U.P.	Maharashtra	T. Nadu
I Operational Cost	**62,305.68**	**64,141.48**	**1,17,541.17**	**86,400.44**	**1,91,797.46**	**1,83,305.93**
Human labour	29,382.41	32,568.12	81,812.80	51,510.07	80,703.86	1,10,220.55
Animal labour	2,728.08	1,849.32	1,547.89	676.41	4,278.02	598.33
Machine labour	9,593.07	10,088.88	5,737.13	3,200.10	33,427.09	8,772.48
Seed	4,657.36	3,132.91	11,025.83	8,905.71	12,750.90	18,995.26
Fertilizers and manure	8,147.40	7,890.08	8,380.98	4,278.12	29,309.77	19,425.28
Fertilizers	7,034.23	5,447.00	6,042.61	3,743.99	23,759.59	13,216.86
Manure	1,113.17	2,443.08	2,338.37	534.13	5,550.18	6,208.42
Insecticides	5,706.12	3,864.05	4.48	2,182.10	1,298.04	922.61
Crop Insurance	-	-	-	-	0.36	-
Irrigation charges	170.16	2,828.05	2,945.82	11,443.97	19,083.41	14,134.62
Interest on working capital	1,799.33	1,578.55	6,082.96	4,146.78	9,749.85	9,813.20
Miscellaneous	121.75	340.66	3.28	57.18	1,196.16	423.60
II Fixed cost	**28,298.34**	**22,891.44**	**31,020.47**	**62,883.36**	**68,425.05**	**65,062.06**
Rental value of owned land	20,432.54	14,972.85	27,422.97	50,599.50	47,921.26	42,818.17
Rent paid for leased in land	5,325.80	715.08	-	286.39	-	75.43
Land revenue, cesses & taxes	-	8.36	-	9.85	39.07	12.54
Depreciation on implements & farm buildings	272.05	550.48	142.71	2,519.58	1,746.60	1,498.53
Interest on fixed capital	2,267.95	6,644.67	3,454.79	9,468.04	18,718.12	20,657.39
Total I+II	**90,604.02**	**87,032.92**	**1,48,561.64**	**1,49,283.80**	**2,60,222.51**	**2,48,367.99**
III (a) Yield and value per ha						
1) Yield (q/ha)	16.13	17.40	332.57	602.00	1,046.02	1,028.02
2) Value of the main-product (₹/ha)	80,043.08	93,073.20	91,409.90	1,92,994.49	2,67,722.72	2,79,727.22
3) Value of the by-product (₹/ha)	-	1,429.65	-	8,065.01	19,747.34	3,854.66
III (b) Material and labour inputs per ha						
1) Seeds (kg/ha)	3.18	1.90	40.09	27.73	35.96	68.81
2) Fertilizers (kg/ha of nutrients)	212.39	200.05	290.19	177.87	751.96	409.28
3) Manure (q/ha)	11.13	17.95	23.38	6.74	17.18	34.52
4) Human labour (man-hours/ha)	499.43	959.17	1,586.75	1,309.67	1,833.59	1,574.58
5) Animal labour (pair-hours/ha)	10.70	8.84	14.82	3.03	24.16	2.83

Source : *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.

Table 5.29: Cropping pattern according to land utilization statistics during 2019-20 and 2020-21

Crops		2019-20		2020-21(P)	
		Area ('000 ha)	% share to total cropped area	Area ('000 ha)	% share to total cropped area
I.	**Food crops**	**1,55,786**	**73.7**	**1,59,279**	**73.7**
	1. Total foodgrains	**1,34,390**	**63.6**	**1,36,289**	**63.1**
	(A) Cereals & millets	**1,07,983**	**51.1**	**1,09,947**	**50.9**
	Rice	48,120	22.8	50,443	23.3
	Jowar	4,898	2.3	4,369	2.0
	Bajra	7,578	3.6	7,749	3.6
	Maize	9,733	4.6	9,764	4.5
	Ragi	1,080	0.5	1,200	0.6
	Wheat	35,517	16.8	35,449	16.4
	Barley	545	0.3	538	0.2
	Other cereals & millets	511	0.2	436	0.2
	(B) Pulses	**26,407**	**12.5**	**26,343**	**12.2**
	Gram	9,251	4.4	9,195	4..3
	Tur (Arhar)	4,231	2.0	4,518	2..1
	Other pulses	12,925	6.1	12,629	5.8
	2. Sugar	**5,316**	**2.5**	**5,937**	**2.7**
	Sugarcane	5,242	2.5	5,865	2.7
	Others	74	0.03	71	0.03
	3. Condiments & spices	**4,170**	**2.0**	**4,382**	**2.0**
	Pepper (Black)	258	0.1	313	0.1
	Chillies	592	0.3	652	0.3
	Ginger	131	0.1	160	0.1
	Turmeric	236	0.1	234	0.1
	Cardamom	72	0.03	73	0.03
	Betelnuts	730	0.3	800	0.4
	Others	2,151	1.0	2,148	1.0
	4. Total fruits & vegetables	**11,665**	**5.5**	**12,407**	**5.7**
	(i) Total fruits	**4,974**	**2.4**	**4,976**	**2.3**
	(A) Fresh fruits	**4,416**	**2.1**	**4,412**	**2.0**
	Mangoes	1,582	0.7	1,525	0.7
	Citrus fruits	513	0.2	519	0.2
	Banana	725	0.3	785	0.4
	Grapes	147	0.1	153	0.1
	Pome fruits	22	0.0	22	0.0
	Papaya	98	0.0	106	0.0
	Apple	168	0.1	180	0.1
	Others	1,162	0.5	1,122	0.5
	(B) Dry fruits	**558**	**0.3**	**564**	**0.3**
	Cashew nut	543	0.3	549	0.3
	Others	15	0.01	15	0.01

Crops		2019-20		2020-21(P)	
		Area ('000 ha)	% share to total cropped area	Area ('000 ha)	% share to total cropped area
	(ii) Vegetables	**6,691**	**3.2**	**7,431**	**3.4**
	Potato	1,837	0.9	1,834	0.8
	Tapioca	163	0.1	175	0.1
	Sweet potato	70	0.03	71	0.03
	Onion	1,203	0.6	1,381	0.6
	Others	3,408	1.6	3,969	1.8
	5. Other food crops	**245**	**0.1**	**265**	**0.1**
II.	**Non-food crops**	**55,573**	**26.3**	**56,828**	**26.3**
	1. Oilseeds	**29,346**	**13.9**	**30,923**	**14.3**
	Groundnut	4,872	2.3	6,075	2.8
	Castorseed	1,046	0.5	885	0.4
	Sesamum	1,685	0.8	1,857	0.9
	Rapeseed & Mustard	6,165	2.9	6,334	2.9
	Linseed	121	0.1	117	0.1
	Coconut	2,060	1.0	2,086	1.0
	Nigerseed	108	0.1	79	0.04
	Safflower	51	0.02	55	0.03
	Soybean	11,948	5.7	12,695	5.9
	Sunflower	214	0.1	209	0.1
	Others	1,077	0.5	530	0.2
	2. Fibres	**14,043**	**6.6**	**13,953**	**6.5**
	Cotton	13,306	6.3	13,227	6.1
	Jute	629	0.3	623	0.3
	Mesta	64	0.03	61	0.03
	Sannhemp	14	0.01	12	0.01
	Others	29	0.01	30	0.01
	3. Dyes & tanning material	**51**	**0.02**	**61**	**0.03**
	Indigo	1	0.0005	1	0.0005
	Others	50	0.02	60	0.03
	4. Drugs, narcotics & plantation crops	**3,099**	**1.5**	**3,115**	**1.4**
	Opium	5	0.002	4	0.002
	Tobacco	407	0.2	372	0.2
	Cinchona	0.04	Neg.	0.04	-
	Indian hemp	0.01	Neg.	0.01	Neg.
	Tea	611	0.3	617	0.3
	Coffee	435	0.2	437	0.2
	Rubber	715	0.3	713	0.3
	Others	927	0.4	971	0.4
	5. Fodder crops	**7,803**	**3.7**	**7,569**	**3.5**
	6. Green manure crops	**83**	**0.04**	**80**	**0.04**
	7. Other non-food crops	**1,149**	**0.5**	**1,126**	**0.5**
Total area sown under all crops (I+II)		**2,11,359**	**100.0**	**2,16,107**	**100.0**

Note : 1. Neg.: Negligible, 2. P: Provisional.

Source : *Fertiliser Statistics 2022-23,* The Fertiliser Association of India, New Delhi.

Table 5.30: Minimum support prices of various agricultural commodities

(₹/q)

Commodity	Variety	2019-20	2020-21	2021-22	2022-23	2023-24	Increase in 2023-24 over 2022-23 (#)
Kharif Crops							
Paddy	Common	1815	1868	1940	2040	2183	143 (7.0)
	Grade 'A'	1835	1888	1960	2060	2203	143 (6.9)
Jowar	Hybrid	2550	2620	2738	2970	3180	210 (7.1)
	Maldandi	2570	2640	2758	2990	3225	235 (7.9)
Bajra		2000	2150	2250	2350	2500	150 (6.4)
Ragi		3150	3295	3377	3578	3846	268 (7.5)
Maize		1760	1850	1870	1962	2090	128 (6.5)
Arhar (Tur)		5800	6000	6300	6600	7000	400 (6.1)
Moong		7050	7196	7275	7755	8558	803 (10.4)
Urad		5700	6000	6300	6600	6950	350 (5.3)
Groundnut		5090	5275	5550	5850	6377	527 (9.0)
Sunflower Seed		5650	5885	6015	6400	6760	360 (5.6)
Soybean (yellow)		5090	3880	3950	4300	4600	300 (7.0)
Sesamum		3710	6855	7307	7830	8635	805 (10.3)
Nigerseed		6485	6695	6930	7287	7734	447 (6.1)
Cotton	Medium Staple	5255	5515	5726	6080	6620	540 (8.9)
	Long Staple	5550	5825	6025	6380	7020	640 (10.0)
Rabi Crops							
Wheat		1925	1975	2015	2125	2275	150 (7.1)
Barley		1525	1600	1635	1735	1850	115 (6.6)
Gram		4875	5100	5230	5335	5440	105 (2.0)
Masur (Lentil)		4800	5100	5500	6000	6425	425 (7.1)
Rapeseed/Mustard		4425	4650	5050	5450	5650	200 (3.7)
Safflower		5215	5327	5441	5650	5800	150 (2.7)
Toria		4425	4650	5050	5450	N.A.	N.A.
Other Crops							
Copra	Milling	9521	9960	10335	10590	10860	270 (2.6)
(Calendar year)	Ball	9920	10300	10600	11000	11750	750 (6.8)
De-husked Coconut (Calendar year)		2571	2700	2800	2860	2930	70 (2.5)
Jute		3950	4225	4500	4750	5050	300 (6.3)

Note : 1. #: Figures in parenthesis indicate percentage increase, 2. N.A.: Not available.

Source : Economics, Statistics & Evaluation Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://desagri.gov.in/statistics-type/latest-minimum-support-price-msp-statement/)

भाग-VI
कृषि अभियांत्रिकी एवं उत्पाद प्रबंधन

SECTION-VI
Agricultural Engineering and Produce Management

भाकृअनुप
ICAR

Table 6.1: Improved selected farm implements and machines

S. No.	OPERATION-WISE EQUIPMENT	
AGRICULTURAL MECHANIZATION		
1.	**Inclined Plate Planter** **Suitability:** It is suitable for precision planting of single seed of crops like mustard, sorghum, soybean, cotton seed, pigeon pea, maize, groundnut, okra etc. at predetermined spacing. **No. of rows** : 2-6 adjustable **Row spacing** : 250 mm & above	
2.	**Tractor Drawn Pneumatic Planter** **Suitability:** To plant single seed at predetermined seed to seed and row to row spacing. Suitable for mustard, sorghum, soybean, cotton, pigeon pea, groundnut, okra etc. **Field Capacity** : 0.5-1.0 ha/h **Power Source** : Tractor (35-45 hp)	
3.	**Plastic Mulch Laying Machine** **Suitability:** For laying plastic film for mulching & moisture conservation, raising soil temperature for better germination of seed and weed control. **Capacity** : 0.12-0.18 ha/h **Power Source** : Tractor (35 hp or above)	
4.	**Rotary Assisted Broad Bed Former-cum-seeder** **Suitability:** For seeding of soybean and wheat crops on raised bed. Provision has been made for attachment of rotavator for formation of fresh bed or sowing with reshaping of bed with bed shaper only. **Field Capacity** : 0.35 ha/h - 0.56 ha/h **Power Source** : Tractor 50 hp	
5.	**Sugarcane Bud Chipping Machine** It is used for extracting the buds from sugarcane. These buds can be used for preparation of bud-chip nursery for planting sugarcane crop. One operator can chip about 1000 sugarcane bud chips per hour.	

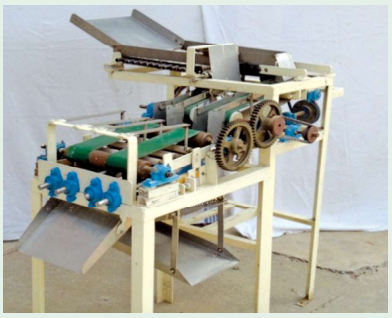
S. No.	OPERATION-WISE EQUIPMENT	
6.	**Vegetable Transplanter** **Use** : Planting of Chilly, Brinjal, Tomato etc. **Work capacity & description and cost planting capacity** : 0.12 ha/h **Required power** : 35 hp Tractor **Required man-power** : 2 (one labour for each row) **Required seedling tray no.** : Two Kind of seedling : Seedling without soil	
7.	**Self Propelled Multipurpose Hydraulic System for Orchard Operations** Self-propelled hydraulic multipurpose system for medium height fruit trees facilitates orchard management operations like harvesting, pruning, spraying and other canopy management practices in fruit trees such as mango, citrus and sapota. These operations are otherwise difficult, labour intensive and cumbersome	
8.	**Arecanut Sheath Shredder** It shreds arecanut leaf sheath into size of 5-8mm without dust .The shredder is power operated with 3 hp electric motor and gives capacity of 100 kg/hr • The output size of arecanut sheath shred is 5 to 8 mm, free from dust • It can shred Arecanut leaf sheath of different moisture content	
9.	**Power Operated Ribbonner for Jute** It is for removal of ribbon (jute fibre) from green jute stick i.e. freshly harvested jute crop, without retting of jute sticks. This machine is operated by four persons at a time. • The machine gives output of 100 kg of ribbon per hour with 88-90 % ribbon recovery. • Reduces water requirement for retting by 20-25 times. • Retting time is also reduced to 7-8 days only as against 15-20 days with traditional method.	
10.	**Millet Thresher** Suitable for threshing of several minor millets like finger millet, barnyard millet, proso millet, kodo millet, foxtell millet (kodo, kutki, ragi etc.) Can also be used for dehulling of barnyard, kodo and proso millets. **Capacity** : 80-120 kg/h crops **Cost of Operation** : Rs. 0.20/kg grain **Efficiency** : more than 98%.	

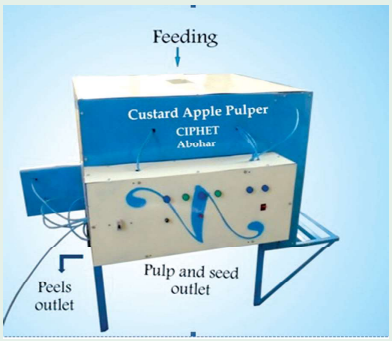
S. No.	OPERATION-WISE EQUIPMENT	
11.	**Laser Guided Land Leveller** It is used foe levelling the field. There is a control unit which the guides the machine through a receiver mounted on machine itself. It saves the irrigation 20-25%.	
12.	**Tractor Operated Zero Till Drill** Tractor operated Zero till drill is used for drilling wheat immediately after the harvest of rice to take advantage of residual moisture, thereby ensuring timeliness for the rabi crop. It forms a thin slit with the help of the inverted 'T' type furrow opener to conserve moisture. Initial land preparation is also avoided.	
13.	**Tractor Operated Raised Bed Planter** Two raised beds can be made using this machine on which planting is also carried out simultaneously. Fertilizer drilling can also be accomplished on the raised beds. It has a field capacity of 0.4 ha/h. Raised bed cultivation saves water and gives about 15% higher yield.	
14.	**Tractor Operated Aero Blast Sprayer** Aero blast sprayer has a tank of 400 l capacity and high pressure pumps and a blower operated by pto delivering high volume of spray in orchards to cover the entire canopy.	 Tractor Operated Orchard Sprayer
15.	**Tractor Operated Peg Type Puddler** It consists of rectangular frame, pegs and three point hitch system. The square pegs mounted on three bars are uniformly staggered to partial helical configuration for better dispersion of soil. The puddler is operated in 50-100 mm of standing water. As the puddler moves, the pegs tear the soil, uproot the weeds, disperse the soil in water and level the field. **Working width** : 2000 mm **Draft** : 1000 N	

S. No.	OPERATION-WISE EQUIPMENT	
16.	**Self Propelled Vertical Conveyor Reaper (walk behind type)** The self-propelled vertical conveyor reaper, also known as walk behind type harvester, consists of 6 hp diesel engine, crop row dividers, star wheels, standard cutter bar having 76.2 mm pitch of knife sections, vertical conveyor belts with lugs, steel lugged wheels, power transmission system and operating controls. The engine power is transmitted to cutter bar and conveyor belts through belt and pulleys. The effective cutter bar width is about 1 m. **Weight** : 245 kg **Power source** : 6 hp diesel engine	
17.	**Tractor Operated Straw Reaper-cum-Trailer** This design has the provision of trolley over the straw reaper for collecting the straw. It harvests straw of combine harvested wheat field, gathers shattered ear heads as uncut plants from the field, threshes straw into fine quality bhusa and separates collected grains. Simultaneously it blows bhusa (fine straw) in the in-built overhead trailer. Thus the work of harvesting, threshing, loading and unloading is done with only one tractor while in the existing system additional tractor and trailer is required to collect the straw. **Power Source** : 35 hp tractor or above **Length of cutter ba** : 1830 mm **Height of cut** : 60 mm **Number of blowe** : 1-2 **Fuel consumption** : 5.6 l/h	
AGRICULTURAL PRODUCE & PROCESSING		
18.	**Pedal Operated Potato Peeler** The pedal operated potato peeler is developed for small entrepreneurs where electricity is not available. The perforated stainless steel drums during rotation remove skin of potatoes as in manual peeler. Its capacity is 188 kg/h with 0.53 man-h/q requirement and 30/- operating cost. The peeling efficiency is 77%. **Capacity** : 188 kg/h **Requirement** : 0.53 man-h/q **Operating cost** : Rs. 30/- **Peeling efficiency** : 77%	

S. No.	OPERATION-WISE EQUIPMENT	
19.	**Pedal Operated Potato Slicer** The pedal operated potato slicer is suitable for small entrepreneurs where electricity is not available. It consists of Main frame, feeding unit, stainless steel blade etc.	
20.	**Cottage Scale Soy Paneer Plant** It is a cottage level plant to produce milk and paneer. It consists of steam generation unit, grinder cum cooker, milk filtration unit and paneer pressing device. The soysplits are grinded at 80OC in air free surroundings to produce paneer. **Capacity** : 300 kg milk and 50 kg paneer per day	
21.	**CIAE-Millet Mill** Developed for dehusking of all minor millets. The capacity of the machine is 100-110 kg/h of millet grains at 10-12 % moisture content. • Power requirement: One hp single phase electric motor. • It has provisions to adjust the clearance between the dehusking surfaces to suit the different sizes of minor millets. • Working Principle: Gentle abrasion/attrition & (aerodynamic) cyclone separator.	
22.	**Fruit Grader** CIAE-Fruit Grader is suitable for all round fruits/ vegetables like tomato, guava, amla, apple, citrus, onion, etc. • Capacity of grading is 1.2 to 1.5 tonnes per hour. • Power requirement – 0.5 hp single phase. The Grader is light in weight (Approx. 138 kg). • Cost of operation is Rs. 51 per tonne assuming 4 hour operation per day.	

S. No.	OPERATION-WISE EQUIPMENT	
23.	**Aloevera Gel Extractor** The continuous feed aloevera whole gel extraction unit peels both top and bottom rinds in a single pass with the help of pair of stainless steel blades. • There is a set of stainless steel rods, which are provided at the outlet, for the aloevera gel to be separated from the peeled upper and lower rind. • The whole gel is directly collected in the food grade container, which is partially filled with clean water. The top and the bottom leaves are collected separately. • The equipment is unique in design and very useful in separating the aloevera gel with ease with minimal quantity of aloin.	
24.	**Various Soy-products** • Soy milk • Soy flour (full fat, medium fat, defatted) • Tofu (soy paneer) • Traditional foods • Dairy analogs • Okara based products	
25.	**CIAE Nutri-bar: A Healthy Snack** It substantially contributes to our daily requirement of energy, protein and minerals and also provides added advantages of phenolics and antioxidants. This snack can be used to satisfy "between the meals" hunger and also act as "quick bite" during travel. High in energy and proteins, good source of minerals, phenolics and antioxidants, high satiety value, healthy substitute to sweet and savory snacks.	
AGRICULTURAL ENERGY & POWER		
26.	**Biomass Gasification & Electricity Generation Plant** • The agro waste crop residues are converted into briquette suited for gasifier. • • The agro waste briquettes are converted into fuel gas. These fuel gases are used in gas engine for generation of electricity. • The electricity generation is environmental friendly as no extra carbon dioxide is introduced into the atmosphere as compared to fossil fuelled combustion systems. 1 kWh of electricity energy can be produced from 1.2 kg of biomass using developed technology.	

S. No.	OPERATION-WISE EQUIPMENT	
IRRIGATION & DRAINAGE ENGINEERING		
27.	**Mole Plough** This Plough can be used for making moles at 600 mm depth to drain temporarily water logged vertisols. The plough can be attached to a 3-point linkage of a tractor (75 hp or more) and about 600 mm depth from the surface drains are to be constructed.	
AGRO PROCESSING MACHINERY		
28.	**Manually Operated Banana Comb Cutter** Banana-Comb/hand Cutter maintains smooth cutting curve of banana-comb/hand, with no fruit damage during cutting (as in case of knife or sickle cutting, some banana-finger getting damaged). This tool is suitable for all sizes of banana bunch stems.	
29.	**Pomegranate Aril Separator** This is extremely useful for small scale fruit juice processors and fruit juice vendors for easy, hygienic and fast separation of arils. About 40-45% arils are already separated in the process of irregular breaking due to shearing action on the inner sheath and outer peel.	
POWER OPERATED PROCESSING MACHINES		
30.	**Automatic Litchi Peeler** Litchi is non-climacteric fruit that possesses poor shelf life and therefore needs processing to enhance shelf life. This is used for peeling of litchi fruits with **Capacity** : 120 kg/h **Peeling efficiency** : 96 % **Pulp loss** : 4 %	

S. No.	OPERATION-WISE EQUIPMENT	
31.	**Pomegranate Aril Extractor** This is used for Pomegranate arils which are not consumed mostly because of the cumbersome process of removing arils from peel. The separated arils can be further processed for juice, dried arils, jellies etc. **Aril extraction capacity** : 5.0 quintal /h **Aril extraction efficiency** : 90-94% **Mechanical damage** : 2-4% to arils	
32.	**Custard Apple Pulper** Custard apple is an underutilized crop due to lack of handling and processing machineries. For food processing industries, this machine would help them to develop new products out of custard apple and get good market value. **Capacity** : 120 kg/h **Peeling efficiency** : 94 % **Pulp loss** : 6 %	
33.	**Cryogenic Spice Grinding System** Cryogenic spice grinder is a system for grinding of spices at ultra low temperature, thereby maintaining their flavour and medicinal properties. This is Cyclone system for collection of different grades of ground spice powder with capacity of 30–50 kg/h depending on type of spice with 185 litre (self pressurised) Liquid nitrogen cylinder capacity. **Capacity** : 30–50 kg/h	
34.	**Makhana Popping Machine** This developed machine has advantages such as: Mechanized process, Reduces time of processing, Reduces the drudgery of the labourers, Production of high amount of grade I kernel, High throughput, Decortication is also possible, Energy saving. This is used for the popping of makhana seeds having capacity of 35-40 kg/h (raw wet seeds) with 95 % decortication efficiency and 90-94 % popping efficiency. **Capacity** : 35-40 kg/h **Decortication efficiency** : 94 % **Popping efficiency** : 6 %	

S. No.	OPERATION-WISE EQUIPMENT	
35.	**Potato Peeler** For processing of potatoes in any form, removal of peel is an important unit operation. Hence, a power operated batch type potato peeler was developed which is suitable for small scale processor of potato chips and other products. **Capacity** : 400 kg/h **Peeling efficiency** : 99.5 % **Peel loss** : 0.5 %	
MACHINERIES USED IN THE POST-HARVEST PROCESSING OF COTTON		
36.	**Cotton Pre–Cleaner** Useful to remove the trash from the seed cotton before ginning to get improved ginning performance and obtain better quality lint. **Capacity** : 3500 – 6000 kg/h **Power requirement** : 2.98 – 5.59kW **Cleaning efficiency** : 40 – 50%	
37.	**Lilliput Gin** A portable ginning machine useful to breeders, seed companies, traders, marketing agencies and farmers etc. for ginning small seed cotton (kapas) samples and ascertain the ginning percentage as well as assess fibre quality. **Power requirement** : 0.75 kW (single phase) **Capacity** : 5 kg seed cotton/h	

S. No.	OPERATION-WISE EQUIPMENT	
38.	**CIRCOT Miniature Spinning System** Useful for assessment of spinning quality of small cotton fibre samples and for the preparation of fibre sliver and yarn samples. The system consists of four table model microprocessor controlled machines (units) viz., Miniature Carding Machine, Miniature Draw frame, Miniature Sliver to Yarn Spinner and Rotor OE Spinner. **Output capacity** : 100 g/h (cotton sample) **Power requirement** : Single phase, 0.6 kW	
39.	**Axial Flow Cotton Pre-Cleaner** On-farm cleaning of seed cotton by farmers and traders. It removes small trash particles, kawadi, sand and dust. **Power requirement** : 1.86 **Output capacity** : 650 kg seed cotton/h **Cleaning efficiency** : 30 - 40%	
40.	**CIRCOT Minicard for Sliver Production** (Village Level) This machine is suitable for making sliver from cotton that can be used in cottage industries. **Power requirement** : 1.12 kW **Capacity** : 2 kg/h of sliver	
41.	**Stick Removal Machine for Mechanically Harvested Cotton** This machine is used to remove the large sized vegetative trash (sticks) from mechanically harvested cotton. **Power requirement** : 3.73 kW and 0.74 kW **Output capacity** : 750-800 kg seed cotton/h **Stick removal efficiency** : 80-85%	

S. No.	OPERATION-WISE EQUIPMENT	
42.	**Saw Band Cleaner for Cleaning of Machine Harvested Cotton** Machine is used to remove fine trash, burrs etc. from mechanically harvested seed cotton. **Power requirement** : 3.73 kW and 0.74 kW for feed roller **Output capacity** : 800-850 kg seed cotton/h **Fine trash removal efficiency** : 25-30%	
43.	**On Board Pre-cleaner for Cleaning Mechanically Stripped Cotton** Machine is used for on-farm cleaning of trash, burrs, bracts etc., from cotton harvested by machine stripper. **Cleaning efficiency** : 48-50% **Capacity** : 900-1000 kg/h **Power Requirement** : 3 kW	
44.	**Lint Opener** Used for preparing the cotton samples for testing of micronaire value on High Volume Instrument. **Capacity** : 30 samples of 100 g each per hour **Power Requirement :** 2.5 kW	

Source :
1. Equipment from 1-27, ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.
2. Equipment from 28-35, ICAR-Central Institute of Post-Harvest Engineering & Technology, Ludhiana, Punjab.
3. Equipment from 36-44, ICAR-Central Institute for Research on Cotton Technology, Adenwala Road, Matunga, Mumbai 400 019.

Table 6.2: Agricultural Engineering inputs status in India

(Number)

Year	Tractors sold and exported	Power tillers sold	Villages electrified	Cumulative irrigation pump sets energized
2000-01	251939	16018	508071	12823480
2001-02	217456	13563	508863	13141378
2002-03	168182	14613	492325	13792473
2003-04	189518	15665	495031	14115441
2004-05	246469	17481	498877	14446461
2005-06	291680	22303	471360	14843804
2006-07	352827	24791	487351	15368577
2007-08	346501	26135	487347	15674673
2008-09	347010	35331	492831	15963476
2009-10	440331	43464	497950	16193521
2010-11	545109	51414	537947	17167631
2011-12	607658	57232	557439	18178136
2012-13	590672	51237	561751	19014881
2013-14	696828	53927	572466	19156212
2014-15	626839	N.A.	577698	19912081
2015-16	571249	N.A.	586065	20434180
2016-17	744536	N.A.	597121	20645608
2017-18	796873	N.A.	592829	21425411
2018-19	880472	N.A.	597464	21798964
2019-20	781065	N.A.	All villages have been electrified **	22044043
2020-21	988028	N.A.		N.A.
2021-22	970902	N.A.		N.A.
2022-23	1156793	N.A.		N.A.
2023-24	965065	N.A.		N.A.

Note : 1. N.A.: Not available, 2. **: All villages electrified.

Source : 1. Tractor Manufacturers Association, New Delhi.
2. Power Tiller Manufacturers Association.
4. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.
5. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India.

Table 6.3: Production and sale of tractors in India

(Number)

Year	Tractors	
	Production	Sale
1970-71	20099	33399
1971-72	18100	37839
1972-73	20802	21802
1973-74	24425	25425
1974-75	31088	31881
1975-76	33252	34352
1976-77	33146	36066
1977-78	40946	40946
1978-79	54322	54322
1979-80	62275	62275
1980-81	71024	72012
1981-82	84137	79467
1982-83	63054	63073
1983-84	76173	74318
1984-85	85005	80317
1985-86	75550	76886
1986-87	80369	80164
1987-88	92092	93157
1988-89	109987	110323
1989-90	121624	122098
1990-91	139233	139828
1991-92	151759	151121
1992-93	147016	144337
1993-94	136971	138753
1994-95	164029	164770
1995-96	191311	191329
1996-97	221689	222684
1997-98	255327	248141
1998-99	261609	262169
1999-00	278556	273182
2000-01	235602	251939
2001-02	207252	217456
2002-03	156613	168182
2003-04	191633	189518
2004-05	249077	246469

2005-06	296080	291680
2006-07	352368	352827
2007-08	345172	346501
2008-09	343520	347010
2009-10	436947	440331
2010-11	548397	545109
2011-12	639896	607658
2012-13	578690	590672
2013-14	707898	696828
2014-15	612994	626839
2015-16	571565	571249
2016-17	777914	744536
2017-18	790673	796873
2018-19	758929	880472
2019-20	777752	781065
2020-21	965231	988028
2021-22	961100	842266
2022-23	1158154	1024599
2023-24	947143	965065

Source : 1. Tractor Manufacturers Association, New Delhi.
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.
3. Tractor and mechanization Association, New Delhi. Data assessed on 08.05.2024.

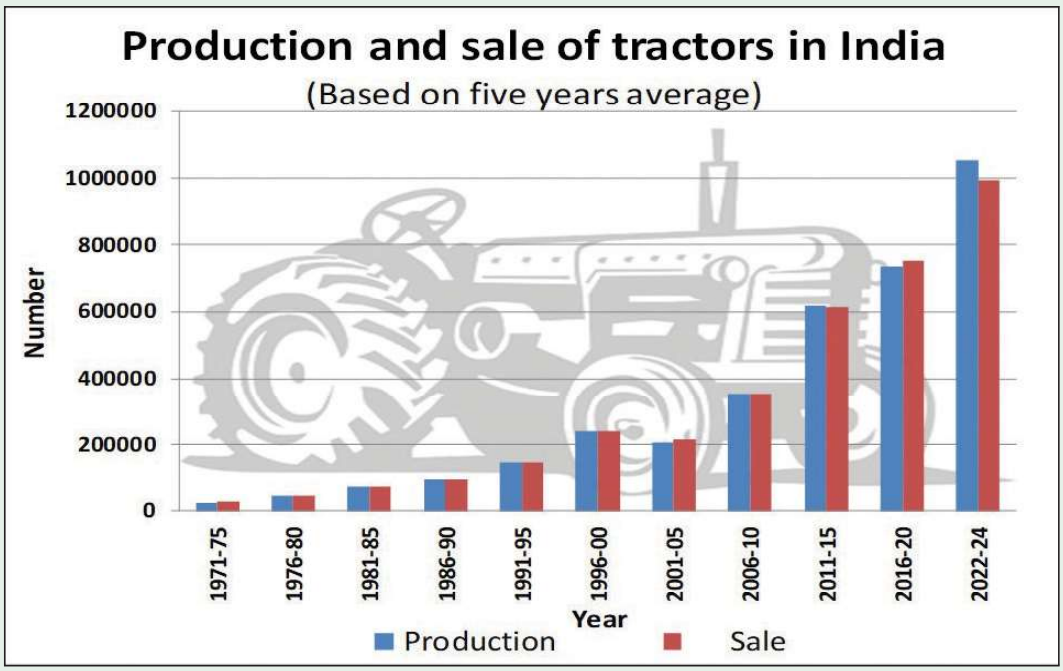


Table 6.4: Region-wise and state-wise installed capacity of electricity generation (utilities) as on 31.03.2023

(in GW)

States/UTs	Hydro	Thermal	Nuclear	RES*	Total
Chandigarh	0.00	0.00	0.00	0.06	0.06
Delhi	0.00	2.36	0.00	0.30	2.66
Haryana	0.20	4.82	0.00	1.36	6.38
Himachal Pradesh	2.91	0.00	0.00	1.07	3.98
Jammu & Kashmir	1.23	0.18	0.00	0.24	1.65
Punjab	1.24	6.92	0.00	1.87	10.03
Rajasthan	0.43	11.63	0.00	22.05	34.12
Uttar Pradesh	0.72	13.34	0.00	4.75	18.82
Uttarakhand	2.20	0.55	0.00	0.93	3.68
Chhattisgarh	0.12	16.01	0.00	1.30	17.43
Gujarat	0.77	20.23	0.00	19.19	40.19
Madhya Pradesh	1.70	11.80	0.00	5.61	19.10
Maharashtra	3.33	22.26	0.00	12.63	38.22
Daman & Diu	0.00	0.00	0.00	0.04	0.04
Dadar & Nagar Haveli	0.00	0.00	0.00	0.01	0.01
Goa	0.00	0.05	0.00	0.03	0.08
Andhra Pradesh	1.67	13.10	0.00	9.11	23.89
Telangana	2.48	7.46	0.00	5.10	15.04
Karnataka	3.63	7.11	0.00	16.72	27.46
Kerala	1.86	0.33	0.00	1.04	3.23
Tamil Nadu	2.18	9.03	0.00	17.74	28.95
Puducherry	0.00	0.03	0.00	0.04	0.07
Lakshadweep	0.00	0.03	0.00	0.00	0.03
Bihar	0.00	0.00	0.00	0.39	0.39
Jharkhand	0.13	2.25	0.00	0.11	2.49
Odisha	2.07	4.94	0.00	0.62	7.63
West Bengal	0.99	6.93	0.00	0.62	8.53
Sikkim	0.87	0.00	0.00	0.06	0.93
Andaman & Nicobar Islands	0.00	0.09	0.00	0.03	0.12
Arunachal Pradesh	0.00	0.00	0.00	0.14	0.14
Assam	0.10	0.31	0.00	0.16	0.57
Manipur	0.00	0.04	0.00	0.02	0.05
Meghalaya	0.32	0.00	0.00	0.05	0.37
Mizoram	0.00	0.00	0.00	0.07	0.07
Nagaland	0.00	0.00	0.00	0.04	0.04
Tripura	0.00	0.11	0.00	0.03	0.14
Central Sector NR	11.53	15.54	1.62	0.38	29.08
Central Sector WR	1.52	22.28	1.84	0.67	26.31
Central Sector SR #	0.00	13.25	3.32	0.54	17.11
Central Sector ER $	1.01	22.30	0.00	0.02	23.32
Central Sector NER	1.61	2.00	0.00	0.03	3.64
Total States	**31.19**	**161.89**	**0.00**	**123.53**	**316.60**
Total Central	**15.66**	**75.38**	**6.78**	**1.63**	**99.45**
Total All India	**46.85**	**237.27**	**6.78**	**125.16**	**416.06**

Note : 1. $: Damodar Valley Corporation (DVC) installed capacity is considered under central sector(ER),

2. RES*: Renewable Energy Sources excluding hydro, 3. #: Includes NLC-Central capacity also, 4. Sub-totals/Totals may not tally due to conversion to GW and rounding off.

Source : 1. Central Electricity Authority.

2. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India, New Delhi.

Table 6.5: State-wise annual sale of tractors

(Number)

State	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2019-20
Andhra Pradesh	12203	11263	10626	16615	22448	35613	43758	38417	34730	35173	53175	63275	74920	37028	30243	18335
Assam	571	499	493	385	771	1120	1296	1588	3583	2430	2057	2099	2408	3557	5669	8513
Bihar	14028	13115	12235	14636	9946	11824	13104	17572	29050	26621	25987	28260	30187	36090	35402	43246
Chhatisgarh	4939	7129	6570	8790	10192	N.A.	N.A.	N.A.	N.A.	11134	9254	9221	12139	20011	16861	25184
Gujarat	13700	8434	10086	17078	23100	29651	25255	20179	24323	44099	41958	30765	44163	46411	39792	55411
Haryana	13697	11504	11688	12408	14709	20385	23627	22573	28671	28403	31533	23741	30599	30626	22685	38705
Himachal Pradesh	577	652	521	512	758	1117	891	907	1201	1404	1398	1255	1530	1519	1354	2367
Jharkhand	2349	2961	2897	3643	5676	N.A.	N.A.	N.A.	N.A.	6524	6697	6756	8349	8169	8118	8674
Jammu & Kashmir	1071	1271	1506	1135	1296	1178	1328	1115	1608	2128	2618	3577	3794	2601	2324	3659
Karnataka	8984	6512	8595	15560	25316	22455	17230	13835	23849	27244	29162	34861	40437	33758	32804	40301
Kerala	348	135	148	125	765	1848	493	374	582	671	631	570	385	268	332	747
Madhya Pradesh	29818	24344	29568	33733	23828	19378	18242	24306	33342	48435	50597	70822	87831	63744	48375	87621
Maharashtra	8586	4867	7112	11545	17173	26070	29815	25610	34186	40951	56664	43245	46669	49839	42125	61870
Odisha	2622	3076	2933	4957	6683	7214	4993	5099	7909	12861	13277	15831	24277	10878	12668	15897
Punjab	19626	15484	13906	11715	12052	16201	18062	20027	28608	24122	26040	27900	35290	26074	17829	21399
Rajasthan	16228	10914	18241	23830	27949	34583	29456	25763	31822	53604	57191	44221	65405	64565	61193	68563
Tamil Nadu	6053	4896	6487	12470	18294	21880	16894	14609	15768	20638	26298	18448	9865	8072	14667	22436
Telangana	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	13153	41658
Uttarakhand	1345	2861	2479	1869	2321	N.A.	N.A.	N.A.	N.A.	3893	5377	4600	4969	2205	2769	2394
Uttar Pradesh	48165	39724	38842	46326	44307	48184	39682	51513	73686	76981	82613	84559	95653	92219	71527	120664
West Bengal	2510	2169	2001	3085	4337	5595	5354	6096	9186	13045	12187	12752	13756	12751	12934	20624
Others	7263	12798	12100	1340	2418	1768	1522	1983	2315	1876	2172	876	1220	1078	945	737
Export	N.A.	N.A.	4567	20076	28097	33766	43553	41142	37622	62872	70772	62890	62677	75376	77485	76054
Total	**214683**	**184608**	**203601**	**261833**	**302436**	**339830**	**334555**	**332708**	**422041**	**545109**	**607658**	**590524**	**696523**	**626839**	**571249**	**785059**

Note : N.A.: Not available.

Source : 1. Tractor Manufacturers Association, New Delhi.
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

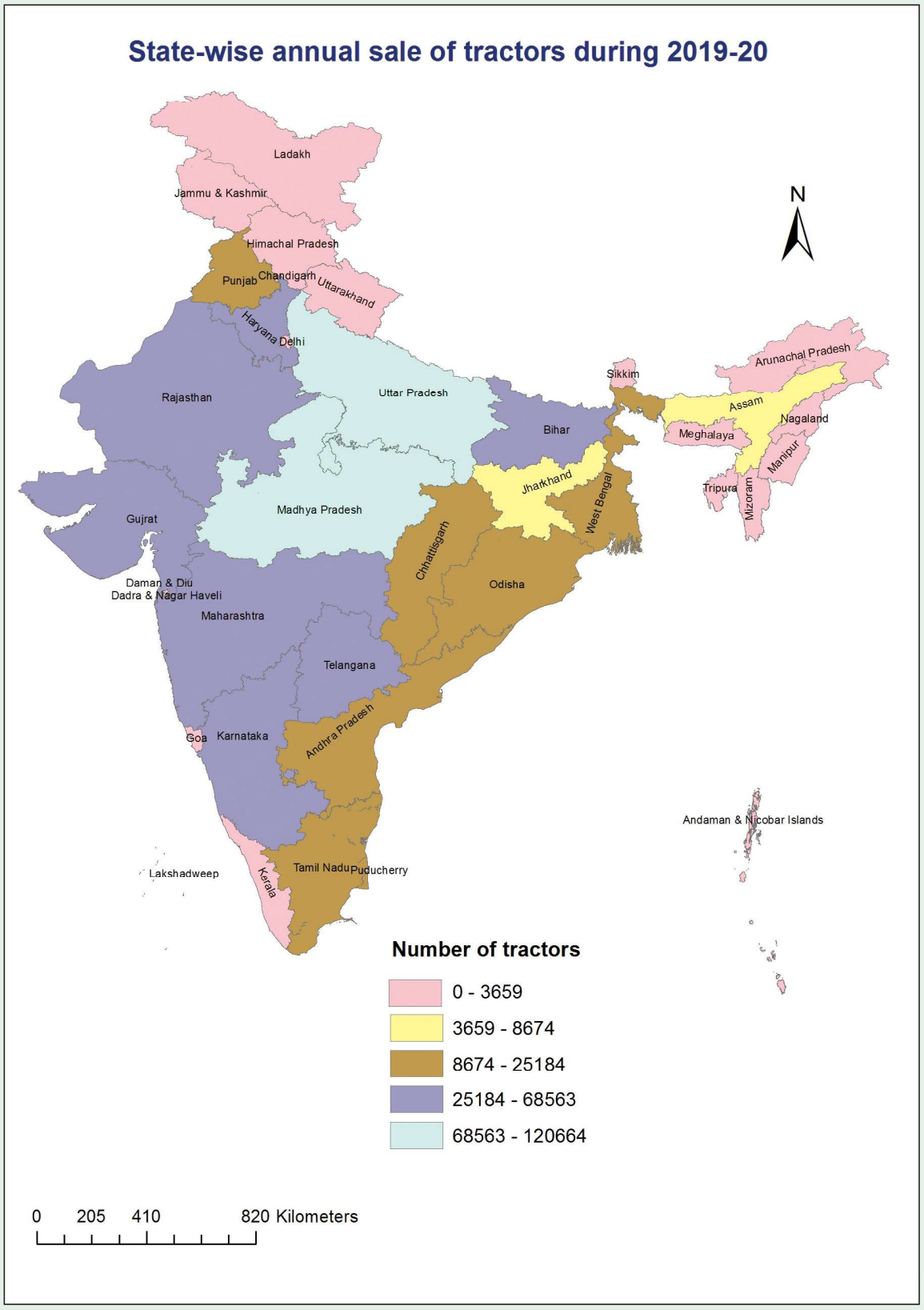

State-wise annual sale of tractors during 2019-20
Ladakh
Jammu & Kashmir
Himachal Pradesh
Punjab
Chandigarh
Uttarakhand
Haryana
Delhi
Rajasthan
Uttar Pradesh
Bihar
Sikkim
Arunachal Pradesh
Assam
Nagaland
Meghalaya
Manipur
Tripura
Mizoram
Jharkhand
West Bengal
Madhya Pradesh
Gujrat
Chhattisgarh
Odisha
Daman & Diu
Dadra & Nagar Haveli
Maharashtra
Telangana
Goa
Karnataka
Andhra Pradesh
Andaman & Nicobar Islands
Lakshadweep
Kerala
Tamil Nadu
Puducherry
N
Number of tractors
0 - 3659
3659 - 8674
8674 - 25184
25184 - 68563
68563 - 120664
0
205
410
820 Kilometers

Table 6.6: Cumulative deployment of various renewable energy systems/ devices in India (as on 31.03.2024)

Sector	Cumulative Achievements
I. Grid-Interactive Power (Capacity in MW)	
Wind Power	45886.51
Solar Power	81813.60
Small Hydro Power	5003.25
Biomass (Bagasse) Cogeneration	9433.56
Biomass (non-bagasse) Cogeneration/Captive Power	921.79
Waste to Power	249.74
Waste to Energy	336.06
Total	**143644.51**

Source : 1. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.
2. Ministry of New & Renewable Energy, Government of India. https://mnre.gov.in/the-ministry/physical-progress accessed on 08.05.2024.

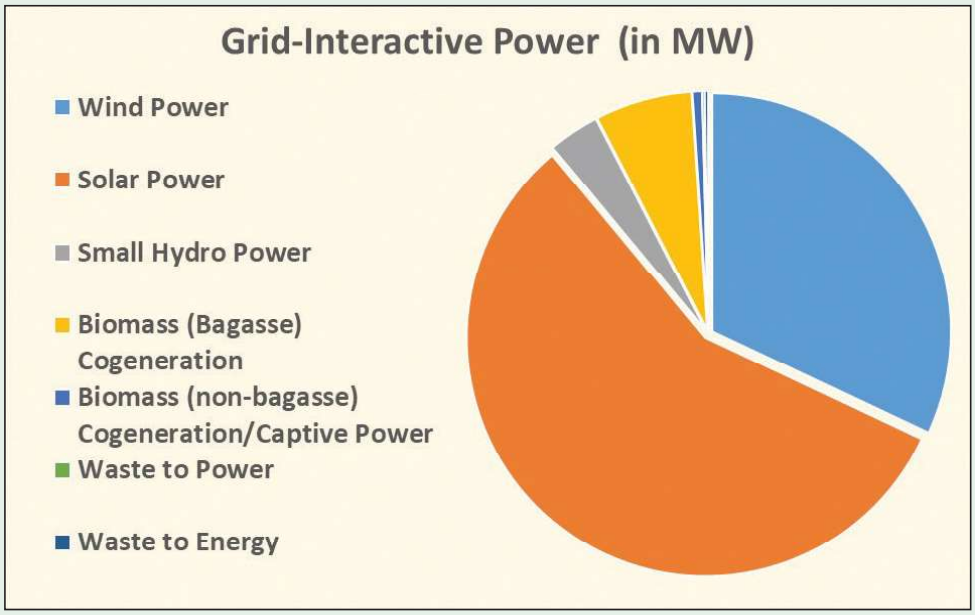


Table 6.7: Solar Pump set installed/energisation up to 31.03.2022

(Number)

Sl. No.	States/UTs	Cumulative
1	Andhra Pradesh	34045
2	Arunachal Pradesh	22
3	Assam	45
4	Bihar	2813
5	Chhattisgarh	61970
6	Goa	45
7	Gujarat	11981
8	Haryana	33901
9	Himachal Pradesh	231
10	Jammu & Kashmir	142
11	Jharkhand	11387
12	Karnataka	7734
13	Kerala	818
14	Madhya Pradesh	25047
15	Maharashtra	13741
16	Manipur	68
17	Meghalaya	54
18	Mizoram	37
19	Nagaland	3
20	Orissa	10308
21	Punjab	11079
22	Rajasthan	75748
23	Tamil Nadu	6646
24	Telangana	424
25	Tripura	572
26	Uttar Pradesh	35492
27	Uttarakhand	26
28	West Bengal	653
29	Andaman & Nicobar	5
30	Chandigarh	12
31	Delhi	90
32	Puducherry	21
33	Others states	4621
	Total	**349781**

Note : 1. Some of the states data is based on old data as they are not furnishing regularly.

Source : 1. Ministry of New & Renewable Energy, Government of India. https://mnre.gov.in/the-ministry/physical-progress. Accessed on 31.05.2022.
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

Table 6.8: State-wise and source-wise installed capacity of grid interactive renewable power (2021-22 and 2022-23)

(MW)

States/ UTs	Small Hydro Power		Wind Power		Bio-Power-BM Power/Cogen		Waste to Energy		Solar Power		Total		Growth Rate (2021-22 to 2022-23)
	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	
Andhra Pradesh	162.11	163.31	4096.65	4096.65	483.67	483.67	82.37	82.36	4386.76	4534.19	**9211.56**	**9360**	**1.61**
Arunachal Pradesh	131.11	133.11	-	-	0.00	0.00	0.00	0.00	11.23	11.64	**142.34**	**145**	**1.70**
Assam	34.11	34.11	-	-	2.00	2.00	0.00	0.00	117.94	147.93	**154.05**	**184**	**19.47**
Bihar	70.70	70.70	-	-	124.70	124.70	1.32	1.32	190.63	192.88	**387.35**	**390**	**0.58**
Chhattisgarh	76.00	76.00	-	-	274.59	274.59	0.41	0.41	518.08	948.82	**869.08**	**1300**	**49.56**
Goa	0.05	0.05	-	-	0.00	0.00	0.34	0.34	19.95	26.49	**20.34**	**27**	**32.15**
Gujarat	89.39	91.64	9209.22	9978.92	77.30	77.30	31.96	33.43	7180.03	9254.56	**16587.90**	**19436**	**17.17**
Haryana	73.50	73.50	-	-	240.66	240.66	17.34	18.77	910.63	1029.16	**1242.13**	**1362**	**9.66**
Himachal Pradesh	954.11	969.71	-	-	9.20	9.20	1.00	1.00	76.16	87.49	**1040.47**	**1067**	**2.59**
Jammu & Kashmir	184.32	146.68	-	-	0.00	0.00	0.00	0.00	54.73	49.44	**239.05**	**196**	**-17.96**
Jharkhand	4.05	4.05	-	-	4.30	4.30	0.00	0.00	88.79	105.84	**97.14**	**114**	**17.55**
Karnataka	1280.73	1280.73	5130.90	5294.95	1887.30	1887.30	14.85	14.85	7590.81	8241.40	**15904.59**	**16719**	**5.12**
Kerala	242.52	266.52	62.50	62.50	2.27	2.27	0.23	0.23	363.18	761.43	**670.70**	**1093**	**62.96**
Ladakh	-	40.99	-	-	-	0.00	-	0.00	-	7.80	**-**	**49**	**-**
Madhya Pradesh	99.71	123.71	2519.89	2844.29	107.35	107.35	23.98	27.59	2717.95	2802.14	**5468.88**	**5905**	**7.98**
Maharashtra	381.08	381.08	5012.83	5012.83	2584.40	2584.40	47.75	56.29	2631.02	4722.90	**10657.08**	**12758**	**19.71**
Manipur	5.45	5.45	-	-	0.00	0.00	0.00	0.00	12.25	12.28	**17.70**	**18**	**0.17**
Meghalaya	32.53	32.53	-	-	13.80	13.80	0.00	0.00	4.15	4.15	**50.48**	**50**	**0.00**
Mizoram	36.47	45.47	-	-	0.00	0.00	0.00	0.00	7.90	28.02	**44.37**	**73**	**65.63**
Nagaland	30.67	32.67	-	-	0.00	0.00	0.00	0.00	3.04	3.04	**33.71**	**36**	**5.93**
Odisha	106.63	115.63	-	-	59.22	59.22	0.00	0.00	451.24	453.17	**617.09**	**628**	**1.77**
Punjab	176.10	176.10	-	-	473.45	496.15	18.20	26.12	1100.07	1167.26	**1767.82**	**1866**	**5.53**

States/ UTs	Small Hydro Power		Wind Power		Bio-Power-BM Power/Cogen		Waste to Energy		Solar Power		Total		Growth Rate (2021-22 to 2022-23)
	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23	
Rajasthan	23.85	23.85	4326.82	5193.42	121.25	121.25	3.83	3.83	12564.87	17055.70	**17040.62**	**22398**	**31.44**
Sikkim	52.11	55.11	-	-	0.00	0.00	0.00	0.00	4.68	4.69	**56.79**	**60**	**5.30**
Tamil Nadu	123.05	123.05	9866.37	10017.17	1012.65	1012.65	30.05	31.05	5067.18	6736.43	**16099.30**	**17920**	**11.31**
Telangana	90.87	90.87	128.10	128.10	160.10	160.10	59.64	60.27	4520.48	4666.03	**4959.19**	**5105**	**2.95**
Tripura	16.01	16.01	-	-	0.00	0.00	0.00	0.00	14.89	17.60	**30.90**	**34**	**8.77**
Uttar Pradesh	49.10	49.10	-	-	2117.26	2118.26	72.73	98.47	2244.43	2515.22	**4483.52**	**4781**	**6.64**
Uttarakhand	218.82	218.82	-	-	130.22	130.22	9.22	9.22	573.54	575.53	**931.80**	**934**	**0.21**
West Bengal	98.50	98.50	-	-	319.92	338.62	2.53	4.48	166.00	179.97	**586.95**	**622**	**5.90**
Andaman & Nicobar	5.25	5.25	-	-	0.00	0.00	0.00	0.00	29.49	29.91	**34.74**	**35**	**1.21**
Chandigarh	-	-	-	-	0.00	0.00	0.00	0.00	55.17	58.69	**55.17**	**59**	**6.38**
Dadar & Nagar Haveli	-	-	-	-	0.00	0.00	0.00	0.00	5.46	5.46	**5.46**	**5**	**0.00**
Daman & Diu	-	-	-	-	0.00	0.00	0.00	0.00	40.72	41.01	**40.72**	**41**	**0.71**
Delhi	-	-	-	-	0.00	0.00	59.00	84.00	211.12	218.26	**270.12**	**302**	**11.90**
Lakshwadeep	-	-	-	-	0.00	0.00	0.00	0.00	3.27	3.27	**3.27**	**3**	**0.00**
Puducherry	-	-	-	-	0.00	0.00	0.00	0.00	13.69	35.53	**13.69**	**36**	**159.53**
Others	-	-	4.30	4.30	0.00	0.00	0.00	0.00	45.01	45.01	**49.31**	**49**	**0.00**
All India Total	**4849**	**4944**	**40358**	**42633**	**10206**	**10248**	**477**	**554**	**53997**	**66780**	**109885**	**125160**	**13.90**
Distribution (%)	**4.4**	**4.0**	**36.7**	**34.10**	**9.3**	**8.2**	**0.4**	**0.4**	**49.1**	**53.40**	**100**	**100**	

Note : 1. **-**: Not available, 2. The potential of Solar Power (100 GW) is estimated at 30-50 MW/Sq.cm. of open, shadow free area, 3. Solar potential as per NISE.

Source : 1. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India.

2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

Table 6.9: Installation of off-grid/decentralised renewable energy systems/devices (as on 31.03.2023)

State/UT	Biogas Plants (Nos.)	SPV Pumps (Nos.)	Solar Photovoltaic (SPV Systems)				Waste to Energy** (MW)
			SLS (Nos.)	HLS (Nos.)	SL (Nos.)	PP (KWP)	
Andhra Pradesh	268628	34045	16460	22972	77803	3816	29.20
Arunachal Pradesh	3621	148	25008	35065	218551	963	-
Assam	139414	45	29538	46879	647761	1605	-
Bihar	130081	2813	54147	12303	1735227	6905	1.32
Chhattisgarh	60368	119282	4538	42232	3311	31373	0.41
Goa	4245	45	707	393	1093	33	-
Gujarat	435862	13981	5004	9253	31603	13577	25.93
Haryana	64056	46260	34625	56727	93853	4571	7.57
Himachal Pradesh	47718	507	98800	22592	33909	21606	1.00
Jammu & Kashmir	3201	568	39076	144316	51224	8130	-
Jharkhand	7890	17231	14344	9450	790515	3770	-
Karnataka	515243	7734	5694	52638	7781	7854	13.85
Kerala	154349	900	1735	41912	54367	16268	0.23
Ladakh	0	-	-	-	-	-	-
Madhya Pradesh	381237	25138	16808	7920	529101	7654	12.19
Maharashtra	935480	50623	10420	3497	239297	3858	43.70
Manipur	2128	68	32767	24583	69722	1581	-
Meghalaya	11156	54	5800	14874	97360	2004	-
Mizoram	5857	37	20325	12060	155217	3895	-
Nagaland	7953	3	16045	1045	30766	1506	-
Odisha	271848	10856	19109	5274	99843	2321.5	-
Punjab	187980	17446	43758	8626	17495	2066	15.37

State/UT	Biogas Plants	SPV Pumps	Solar Photovoltaic (SPV Systems)				Waste to Energy**
			SLS	HLS	SL	PP	
	(Nos.)	(Nos.)	(Nos.)	(Nos.)	(Nos.)	(KWP)	(MW)
Rajasthan	72906	113841	8934	187968	225851	104449	3.83
Sikkim	9044	-	504	15059	45200	850	-
Tamil Nadu	224083	8503	41419	298641	16818	13053	24.65
Telangana	316727	424	2458	-	142000	7450	14.47
Tripura	3744	1846	15517	32723	364012	867	-
Uttar Pradesh	441306	48695	302532	235909	2351205	10638	98.47
Uttarakhand	365352	344	43803	91595	165071	4060	9.22
West Bengal	1216	673	18203	145332	17662	1730	4.48
Andaman & Nicobar	97	5	1490	468	6296	167	-
Chandigarh	169	12	901	275	1675	730	-
Dadar & Nagar Haveli	681	-	-	-	-	-	-
Daman & Diu	-	-	-	-	-	-	-
Delhi	578	90	301	-	4807	1269	-
Lakshadweep	0	-	4465	600	5289	2190	-
Puducherry	17541	21	417	25	1637	121	-
Others*	-	4621	9150	140273	125797	23885	-
Total	**50,91,759**	**5,26,859**	**9,44,802**	**17,23,479**	**84,59,119**	**3,16,813**	**306**

Note : 1. *: Others include installations through NGOs/IREDA in different states, 2. SLS = Street Lighting System, 3. HLS = Home Lighting System, 4. SL = Solar Lantern, 5. PP = Power Plants, 6. SPV = Solar Photovoltaic, 7. MW = Mega Watt, 8. KWP = Kilowatt peak, 9. -: Not available.

Source : 1. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India.
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

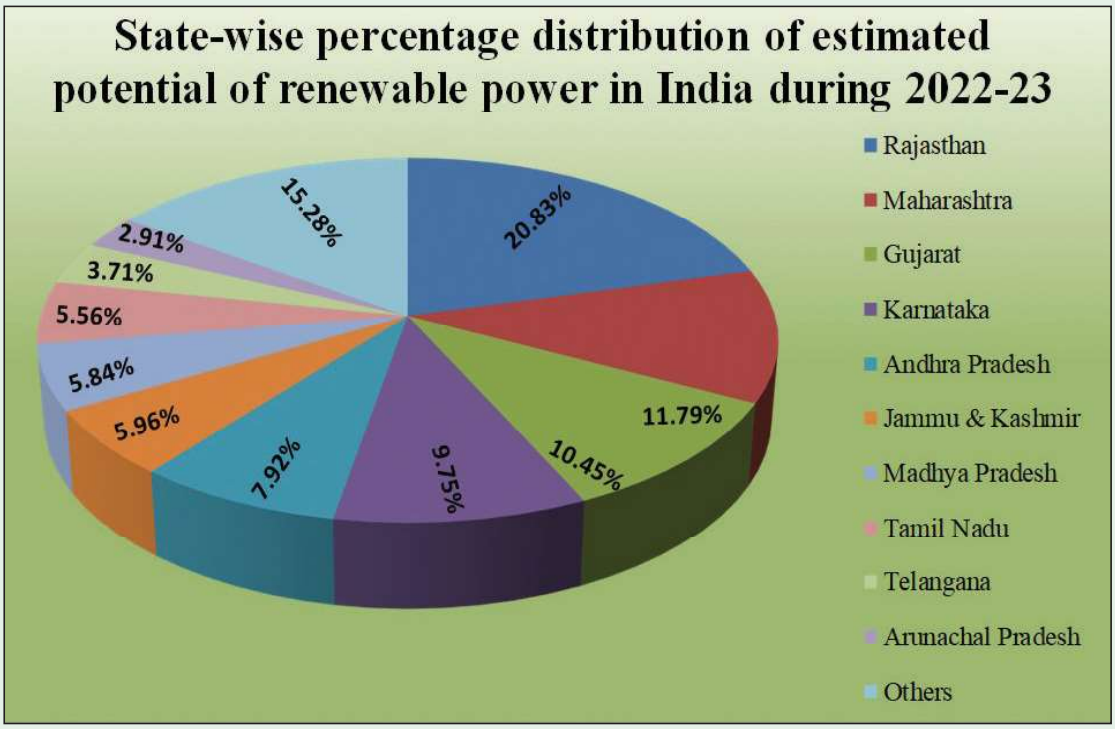
Table 6.10: Source-wise and state-wise estimated potential of renewable power in India during 2022-23

(MW)

State/UT	Wind Power @ 150 m	Small Hydro Power	Biomass Power	Cogeneration bagasse	Solar energy	Large Hydro	Total	Distribution (%)
Andhra Pradesh	123336	409	1999	280	38440	2596	**167060**	**7.92**
Arunachal Pradesh	246	2065	18	0	8650	50394	**61373**	**2.91**
Assam	459	202	322	0	13760	643	**15386**	**0.73**
Bihar	4023	527	964	347	11200	130	**17191**	**0.81**
Chhattisgarh	2749	1098	354	0	18270	1311	**23782**	**1.13**
Goa	14	5	33	0	880	0	**932**	**0.04**
Gujarat	180790	202	2638	555	35770	550	**220505**	**10.45**
Haryana	593	107	1353	362	4560	0	**6976**	**0.33**
Himachal Pradesh	239	3460	70	0	33840	18305	**55914**	**2.65**
Jammu & Kashmir	1(Ladakh)	1707	83	0	111050	12972	**125812**	**5.96**
Jharkhand	16	228	146	0	18180	300	**18870**	**0.89**
Karnataka	169251	3726	1794	1762	24700	4414	**205648**	**9.75**
Kerala	2621	647	778	0	6110	2473	**12629**	**0.60**
Madhya Pradesh	55423	820	2516	0	61660	2819	**123239**	**5.84**
Maharashtra	173868	786	2630	3917	64320	3144	**248665**	**11.79**
Manipur	0	100	62	0	10630	615	**11407**	**0.54**
Meghalaya	55	230	69	0	5860	2026	**8240**	**0.39**
Mizoram	0	169	3	0	9090	1927	**11189**	**0.53**
Nagaland	0	182	54	0	7290	325	**7851**	**0.37**
Odisha	12129	286	299	0	25780	2825	**41318**	**1.96**
Punjab	428	578	3022	414	2810	1301	**8554**	**0.41**
Rajasthan	284250	52	1300	0	142310	411	**428322**	**20.83**
Sikkim	0	267	5	0	4940	6051	**11262**	**0.53**
Tamil Nadu	95107	604	1560	639	17670	1785	**117366**	**5.56**
Telangana	54717	102	1678	117	20410	1302	**78327**	**3.71**
Tripura	0	47	34	0	2080	0	**2161**	**0.10**
Uttar Pradesh	510	461	2800	4926	22830	502	**32028**	**1.52**
Uttarakhand	49	1664	93	215	16800	13451	**32303**	**1.53**
West Bengal	1281	392	1742	0	6260	809	**10484**	**0.50**
Andaman & Nicobar Islands	1245	7	18	0	0	0	**1270**	**0.06**
Chandigarh	0	0	0	0	0	0	**0**	**0.00**
Dadar & Nagar Haveli Daman & Diu	17	0	2	0	0	0	**19**	**0.00**
Delhi	0	0	0	0	2050	0	**2050**	**0.10**
Lakshadweep	31	0	1	0	0	0	**32**	**0.00**
Puducherry	408	0	5	0	0	0	**413**	**0.02**
Others $	0	0	0	284	790	0	**1074**	**0.05**
All India Total	**1163856**	**21134**	**28447**	**13818**	**748990**	**133410**	**2109654**	**100**
Distribution (%)	**55.17**	**1.00**	**1.35**	**0.66**	**35.50**	**6.32**	**100.00**	

Note : 1. -: Not available, 2. $: Others includes installations through NGOs/IREDA in different states.

Source : 1. Ministry of New and Renewable Energy, Govt. of India.
2. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India, New Delhi.
3. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.


State-wise percentage distribution of estimated potential of renewable power in India during 2022-23
20.83%
11.79%
10.45%
9.75%
7.92%
5.96%
5.84%
5.56%
3.71%
2.91%
15.28%
Rajasthan
Maharashtra
Gujarat
Karnataka
Andhra Pradesh
Jammu & Kashmir
Madhya Pradesh
Tamil Nadu
Telangana
Arunachal Pradesh
Others

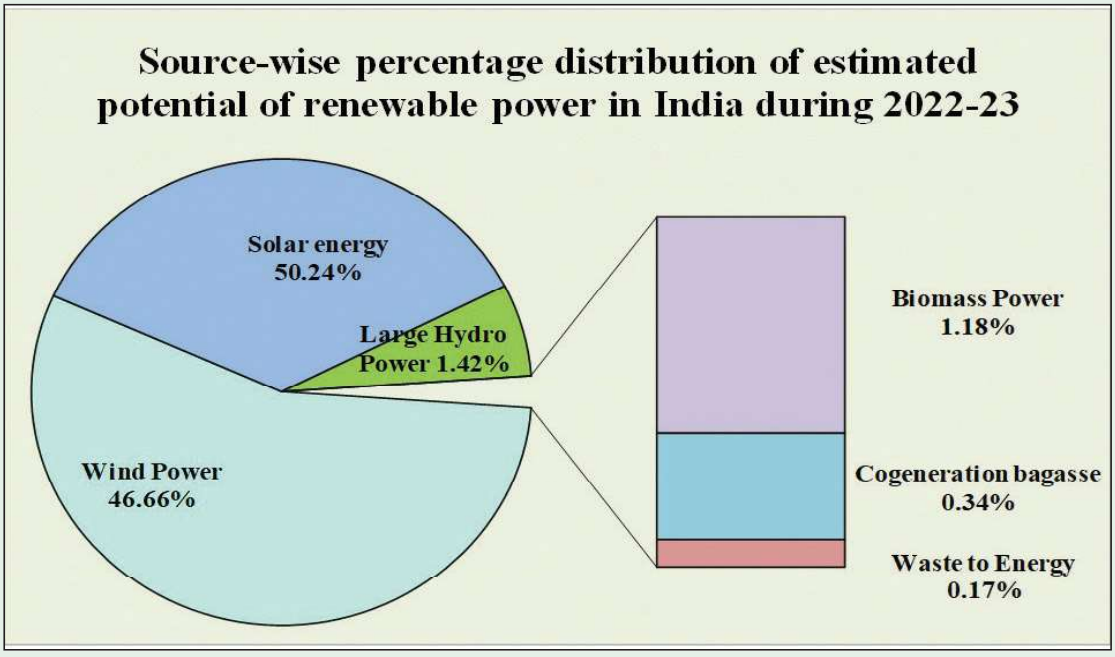

Source-wise percentage distribution of estimated potential of renewable power in India during 2022-23
Solar energy 50.24%
Large Hydro Power 1.42%
Wind Power 46.66%
Biomass Power 1.18%
Cogeneration bagasse 0.34%
Waste to Energy 0.17%

Table 6.11: Consumption of electricity by various sectors in India

(in Giga Watt Hour)

Year	Industry	Agriculture	Domestic	Commercial	Traction & Railways	Others	Total Electricity Consumed
2008-09	2,09,474	1,09,610	1,31,720	54,189	11,425	37,577	5,53,995
2009-10	2,36,752	1,20,209	1,46,080	60,600	12,408	36,595	6,12,645
2010-11	2,72,589	1,31,967	1,69,326	67,289	14,003	39,218	6,94,392
2011-12	3,52,291	1,40,960	1,71,104	65,381	14,206	41,252	7,85,194
2012-13	3,65,989	1,47,462	1,83,700	72,794	14,100	40,256	8,24,301
2013-14	3,84,418	1,52,744	1,99,842	74,247	15,540	47,418	8,74,209
2014-15	4,18,346	1,68,913	2,17,405	78,391	16,177	49,289	9,48,522
2015-16	4,23,523	1,73,185	2,38,876	86,037	16,594	62,976	10,01,191
2016-17	4,40,206	1,91,151	2,55,826	89,825	15,683	68,493	10,61,183
2017-18	4,68,613	1,99,247	2,73,545	93,755	17,433	70,834	11,23,427
2018-19	5,19,196	2,13,409	2,88,243	98,228	18,837	72,058	12,09,972
2019-20	5,32,820	2,11,295	3,08,745	1,06,047	19,148	70,031	12,48,086
2020-21	5,08,776	2,21,303	3,30,809	86,950	14,668	67,701	12,30,208
2021-22	5,33,500	2,29,000	3,34,000	1,07,500	19,800	72,500	12,96,300
2022-23*	5,95,000	2,40,800	3,62,000	1,05,100	25,000	75,500	14,03,400
Distribution (%)	**41.16**	**17.67**	**25.77**	**8.29**	**1.53**	**5.59**	**100.00**
Growth rate of 2021-22 over 2020-21(%)	**4.86**	**3.48**	**0.96**	**23.63**	**34.99**	**7.09**	**5.37**
CAGR 2013-14 to 2022-23 (%)	**4.28**	**5.01**	**6.87**	**4.43**	**3.84**	**6.76**	**5.16**

Note : *: Provisional.

Source :
1. Central Electricity Authority.
2. Energy Statistics 2024, Ministry of New and Renewable Energy, Govt. of India, New Delhi.
3. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

Table 6.12: State-wise processing of Lac in India*

(ton)

State	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22@
West Bengal	9308	4710	5524	7289	7002	9120	5600
Chhattisgarh	3815	5270	3618	3989	4065	4310	3750
Jharkhand	3650	4594	4091	4380	4670	4820	4100
Maharashtra	1430	1776	1685	1740	1850	1810	1700
Madhya Pradesh	200	380	720	555	650	630	600
Others	383	248	518	737	510	686	500
Total	**18786**	**16978**	**16156**	**18690**	**18747**	**21376**	**16250**

Note : 1. *: Includes the quantity of imported and carry over Lac in India, 2. @: 2nd Advance Estimates, 3. -: Not available, 4. #:Final Estimates (may differ with the second advance estimates).

Source : Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

Table 6.13: Source-wise power generation from renewable energy sources in India

(in Million Units)

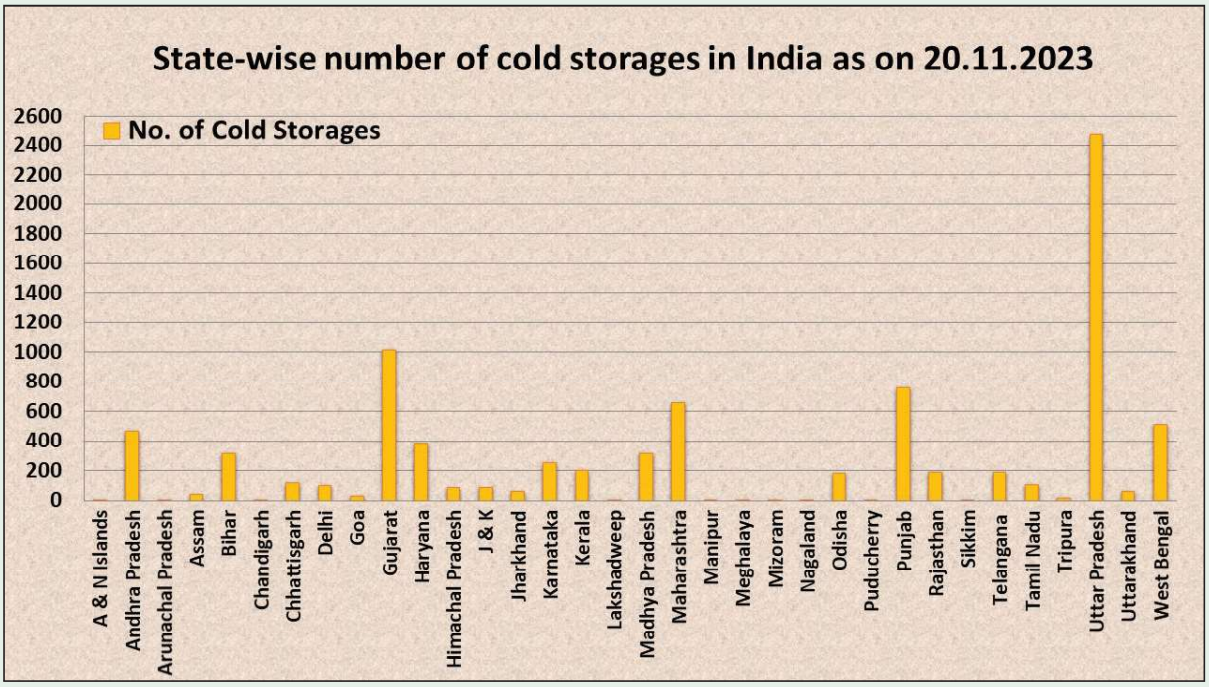
Source	Wind	Solar	Biomass	Bagasse	Small Hydro	Large Hydro	Others	Total
2014-15	33768.31	4599.01	3159.85	11784.64	8059.50	-	413.60	**61784.91**
2015-16	33029.39	7447.92	3727.21	12953.29	8354.51	-	268.53	**65780.85**
2016-17	46004.34	13498.87	4198.33	9950.15	7924.62	-	292.38	**81868.69**
2017-18	52666.09	25871.07	3404.95	11847.35	7691.58	-	358.45	**101839.49**
2018-19	62036.38	39268.20	2763.82	13562.67	8702.75	-	425.28	**126759.10**
2019-20	64646.37	50131.10	2937.96	10804.46	9451.22	-	365.90	**138337.02**
2020-21	60149.95	60402.25	3512.98	11302.85	10258.41	-	1621.06	**147247.51**
2021-22	68640.07	73483.94	3482.70	12573.88	10463.54	-	2268.17	**170912.30**
2022-2023	71814.16	102214.24	3161.32	12863.16	11170.11	-	2529.18	**203552.17**
2023-2024 (up to January 2024)	73899.71	93328.05	2840.97	7644.56	8574.15	121110.06	2264.35	**309661.84**

Source : 1. www.indiastat.com. https://www.indiastat.com/table/physical-progress-of-various-renewable-energy-programmes/power-generation-various-renewable-sources-energy-/1227215. Accessed on 08.05.2024.
2. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

Table 6.14: State-wise number of cold storages with capacity in India (as on 20.11.2023)

States/UTs	Number of cold storages	Capacity (MT)
Andaman and Nicobar Islands	4	2210
Andhra Pradesh	467	1893071
Arunachal Pradesh	2	6000
Assam	45	216388
Bihar	313	1476557
Chandigarh	7	12462
Chhattisgarh	120	553832
Delhi	97	129857
Goa	29	7705
Gujarat	1014	3974593
Haryana	382	867884
Himachal Pradesh	89	174072
Jammu and Kashmir	89	341515
Jharkhand	60	248629
Karnataka	250	838940
Kerala	202	96655
Lakshadweep	1	15
Madhya Pradesh	315	1364003
Maharashtra	656	1176499
Manipur	2	4500
Meghalaya	4	8200
Mizoram	3	4071
Nagaland	5	8150
Odisha	182	579321
Puducherry	4	185
Punjab	761	2588686
Rajasthan	191	652879
Sikkim	2	2100
Tamil Nadu	188	399690
Telangana	108	541397
Tripura	14	46354
Uttar Pradesh	2472	15045874
Uttarakhand	60	206621
West Bengal	515	5948316
All India	**8653**	**39417231**

Source : 1. Lok Sabha Starred Question No. 140 answered on 12th December 2023.
2. Ministry of Agriculture & Farmers Welfare, Govt. of India. (ON2729).
3. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.


State-wise number of cold storages in India as on 20.11.2023
No. of Cold Storages
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
A & N Islands
Andhra Pradesh
Arunachal Pradesh
Assam
Bihar
Chandigarh
Chhattisgarh
Delhi
Goa
Gujarat
Haryana
Himachal Pradesh
J & K
Jharkhand
Karnataka
Kerala
Lakshadweep
Madhya Pradesh
Maharashtra
Manipur
Meghalaya
Mizoram
Nagaland
Odisha
Puducherry
Punjab
Rajasthan
Sikkim
Telangana
Tamil Nadu
Tripura
Uttar Pradesh
Uttarakhand
West Bengal

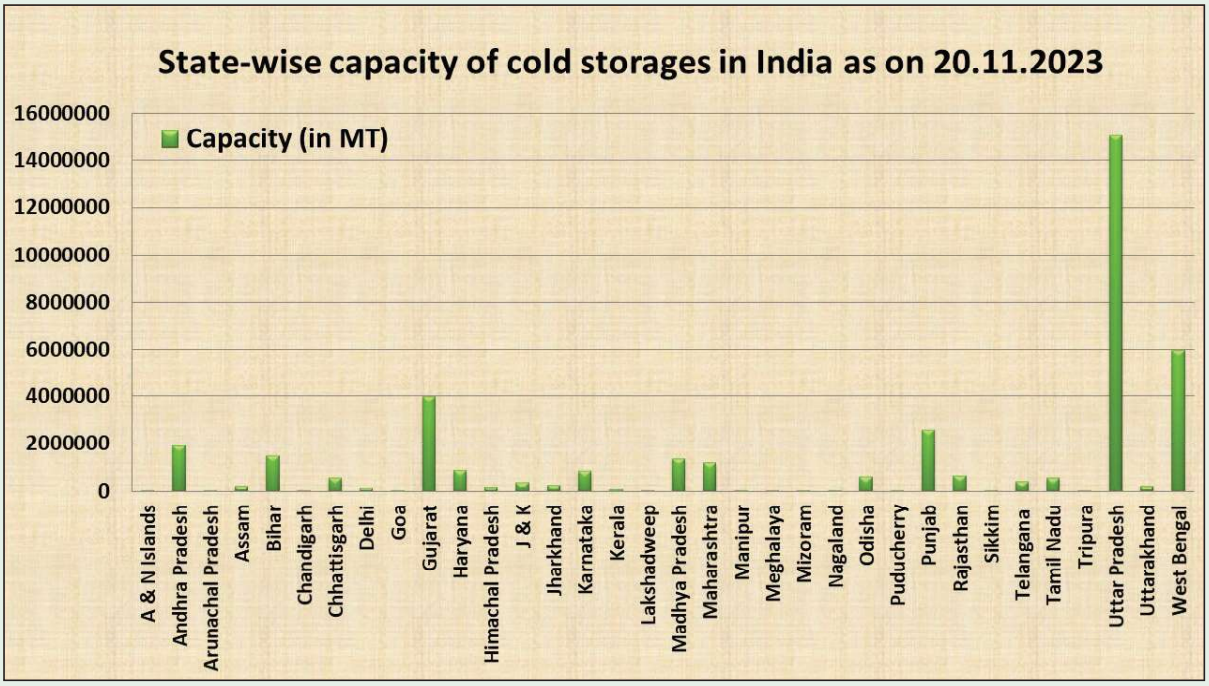

State-wise capacity of cold storages in India as on 20.11.2023
Capacity (in MT)
16000000
14000000
12000000
10000000
8000000
6000000
4000000
2000000
0
A & N Islands
Andhra Pradesh
Arunachal Pradesh
Assam
Bihar
Chandigarh
Chhattisgarh
Delhi
Goa
Gujarat
Haryana
Himachal Pradesh
J & K
Jharkhand
Karnataka
Kerala
Lakshadweep
Madhya Pradesh
Maharashtra
Manipur
Meghalaya
Mizoram
Nagaland
Odisha
Puducherry
Punjab
Rajasthan
Sikkim
Telangana
Tamil Nadu
Tripura
Uttar Pradesh
Uttarakhand
West Bengal

Table 6.15: Capacity-wise models of tractors and power tillers available in India (as on March 2020)

S.No.	Tractor company/model	Capacity (hp)
1.0	**New Holland Tractors, Gautam Budh Nagar, Uttar Pradesh (https://agriculture.newholland.com)**	
1.1	Tractor Model-3032 NX	34
1.2	Tractor Model-3510	33
1.3	Tractor Model-3037 NX	35
1.4	Tractor Model-3037 TX	35
1.5	Tractor Model-4010	35
1.6	Tractor Model-3230 NX	39
1.7	Tractor Model-3230 TX	38
1.8	Tractor Model-3230 TX Super	38
1.9	3600-TX Heritage Edition	43
1.10	3600-TX Super Heritage Edition	47
1.11	Tractor Model-4710	43
1.12	Tractor Model Excel-4710	43
1.13	3600-2 Excel	49.5
1.14	3600-2 TX All Rounder Plus	49.5
1.15	3630 TX Super Plus+2WD & 4WD	49.5
1.16	Excel 5510	49.5
1.17	3630 TX Plus+	55
1.18	3630 TX Special Edition	55
1.19	5500 Turbo Super	55
1.20	5620 TX Plus	65
1.21	Excel 6510	65
1.22	6500 Turbo Super	65
1.23	5630 TX Plus	75
1.24	7500 Turbo Super	75
1.25	Excel 7510	75
1.26	Excel 8010	80
1.27	Excel 9010	90
1.28	TD 5.90	90
2.0	**Tractors & Farm Equipment Ltd (Massey Fergusan), Chennai, Tamil Nadu (https://tafetractors.com)**	
2.1	TAFE 1002	100
2.2	TAFE 1015	100
2.3	TAFE 9502	90
2.4	TAFE 9515	90

S.No.	Tractor company/model	Capacity (hp)
2.5	TAFE 8502	80
2.6	TAFE 8515	80
2.7	TAFE 7502	75
2.8	TAFE 7515	75
2.9	TAFE 6530	63
2.10	TAFE 5900 DI	60
2.11	TAFE 6015	60
2.12	TAFE 6300 DI	60
2.13	TAFE 9500	58
2.14	TAFE 5450 DI	52
2.15	TAFE 8055	52
2.16	TAFE 42 DI EU	47
2.17	TAFE 45 DI	47
2.18	TAFE 45 DI EU	47
2.19	TAFE 7250 DI	47
2.20	TAFE 241 DI	42
2.21	TAFE 42 DI	42
2.22	TAFE 1038 DI	38
2.23	TAFE 35 DI	36
2.24	Mega Series TAFE 1015	100
2.25	TAFE 9515	90
2.26	TAFE 8515	80
2.27	TAFE 7515	75
2.28	TAFE 6015	60
2.29	HERITAGE SERIES TAFE 1002	100
2.30	TAFE 9502	90
2.31	TAFE 8502	80
2.32	TAFE 7502	75
2.33	TAFE 6530	63
2.34	TAFE 5900 DI	60
2.35	TAFE 6300 DI	60
2.36	TAFE 9500	58
2.37	TAFE 5450 DI	52
2.38	TAFE 8055	52
2.39	TAFE 42 DI EU	47
2.40	TAFE 45 DI	47
2.41	TAFE 45 DI EU	47
2.42	TAFE 7250 DI	47

S.No.	Tractor company/model	Capacity (hp)
2.43	TAFE 241 DI	42
2.44	TAFE 42 DI	42
2.45	TAFE 1038 DI	38
2.46	TAFE 35 DI	36
3.0	**Mahindra Gujarat Tractors, Vadodara, Gujarat (https://www.mahindratractor.com)**	
3.1	Mahindra 475 DI	42
3.2	Mahindra Yuvo 475DI	42
3.3	Mahindra JIVO 225 DI	20
3.4	Mahindra Yuvraj 215 NXT	15
3.5	Mahindra 225 DI Power Plus	25
3.6	Mahindra 265 DI	30
3.7	Mahindra Yuvo 275 DI	35
3.8	Mahindra 265 DI Power Plus	35
3.9	Mahindra 275 DI Eco	35
3.10	Mahindra Yuvo 415 DI	40
3.11	Mahindra 415 DI	40
3.12	Mahindra Yuvo 575 DI	45
3.13	Mahindra 585 DI	50
3.14	Arjun Novo 605 DI-I	57
3.15	Arjun Novo 605 DI-I-4	57
3.16	Arjun Novo 605 DI-I with ac cabin	57
4.0	**Escort Tractors, Faridabad, Haryana (https://www.escortsgroup.com)**	
4.1	Escort Steeltrac	9.7
4.2	EscrotPowertrac 425	25
4.3	Escort Powertrac 425 N	25
4.4	Escort Powertrac 425 DS	25
4.5	Escort Farmtrac ATOM 26	26
4.6	Escort Ferrari K30 RS 4WD	26
4.7	Escort Powertrac 434 Ds Super Saver	34
4.8	Escort Powertrac 434	34
4.9	Escort Powertrac 434 DS	34
4.10	Escort Farmtrac XP-37 Champion	36
4.11	Escorts Powertrac434 DS Plus Euro 37	37
4.12	Escorts Powertrac ALT 3500	37
4.13	Escorts Powertrac Euro 37	37
4.14	Escorts Powertrac 434-PLUS	37
4.15	Escorts Powertrac 437	39
4.16	Escorts Powertrac 439 DS Super Saver 4WD	39

S.No.	Tractor company/model	Capacity (hp)
4.17	Escorts Powertrac 439 DS Plus	41
4.18	Escorts Powertrac ALT 4000	41
4.19	Escorts Farmtrac XP-41 Champion	41
4.20	Escorts Powertrac 439 DS Diesel Saver	41
4.21	Escorts powertrac Euro 41 4WD	41
4.22	Escorts Powertrac 439-PLUS	41
4.23	Escorts Farmtrac 45 CL VM PS	44
4.24	Escorts Powertrac EURO 42 PLUS	44
4.25	Escorts Farmtrac Champion XP 44	44
4.26	Escorts Powertrac 445 DS 4 WD	44
4.27	Escorts Powertrac Euro 45	45
4.28	Escorts Farmtrac 6045	45
4.29	Escorts Farmtrac 45 Classic	45
4.30	Escorts Farmtrac 45 Smart	45
4.31	Escorts Powertrac EURO 41 PLUS	45
4.32	Escorts Farmtrac 45 Executive Ultramaxx	47
4.33	Escorts Powertrac Euro 45 Plus 4 WD	47
4.34	Escorts Powertrac Euro 45 Plus	47
4.35	Escorts Farmtrac 60 Classic Valuemaxx	47
4.36	Escorts Powertrac 445 PLUS	47
4.37	Escorts Farmtrac 45 EPI Classic Pro (48 Hp , 14.9 T)	48
4.38	Escorts Farmtrac 60 EPI	49
4.39	Escorts Farmtrac 6055 Classic	50
4.40	Escorts Farmtrac 6055 Classic T 20	50
4.41	Escorts Farmtrac 6055 Classic F 20	50
4.42	Escorts Farmtrac 60 Classic Supermax	50
4.43	Escorts Farmtrac 6050	50
4.44	Escorts Farmtrac 6050 4X4 4WD	50
4.45	Escorts Powertrac Euro 50	50
4.46	Escorts Farmtrac 60 Classic	50
4.47	Escorts Farmtrac 60 EPI T20	50
4.48	Escorts Farmtrac 60 EPI F20	50
4.49	Escorts Powertrac EURO 4455	50
4.50	Escorts Powertrac Euro 55	55
4.51	Escorts Powertrac 4455 DS + Euro	55
4.52	Escorts Farmtrac 6055 T20	55
4.53	Escorts Powertrac 4455 BT	55
4.54	Escorts Farmtrac 6060 Executive 4x4	60

S.No.	Tractor company/model	Capacity (hp)
4.55	Farmtrac 6055 POWERMAXX	60
4.56	Escorts powertrac 4455 BT+	60
4.57	Escorts Powertrac Euro 60	60
4.58	Escorts Farmtrac 6060 Executive	60
4.59	Escorts Farmtrac 6065 Supermaxx	65
4.60	Escorts Farmtrac 6065 Ultramaxx	65
4.61	Escorts Farmtrac 6065 Executive 4x4	65
4.62	Escorts Farmtrac 6080 Pro	80
5.0	**EICHER Tractors, Mandideep, Madhya Pradesh (https://eichertractors.in)**	
5.1	Eicher 188	18
5.2	Eicher 5660	50
5.3	Eicher 557	50
5.4	Eicher 551	49
5.5	Eicher 548	48
5.6	Eicher 485	45
5.7	Eicher 480	42
5.8	Eicher 380	40
5.9	Eicher 368	38
5.10	Eicher 333 Super Plus	36
5.11	Eicher 364	35
5.12	Eicher 333	36
5.13	Eicher 312	30
5.14	Eicher 241	25
5.15	Eicher 242	25
6.0	**HMT Tractors, Panchkula, Haryana (http://www.hmtindia.com)**	
6.1	HMT 2522	25
6.2	HMT 3022	30
6.3	HMT 3522	35
6.4	HMT 4511	45
6.5	HMT 5911	58
6.6	HMT 7511	75
6.7	HMT 2522 OS	25
6.8	HMT 3522 CS	35
6.9	HMT 3522 DX	35
6.10	HMT 4511 CS	45
6.11	HMT 4922 EDI	49
7.0	**John Deere (India) Tractors, Pune, Maharashtra (https://www.deere.co.in)**	
7.1	5038 D	38

S.No.	Tractor company/model	Capacity (hp)
7.2	5310	55
7.3	5036 C	35
7.4	5039 C	39
7.5	5041 C	41
7.6	5042 C	42
7.7	5039 D	39
7.8	5042 D	42
7.9	5045 D	45
7.10	5050 D	50
7.11	5050 E	50
7.12	5055 E	55
7.13	5060 E	60
7.14	5065 E	65
7.15	5036 D	36
7.16	5105	40
7.17	5039 D Power Pro	44
7.18	5042 D Power Pro	46
7.19	5045 D Power Pro	46
7.20	5205	48
7.21	5050 D	50
7.22	5305 D	55
7.23	5210 GearPro 2WD & 4WD	50
7.24	5210 2Wd & 4WD	50
7.25	5310 2WD & 4WD	55
7.26	5060 2WD & 4WD	60
7.27	5405 2WD & 4WD	63
7.28	5065 2WD & 4WD	65
7.29	5075 2WD & 4WD	75
7.30	3022 EN 4WD	28
7.31	3036 EN 4WD	36
7.32	3036 E 4WD	36
7.33	6110 B 4WD	110
7.34	6120 B 4 WD	120
8.0	**Punjab Tractors Limited (Swaraj), SAS Nagar, Punjab (https://www.swarajtractors.com)**	
8.1	Swaraj Tractors 735FE	39
8.2	Swaraj Tractors 855FE	55
8.3	Swaraj Tractors 744FE	48
8.4	Swaraj Tractors 735FE(old)	39

S.No.	Tractor company/model	Capacity (hp)
8.5	Swaraj Tractors 834FE	34
8.6	Swaraj Tractors 724FE	26.5
8.7	Swaraj Tractors 722 Super	24.5
8.8	Swaraj Tractors 841 XM	41
8.9	Swaraj Tractors 843 XM	43
9.0	**Sonalika international Tractors, Hoshiarpur, Punjab (https://www.sonalika.com)**	
9.1	Sonalika Tractors DI-60	60
9.2	Sonalika Tractors DI-730 II	30
9.3	Sonalika Tractors DI-750 II	50
9.4	Sonalika Tractors DI-75 4WD	75
9.5	Sonalika Tractors DI-740III	40
9.6	Sonalika Tractor DI-60 Senior	60
9.7	Sonalika Tractor DI-60 4WD	60
9.8	Sonalika Tractor DI-35	35
9.9	Sonalika Tractor DI-745III	45
9.10	Baagban	30
9.11	DI 734(S1)	34
9.12	DI 734 S3	35
9.13	DI 35 S3	39
9.14	DI 740 III S3	45
9.15	DI 740 S3 Super	41.63
9.16	Sonalika Tractors DI-750 III	55
9.17	DI 745 III PP	45-50
9.18	DI 42RX	45
9.19	DI 47RX	50
9.20	DI 750III RX	55
9.21	DI 35 Rx	39
9.22	DI 745 III Rx PP	45-50
9.23	Worldtrac 75 RX 2W / 4W	75
9.24	Worldtrac 90 RX 2W / 4W	90
9.25	DI 740 III	44
9.26	DI 42 RX	45
9.27	DI-35	39
9.28	DI-42	42
9.29	RX-42	42
9.30	Mileage Master+39 (For Haryana)	39-40
9.31	Mileage Master+39 DI	39-40
9.32	Mileage Master 35 DI	35-37

S.No.	Tractor company/model	Capacity (hp)
9.33	DI 42 Chhatrapari	42
9.34	RX 42 Mahabali	42
10.0	**Force Tractors, Pune, Maharashtra (https://www.forcemotors.com)**	
10.1	BALWAN 400	40
10.2	BALWAN 450	45
10.3	BALWAN 500	50
10.4	ORCHARD MINI	27
10.5	ORCHARD DLX	27
10.6	ORCHARD MINI	27
10.7	SANMAN 5000	45
10.8	SANMAN 6000	50
10.9	SANMAN 6000 LT	50
10.10	ABHIMAN 4X4	27
11.0	**Indo-Farm Tractors & Motors Ltd., Solan, Himachal Pradesh (https://www.indofarm.in)**	
11.1	INDO FARM 1022 4WD	22
11.2	INDO FARM 1026 4WD	26
11.3	INDO FARM 2030 DI 2WD	34
11.4	INDO FARM 2035 DI 2WD	38
11.5	INDO FARM 2042 DI 2WD	45
11.6	INDO FARM 3035 DI 2WD	38
11.7	INDO FARM 3040 DI 2WD	45
11.8	INDO FARM 3048 DI 2WD/4WD	50
11.9	INDO FARM 3055 NV 2WD/4WD	55
11.10	INDO FARM 3055 DI 2WD/4WD	60
11.11	INDO FARM 3065 DI 2WD/4WD	65
11.12	INDO FARM 3075 DI 2WD/4WD	75
11.13	INDO FARM 3090 DI 2WD/4WD	90
11.14	INDO FARM 4175 DI 2WD/4WD	75
11.15	INDO FARM 4190 DI 2WD/4WD	90
11.16	INDO FARM 4110 DI 2WD/4WD	110
12.0	**Captain Tractors Pvt. Ltd, Rajkot, Gujarat (https://captaintractors.com)**	
12.1	120 DI	15
12.2	120 DI 4WD	15
12.3	200 DI 2WD	20
12.4	200 DI 4WD	20
12.5	250 DI	25
12.6	250 DI 4WD	25
12.7	273 4D (Stage V) Turf Tyre	25

S.No.	Tractor company/model	Capacity (hp)
12.8	273 4D (Stage V) Agri Tyre	25
12.9	273 4D (Stage V) Flotation Tyre	25
12.10	273 4D (Stage V) Wider Agri Tyre	25
12.11	280 4D	28
12.12	280 DX	28
13.0	**VST Tillers Tractors LTD, Bangalore, Karnataka (https://www.vsttractors.com)**	
13.1	VST Shakti 932 DI	30
13.2	VST Shakti MT270 High Torque	27
13.3	VST Shakti Viraj XP 9054 DI	50
13.4	VST Shakti Viraj XT 9045 DI	45
13.5	VST Shakti Viraj X5 9042 DI	39
13.6	VSTShakti 5025 R Branson	47
13.7	VST Shakti MT 270 VIraat 4W Plus	27
13.8	VST Shakti MT 225	22
13.9	VST Shakti MT 224 1D	22
13.10	VST Mitsubishi Shakti VT 224 10	22
13.11	VST Shakti VT-180 D HS/JAI-4W	18.5
13.12	VST Shakti MT 171 DI Samraat	17
14.0	**PREET Tractors, Nabha, Punjab (https://www.preet.co)**	
14.1	PREET 2549 2WD/4WD	25
14.2	PREET 3049 2WD/4WD	30
14.3	PREET 3549 2WD/4WD	35
14.4	PREET 4049 2WD/4WD	40
14.5	PREET 4549 2WD	45
14.6	PREET 955 2WD/4WD	50
14.7	PREET 6049 2WD/4WD	60
14.8	PREET 6549 2WD/4WD	65
14.9	PREET 7549 2WD/4WD	75
14.10	PREET 8049 2WD/4WD	80
14.11	PREET 4549 CR 4WD	45
14.12	PREET 9049	90
14.13	PREET 9049 AC	90
14.14	PREET 10049 AC	100
15.0	**SAS Motors Limited, New Delhi (http://www.sasmotors.net)**	
15.1	Angad 240-DI	22
16.0	**Action Construction Equipment (Tractors Division), Faridabad, Haryana**	
16.1	ACE350	
16.2	ACE450	

S.No.	Tractor company/model	Capacity (hp)
17.0	**Amar Tractors, Ludhiana, Punjab (https://amaragri.com)**	
17.1	Amar 240DI	
18.0	**Jayant Agro Industries, Rajkot, Gujarat**	
18.1	Mini Tractor	12
19.0	**Standards Combines (Tractor Division), Barnala, Punjab (https://standardcorp.in)**	
19.1	Standard Tractor DI-335	35
19.2	Standard Tractor DI-345	45
19.3	Standard Tractor DI-355	55
19.4	Standard Tractor DI-450	50
19.5	Standard Tractor DI-460	60
19.6	Standard 475	75
19.7	Standard 490	90
20.0	**Zimidara Tractors Pvt Ltd., Barnala, Punjab**	
20.1	Bharat Track 3035	35
20.2	Bharat Track 3045	45
21.0	**Farmer Tractor, Rajkot, Gujarat (http://www.farmer.net.pl/en)**	
21.1	Mini Tractor	
22.0	**Field Marshal, Rajkot, Gujarat (http://www.fieldmarshal.com)**	
22.1	Shridev 115	15
23.0	**Green Field Agro Equipment, Thane, Maharashtra (Samson) (https://www.greenfield.in)**	
23.1	Mini Tractor	
24.0	**SAME Deutz-Fahr India Pvt Ltd.**	
24.1	Agrolux 50 2WD	45
24.2	Agrolux 60	55
24.3	Agrolux70	73
24.4	Agromaxx 55	50
24.5	Agromaxx 60	55
24.6	Agrolux 80 Profiline	80

Source :
1. Internet sites of respective tractor manufacturers.
2. Directory of tractor, power tiller, combines and farm machinery manufacturers in India, AICRP on FIM, ICAR-CIAE, Bhopal.
3. Souvenir XLII ISAE annual convention & symposium February 1-3, 2008.
4. Information received from ICAR-Central Institute of Agricultural Engineering, Nabi Bagh, Berasia Road, Bhopal.

भाकृअनुप
ICAR

भाग-VII
निर्यात एवं आयात

SECTION-VII
Export and Import

भाकृअनुप
ICAR

Table 7.1: Total agriculture vis-a-vis total national import/export

(million ₹)

Year	Import			Export		
	Agriculture	Total (National)	% Agriculture to total (National)	Agriculture	Total (National)	% Agriculture to total (National)
	Value	Value		Value	Value	
1995-96	58901.00	1226781.40	4.80	203977.40	1063533.50	19.18
1996-97	66126.00	1389198.80	4.76	241612.90	1188173.20	20.33
1997-98	87841.90	1541762.90	5.70	248324.50	1301006.40	19.09
1998-99	145664.80	1783316.90	8.17	255106.40	1397517.70	18.25
1999-00	160667.30	2155285.30	7.45	253136.60	1590952.00	15.91
2000-01	120862.30	2283066.40	5.29	286573.70	2013564.50	14.23
2001-02	162566.10	2451997.20	6.63	297286.10	2090179.70	14.22
2002-03	176088.30	2972058.70	5.92	346539.40	2551372.80	13.58
2003-04	219726.80	3591076.60	6.12	372665.20	2933667.50	12.70
2004-05	228118.40	5010645.40	4.55	416026.50	3753395.30	11.08
2005-06	214992.20	6604089.00	3.26	492169.60	4564178.60	10.78
2006-07	296378.60	8405063.10	3.53	624114.20	5717792.80	10.92
2007-08	299062.40	10123117.00	2.95	790397.20	6558635.20	12.05
2008-09	371830.4 0	13744355.50	2.71	855516.70	8407550.60	10.18
2009-10	595283.70	13637355.50	4.37	893415.00	8455336.40	10.57
2010-11	526528.80	16834669.60	3.13	1110189.90	11429219.20	9.71
2011-12	742845.80	23454632.40	3.17	1805286.00	14659593.90	12.31
2012-13	993386.60	26691619.60	3.72	2236182.40	16343188.40	13.68
2013-14	874656.60	27154339.10	3.22	2627789.60	19050110.90	13.79
2014-15	1213190.20	27370865.80	4.43	2396810.40	18964454.70	12.64
2015-16	1402892.20	24902980.80	5.63	2153965.50	17163780.50	12.55
2016-17	1647268.30	25776753.70	6.39	2266519.10	18494335.50	12.26
2017-18	1520952.00	30010334.30	5.07	2515639.40	19565145.30	12.86
2018-19	1370194.60	35946742.20	3.81	2745712.80	23077261.90	11.90
2019-20	1474458.10	33609544.50	4.39	2529760.60	22198541.70	11.40
2020-21	1545107.20	29159580.00	5.30	3088300.00	21590430.00	14.30
2021-22*	2318502.70	45727745.90	5.07	3756624.70	31470214.90	11.94

Note : *: Provisional.

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

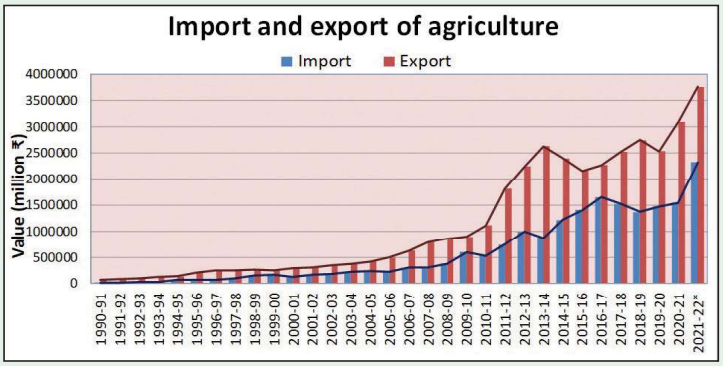


Table 7.2: Quantity and value of export of major commodities in agriculture

(Quantity: MT, Value: Lakh ₹)

Product	2018-19		2019-20		2020-21	
	Quantity	Value	Quantity	Value	Quantity	Value
Floriculture						
Floriculture	23597.22	77141.49	21024.41	70780.53	19677.89	71782.88
Fruits & vegetables seeds	11549.89	75067.04	13605.72	82713.24	14453.77	100495.92
Total	**35147.11**	**152208.53**	**34630.13**	**153493.77**	**34131.66**	**172278.8**
Fresh fruits and vegetables						
Fresh onions	1537496.85	343216.34	2525258.35	452279.14	1717439.35	392278.32
Other fresh vegetables	770233.22	216073.66	827288.05	244304.25	918107.64	293827.21
Walnuts	2482.55	7397.8	717.64	2583.26	638.07	2001.69
Fresh Mangoes	27872.77	32745.14	22963.76	37849.39	32104.09	49546.43
Fresh grapes	263075.62	230216.4	267950.38	254342.12	343982.34	346070.22
Other fresh fruits	761031.2	290069.58	674291.7	273698.88	887424.87	375900.03
Others (Betel Leaves & Nuts)	14056.58	21522.65	17205.45	53472.77	12256.93	44304.17
Total	**3376248.79**	**1141241.57**	**4335675.33**	**1318529.81**	**3911953.29**	**1503928.07**
Processed fruits and vegetables						
Cucumber and Gherkins (Prepd. & Presvd)	217521.38	148729.95	227699.04	176109.84	244243.52	212707.32
Processed Vegetables	460621	398645.35	410415.99	498735.56	537555.87	652346.97
Mango Pulp	123476.71	92454.25	109501.38	118965.81	60900.21	62429.33
Processed Fruits, Juices & Nuts	374260.06	362607.6	388207.95	475482.93	489216.36	565947.43
Pulses	410375.86	283428.87	775024.48	539785.58	626653.8	568939.95
Total	**1586255.01**	**1285866.02**	**1910848.84**	**1809079.72**	**1958569.76**	**2062371**
Animal products						
Buffalo meat	1175193.02	2461323.96	1175869.13	2564810.15	1295603.15	3101009.59
Sheep/Goat meat	8695.97	44757.7	9592.31	53717.68	10828.99	64355.04
Other meat	1946.95	4551.71	701.8	1692.65	223.68	682.08
Processed meat	462.58	1055.83	331.57	1171.78	813.72	2055.26
Animal casings	13826.91	47403.67	12577.04	32601.59	15009.3	39921.2
Poultry products	320240.46	52980.3	664753.46	108161.6	1275234.9	153019.85
Dairy products	108711.21	292879.67	67572.99	226985.03	63738.48	226094.09
Casein	8768.48	59278.39	8843.53	81631.9	2044.33	15023.8
Natural honey	74413.06	122117.59	79929.17	162277.34	107963.21	147083.87

Product	2018-19		2019-20		2020-21	
	Quantity	Value	Quantity	Value	Quantity	Value
Albumin (eggs & milk)	1464.97	8981.58	2219.94	26688.47	2038.98	17306.21
Total	**1713723.61**	**3095330.4**	**2022390.94**	**3259738.19**	**2773498.74**	**3766550.99**
Other processed foods						
Groundnuts	514163.87	469710.06	668885.4	673525.24	680698.61	713534.62
Guargum	321394.92	333477.27	406513.53	494460.48	417674.38	448940.37
Jaggery & Confectionery	551716.73	279784.8	761640.19	433006.63	516746.16	357076.7
Cocoa Products	27318.76	114547.65	34249.85	124212.83	36186.3	152194.5
Cereal Preparations	415544.58	486219.39	480432.62	605159.93	534068.27	697625.48
Milled Products	695779.69	228611.38	629253.46	222393.76	256606.48	143264.45
Alcoholic Beverages	197868.31	207091.55	230903.47	254644.26	262778.43	310749.58
Miscellaneous Preparations	946537.37	740698.21	826382.62	888918.4	1046038.39	1098996.73
Prepared Animal Feeder	0	0	796462.12	358704.22	770240.19	370397.64
Other Oil Cake/Solid Residues	0	0	583387.18	93965.57	163010.9	27076.71
Total	**3670324.23**	**2860140.31**	**5418110.44**	**4148991.32**	**4684048.11**	**4319856.78**
Cereals						
Basmati Rice	3948161.03	2641653.86	4558972.23	3852410.55	5242048.39	4838918.09
Non-Basmati Rice	17262235.08	4565235.31	17786092.81	5108872.03	11116533.98	3780448.29
Wheat	7239366.78	1584033.53	4693264.09	1182690.44	188287.99	47083.07
Maize	3690469.1	761541.72	3453680.58	898713.04	1442671.48	366009.57
Other Cereals	3049.58	1744.21	3801.18	2739.66	9474.06	4934.85
Millet	158509.98	46935.9	169049.21	60811.28	146289.14	58773.3
Total	**32301791.55**	**9601144.53**	**30664860.1**	**11106237**	**18145305.04**	**9096167.17**
Cashew						
Cashew Kernels	75422.6	337740.44	59575.83	286872.45	65808.38	280880.04
Cashewnut Shell Liquid	1368.06	692.03	10641.81	5638.61	3508.17	1601.97
Cardanol	3575.59	2558.95	6607.05	5708.32	9714.1	6119.18
Total	**80366.25**	**340991.42**	**76824.69**	**298219.38**	**79030.65**	**288601.19**
Grand Total	**42763856.55**	**18476922.78**	**44463340.47**	**22094289.19**	**31586537.25**	**21209754**

Source : DGCIS Annual Data. (http://www.apeda.gov.in/apedawebsite/index.asp)

Table 7.3: Quantity and value of import of major commodities in agriculture

(Quantity: MT, Value: Lakh ₹)

Product	2018-19		2019-20		2020-21	
	Quantity	Value	Quantity	Value	Quantity	Value
Floriculture						
Floriculture	6235.88	25853.11	8895.17	28521.31	10419.94	28939.43
Fruits & vegetables seeds	19744.95	100254.68	27351.48	115355.69	21674.68	135814.05
Total	**25980.83**	**126107.79**	**36246.65**	**143877**	**32094.62**	**164753.48**
Fresh fruits and vegetables						
Fresh onions	28512.6	10605.6	0	0	20516.52	8757.94
Other fresh vegetables	15929.57	3341.44	20445.22	5867.2	34166.7	28593.48
Walnuts	30087.75	47443.98	37677.7	51058.42	66639.83	84617.13
Fresh Mangoes	56.03	234.4	62.4	178.73	174.85	354.91
Fresh grapes	7980.74	8543.82	11992.87	13086.62	18842.59	19517.2
Other fresh fruits	1206152.77	750753.33	1116350.34	687402.87	1322550.84	919124.89
Others (Betel Leaves & Nuts)	27349.33	69771.71	73982.65	205133.82	39443.48	122511.54
Total	**1316068.79**	**890694.28**	**1260511.18**	**962727.66**	**1502334.81**	**1183477.09**
Processed fruits and vegetables						
Cucumber and Gherkins (prepd. & presvd)	14.73	9.36	100.04	106.04	33.43	46.91
Processed Vegetables	26234.34	25531.69	24746.57	30131.62	21449.75	30314.4
Mango Pulp	68.8	105.27	0	0	59.4	85.82
Processed Fruits, Juices & Nuts	89906.45	172008.16	88217.86	186199.92	87871.26	186848.77
Pulses	2771574.34	1710531.09	2529815.01	1598584.71	4775311.26	3130705.33
Total	**2887798.66**	**1908185.57**	**2642879.48**	**1815022.29**	**4884725.1**	**3348001.23**
Animal products						
Sheep/Goat Meat	53.58	492.43	215.8	1724.32	311.86	2368.66
Other Meat	909.14	3458.09	937.35	3846.89	790.79	3421.9
Processed Meat	174.08	555.79	46.05	274.26	30	169.19
Animal Casings	1.54	22.1	0	0	89.05	237.24
Poultry Products	417.83	3985.66	284.81	4280.82	340.52	5335.58
Dairy Products	11873.52	20216.1	13975.81	32974.79	28292.26	47676.01
Casein	2039.12	13427.35	1007.54	8529.56	2517.47	21233.04
Natural Honey	661.28	1846.24	914.22	2939.11	509.62	1696.13

Product	2018-19		2019-20		2020-21	
	Quantity	Value	Quantity	Value	Quantity	Value
Albumin(Eggs & Milk)	18074.55	108037.24	12461.69	112024.98	20290.37	119337.22
Total	**34204.64**	**152041**	**29843.27**	**166594.73**	**53171.94**	**201474.97**
Other processed foods						
Groundnuts	748.25	937.15	1203.11	1286.52	1680.87	1879.48
Guargum	176.36	588.34	920.4	2090.75	277.43	1098.62
Jaggery & Confectionery	85931.72	101300.17	75502.95	116626.71	100783.53	142098.48
Cocoa Products	111187.61	271392.98	128654.28	353075.72	126429.73	424726.77
Cereal Preparations	124806.96	152783.75	107923.98	171103.31	119587.83	178630.41
Milled Products	3373.14	1458.82	3871.58	2027.88	3053.04	1968.84
Alcoholic Beverages	559597.64	505924.65	324285.63	615184.61	538859.21	1083854.33
Miscellaneous Preparations	336515.54	329782.96	368619.65	384746.43	310589.3	337980.89
Prepared Animal Feeder	0	0	156017.98	308886.63	175473.54	277289.42
Other Oil Cake/Solid Residues	0	0	9053.02	1529.41	21921.18	3409.10
Total	**1222337.22**	**1364168.82**	**1176052.58**	**1956557.97**	**1398655.66**	**2452936.34**
Cereals						
Non-Basmati Rice	10582.29	4980.41	6711.06	4399.22	4683.14	3646.54
Wheat	54.06	17.74	13570.37	4612.38	103601.38	31243.37
Maize	23725.96	10542.63	16731.68	8892.04	137093.67	32085.62
Other Cereals	87828.57	26311.25	288264.01	105777.77	130243.87	43105.37
Millet	517.48	177.54	293.12	117.16	234.16	163.71
Total	**122708.36**	**42029.57**	**325570.24**	**123798.57**	**375856.22**	**110244.61**
Cashew						
Cashew Kernels	939198.52	933836.67	1332173.08	1436950.83	1255096.37	1182814.98
Cashewnut Shell Liquid	6523.32	2083.41	3065.99	1076.87	5132.72	1795.44
Cardanol	3.1	204.78	0.5	36.97	0	0
Total	**945724.94**	**936124.86**	**1335239.57**	**1438064.67**	**1260229.09**	**1184610.42**
Grand Total	**6554823.44**	**5419351.89**	**6806342.97**	**6606642.89**	**9507067.44**	**8645498.14**

Source : DGCIS Annual Data. (http://www.apeda.gov.in/apedawebsite/index.asp)

Table 7.4: Value of export and import of selected commodities in agriculture

(Lakh ₹)

Product description	Value of export				Value of import			
	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021	2021-2022	2022-2023	2023-2024
Fish and crustaceans molluscs and other aquatic invertabrates	3879563.9	5142068.24	5478657.91	5071041.86	112005.7	125672.82	152899.09	149579.64
Products of animal origin not elsewhere specified or included	71604.50	200248.60	209206.35	222725.13	21975.60	32912.31	37851.54	35930.97
Live trees & other plants; bulbs; roots and the like; cut flowers and ornamental foliage	57598.80	77240.33	70847.61	71782.88	16037.50	25853.11	28521.31	28939.43
Edible vegetables & certain roots and tubers	970273.40	1108563.37	1541542.69	1606670.21	1247083.50	1730583.31	1611910.21	3177948.42
Edible fruits & nuts; peel or citrus fruit or melons	999505.20	1148192.66	1164333.34	1355788.69	2341439.70	2786945.55	3459826.02	3470122.69
Coffee tea mate & spices	2891645.30	2957167.43	3335052.90	3922976.27	590287.20	703211.18	773763.30	940162.74
Cereals	7478359.80	9608076.03	11108435.14	9096167.17	35715.60	42029.58	123798.56	110244.59
Products of milling industry malt; starches; inulin; wheat gluten	321688.00	490177.30	606563.25	596835.05	49283.90	57108.66	63970.15	75760.75
Oilseeds & oleaginous fruits; misc. grains; seeds and fruit; industrial or medicinal plants; straw and fodder	1349354.50	1302948.87	1613047.53	1774620.01	557987.80	675577.87	789749.22	1043259.62
Lac gums resins & other veg. saps and extracts	539285.00	729934.47	863068.23	805378.60	189143.40	212269.63	335258.13	302398.22
Vegetable plaiting materials veg. products not elsewhere specified or included	32661.30	39900.83	34397.62	37878.79	79560.90	78616.76	81684.36	90173.15
Animal or vegetable fats & oils and their cleavage products; pre edible fats; animal or vegetable waxex	1208311.40	1152760.03	1658777.36	1511048.01	8374365.60	14423944.06	16954811.57	12463324.21
Prep. of meat of fish or of crustaceans molluscs or other aquatic invertebrates	472362.60	575478.65	635649.93	600929.83	5842.60	9141.01	5714.54	7756.03
Sugars & sugar confectionery	2332089.20	3797357.16	5075147.57	2725578.38	557478.20	224232.78	350234.02	1782566.94
Cocoa & cocoa preparations	110838.40	114545.08	124213.62	152194.50	202126.50	271392.98	353075.72	424726.77
Preparations of cereals flour starch or milk; pastrycooks products	456743.40	472004.04	590869.48	679849.26	87713.40	115743.60	130009.04	129859.65
Preparations of vegetables fruit nuts or other parts of plants	520305.00	560569.23	752540.20	957455.83	64858.50	99706.39	119737.79	117046.11

Product description	Value of export				Value of import			
	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021	2021-2022	2022-2023	2023-2024
Misc. edible preparations	690559.00	827057.93	1013106.32	1216405.64	145089.80	188358.48	165273.56	155596.02
Beverages spirits & vinegar	262795.60	239120.18	301627.57	373890.03	483821.00	654487.69	851034.22	1278411.13
Residues & waste from food industries; prepared animal fodder	1491054.30	1180853.12	2024084.02	2304110.93	497347.60	929114.72	633304.58	533833.64
Tobacco & mfd. tobacco substitutes	649698.80	688152.06	973985.47	1200589.41	28819.20	47098.69	61036.46	86072.04
Fertilizers	77907.90	62958.82	105731.76	107737.69	5103432.80	9532883.07	12340737.71	7388451.99
Tanning or dyeing extracts; tannins and their deridyes pigments and other colouring matter; paints and ver; putty and other mastics; inks	2265981.50	2951323.98	2652827.84	3299723.86	1403600.00	1943115.01	2049041.55	3011683.06
Essential oils & resinoids cosmetics perfumery or toilet preparations	1419990.40	1660571.79	1912498.97	2453055.10	512719.60	785844.66	1105227.61	1737061.02
Rubber and articles thereof	2405766.50	3455998.68	3760355.39	3789020.84	2152581.70	3082130.48	3348317.81	3240533.70
Wood & articles of wood wood charcoal	349605.50	554524.09	509197.19	513981.78	1174775.80	1515207.61	1831242.44	1884742.20
Cork & articles of cork	2758.00	3420.20	3685.99	4379.51	4015.80	6287.84	6871.11	9641.45
Manufactures of plaiting materials basket ware and wickerwork	32991.20	55980.35	54160.27	56946.52	2626.60	4689.62	5658.71	7382.84
Pulp of wood or other fibrous cellulosic material; waste and scrap of paper or paperboard	8008.10	1526.44	2966.99	7358.35	1456084.30	2572364.13	3222397.70	2597072.87
Paper & paperboard articles of paper pulp of paper or of paperboar	1435346.10	2368817.54	2370381.69	2172777.53	1309622.40	1688393.34	2650737.38	2498711.95
Total	**34784652.60**	**43527537.50**	**50546960.20**	**48688897.66**	**28807442.20**	**44564916.94**	**53643695.41**	**48778993.84**

Source : Department of Commerce, Ministry of Commerce & Industry, Govt. of India. (http://www.commerce.nic.in/eidb/ecom.asp)

Table 7.5: Value of export and import of livestock products

(Lakh ₹)

Livestock Products	Value of export					Value of import				
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Livestock	23801.40	6324.10	7392.30	4098.42	10246.96	8712.50	7687.70	7777.28	8828.01	15885.25
Meat and edible meat offal	2337504.00	2384579.60	2515618.56	2627894.67	3174669.89	3887.10	1317.80	3072.37	4849.35	5499.57
Dairy produce, birds eggs, natural honey, edible prod. of animal origin not elsewhere spec. or included	250308.10	260631.60	463126.43	489873.43	517436.08	26663.00	24874.20	22467.68	36427.72	50084.23
Raw hide & skins (other than furskins) & Leather	371762.60	280141.90	340743.00	346836.56	371486.73	389256.90	237851.80	316488.17	386928.34	331914.03
Wool fine or coarse animal hair horsehair yarn and woven fabric	113428.90	65632.30	100634.67	137725.59	136830.52	205663.00	122026.80	208429.17	255919.62	254470.75
All groups (total)	**3096805.00**	**2997309.50**	**3427514.96**	**3606428.67**	**4210670.18**	**634182.60**	**393758.10**	**558234.67**	**692953.04**	**657853.83**

Source : 1. Department of Commerce, Ministry of Commerce & Industry, Govt. of India. (http://www.commerce.nic.in/eidb/ecom.asp)

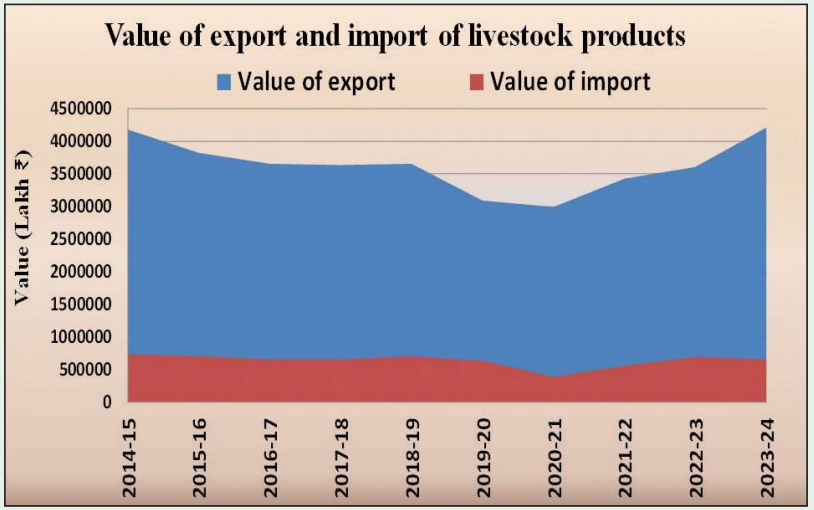


Table 7.6: Item wise export of marine products

(Q: Quantity in MT, V: Value in Rs. Crore)

Item		2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Frozen shrimp	Q:	373866	434486	565980	614145	652253	590275	728123	711099
	V:	20045.50	24711.30	30868.20	31800.50	34152.00	32520.30	42706.04	43135.58
Frozen fish	Q:	228749	296762	353192	338933	223318	188130	226586	368549
	V:	3462.25	4460.90	4674.03	4916.82	3610.01	2941.65	3471.91	5503.18
Fr cuttle fish	Q:	65596	63320	69183	60210	70906	59292	58992	54919
	V:	1636.11	1944.50	2356.46	1975.97	2009.79	1626.34	2062.63	2353.34
Fr squid	Q:	81769	99348	100845	101101	87631	61176	75750	83846
	V:	1615.21	2575.29	2451.87	2506.99	2196.59	1998.90	2806.09	3593.75
Dried item	Q:	43320	61071	88997	95296	84417	85661	73679	252918
	V:	725.58	871.74	1042.37	1323.45	981.50	1148.38	1472.98	3080.92
live items	Q:	5493	6703	7034	10179	7287	4379	7032	7824
	V:	308.81	403.75	286.11	388.88	324.26	239.69	353.36	440.06
Chilled items	Q:	33150	31815	19501	17207	21202	17622	21689	24428
	V:	809.50	769.81	647.41	616.22	631.84	477.99	733.47	616.29
Others	Q:	113949	141442	172512	155487	142638	142975	177414	231703
	V:	1817.87	2133.59	2780.48	3060.53	2756.84	2767.74	3979.99	5246.03
Total	**Q:**	**945892**	**1134948**	**1377244**	**1392559**	**1289651**	**1149510**	**1369264**	**1735286**
	V:	**30420.80**	**37870.90**	**45106.90**	**46589.40**	**46662.90**	**43721.00**	**57586.48**	**63969.14**

Source : The Marine Products Export Development Authority (MPEDA), Ministry of Commerce & Industry, Govt. of India.

Table 7.7: Quantity and value of export of principal agricultural commodities including marine products

(Quantity: 000't, Value: million ₹)

Items	2018-19		2019-20		2020-21		2021-22*	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Tea	272.89	5396.65	270.31	5828.34	254.80	5851.11	212.69	5603.50
Coffee	317.83	6245.36	282.84	5721.98	257.03	5236.76	245.21	5339.65
Tobacco unmanufactured	185.36	3828.13	189.55	3984.53	181.84	3761.37	178.30	3840.46
Tobacco manufactured	N.A.	2193.58	N.A.	2874.07	N.A.	2648.02	N.A.	2656.53
Spices	1096.32	20084.91	1133.89	23217.77	1193.44	25642.04	1607.06	29529.39
Cashew	90.06	5945.28	78.22	4579.17	84.37	4018.35	70.11	3112.22
Cashew nut shell liquid	8.33	32.63	5.30	26.91	4.61	23.09	3.74	19.72
sesame and niger seeds	631.95	4117.25	525.84	4688.37	371.90	4160.73	357.83	3615.10
Other oil seeds	295.1	1126.32	213.84	926.75	89.64	437.42	84.57	455.63
Vegetable oils	37.06	566.04	49.96	744.58	85.24	1208.65	302.22	4453.17
Oil meals	3570.78	7043.15	4493.29	10557.48	2655.79	5861.35	4366.55	11688.56
Castor oil	697.09	6730.00	619.38	6170.12	593.91	6323.84	734.34	6801.99
Shellac	6.53	285.18	7.00	304.79	7.17	411.94	7.88	649.83
sugar and mollases	1881.90	5323.05	4835.62	10109.94	6392.15	14499.07	8835.60	21984.79
Fruits / vegetable seeds	14.47	670.91	17.53	866.31	19.22	771.66	32.29	929.63
Processed fruits and juices	573.28	4169.13	594.49	4481.25	568.88	4590.96	532.87	5150.80
Misc processed items	N.A.	3548.95	N.A.	4613.38	N.A.	4586.80	N.A.	6402.84
meat & meat prep.	1373.77	26895.69	1256.31	25986.61	1168.18	23346.99	1094.39	23821.05
Floriculture products	20.70	507.32	19.69	571.43	16.95	541.61	15.70	575.99
Marine products	1432.46	47646.41	1672.39	47664.94	1329.03	47618.10	1167.76	44175.75
Cotton raw incld. Waste	1101.47	12200.05	1143.07	14627.55	657.81	7539.53	1213.98	13968.38
Total (Agri.)	**N.A.**	**251563.94**	**N.A.**	**274571.28**	**N.A.**	**252976.06**	**N.A.**	**308830.00**
Total export	**N.A.**	**1956514.53**	**N.A.**	**2307726.19**	**N.A.**	**2219854.17**	**N.A.**	**2159043.00**
% share of agricultural exports	**N.A.**	**12.86**	**N.A.**	**11.90**	**N.A.**	**11.40**	**N.A.**	**14.30**

Note : 1. *: Provisional, 2. N.A.: Not available.

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

Table 7.8: Quantity and value of import of principal agricultural commodities including marine products

(Quantity: 000' t , Value: million ₹)

Items	2018-19		2019-20		2020-21		2021-22*	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Tea	28.85	417.96	21.94	411.06	38.59	658.87	30.34	475.68
Coffee	82.77	958.59	88.09	962.16	78.5	900.56	84.72	1054.3
Tobacco unmanufactured	2.60	102.89	4.77	154.73	7.21	129.1	6.79	141.57
Tobacco manufactured	N.A.	257.52	N.A.	237.20	N.A.	159.09	N.A.	329.42
Spices	240.56	7932.70	320.94	10186.93	344.21	8070.53	364.07	9684.74
Cashew	839.64	11162.32	941.42	9026.34	834.4	7491.21	939.2	9338.37
Cashew nut shell liquid	6.61	21.05	8.67	22.94	2.2	7.17	6.53	22.88
Sesame seeds	87.54	875.17	146.99	1450.19	103.24	910.76	21.1	219.88
Niger seeds	8.66	40.62	4.70	24.43	5.92	40.71	5.65	40.65
Other oil seeds	220.48	745.35	410.94	1527.78	506.88	2165.28	701.48	4307.53
Vegetable oils	15019.30	69023.79	14722.11	68558.16	13540.01	82123.26	14278.16	141531.78
Oil meals	504.00	869.56	859.80	1519.48	509.79	1017.61	1301.87	4541.91
Castor oil	0.22	5.32	0.14	8.03	0.16	10.13	0.09	8.14
Shellac	0.64	19.35	0.85	23.49	0.64	21.22	1.68	77.95
Sugar	1490.61	3175.39	1117.73	2473.25	1964	4720.01	359.62	1263.19
Mollases	4.47	1.38	31.72	10.21	1.65	0.92	1.95	2.01
Fruits / vegetable seeds	19.73	835.81	17.78	851.79	24.98	1060.24	19.76	1043.12
Marine products	56.93	1088.13	72.41	1290.17	101.42	1668.85	76.62	1667.69
Total Agri. Imports	**N.A.**	**137019.46**	**N.A.**	**147445.81**	**N.A.**	**154510.72**	**N.A.**	**231850.27**
Total imports	**N.A.**	**3594674.22**	**N.A.**	**3360954.45**	**N.A.**	**2915958**	**N.A.**	**4572774.6**
Agri. imports as % of all imports	**N.A.**	**3.81**	**N.A.**	**4.39**	**N.A.**	**5.3**	**N.A.**	**5.07**

Note : 1. *: Provisional, 2. N.A.: Not available.

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

Table 7.9: Trend in exports of marine products

(Quantity: t, Unit value: ₹/t, Value: million ₹)

Year	Quantity	Value	Unit value	Unit value index	Annual growth rate (%)	
					Quantity	Value
1976-77	66750	1891.20	28332.58	1137.06	22.56	51.87
1977-78	56967	1801.20	31618.31	1268.93	-14.66	-4.76
1978-79	86894	2346.20	27000.71	1083.61	52.53	30.26
1979-80	86401	2488.20	28798.28	1155.75	-0.57	6.05
1980-81	75591	2348.40	31067.19	1246.81	-12.51	-5.62
1981-82	70105	2860.10	40797.38	1637.31	-7.26	21.79
1982-83	78175	3613.60	46224.50	1855.11	11.51	26.35
1983-84	92187	3730.20	40463.41	1623.90	17.92	3.23
1984-85	86187	3842.90	44587.93	1789.43	-6.51	3.02
1985-86	83651	3980.00	47578.63	1909.46	-2.94	3.57
1986-87	85843	4606.70	53664.25	2153.69	2.62	15.75
1987-88	97179	5312.00	54662.02	2193.73	13.21	15.31
1988-89	99777	5978.50	59918.62	2404.69	2.67	12.55
1989-90	110843	6349.90	57287.33	2299.09	11.09	6.21
1990-91	137667	8560.00	62179.03	2495.41	24.20	34.81
1991-92	169875	13116.00	77209.71	3098.63	23.40	53.22
1992-93	206673	17137.00	82918.43	3327.74	21.66	30.66
1993-94	242505	24610.00	101482.44	4072.76	17.34	43.61
1994-95	307337	35753.00	116331.58	4668.70	26.73	45.28
1995-96	296277	34501.00	116448.46	4673.39	-3.60	-3.50
1996-97	378198	40776.00	107816.54	4326.96	27.65	18.19
1997-98	385818	46497.00	120515.37	4836.60	2.01	14.03
1998-99	302934	46268.70	152735.25	6129.67	-21.48	-0.49
1999-00	343031	51166.70	149160.57	5986.21	13.24	10.59
2000-01	440473	64438.90	146294.78	5871.20	28.41	25.94
2001-02	424470	59570.50	140340.90	5632.25	-3.63	-7.56
2002-03	467297	68813.10	147257.74	5909.84	10.09	15.52
2003-04	412017	60919.50	147856.76	5933.88	-11.83	-11.47
2004-05	461329	66465.50	144073.97	5782.07	11.97	9.10
2005-06	512163	72457.30	141473.12	5677.69	11.02	9.01
2006-07	612643	83635.20	136515.39	5478.72	19.62	15.43
2007-08	541701	76209.30	140685.18	5646.07	-11.58	-8.88
2008-09	602834	86079.50	142791.38	5730.60	11.29	12.95
2009-10	678436	100485.30	148113.16	5944.17	12.54	16.74
2010-11	813091	129014.60	158671.78	6367.92	19.85	28.39
2011-12	862021	165972.30	192538.58	7727.08	6.02	28.65
2012-13	928215	188562.60	203145.39	8152.76	7.68	13.61
2013-14	983756	302132.60	307121.48	12325.60	5.98	60.23
2014-15	1051243	334416.10	318114.90	12766.79	6.86	10.69
2015-16	945892	304208.30	321610.00	12907.06	-10.02	-9.03
2016-17	1134948	378709.00	333679.60	13391.45	19.99	24.49
2017-18	1377244	451068.90	327515.60	13144.07	21.35	19.11
2018-19	1392559	465893.70	334559.40	13426.74	1.11	3.29
2019-20	1289651	466628.50	361825.41	14520.99	-7.39	0.16
2020-21	1149510	437209.80	380344.49	15264.21	-10.87	-6.30
2021-22	1369264	575864.80	420565.21	16878.37	19.12	31.71
2022-23	1735286	639691.40	368637.45	14794.38	26.73	11.08

Note : N.A.: Not available.

Source : 1. Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India. (http:// eands.dacnet.nic.in)

2. The Marine Products Export Development Authority (MPEDA), Ministry of Commerce & Industry, Govt. of India. https://mpeda.gov.in/?page_id=438

Table 7.10: Quantity of marine products exported and foreign exchange earned

(Quantity: 000't, Value: million ₹)

Year	Quantity	Value	Annual growth rate (%)	
			Quantity	Value
1993-94	257.98	25518.90	22.39	46.40
1994-95	320.91	35366.40	24.39	38.59
1995-96	327.37	33811.30	2.01	-4.40
1996-97	394.55	40076.30	20.52	18.53
1997-98	398.20	44867.60	0.93	11.96
1998-99	311.26	43685.50	-21.83	-2.63
1999-00	390.74	51245.60	25.53	17.31
2000-01	502.60	63672.90	28.63	24.25
2001-02	468.03	58983.40	-6.88	-7.36
2002-03	527.87	69280.50	12.79	17.46
2003-04	409.49	61056.30	-22.43	-11.87
2004-05	483.52	64692.20	18.10	5.96
2005-06	554.20	70359.10	14.60	8.76
2006-07	611.55	80010.40	10.35	13.71
2007-08	490.06	69266.70	-19.87	-13.43
2008-09	464.90	70663.70	-5.13	2.02
2009-10	678.44	100485.30	45.93	42.20
2010-11	813.09	129014.70	19.85	28.39
2011-12	862.02	165972.30	6.02	28.65
2012-13	928.22	188562.60	7.68	13.61
2013-14	983.76	302132.60	5.98	60.23
2014-15	1051.24	334416.06	6.86	10.69
2015-16	945.89	304208.30	-10.02	-9.03
2016-17	1134.95	378709.00	19.99	24.49
2017-18	1377.24	451068.90	21.35	19.11
2018-19	1392.56	465893.70	1.11	3.29
2019-20	1289.65	466628.50	-7.39	0.16
2020-21	1149.51	437209.80	-10.87	-6.30
2021-22	1369.264	575864.80	19.12	31.71
2022-23	1735.286	639691.40	26.73	11.08

Source : 1. The Marine Products Export Development Authority (MPEDA), Ministry of Commerce & Industry, Govt. of India. https://mpeda.gov.in/?page_id=438

Table 7.11: Quantity and value of export and import of natural resins and gums

(Quantity: t, Value: Lakh ₹)

S. No.	Name of product	Export						Import					
		2019-20		2020-21		2021-22		2019-20		2020-21		2021-22	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
A. Natural resins													
1.	Copal	17.52	26.33	53.52	37.59	24.15	41.75	2055.95	2588.87	1822.83	2384.57	2453.04	3989.20
2.	Dammar batu	10.43	20.46	18.84	42.23	180.70	156.39	15702.24	8440.76	19779.23	12150.45	22552.86	18552.30
3.	Mastic gum	0.13	0.03	0.00	0.00	0.10	0.69	3.36	19.68	3.35	20.28	0.00	0.00
4.	Gum rosin	309.41	283.11	239.09	263.98	322.90	394.22	45843.87	32678.56	39396.14	31254.70	42084.26	50949.89
5.	Lac	7293.47	40551.69	7691.96	57641.20	8334.42	70997.27	840.64	2172.26	632.27	1877.56	1675.54	7620.11
6.	Other resins	31.25	111.78	155.79	358.00	1304.85	103.26	535.40	859.25	1304.42	2570.91	1267.37	3809.57
	Total	**7662.21**	**40993.40**	**8159.20**	**58343.00**	**10167.12**	**71693.58**	**64981.46**	**46759.38**	**62938.24**	**50258.47**	**70033.07**	**84921.07**
B. Gums													
1.	Gum arabic	409.58	550.65	1685.29	1833.11	1225.28	1694.26	32692.22	18490.91	27322.44	17097.91	34240.50	21296.58
2.	Asian gum	535.72	1910.46	408.57	1556.29	595.45	2050.55	35.51	40.48	8.45	9.36	15.68	19.54
3.	African gum	0.81	3.38	0.38	1.77	2.04	6.83	0.00	0.00	3.00	4.33	0.00	0.00
4.	Karaya gum Indian tragacanth	890.34	1376.56	1170.45	1945.47	1006.57	1839.96	2155.47	1561.10	2987.44	2196.57	2921.78	2188.14
5.	Tragacanth (Adracanth)	0.01	0.05	1.24	4.40	0.87	3.27	0.05	0.79	0.00	0.00	0.00	0.00
6.	Xanthum gum	0.16	0.59	1.00	2.16	0.09	0.63	20.31	82.48	2.88	21.56	2.88	21.39
7.	Other natural gums	258.01	428.05	528.19	935.79	509.28	827.89	771.03	1856.29	316.51	1878.56	251.30	1722.61
	Total	**2094.63**	**4269.74**	**3795.12**	**6278.99**	**3339.58**	**6423.39**	**35674.59**	**22032.05**	**30640.72**	**21208.29**	**37432.14**	**25248.26**
C. Gum resins													
1.	Asafoetida	1054.77	6118.87	1496.20	9241.36	1224.04	7165.44	1539.80	94243.62	1398.76	78941.66	1476.29	77248.14
2.	Myrrh	1.45	8.43	2.05	17.01	3.72	50.61	22.09	84.95	34.45	157.25	76.70	732.90
3.	Oilbanum or Frankincence	97.39	255.81	169.86	353.54	154.76	624.57	172.55	239.46	618.29	938.92	274.83	795.86
4.	Other gum resins	29.07	122.13	32.11	187.98	41.29	135.25	396.57	1126.68	334.94	1160.53	245.67	990.80
	Total	**1182.68**	**6505.24**	**1700.22**	**9799.89**	**1423.81**	**7975.87**	**2131.01**	**95694.71**	**2386.44**	**81198.36**	**2073.49**	**79767.70**
D. Seed Gums													
1.	Guar gum refined split	0.00	0.00	0.00	0.00	228115.10	277292.40	0.00	0.00	0.00	0.00	0.00	0.00
2.	Guar gum treated and pulverized	235604.00	263980.70	167308.23	163743.01	21550.60	9978.65	484.08	1956.39	323.32	1079.18	176.35	588.34
3.	Cassia tora seeds	33049.00	9624.00	38476.00	16384.00	1774.84	2633.73	192.00	89.72	2485.05	593.93	11156.50	2776.64

S. No.	Name of product	Export						Import					
		2019-20		2020-21		2021-22		2019-20		2020-21		2021-22	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
4.	Psyllium seed	1696.00	2775.00	1449.00	2432.00	857.95	469.72	0.00	0.00	0.00	0.00	18.00	31.69
5.	Flour meal & powder of tamarind	151.74	194.36	775.25	370.34	252298.50	290374.50	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**270500.17**	**276573.20**	**208008.22**	**182928.76**	**267229.00**	**376467.40**	**676.08**	**2046.11**	**2808.37**	**1673.11**	**11350.85**	**3396.67**
	Grand Total	**281439.69**	**328341.58**	**221662.76**	**257350.64**	**228115.10**	**277292.40**	**103463.14**	**166532.25**	**98773.77**	**154338.23**	**120889.55**	**193333.70**

Source : 1. Directorate General of Commercial Intelligence & Statistics, Kolkata.
2. Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

Table 7.12: Quantity and value of export and import of Lac and its value added products

(Quantity: t, Value: Lakh ₹)

Year	Export										Import
	Grade→	Shellac & button lac	Seedlac	Dewaxed shellac	Aleuritic Acid	Bleached lac	Gasket shellac	Shellac wax	Other	Total	Lac
2014-15	**Quantity**	3261.44	2690.29	183.02	181.12	142.89	N.A.	15.2	95.22	6569.17	367.02
	Value	14650.36	8770.25	1250.94	5909.11	1048.13	N.A.	116.28	504.52	32249.58	447.39
2015-16	**Quantity**	3798.80	3091.06	150.57	168.50	225.34	6.48	14.20	213.49	7668.42	100.71
	Value	11619.82	6225.18	775.23	3669.51	1275.90	16.50	64.21	1108.83	24755.18	92.31
2016-17	**Quantity**	3273.16	3151.45	274.81	151.76	385.06	N.A.	4.49	0.05	7240.78	309.00
	Value	8556.63	6109.30	1268.07	2658.47	2068.67	N.A.	28.7	0.08	20689.92	767.63
2017-18	**Quantity**	3315.99	2925.65	185.23	157.23	291.07	3.46	10.88	0.00	6889.48	300.00
	Value	9573.36	6961.16	985.45	3216.44	1700.17	10.05	90.71	0.00	22590.00	250.00
2018-19	**Quantity**	3730.68	3515.60	352.31	155.75	306.16	5.18	5.70	154.00	8225.39	600.00
	Value	10100.7	7939.59	1864.49	3537.8	1830.6	14.32	53.58	24.23	25365.37	720.00
2019-20	**Quantity**	3107.64	3577.14	308.50	81.02	216.02	N.A.	3.15	0.01	7293.47	840.64
	Value	15164.15	18730.29	2462.89	2079.99	2077.79	N.A.	35.90	0.69	40551.69	2172.26
2020-21	**Quantity**	N.A.	N.A.	N.A.	183.16	N.A.	N.A.	9.39	1.14	7691.96	632.27
	Value	N.A.	N.A.	N.A.	7315.30	N.A.	N.A.	51.41	26.09	57641.20	1877.56
2021-22	**Quantity**	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	8334.42	632.27
	Value	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	70997.27	1877.56

Note : N.A.: Not available.
Source : 1. Directorate General of Commercial Intelligence & Statistics, Kolkata. (www.dgciskol.nic.in)
2. Shellac and Forest Products Export Promotion Council, Kolkata.
3. Information received from ICAR-Indian Institute of Natural Resins and Gums, Namkum, Ranchi.

Table 7.13: Production, import and consumption of fertilizers

(000't)

Year	2007-08	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Nitrogenous fertilizers												
Production	10900	12194	12378	12394	13416	13354	13386	13344	13685	13715	13839	15737.8
Imports	3677	4690	3808	4766	5068	3388	3588	4701	5191	5633	5359	5218.4
Consumption	14419	16821	16750	16945	17372	16735	16958	17628	19101	20404	19438	20206
Phosphatic fertilizers												
Production	3807	3830	3960	4121	4394	4595	4723	4594	4791	4739	4714	5009.5
Imports	1253	2778	1590	1832	2888	2129	2047	3167	2413	2543	2781	3781.3
Consumption	5515	6653	5633	6098	6979	6705	6854	6968	7662	8978	7828	7821
Potassic fertilizers												
Production	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Imports	2653	1230	1333	2537	2053	2318	2895	2629	2280	2670	1630	1463.0
Consumption	2636	2062	2099	2532	2402	2508	2779	2779	2607	3154	2529	1716
All fertilizers (NPK)												
Production	14707	16024	16338	16515	17810	17949	18109	17938	18476	18454	18553	20747.3
Imports	7583	8698	6731	9135	10009	7835	8530	10497	9884	10846	9770	10462.7
Consumption	22570	25536	24482	25576	26753	25949	26591	27375	29369	32536	29796	29743
C & F Values of Urea Imports (₹ Crore)	**8334.65**	**15980.22**	**14987.95**	**12035.26**	**13984.93**	**7024.32**	**8350.94**	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**N.A.**

Note : 1. Figures relate to imports made on government account only, 2. N.A.: Not available

Source : 1. *Agricultural Statistics at a Glance 2022,* Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (https://agricoop.nic.in/en/Agricultural_Statistics_at_a_Glance)

2. *Fertilizer Statistics 2022-2023,* The Fertilizer Association of India, New Delhi.

Table 7.14: Import of fertilizer materials

(Quantity: 000't)

Year	Ammonium sulphate (20.6% N)	Urea (46%N)	CAN (26%N)	DAP (18-46-0)	TSP (0-46-0)	MOP (60% K_2O)	SOP (50% K_2O)
2000-01	-	-	-	861.0 (78.1$)	-	2646.0	12.8
2001-02	-	220.0	-	932.7 (125.2$)	-	2810.2	22.2
2002-03	-	119.4**	-	383.2 (99.9$)	-	2603.2	13.0
2003-04	-	143.1**	-	734.1 (65.0$)	-	2579.3	10.5
2004-05	-	641.0	-	643.6 (21.6$)	-	3409.5	25.2
2005-06	-	2056.8	-	2437.7 (45.0$)	-	4577.5	35.1
2006-07	24.8	4718.8	-	2875.4 (97.2$)	-	3448.4	13.1
2007-08	-	6928.0	5.0	2723.6 (266.0$)	-	4420.8	31.6
2008-09	23.0	5667.0	2.5	6191.7 (266.9$)	173.1	5671.7	27.3
2009-10	35.6	5210.0	11.5	5888.9 (193.4$)	87.0	5286.5	37.1
2010-11	26.0	6610.0	-	7411.0 (188.0$)	98.0	6357.0	36.0
2011-12	36.0	7834.0	-	6905.2 (493.7$)	159.7	3984.6	54.0
2012-13	1.4	8044.0	-	5702.3 (152.2$)	-	2496.1	29.5
2013-14	2.9	7088.0	-	3261.1 (38.6$)	-	3180.0	57.5
2014-15	155.3	8749.0	-	3853.0 (136.0$)	-	4197.0	78.0
2015-16	50.9	8474.0	-	6008.0 (22.0$)	-	3243.0	45.4
2016-17	114.6	5481.0	-	4385.0 (-)$	-	3736.0	46.0
2017-18	137.9	5975.0	-	4217.0 (-)$	-	4736.0	68.1
2018-19	76.3	7481.0	-	6602.0 (-)$	-	4214.0	39.2
2019-20	84.5	9123.0	-	4870.0 (-)$	-	3670.0	58.8
2020-21	140.1	9829.0	-	4882.0 (-)$	-	4227.0	62.0
2021-22	121.0	9136.0	-	5462.0 (-)$	-	2460.0	56.5
2022-23*	421.5	7582.0	-	6583.0(254. 0$)		1866.0	64.8

Note : 1. $: Mono ammonium phosphate (11-52-0), 2. *: Provisional, 3. **: Used for manufacture of Complex Fertilizers, 4. CAN: Calcium ammonium nitrate, 5. DAP: Diammonium Phosphate, 6. TSP: Triple Superphosphate, 7. MOP: Muriate of Potash 8. SOP: Sulfate of Potash, 9. -: Not available.

Source : *Fertilizer Statistics 2022-2023,* The Fertilizer Association of India, New Delhi.

भाकृअनुप
ICAR

भाग-VIII
विश्व कृषि में भारत का स्थान

SECTION-VIII
India's Position in World Agriculture

भाकृअनुप
ICAR

Table 8.1: India's position in World agriculture in 2021

Item	India	World	India's		Next to
			% Share	Rank	
1. Area (million ha)					
Total area	328.73	14085.63	2.33	VII	Russian Federation, Canada, USA, China, Brazil, Australia
Land area	297.32	13014.61	2.28	VII	Russian Federation, China, USA, Canada, Brazil, Australia
Arable land	154.45	1396.67	11.06	II	U.S.A.
Agriculture	178.53	4817.70	3.71	VII	China, USA, Australia, Brazil, Russian Federation, Kazakhstan
2. Population (million)					
Total	1407.56	7909.30	17.80	II	China
Rural	902.83	3417.05	26.42	**I**	
3. Crop production (million t)					
(A) Total Cereals	355.11	3071.26	11.56	III	China, USA
Wheat	109.59	772.78	14.18	II	China
Rice (Paddy)	194.20	789.05	24.61	II	China
(B) Total Pulses	25.73	89.65	28.70	**I**	
(C) Oilseeds					
Groundnut (excluding shelled)	10.24	54.49	18.79	II	China
Rapeseed	2.98	26.58	11.21	IV	Canada, Germany, China
(D) Fruits & Vegetables					
Fruits	107.82	922.66	11.69	II	China
Vegetables	138.41	1160.57	11.93	II	China
Potatoes	54.23	373.79	14.51	II	China
Onion (Dry)	26.64	106.75	24.96	**I**	
(E) Commercial crops					
Sugarcane	405.40	1861.93	21.77	II	Brazil
Tea	5.86	30.27	19.36	II	China
Coffee (green)	0.33	10.50	3.14	IX	Brazil, Vietnam, Colombia, Indonesia, Ethiopia, Honduras, Uganda, Peru
Jute	1.61	3.50	46.00	II	Bangladesh
Tobacco Unmanufactured	0.76	5.88	12.93	II	China
4. Livestock (million heads)*					
Cattle	194.93	1523.29	12.80	II	Brazil
Buffaloes	109.74	201.18	54.55	**I**	
Sheep	75.60	1264.09	5.98	II	China
Goats	150.63	1115.29	13.51	**I**	
Chicken	824.33	25562.87	3.22	VII	China, Indonesia, USA, Brazil, Pakistan, Iran (Islamic Republic of)
5. Animal products (million t)					
Total Milk	221.10	940.61	23.51	**I**	
Total Eggs (Primary)	6.71	93.30	7.19	II	China
Total Meat	10.23	354.54	2.89	V	China, USA, Brazil, Russian Federation

Note : *: Data relates to year 2020.

Source : 1. FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data),

2. *Agricultural Statistics at a Glance 2022*, Economics & Statistics Division, Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India. (Website: https://agricoop.nic.in).

Table 8.2: Area and production of principal crops in the World and India's share

(Area: million ha, Production: million t)

Crop	Area					Production				
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Rice	163.24	163.86	160.34	164.57	166.31	751.03	765.68	753.80	772.54	789.05
	(26.82)	(26.95)	(27.23)	(27.81)	(27.83)	(22.52)	(22.82)	(23.65)	(24.14)	(24.61)
Wheat	218.27	213.98	215.75	217.89	220.43	772.89	732.36	764.05	757.02	772.78
	(14.10)	(13.86)	(13.59)	(14.39)	(14.12)	(12.75)	(13.64)	(13.56)	(14.25)	(14.18)
Maize	198.57	195.25	193.68	199.28	205.69	1140.32	1124.33	1137.73	1155.75	1208.00
	(4.85)	(4.80)	(4.66)	(4.80)	(4.81)	(2.27)	(2.56)	(2.44)	(2.49)	(2.62)
Total cereals	728.12	722.30	717.24	732.46	739.67	2967.14	2914.53	2963.50	3003.64	3071.26
	(13.67)	(13.58)	(13.26)	(13.80)	(13.73)	(10.50)	(11.03)	(10.97)	(11.39)	(11.56)
Total pulses	97.32	96.03	89.32	91.01	94.15	94.90	90.86	84.81	90.61	89.65
	(35.84)	(36.12)	(34.78)	(34.65)	(36.02)	(25.01)	(28.07)	(25.41)	(25.79)	(28.70)
Groundnut (except shelled)	29.32	29.82	29.43	30.28	32.65	48.74	51.84	49.24	54.41	54.49
	(18.2)	(16.39)	(16.07)	(15.94)	(18.42)	(15.31)	(17.85)	(13.66)	(18.29)	(18.80)
Tobacco unmanufactured	26.09	26.34	26.94	26.07	25.77	1833.73	1930.73	1956.29	1877.81	1861.93
	(17.00)	(17.99)	(18.79)	(17.65)	(18.82)	(16.69)	(19.68)	(20.72)	(19.73)	(21.77)
Sugarcane	3.38	3.27	3.34	3.17	3.17	6.27	6.04	6.50	5.82	5.88
	(12.77)	(13.09)	(12.72)	(13.39)	(13.4)	(11.88)	(12.31)	(11.51)	(13.03)	(13.00)

Note : Figures in parenthesis denote India's share to World area and production of principal crops.

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

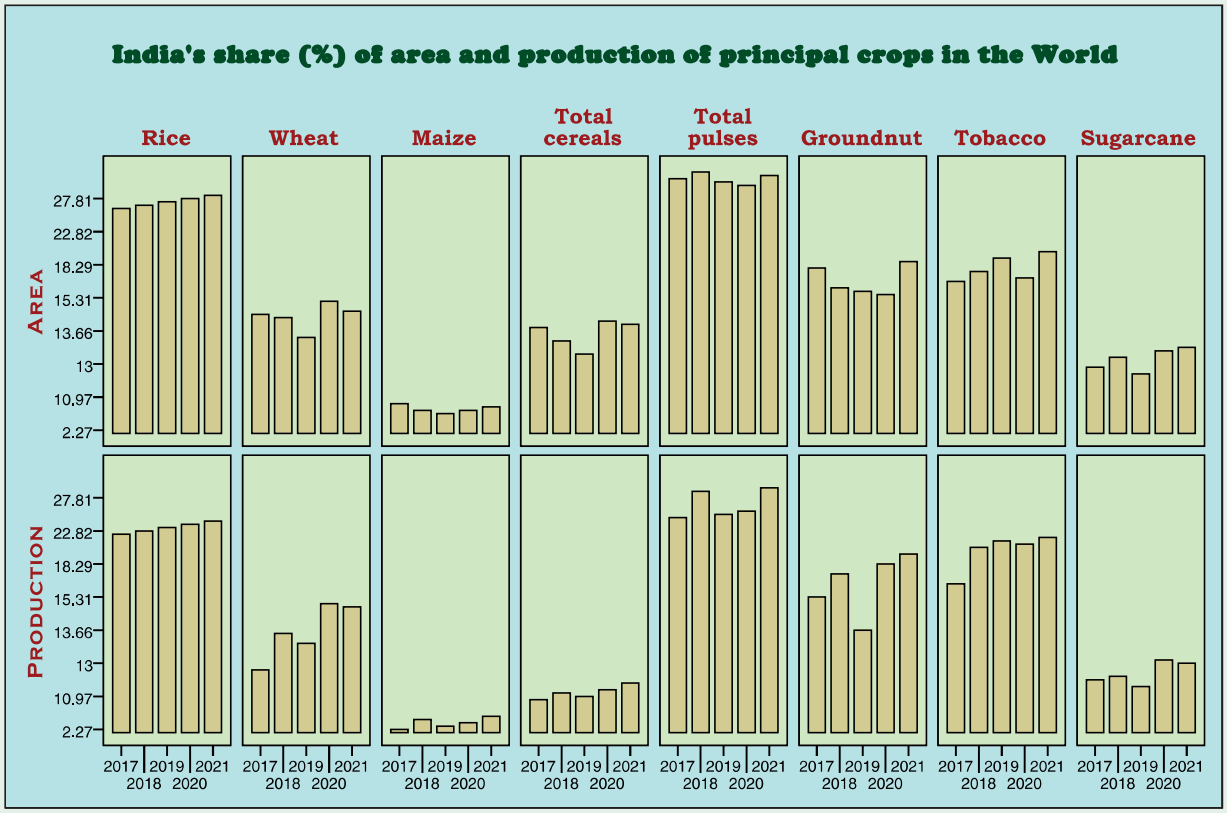


Table 8.3: Rank of India in World production and consumption of fertilizer nutrients in 2021

(Production & Consumption: million t)

Fertilizer	Country	Production	India's Rank in World	Country	Consumption	India's Rank in World
Nitrogen (N)	World	118.5		World	109.2	
	China	28.0		China	22.6	
	India	**13.9**	**II**	**India**	**19.4**	**II**
	USA	12.7		USA	11.2	
Phosphate (P_2O_5)	World	48.3		World	47.8	
	China	15.9		China	11.6	
	Morocco	5.4		**India**	**7.8**	**II**
	USA	5.1		Brazil	7.0	
	India	**4.7**	**IV**	**USA**	3.3	
Potash (K_2O)	**India**	**-**	*	World	38.4	
				China	8.2	
				Brazil	8.0	
				USA	3.8	
				India	**2.5**	**IV**
$N+P_2O_5+K_2O$	World	166.8$		World	195.4	
	China	43.9$		China	42.4	
	India	**18.6$**	**II**	**India**	**29.7**	**II**
	USA	17.8$		USA	18.3	

Note : 1. *: There is no known source of K_2O in India, 2. P_2O_5 includes ground rock phosphate for direct application, 3. $: $N+P_2O_5$.

Source : *Fertilizer Statistics 2022-23,* The Fertilizer Association of India, New Delhi.

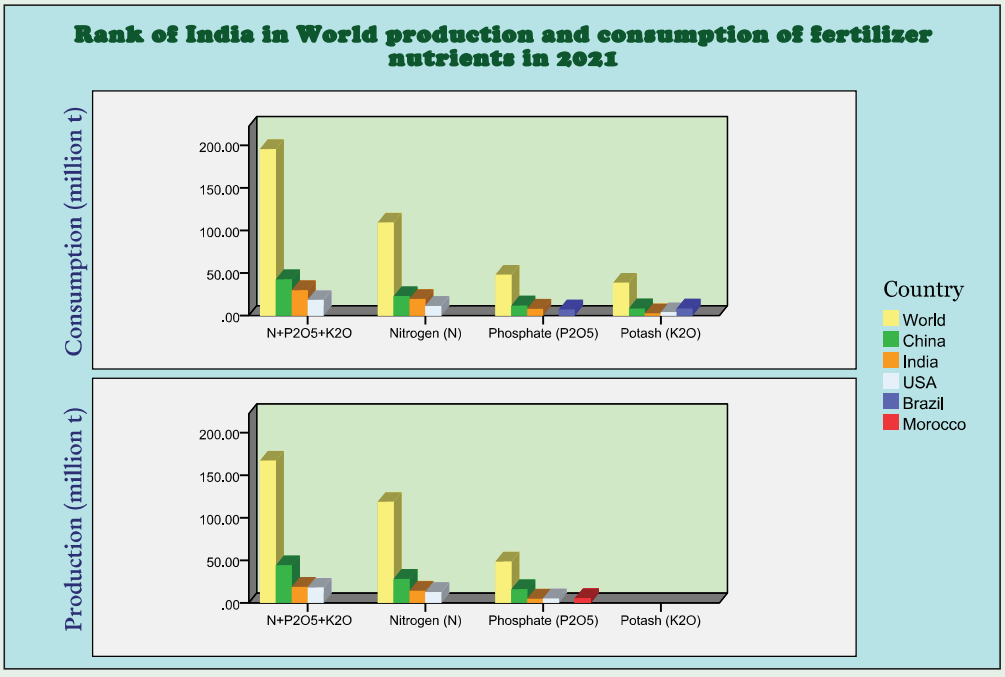


Table 8.4: Fertilizer consumption per hectare of agricultural land in selected countries in 2020 and 2021

(kg)

Continent/Country	2020				2021			
	N	P_2O_5	K_2O	Total	N	P_2O_5	K_2O	Total
Africa								
Egypt	339.4	56.0	21.8	417.1	328.9	19.4	31.0	379.3
Morocco	6.9	3.5	2.2	12.6	3.8	4.5	2.2	10.5
South Africa	5.5	2.0	2.8	10.4	8.4	2.7	2.8	14.0
North America								
Canada	51.4	19.7	15.5	86.6	47.8	18.1	14.2	80.1
USA	29.2	9.3	11.2	49.7	27.5	8.1	9.4	45.0
Latin America and the Caribbean								
Brazil	22.7	24.5	28.3	75.5	25.7	29.3	33.4	88.4
Chile	21.0	12.5	10.4	43.9	23.0	13.5	15.7	52.2
Mexico	17.2	4.7	3.8	25.7	17.0	4.9	3.9	25.9
Asia								
Bangladesh	140.5	90.9	46.1	277.4	152.3	111.1	45.3	308.7
China (Mainland)	45.5	21.9	19.7	87.1	43.3	22.2	15.7	81.3
India	**114.3**	**50.3**	**17.7**	**182.2**	**108.9**	**43.9**	**14.2**	**166.9**
	(94.4)	**(41.5)**	**(14.6)**	**(150.6)**	**(89.9)**	**(36.2)**	**(11.7)**	**(137.9)**
Indonesia	48.8	20.0	29.2	98.0	51.2	22.1	37.7	111.0
Japan	76.0	68.8	44.8	189.6	74.9	64.1	53.5	192.5
Korea Republic	218.9	84.1	218.3	521.3	229.1	91.0	257.4	577.5
Malaysia	55.5	36.3	110.1	201.9	49.3	36.6	154.2	240.1
Myanmar	40.8	17.1	16.2	74.1	28.4	7.1	9.1	44.6
Nepal	25.5	14.5	3.7	43.8	34.7	13.6	0.0	48.3
Pakistan	101.0	33.0	1.9	135.8	105.6	29.6	2.0	137.2
Sri Lanka	60.5	20.8	37.9	119.1	32.8	8.5	30.1	71.4
Thailand	60.2	20.6	24.4	105.2	54.9	20.6	26.1	101.6
Turkey	54.4	20.2	3.0	77.6	46.9	16.6	4.0	67.6
Vietnam	110.6	55.5	55.2	221.3	116.2	51.8	43.9	211.9
Europe								
Belarus	55.8	12.2	55.5	123.5	52.4	11.8	52.3	116.5
Denmark	94.0	13.0	22.0	129.0	78.0	10.8	23.7	112.5
France	56.6	14.7	16.8	88.0	63.4	11.2	13.0	87.5
Germany	76.3	11.6	26.9	114.7	72.3	9.8	21.4	103.5
Netherlands	107.6	5.1	27.1	139.8	102.4	5.1	27.1	134.6
Poland	70.5	23.5	38.6	132.6	64.8	20.7	34.5	120.0
Russian Fed.	14.4	5.2	3.6	23.2	12.5	5.0	3.8	21.3
Spain	37.9	16.7	17.0	71.6	30.0	13.1	13.2	56.4
Ukraine	44.5	8.8	7.5	60.8	46.4	10.3	8.3	64.9
United Kingdom	58.8	9.9	15.4	84.1	50.1	6.4	11.4	68.0
Oceania								
Australia	4.4	2.8	1.0	8.1	5.3	3.2	1.0	9.4
New Zealand	43.5	33.0	15.4	91.9	39.2	32.4	14.5	86.1
World	**23.5**	**10.2**	**8.5**	**42.2**	**22.8**	**10.0**	**8.0**	**40.8**

Note : Figures in parenthesis indicate fertilizer consumption per hectare of gross cropped area. Data for gross cropped area pertains to 2020-21.

Source : *Fertilizer Statistics 2022-23,* The Fertilizer Association of India, New Delhi.

Table 8.5: Fertilizer consumption and yield of principal crops in selected countries in 2021 (Provisional)

(kg)

Continent/ Country	Fertilizer consumption ($N+P_2O_5+K_2O$)			Yield per ha@			
	Per ha of		Per capita of agricultural population$	Paddy	Wheat	Maize	Potato
	Agriculture land	Arable land & land under permanent crop					
Africa							
Egypt	379.3	379.3	67.9	10203	6454	7302	26276
Morocco	10.5	34.3	39.2	6737	2634	531	31704
South Africa	14.0	108.4	282.5	2844	4312	5410	37222
North America							
Canada	80.1	118.8	7378.0	-	2411	10057	41333
USA	45.0	113.9	3623.8	8640	2978	11111	49073
Latin America and the Caribbean							
Brazil	88.4	320.7	1034.6	6903	2863	4650	33099
Chile	52.2	305.1	244.5	6361	5982	11811	27375
Mexico	25.9	109.7	125.6	6381	5994	3852	31778
Asia							
Bangladesh	308.7	328.2	46.5	4867	3300	8579	21095
China	81.3	330.9	51.0	7114	5811	6291	16315
India	**166.9**	**177.3 (137.9)**	**50.1**	**4214**	**3467**	**3210**	**24124**
Indonesia	111.0	133.8	80.7	5226	-	5724	18960
Japan	192.5	206.3	355.0	7497	4986	2679	30528
Korea Rep.	577.5	598.4	448.1	7114	5000	5132	25518
Malaysia	240.1	248.4	618.9	3745	-	7435	-
Nepal	48.3	85.6	7.0	3815	2992	3060	16728
Pakistan	137.2	159.2	66.7	3953	2996	6436	25064
Sri Lanka	71.4	84.6	22.2	4571	-	4425	16419
Thailand	101.6	105.2	85.1	2987	1059	4417	18740
Turkey	67.6	109.7	181.0	7724	2665	8905	36820
Vietnam	211.9	223.6	47.0	6074	-	4937	16538
Europe							
Belarus	116.5	166.5	1165.6	-	3361	5171	19270
Denmark	112.5	123.5	2149.6	-	7527	7073	42253
France	87.5	131.8	2055.6	5072	6928	9912	42475
Germany	103.5	144.8	1391.7	-	7302	10361	43794
Netherlands	134.6	234.5	614.4	-	8018	9966	41974
Poland	120.0	151.8	315.2	-	4975	7333	30028
Russian Fed.	21.3	37.1	409.1	5777	2724	5252	16019
Spain	56.4	89.0	756.4	7288	4024	12833	32887
Ukraine	64.9	79.4	2956.6	4899	4533	7682	16643
UK	68.0	193.2	233.2	-	7815	-	38735
Oceania							
Australia	9.4	108.4	3946.6	9382	2525	6682	40337
New Zealand	86.1	1270.1	2608.3	-	9712	11400	50826
World	**40.8**	**123.7**	**74.6**	**4764**	**3492**	**5879**	**20743**

Note : 1. $: Based on agricultural population 2011, 2. @: Yield figures have been rounded, 3. Figure in parenthesis denotes fertilizer consumption per hectare of gross cropped area. Data for gross cropped area pertains to 2020-21.

Source : *Fertilizer Statistics 2022-23,* The Fertilizer Association of India, New Delhi.

Table 8.6: Major cereals and pulses producing countries in the World in 2021

(Area: million ha, Production: million t, Yield: t/ha)

Country	Total Cereals			Country	Total Pulses		
	Area	Production	Yield		Area	Production	Yield
China	100.14	632.59	6.32	**India**	**33.91**	**25.73**	**0.76**
USA	54.73	451.64	8.25	**China**	2.62	4.79	1.83
India	**101.52**	**355.11**	**3.50**	**Canada**	3.43	4.29	1.25
Russian Fed.	43.46	117.58	2.71	**Nigeria**	5.19	4.28	0.82
Brazil	25.02	112.04	4.48	**Russian Fed.**	2.01	3.84	1.91
Argentina	16.89	87.69	5.19	**Australia**	2.38	3.77	1.58
Ukraine	15.65	85.37	5.45	**Myanmar**	3.82	3.62	0.95
Indonesia	13.40	71.43	5.33	**Ethiopia**	1.64	3.13	1.90
France	9.33	66.88	7.17	**Brazil**	2.64	2.91	1.10
Bangladesh	12.52	61.60	4.92	**Tanzania***	1.67	1.98	1.19
Others	347.00	1029.34	2.97	**Others**	34.83	31.30	0.90
World	**739.67**	**3071.26**	**4.15**	**World**	**94.15**	**89.65**	**0.95**

Note : *: United Republic of Tanzania.

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

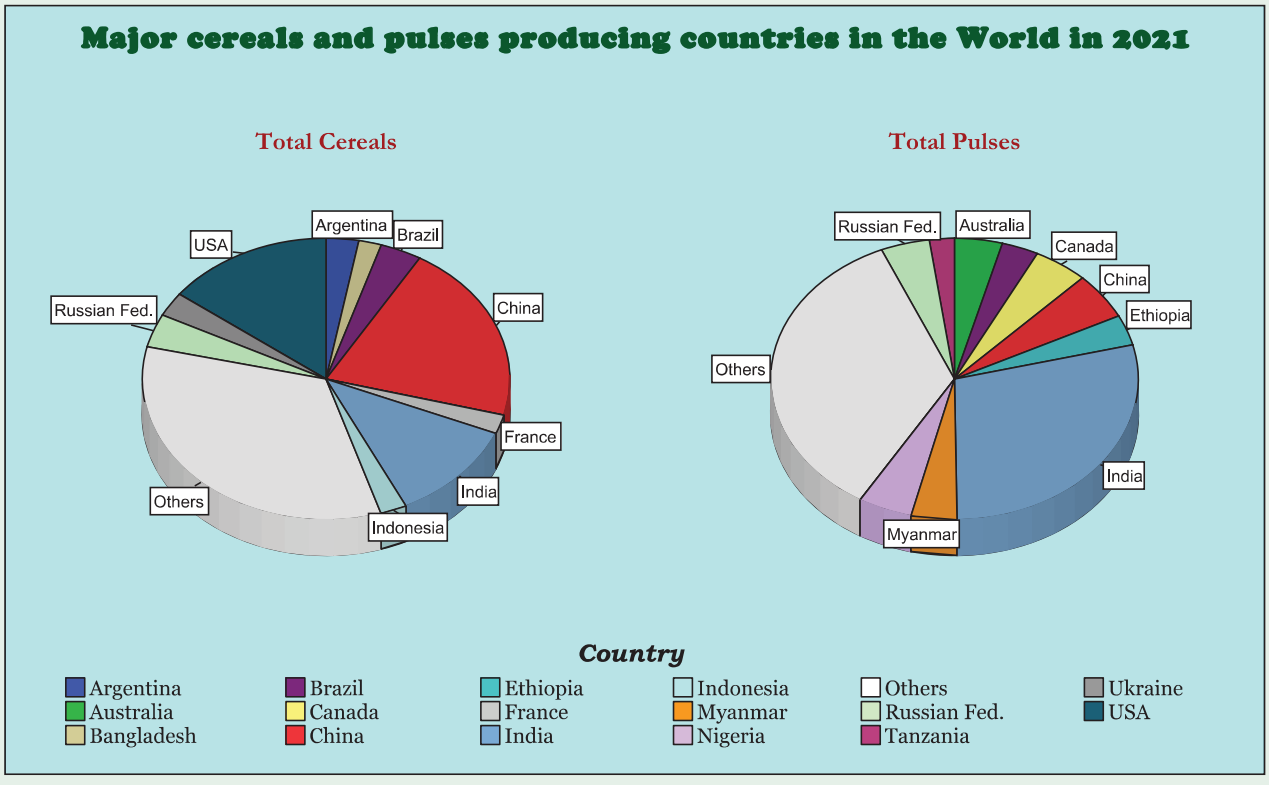
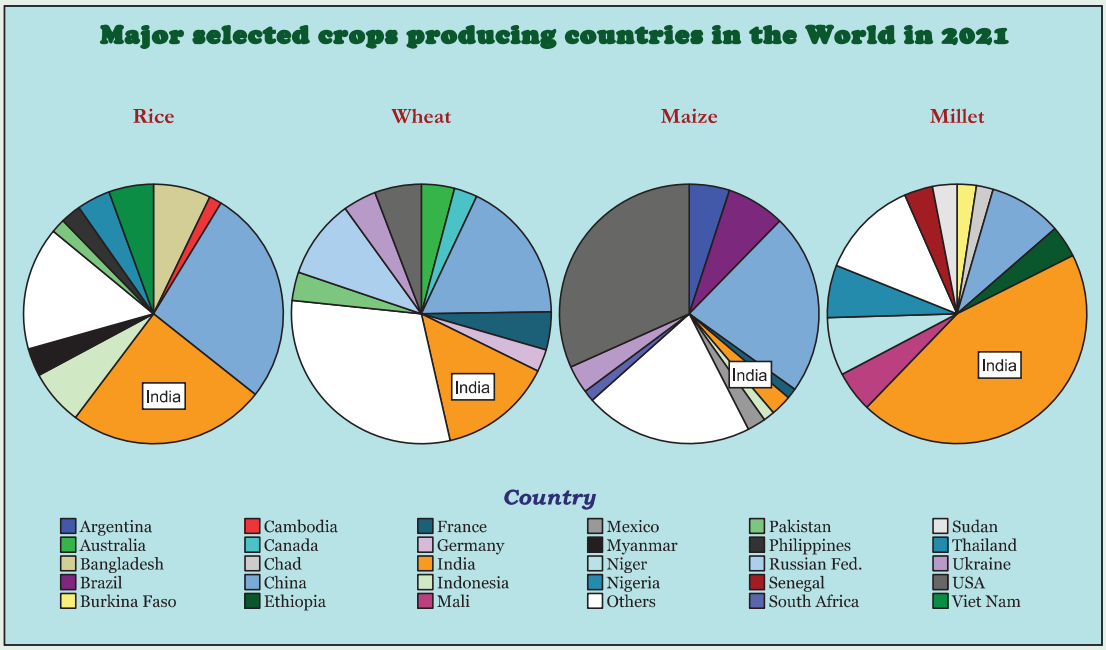


Table 8.7: Major selected crops producing countries in the World in 2021

(Area: million ha, Production: million t, Yield: t/ha)

Country	Rice			Country	Wheat		
	Area	Production	Yield		Area	Production	Yield
China	29.92	212.84	7.11	China	23.57	136.95	5.81
India	**46.28**	**194.20**	**4.20**	**India**	**31.13**	**109.59**	**3.52**
Bangladesh	11.70	56.38	4.82	Russian Fed.	27.92	76.06	2.72
Indonesia	10.41	54.42	5.23	USA	15.03	44.80	2.98
Viet Nam	7.22	43.85	6.07	France	5.28	36.56	6.93
Thailand	11.16	32.98	2.95	Ukraine	7.10	32.18	4.53
Myanmar	7.04	27.44	3.90	Australia	12.64	31.92	2.52
Philippines	4.81	19.96	4.15	Pakistan	9.17	27.46	3.00
Pakistan	3.54	13.98	3.95	Canada	9.20	22.42	2.44
Cambodia	3.50	12.21	3.49	Germany	2.94	21.46	7.30
Others	30.73	120.78	3.93	Others	76.46	233.37	3.05
World	**166.31**	**789.05**	**4.74**	World	**220.43**	**772.78**	**3.51**

Country	Maize			Country	Millet		
	Area	Production	Yield		Area	Production	Yield
USA	34.53	382.89	11.09	**India**	**9.26**	**13.21**	**1.43**
China	43.32	272.55	6.29	China	0.90	2.70	3.00
Brazil	18.98	88.27	4.65	Niger	6.15	2.15	0.35
Argentina	8.15	60.53	7.43	Nigeria	1.77	1.93	1.09
Ukraine	5.48	42.11	7.68	Mali	2.08	1.49	0.72
India	**9.89**	**31.65**	**3.20**	Ethiopia	0.46	1.17	2.55
Mexico	7.14	27.50	3.85	Senegal	0.97	1.04	1.07
Indonesia	2.99	17.02	5.70	Sudan	2.81	0.90	0.32
South Africa	3.12	16.95	5.44	Burkina Faso	0.98	0.71	0.72
France	1.55	15.36	9.91	Chad	1.12	0.62	0.56
Others	70.54	253.17	3.59	Others	3.65	3.66	1.00
World	**205.69**	**1208.00**	**5.87**	World	**30.13**	**29.57**	**0.98**



(Area: million ha, Production: million t, Yield: t/ha)

Country	Sugarcane			Country	Chick Pea		
	Area	Production	Yield		Area	Production	Yield
Brazil	9.97	715.68	71.77	**India**	10.00	11.91	1.19
India	**4.85**	**405.40**	**83.57**	**Australia**	0.61	0.88	1.45
China	1.13	106.66	94.59	**Ethiopia**	0.23	0.48	2.08
Pakistan	1.26	88.65	70.34	**Türkiye**	0.48	0.48	0.99
Thailand	1.49	66.73	44.92	**Myanmar**	0.35	0.46	1.31
Mexico	0.81	55.25	68.26	**Russian Fed.**	0.31	0.32	1.01
Colombia	0.35	33.97	98.29	**Pakistan**	0.88	0.23	0.27
Indonesia	0.45	32.20	71.71	**Mexico**	0.09	0.17	1.87
Australia	0.36	31.13	85.93	**Iran (IR)$**	0.44	0.17	0.38
USA	0.38	29.79	78.71	**Tanzania#**	0.16	0.15	0.96
Others	4.73	296.47	62.63	**Others**	0.59	0.69	1.17
World	**25.77**	**1861.93**	**72.24**	**World**	**14.14**	**15.94**	**1.13**

Country	Soybean			Country	Groundnut (excluding shelled)		
	Area	Production	Yield		Area	Production	Yield
Brazil	39.13	134.80	3.45	**China**	4.81	18.31	3.81
USA	34.93	121.53	3.48	**India**	**6.01**	**10.24**	**1.70**
Argentina	16.47	46.22	2.81	**Nigeria**	3.70	4.23	1.14
China	8.40	16.40	1.95	**USA**	0.62	2.89	4.63
India	**12.92**	**12.61**	**0.98**	**Sudan**	3.94	2.36	0.60
Paraguay	3.64	10.54	2.89	**Myanmar**	1.19	1.71	1.44
Canada	2.08	6.22	2.99	**Senegal**	1.21	1.68	1.38
Russian Fed.	2.99	4.76	1.59	**Argentina**	0.40	1.27	3.15
Ukraine	1.32	3.49	2.64	**Guinea**	0.79	0.91	1.15
Bolivia (PS)*	1.43	3.32	2.32	**Chad**	0.75	0.80	1.06
Others	7.17	12.97	1.81	**Others**	9.23	10.11	1.10
World	**130.48**	**372.85**	**2.86**	**World**	**32.65**	**54.49**	**1.67**

Note : 1. *: Bolivia (Plurinational State of), 2. #: United Republic of Tanzania, 3. $: Iran (Islamic Republic of).

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

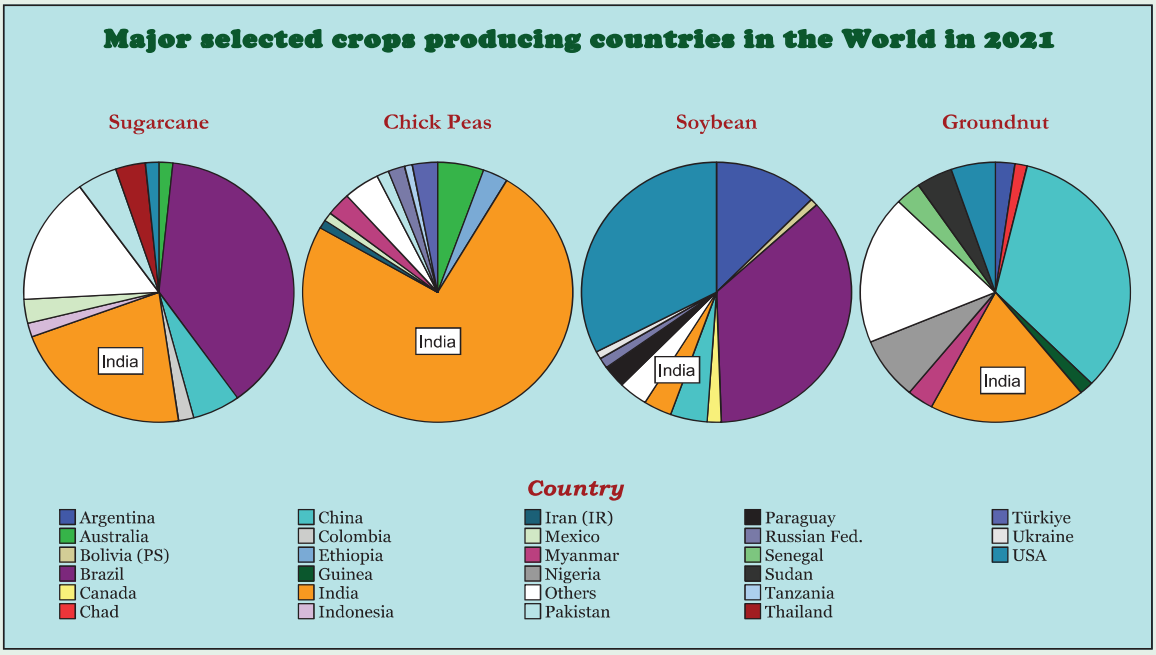


Table 8.8: Major fruits and vegetables producing countries in the World in 2021

(Area: million ha, Production: million t, Yield: t/ha)

Country	Fruits			Country	Vegetables		
	Area	Production	Yield		Area	Production	Yield
China	15.60	257.44	16.50	**China**	23.35	603.79	25.86
India	**7.37**	**107.82**	**14.63**	**India**	**8.93**	**138.41**	**15.50**
Brazil	2.29	41.29	18.00	**USA**	0.82	27.64	33.65
Türkiye	1.34	25.11	18.71	**Türkiye**	0.68	26.65	39.38
Mexico	1.59	23.69	14.92	**Viet Nam**	1.02	17.33	17.05
Indonesia	0.89	23.52	26.38	**Egypt**	0.62	15.95	25.89
USA	1.06	22.83	21.46	**Nigeria**	4.08	15.76	3.86
Spain	1.55	19.03	12.25	**Mexico**	0.69	14.76	21.29
Italy	1.13	17.19	15.27	**Spain**	0.34	13.54	40.10
Iran (IR)*	1.00	16.99	17.06	**Russian Fed.**	0.47	13.03	27.83
Others	33.52	367.77	10.97	**Others**	16.89	273.73	16.21
World	**67.34**	**922.66**	**13.70**	**World**	**57.89**	**1160.57**	**20.05**

Note : *: Iran (Islamic Republic of)

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

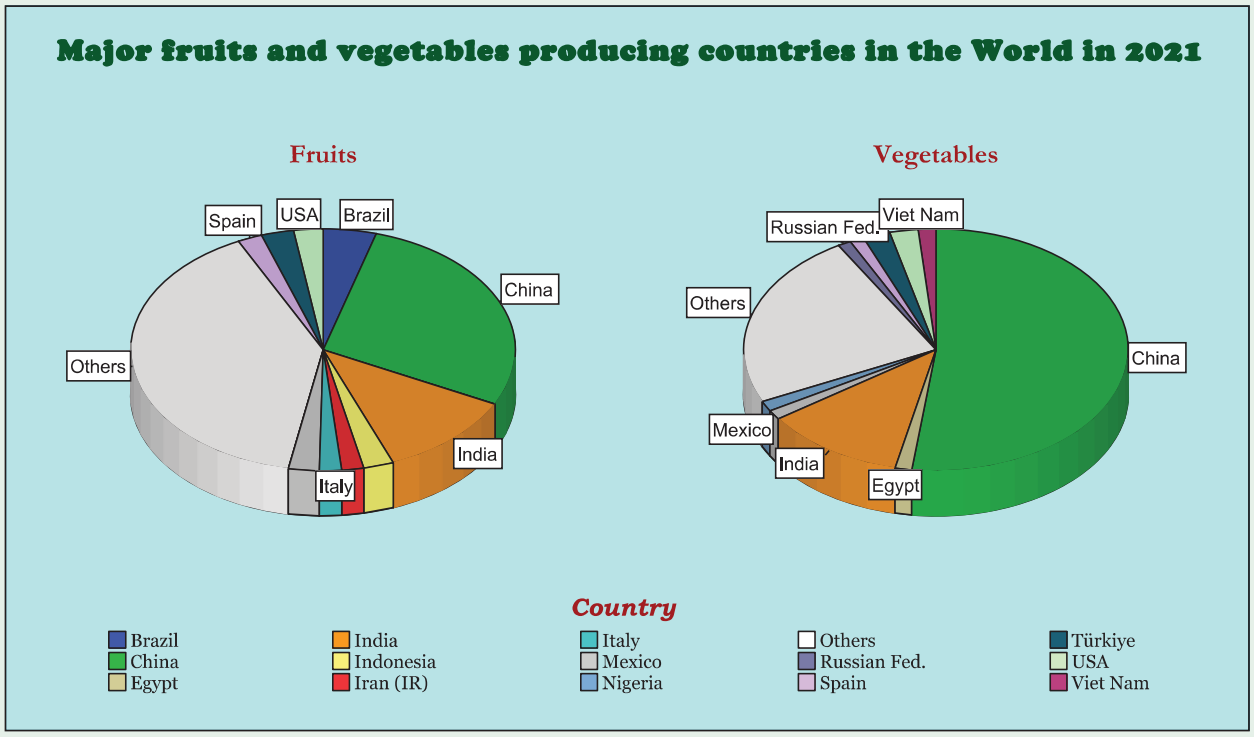


Table 8.9: Major selected fruits producing countries in the World in 2021

(Area: million ha, Production: million t, Yield: t /ha)

Country	Banana			Country	Apple		
	Area	Production	Yield		Area	Production	Yield
India	**0.92**	**33.06**	**35.78**	**China**	2.10	45.98	21.86
China	0.35	11.72	33.94	**USA**	0.12	4.51	38.55
Indonesia	0.18	8.74	49.49	**Türkiye**	0.17	4.49	26.62
Nigeria	0.53	7.39	14.07	**Poland**	0.16	4.07	25.12
Brazil	0.45	6.80	15.01	**Iran (IR)#**	0.13	2.77	21.96
Ecuador	0.16	6.68	40.74	**India**	**0.31**	**2.28**	**7.27**
Philippines	0.19	5.94	31.87	**Russian Fed.**	0.22	2.22	9.96
Guatemala	0.09	4.65	53.24	**Italy**	0.05	2.21	40.60
Angola	0.17	4.35	25.57	**France**	0.05	1.63	30.13
Tanzania*	0.34	3.46	10.24	**Chile**	0.03	1.56	50.42
Others	2.48	39.28	15.81	**Others**	1.47	22.21	15.07
World	**5.85**	**132.08**	**22.56**	**World**	**4.83**	**93.92**	**19.46**

Country	Oranges			Country	Mango, Guava & Mangosteens		
	Area	Production	Yield		Area	Production	Yield
Brazil	0.58	16.22	28.05	**India**	**2.63**	**24.97**	**9.51**
India	**0.69**	**10.27**	**14.80**	**China**	0.37	3.79	10.24
China	0.41	7.55	18.58	**Indonesia**	0.26	3.56	13.44
Mexico	0.33	4.60	13.86	**Pakistan**	0.21	2.68	12.54
USA	0.20	3.98	20.01	**Mexico**	0.22	2.44	11.32
Spain	0.14	3.60	25.18	**Brazil**	0.10	2.06	20.96
Egypt	0.14	3.17	22.91	**Malawi**	0.05	1.70	32.19
Indonesia	0.07	2.51	38.46	**Bangladesh**	0.14	1.46	10.43
Iran (IR)#	0.05	2.25	47.12	**Viet Nam**	0.11	1.45	12.67
Italy	0.08	1.77	21.02	**Thailand**	0.14	1.37	9.58
Others	1.29	20.39	15.79	**Others**	1.71	11.59	6.80
World	**3.98**	**76.32**	**19.18**	**World**	**5.94**	**57.06**	**9.60**

Note : 1. *: United Republic of Tanzania, 2. #: Iran (Islamic Republic of).

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

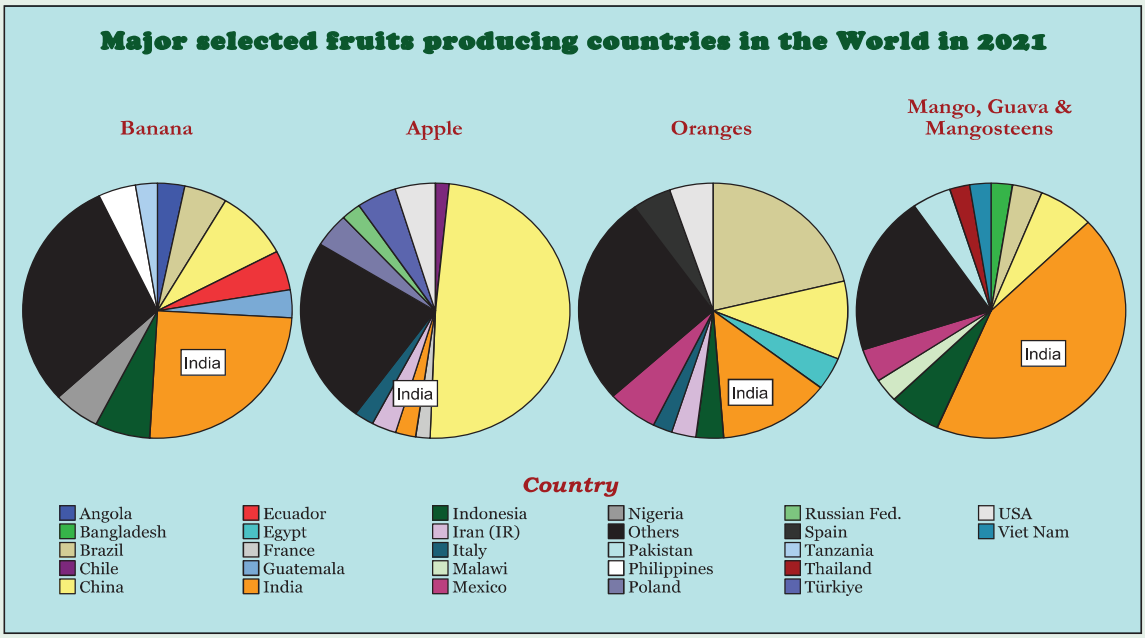


Table 8.10: Major selected vegetables producing countries in the World in 2021

(Area: million ha, Production: million t, Yield: t/ha)

Country	Potato			Country	Tomato		
	Area	Production	Yield		Area	Production	Yield
China	5.78	94.30	16.31	China	1.11	66.51	59.86
India	**2.25**	**54.23**	**24.12**	**India**	**0.85**	**21.18**	**25.07**
Ukraine	1.28	21.36	16.64	Türkiye	0.17	13.10	79.27
USA	0.37	18.59	49.74	USA	0.11	10.43	95.89
Russian Fed.	1.14	18.30	16.02	Italy	0.10	6.64	65.11
Germany	0.26	11.31	43.79	Egypt	0.15	6.39	42.61
Bangladesh	0.47	9.89	21.10	Spain	0.06	4.75	84.73
France	0.21	8.99	42.47	Mexico	0.09	4.15	45.95
Poland	0.24	7.08	30.03	Brazil	0.05	3.68	70.88
Netherlands$	0.16	6.68	41.97	Nigeria	0.81	3.48	4.30
Others	5.84	123.07	21.07	Others	1.56	48.97	31.46
World	18.00	373.79	20.77	World	5.05	189.28	37.51

Country	Onions (Dry)			Country	Cabbages		
	Area	Production	Yield		Area	Production	Yield
India	**1.62**	**26.64**	**16.40**	China	0.99	34.84	35.30
China	1.13	24.43	21.55	**India**	**0.41**	**9.56**	**23.20**
Egypt	0.10	3.58	35.32	Korea*	0.04	2.40	62.01
USA	0.05	3.08	56.05	Russian Fed.	0.06	2.18	34.12
Türkiye	0.07	2.50	35.77	Ukraine	0.07	1.72	25.41
Pakistan	0.15	2.31	14.99	Japan	0.03	1.49	43.29
Bangladesh	0.19	2.27	11.68	Indonesia	0.06	1.43	22.45
Indonesia	0.19	2.00	10.30	Viet Nam	0.04	1.16	29.05
Iran (IR)#	0.05	1.93	37.36	Kenya	0.03	1.10	35.00
Netherlands$	0.04	1.92	48.51	USA	0.02	0.96	41.43
Others	2.08	36.10	17.35	Others	0.58	15.12	26.25
World	5.70	106.75	18.73	World	2.34	71.97	30.78

Note : 1. #: Iran (Islamic Republic of), 2. *: Republic of Korea, 3. $: Netherlands (Kingdom of the).

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

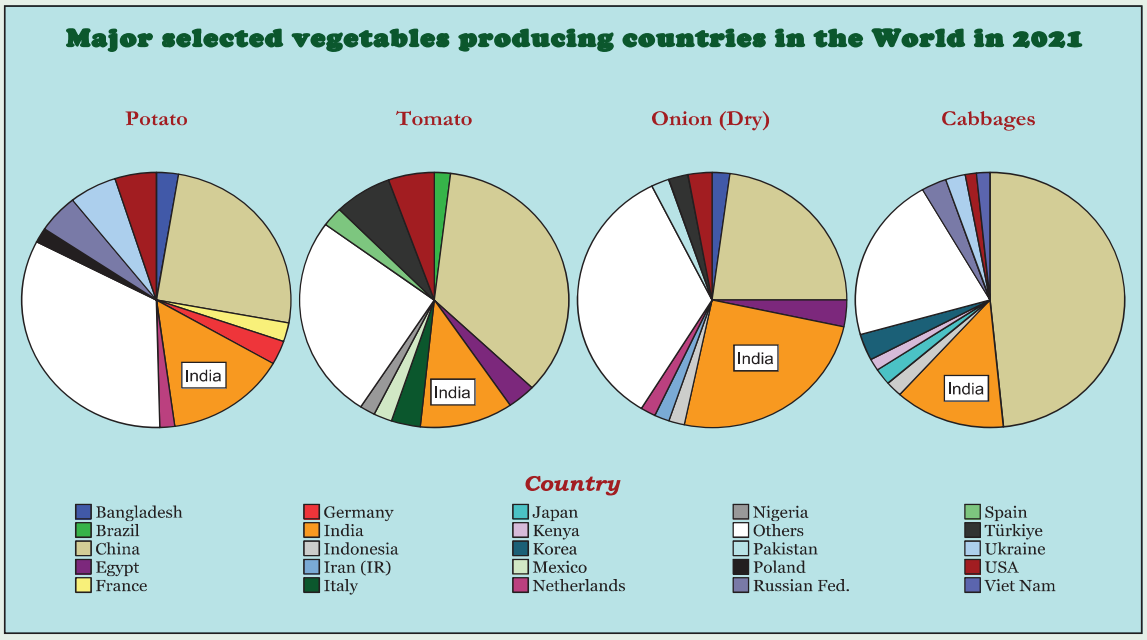


Table 8.11: Yield per hectare of different crops in selected countries in 2021

(q/ha)

Country	Rice	Wheat	Maize	Total cereals	Total pulses	Potato	Soybean	Sugarcane
Argentina	72.66	27.60	74.30	51.93	14.96	351.42	28.07	336.36
Australia	93.82	25.25	66.82	25.48	15.81	403.37	17.18	859.28
Austria	0.00	55.30	111.59	71.12	22.49	341.18	30.99	0.00
Bangladesh	48.19	33.00	85.79	49.20	12.04	210.95	15.82	428.20
Brazil	69.03	28.62	46.50	44.77	11.02	330.99	34.45	717.73
Bulgaria	48.23	60.88	59.81	59.50	16.66	179.49	14.12	0.00
Canada	0.00	24.38	99.96	31.20	12.52	413.33	29.92	0.00
Chile	63.61	59.82	118.11	64.91	17.52	273.75	0.00	0.00
China, mainland	71.14	58.11	62.91	63.17	18.31	163.15	19.52	945.85
China, Taiwan[@]	69.68	15.00	66.16	68.30	20.07	227.08	12.42	699.76
Colombia	44.83	26.79	39.88	42.80	13.12	219.91	25.31	982.91
Costa Rica	50.54	0.00	21.55	46.73	6.36	163.03	0.00	695.85
Croatia	0.00	66.96	77.86	70.13	18.33	145.43	26.42	0.00
Denmark	0.00	75.27	70.73	63.55	35.36	422.53	0.00	0.00
Dominican Republic	57.83	0.00	17.99	52.32	12.08	266.08	0.00	430.98
Ecuador	35.47	18.05	46.41	40.15	8.98	128.22	10.68	872.14
Egypt	91.38	68.51	78.28	73.39	37.55	297.12	30.36	1109.39
Ethiopia	33.33	31.11	41.94	28.92	19.02	166.87	24.43	414.74
France	51.82	69.28	99.12	71.71	25.52	424.75	28.46	0.00
Germany	0.00	73.02	103.61	69.98	34.14	437.94	31.17	0.00
Greece	70.32	28.20	112.44	41.95	15.15	308.85	15.00	0.00
Hungary	35.00	59.25	60.92	59.20	23.85	273.48	25.21	0.00
India	41.96	35.21	31.99	34.98	7.59	241.24	9.76	835.66
Indonesia	52.26	0.00	56.96	53.31	9.71	189.60	14.79	717.14
Iran IR*	36.82	15.59	63.76	16.35	6.23	294.91	24.39	1000.96
Italy	64.28	42.25	103.30	55.63	19.78	291.68	32.35	0.00
Japan	74.97	49.86	26.08	67.87	16.36	306.77	16.86	583.26

Kuwait	0.00	55.65	196.25	144.35	0.00	296.62	0.00	0.00
Lao PDR[#]	40.72	0.00	48.26	41.58	16.06	270.83	17.98	495.89
Mexico	63.81	59.94	38.52	38.79	8.98	317.78	15.60	682.64
Netherlands[##]	0.00	80.18	99.66	78.72	0.00	419.74	0.00	0.00
New Zealand	0.00	97.12	114.00	88.12	34.17	506.38	0.00	0.00
North Macedonia	60.95	34.63	43.48	35.38	18.21	142.56	16.58	0.00
Paraguay	66.33	20.62	41.29	38.23	8.93	143.47	28.95	687.72
Peru	83.24	17.13	35.63	47.04	13.47	171.54	22.07	1158.13
Philippines	41.54	0.00	32.37	38.35	8.57	157.31	13.71	625.31
Portugal	59.91	24.23	101.05	53.80	11.52	246.02	0.00	0.00
Republic of Korea	71.14	42.29	58.93	68.26	15.97	255.18	20.35	0.00
Russian Federation	57.77	27.24	52.52	27.05	19.11	160.19	15.92	0.00
South Africa	28.63	43.65	54.36	51.51	11.34	375.26	22.94	719.17
Spain	72.88	40.24	128.33	42.27	12.29	328.87	30.38	0.00
Sri Lanka	45.71	0.00	44.25	45.57	11.29	164.19	19.81	574.85
Sweden	0.00	63.19	85.63	50.65	24.33	347.79	0.00	0.00
Switzerland	0.00	51.40	78.57	55.16	20.94	320.00	26.04	0.00
Tajikistan	82.24	31.01	144.36	37.11	31.60	155.05	3.25	0.00
Thailand	29.54	10.54	45.49	30.62	9.53	188.84	16.51	449.23
Türkiye	77.24	26.65	89.05	29.19	11.82	368.20	41.47	0.00
Ukraine	48.99	45.33	76.82	54.55	21.91	166.43	26.41	0.00
USA	86.41	29.81	110.90	82.52	13.68	497.35	34.79	787.12
Uruguay	93.97	41.82	53.97	54.99	9.98	244.67	18.80	689.55
Uzbekistan	68.37	48.25	90.73	47.34	35.61	334.69	26.54	0.00
Venezuela^	40.73	28.34	33.47	35.05	11.10	197.84	13.27	539.75
Viet Nam	60.74	0.00	49.37	59.47	10.03	165.38	16.05	647.36
World	**47.44**	**35.06**	**58.73**	**41.52**	**9.52**	**207.65**	**28.58**	**722.39**

Note : 1. N.A.: Not available, 2. @: China, Taiwan Province of, 3. *: Iran (Islamic Republic of), 4. #: Lao People's Democratic Republic, 5.[##]: Netherlands (Kingdom of the), 6. ^: Venezuela (Bolivarian Republic of).

Source : FAOSTAT website as on 25.05.2024 (https://www.fao.org/faostat/en/#data).

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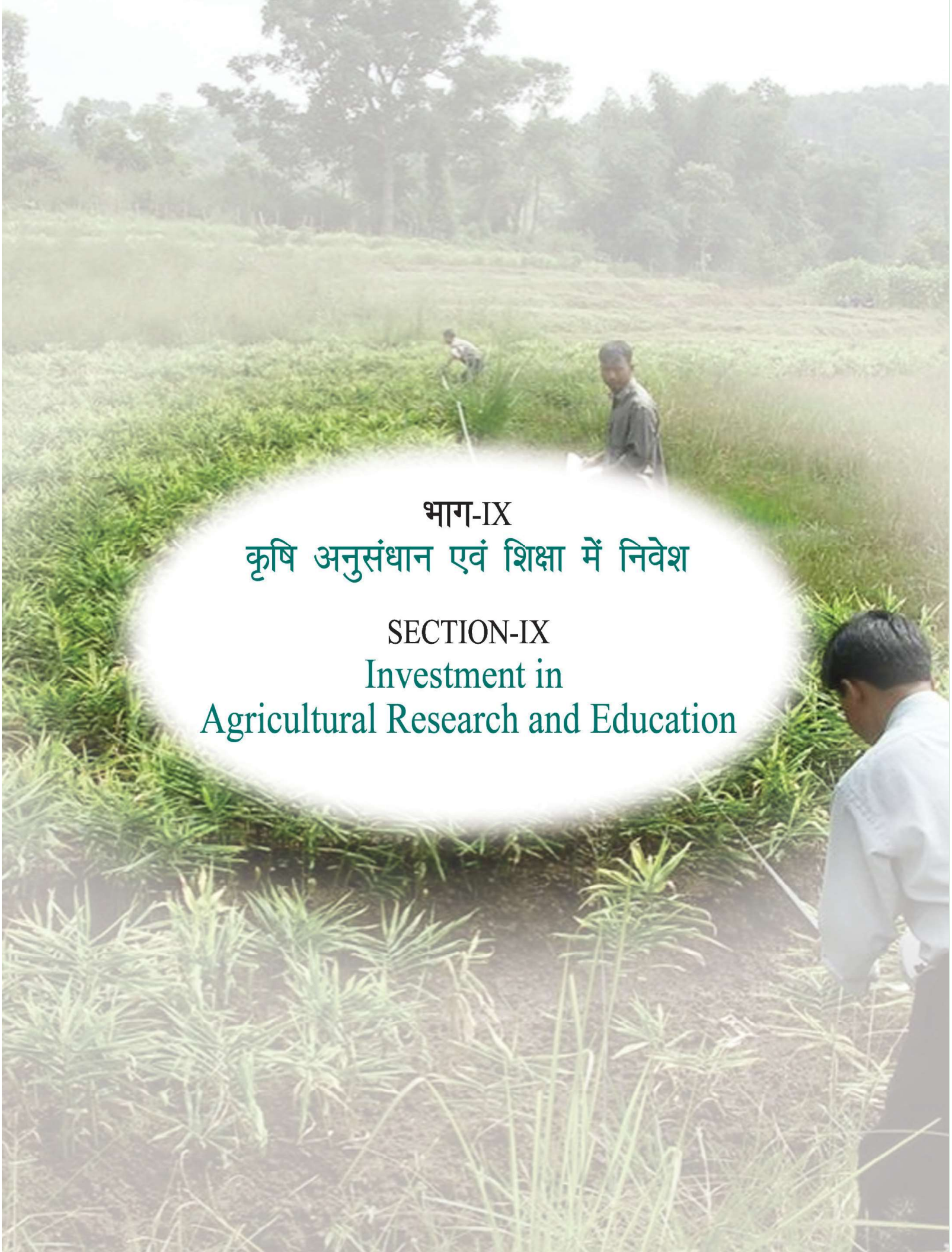


भाग-IX
कृषि अनुसंधान एवं शिक्षा में निवेश

SECTION-IX
Investment in Agricultural Research and Education

भाकृअनुप
ICAR

Table 9.1(a): Gross Domestic Product by economic activity (at current prices)

(crore ₹)

Items	2008-09	2009 -10	2010-11	2011-12 (SRE)	2012-13 (FRE)	2013-14 (PE)
Agriculture	806646	928586	1143517	1300569	1417468	N.A.
Forestry & Logging	92485	104558	118898	131667	149405	N.A.
Fishing	44073	50370	57271	66862	78053	N.A.
Total	**943204**	**1083514**	**1319686**	**1499098**	**1644926**	**1906348**
Total net domestic product at factor cost	**4738370**	**5449104**	**6488641**	**7511795**	**8372744**	**9299345**
Per capita income NNP (Rs)	**40775**	**46249**	**54021**	**61855**	**67839**	**74380**

Note : 1. TRE: Third Revised Estimates, SRE: Second Revised Estimates, FRE: First Revised Estimates and PE: Provisional Estimates, 2. N.A.: Not available

Source : *Agricultural Statistics at a Glance 2014,* Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt. of India.

Table 9.1 (b): Percentage share of Gross Domestic Product (GDP) at 2004-05 prices

Industry	2006-07	2007-08	2008-09	2009-10	2010-11 (TRE)	2011-12 (SRE)	2012-13 (FRE)	2013-14 (PE)
I. Agriculture, Forestry & Fishing	**17.4**	**16.8**	**15.8**	**14.6**	**14.6**	**14.4**	**13.9**	**13.9**
Agriculture	14.7	14.3	13.4	12.3	12.4	12.3	11.8	N.A.
Forestry & logging	1.8	1.7	1.6	1.5	1.4	1.4	1.3	N.A.
Fishing	0.9	0.8	0.8	0.8	0.7	0.7	0.8	N.A.
II. Industry	**28.7**	**28.7**	**28.1**	**28.3**	**27.9**	**28.2**	**27.3**	**26.1**
Mining & quarrying	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9
Manufacturing	16.0	16.1	15.8	16.2	16.2	16.3	15.8	14.9
Electricity Gas & Water supply	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9
Construction	8.0	8.1	8.0	7.8	7.6	7.9	7.7	7.4
III. Services	**54.0**	**54.4**	**56.1**	**57.1**	**57.5**	**57.4**	**58.8**	**59.9**
Gross domestic product at factor cost	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note : 1. TRE: Third Revised Estimates, SRE: Second Revised Estimates, FRE: First Revised Estimates and PE: Provisional Estimates, 2. N.A. : Not available.

Source : 1. *Agricultural Statistics at a Glance 2014, Directorate* of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt. of India.
2. Central Statistics Office.

Table 9.2: National expenditure on Research and Development (R&D) and in relation to Gross National Product (GNP) & Gross Domestic Product (GDP)

(million ₹)

Year	R&D expenditure at current prices	GNP at current prices	GDP at current prices	R&D as % of GNP	R&D as % of GDP
2000-01	161988.0	19692490	21774130	0.82	0.74
2001-02	170381.5	21476770	23558450	0.79	0.72
2002-03	180881.6	23215100	25363270	0.78	0.71
2003-04	200863.4	26015080	28415030	0.77	0.71
2004-05	241172.4	29490890	32422090	0.82	0.74
2005-06	299325.8	33643870	36933690	0.89	0.81
2006-07	342383.9	39200420	42947060	0.87	0.80
2007-08	394377.7	45615740	49870900	0.86	0.79
2008-09	473533.8	52706440	56300630	0.90	0.84
2009-10	530413.0	60535850	64778270	0.88	0.82
2010-11	601967.5	70785120@	77841150	0.88	0.77
2011-12	659613.3	81982760#	87363290	0.89	0.76
2012-13	739827.9	N.A.	99440130	N.A.	0.74
2013-14	793558.9	N.A.	112335220	N.A.	0.71
2014-15	874734.4	N.A.	124679590	N.A.	0.70
2015-16	954524.4	N.A.	137718740	N.A.	0.70
2016-17	1030992.6	N.A.	153623860	N.A.	0.70
2017-18	1138250.3	N.A.	170950050	N.A.	0.70
2018-19*	1238477.1	N.A.	190101640	N.A.	0.70

Note : 1. GNP/GDP figures are based on 2004-05 Series up to the year 2010-11, and from 2011-12 onwards 2011-12 Series have been used, 2. *: Estimated 3. @ Quick estimates, 4. #: Advance estimates. 5. N.A.: Not Available.

Source : *Research and Development Statistics 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

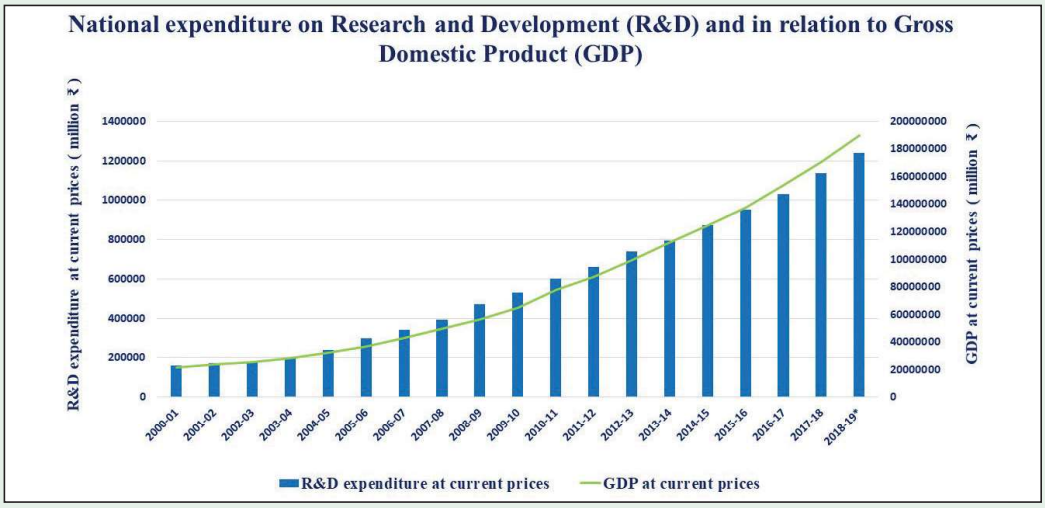


Table 9.3: National expenditure on Research and Development at Current and Constant prices

(million ₹)

Year	At Current Prices	At Constant Prices
1998-99	124731.7	156639.3
1999-00	143976.0	175423.7
2000-01	161988.0	190428.9
2001-02	170381.5	194056.0
2002-03	180881.6	215638.4
2003-04	200863.4	212363.6
2004-05	241172.4	241172.4
2005-06	299325.8	287159.0
2006-07	342383.9	308644.1
2007-08	394377.7	336163.8
2008-09	473533.8	371450.7
2009-10	530413.0	392280.8
2010-11	601967.5	408501.8
2011-12	659613.3	659613.3
2012-13	739827.9	685442.3
2013-14	793558.9	692388.8
2014-15	874734.4	738606.7
2015-16	954524.4	788016.1
2016-17	1030992.6	825359.1
2017-18	1138250.3	877564.9
2018-19	1238477.1	917128.7

Note : 1. For working out research and development expenditure at constant prices (Base year 2004-05), has been used up to the year 2010-11, and from 2011-12 onwards Base year 2011-12 has been used.

2. Economic Survey 2018-19.

Source : *Research and Development Statistics 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

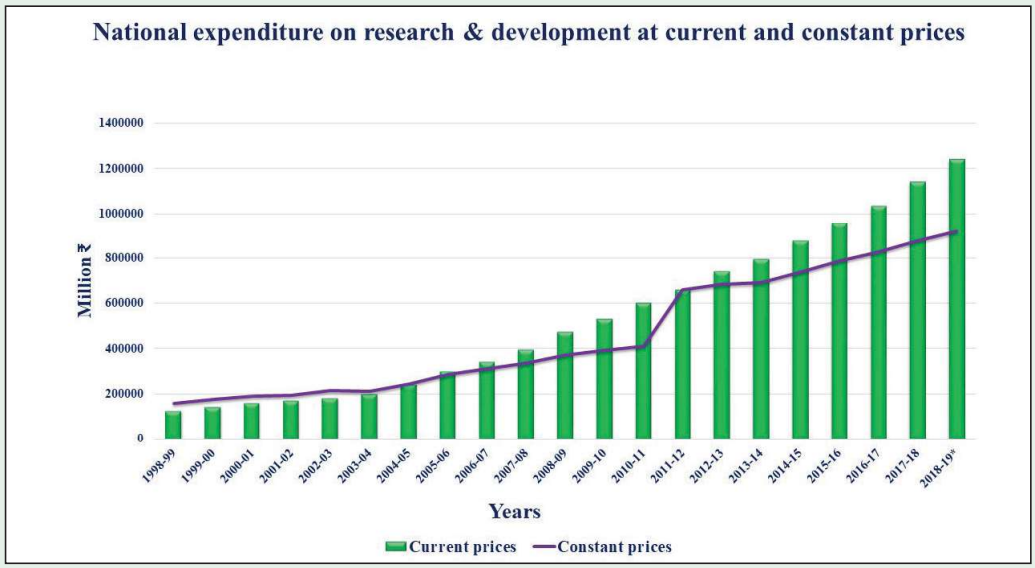


Table 9.4: Expenditure on Research and Development by major scientific agencies under Central Government

(million ₹)

Agency	Research and Development Expenditure						
	1990-91	2000-01	2005-06	2009-10	2015-16	2016-17	2017-18
Council of Scientific & Industrial Research	2491.9	8641.2	14270.4	26664.4	39881.4	40130.6	45821.2
Defence Research & Development Organisation	6810.0	33593.2	52833.5	84753.8	133171.2	133820.5	151958.7
Department of Atomic Energy	2755.4	10055.2	17525.0	38582.1	46359.5	47503.9	52080.1
Department of Bio-technology	413.7	1205.8	3258.5	7273.8	12102.5	14467.1	17716.5
Ministry of Communication & Information Technology	330.3	510.7	1678.5	3279.6	3515.1	4098.5	3865.5
Ministry of New &Renewable Energy	160.2	122.7	96.2	265.1	231.1	323.5	345.0
Ministry of Earth Sciences*	278.0	842.3	2354.8	4482.4	8392.5	9512.4	11235.8
Department of Science & Technology	1198.2	3114.6	12370.5	19860.1	28007.6	31615.4	35266.4
Department of Space	3862.2	19054.0	26676.0	41629.6	69200.1	80400.0	91305.7
Indian Council of Agricultural Research	2762.5	11617.4	17172.7	28813.0	43697.5	45929.5	53555.7
Indian Council of Medical Research	445.4	1491.2	3310.0	5835.0	9180.2	10738.3	14687.0
Ministry of Environment & Forest	1620.9	2728.6	2353.1	4155.7	1928.4	2202.1	2608.7
Total	**23128.7**	**92976.9**	**153899.2**	**265594.6**	**395667.1**	**420741.8**	**480446.3**

Note : 1. Not including Public Sector Research and Development Expenditure,2. *: Formerly Department of Ocean Development, 3. Data includes both Plan and Non Plan R&D Expenditure.

Source : *Research and Development Statistics 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

Table 9.5: Percentage expenditure on Research and Development by major scientific agencies under the Central Sector to the total Research and Development expenditure

Agency	1990-91	2000-01	2005-06	2009-10	2015-16	2016-17	2017-18
Council of Scientific & Industrial Research (CSIR)	10.77	9.29	9.27	10.04	10.08	9.54	9.54
Defence Research & Development Organisation (DRDO)	29.44	36.13	34.33	31.91	33.66	31.81	31.63
Department of Atomic Energy (DAE)	11.91	10.81	11.39	14.53	11.72	11.29	10.84
Department of Biotechnology (DBT)	1.79	1.30	2.12	2.74	3.06	3.44	3.69
Ministry of Communication & Information technology (MCIT)	1.43	0.55	1.09	1.23	0.89	0.97	0.80
Ministry of New &Renewable Energy (MoNRE)	0.69	0.13	0.06	0.10	0.06	0.08	0.07
Ministry of Earth Sciences* (MoES)	1.20	0.91	1.53	1.69	2.12	2.26	2.34
Department of Science & Technology (DST)	5.18	3.35	8.04	7.48	7.08	7.51	7.34
Department of Space (DoS)	16.70	20.49	17.33	15.67	17.49	19.11	19.00
Indian Council of Agricultural Research (ICAR)	11.94	12.49	11.16	10.85	11.04	10.92	11.15
Indian Council of Medical Research (ICMR)	1.93	1.60	2.15	2.20	2.32	2.55	3.06
Ministry of Environment & Forest (MoEF)	7.01	2.93	1.53	1.56	0.49	0.52	0.54
Total	100	100	100	100	100	100	100
Total R & D Expenditure (million ₹)	**2312.87**	**9297.69**	**15389.92**	**26559.46**	**39566.71**	**42074.18**	**48044.63**

Note : 1. *: Formerly Department of Ocean Development.

Source : *Research and Development Statistics 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

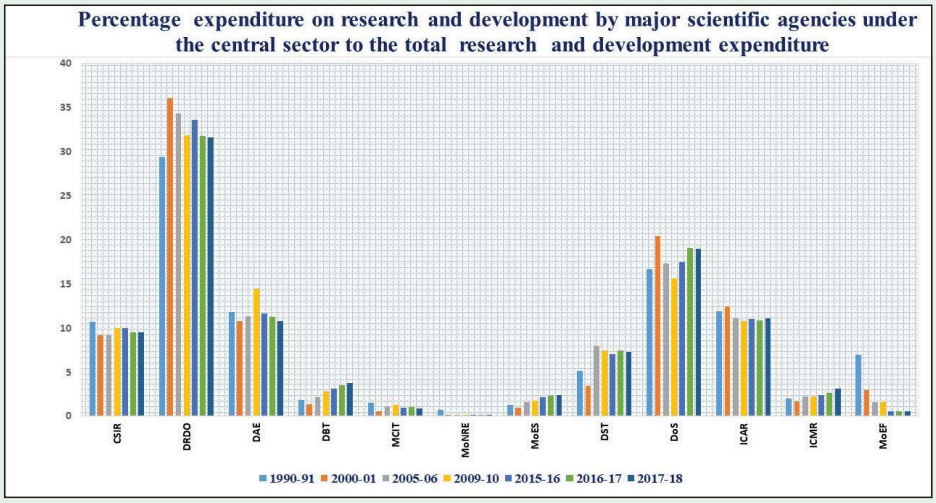


Table 9.6: Division-wise break up of Revenue Receipts targets and actual achievement as per SH. 8-sales/services, SH. 10-fee/subscription and SH. 12- royalty / publication only

(lakh ₹)

Name of the Division	Revenue Receipts	
	Achievements for 2019-20	Target for 2020-21*
Crop Science	1654.17	1697.63
Horticulture Science	1354.99	1898.23
Animal Science	2329.51	2845.29
Natural Resource Management	1211.08	1546.70
Fisheries Science	438.49	516.48
Agricultural Engineering	370.01	370.51
Agricultural Economics and Statistics	20.27	21.34
Agricultural Education	254.48	248.88
Agricultural Extension	0.01	0.00
Agricultural Scientists Recruitment Board$	0.00	0.00
Publication & Information Division (D-KMA)	13.48	22.44
ICAR Headquarters, New Delhi (IPR)	0.00	0.00
Total Revenue Receipts and Targeted Receipts	**7646.49**	**9167.50**

Note : 1. *: These include Income from Sales of Farm produce/livestock, Income from Services, Fee/Subscriptions and Income from Royalty, Publications etc. 2. $: Since de-linking of ASRB from ICAR, revenue generation target has not been set for it from 2019-2020 onwards.

Source : *ICAR-Budget Book 2021-22.*
(https://icar.org.in/content/icar-budget-book-2021-22)

Table 9.7: Total budget and expenditure of State Agricultural Universities

(million ₹)

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Andhra Pradesh									
Acharya N.G. Ranga Agricultural University, Guntur									
	2020-21	3620.00	3595.31	511.89	593.64	231.79	128.54	4363.68	4317.49
	2021-22	4106.24	3883.58	559.89	649.92	10.36	41.50	4676.48	4575.00
	2022-23*	4376.01	4358.82	485.93	489.27	124.82	22.50	4986.77	4870.58
Sri Venkateswara Veterinary University, Tirupati									
	2020-21	1098.28	1070.74	50.57	61.72	71.09	55.00	1219.94	1187.46
	2021-22	1055.77	1241.44	72.17	72.17	53.67	60.04	1181.60	1373.65
	2022-23*	1393.43	1421.58	41.84	24.11	31.36	39.48	1466.64	1485.16
Dr YSR Horticultural University, Venkataramannagudem,Tadepalligudem									
	2019-20	636.03	476.21	129.03	121.27	417.76	373.04	1182.82	970.52
	2020-21	644.03	584.94	156.35	152.52	475.28	188.51	1275.66	925.97
	2021-22	599.12	580.30	139.87	135.85	172.10	135.52	911.09	851.67
Assam									
Assam Agricultural University, Jorhat									
	2021-22	4060.96	3474.17	1093.59	981.40	494.01	904.56	5648.57	5360.14
	2022-23	4231.94	4083.13	937.24	1032.55	614.67	743.60	5783.86	5859.29
	2023-24	44.74	45.39	1180.51	1120.68	564.21	562.16	1789.46	1728.23
Bihar									
Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur									
	2020-21	500.00	500.00	5.50	5.50	1356.80	1356.80	1862.30	1862.30
	2021-22	600.45	600.45	34.90	34.90	1870.00	1870.00	2509.40	2509.40
	2022-23	660.20	660.20	69.20	69.20	2145.70	2145.70	2876.90	2876.90
Bihar Agricultural University, Sabour, Bhagalpur									
	2021-22	1399.88	2506.76	. 507.28	551.73	366.36	172.94	2273.52	3231.43
	2022-23	1680.94	1646.93	441.99	450.13	178.88	272.06	2301.80	2369.12
	2023-24	2425.69	1906.62	534.20	480.78	439.59	289.71	3399.48	2677.11
Chhattisgarh									
Indira Gandhi Krishi Vishwavidyalaya, Raipur									
	2021-22	2424.42	1960.58	843.70	716.57	243.57	132.06	3511.69	2809.21
	2022-23	2805.61	2296.19	814.53	711.21	275.32	162.42	3895.45	3169.82
	2023-24	2999.71	2654.67	959.50	857.03	286.36	173.49	4245.56	3685.19
Dau Shri Vasudev Chandrakar Kamdhenu Vishwavidyalay, Anjora, Durg									
	2021-22	472.66	418.24	17.90	16.37	28.36	17.81	518.92	452.42
	2022-23	357.00	364.04	35.34	34.99	2.25	3.05	394.59	402.08
	2023-24	414.02	410.10	95.11	94.03	2.72	2.88	511.85	507.01
Gujarat									
Sardarkrushinagar Dantiwada Agricultural University, Dantiwada									
	2021-22	1843.07	1768.41	171.36	217.75	52.45	124.02	2066.87	2110.19
	2022-23	1961.26	1964.31	152.74	171.34	79.34	167.23	2193.34	2302.88
	2023-24	2010.25	1993.19	117.48	113.86	37.94	50.92	2165.67	2157.96

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Anand Agricultural University, Anand									
	2021-22	2995.70	2101.80	272.84	121.33	483.47	149.55	3752.01	2372.68
	2022-23	2833.22	2625.64	232.70	183.51	323.27	155.94	3389.19	2965.09
	2023-24	2473.41	2351.35	391.92	327.92	392.71	218.99	3258.04	2898.27
Navsari Agricultural University, Navsari									
	2021-22	1816.00	1717.60	275.00	196.00	107.70	42.00	2198.70	1955.60
	2022-23	2246.40	2069.70	185.90	181.10	50.10	45.70	2482.40	2296.50
	2023-24	2022.60	1847.00	319.00	335.70	49.50	102.40	2391.10	2285.00
Junagadh Agricultural University, Junagadh									
	2021-22	1855.19	1955.96	304.29	264.78	108.52	115.3	2268	2336.04
	2022-23	2461.63	2287.84	354.94	386.29	155.57	125.52	2972.14	2799.65
	2023-24*	2323.79	2133.79	448.54	390.13	166.58	132.68	2938.91	2656.6
Kamdhenu University, Gandhinagar									
	2018-19	272.05	209.15	19.70	16.21	28.90	8.40	320.65	233.76
	2019-20	274.65	184.27	14.50	14.89	11.62	4.07	300.77	203.23
	2020-21	316.10	166.77	8.08	5.50	31.41	1.63	355.59	173.90
Haryana									
Ch. Charan Singh Haryana Agriculture University, Hisar									
	2021-22	6572.20	6024.24	594.34	551.41	442.11	145.27	7608.65	6720.92
	2022-23	6968.70	6621.89	605.39	545.55	359.84	267.51	7933.93	7434.95
	2023-24	6272.03	6094.15	743.98	640.42	313.45	91.27	7329.46	6825.84
Lala Lajpat Rai University of Veterinary & Animal Sciences, Hisar									
	2021-22	1442.23	1271.03	18.98	18.67	139.02	40.10	1600.23	1329.80
	2022-23	1580.00	1327.48	20.24	19.11	151.74	48.68	1751.98	1395.27
	2023-24	1540.00	1355.00	84.98	84.19	63.13	48.95	1688.11	1488.14
MaharanaPratap Horticultural University, Karnal									
	2019-20	31.50	149.94	8.72	1.08	--	--	40.22	151.03
	2020-21	40.00	312.19	15.12	29.36	--	52.62	55.12	394.16
	2021-22	382.50	485.90	1.10	18.52	--	65.42	383.60	569.83
Himachal Pradesh									
CSK Himachal Pradesh Krishi Vishwavidyalaya, Palampur									
	2019-20	13.03	13.46	3.48	3.70	1.05	0.96	17.58	18.11
	2020-21	12.03	14.75	3.58	3.31	0.60	0.55	16.21	18.61
	2021-22	12.13	12.47	3.38	3.23	1.73	1.55	17.25	17.25
Dr. Y.S. Parmar University of Horticulture & Forestry, Solan									
	2021-22	1206.50	1455.40	43.80	41.80	294.40	304.20	1544.70	1801.40
	2022-23	1446.50	1446.50	21.80	20.50	211.50	231.60	1679.80	1698.60
	2023-24	1323.50	1992.00	70.30	69.50	270.40	290.00	1664.20	2351.50
Jammu & Kashmir									
Sher-e-Kashmir University of Agricultural Science & Technology of Jammu, Jammu									
	2020-21	1364.22	1270.59	111.90	89.67	93.42	86.00	1569.55	1446.26
	2021-22	1607.52	1296.56	109.11	102.11	101.32	82.14	1817.95	1480.81
	2022-23	1609.68	1536.10	70.14	31.86	131.04	114.95	1810.86	1682.91

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Sher-e-Kashmir University of Agricultural Science & Technology of Kashmir, Srinagar									
	2017-18	1785.00	1764.45	252.00	268.02	237.18	205.51	2274.19	2237.98
	2018-19	2520.44	2551.58	287.87	274.22	242.39	245.88	2952.20	2973.18
	2019-20	2729.37	2719.06	310.00	309.01	230.79	216.91	3270.16	3244.99
Jharkhand									
Birsa Agricultural University, Kanke, Ranchi									
	2021-22	1380.00	1380.00	465.05	464.20	27.40	22.35	1872.45	1866.55
	2022-23	2331.40	2319.93	370.70	370.31	21.58	32.58	2723.68	2722.82
	2023-24	3010.37	1171.15	307.16	303.84	37.39	40.67	3354.92	1515.66
Karnataka									
University of Agricultural Sciences, Bangalore									
	2021-22	2230.40	2913.50	476.50	527.70	269.70	260.13	2976.50	3693.40
	2022-23	2195.60	2749.00	443.40	543.20	108.45	147.35	2747.40	3439.50
	2023-24	1987.80	2775.00	578.80	564.30	89.80	107.88	2656.40	3447.00
University of Agricultural Sciences, Dharwad									
	2021-22	1639.66	2023.12	387.50	400.83	347.90	151.20	2374.62	2574.97
	2022-23	2040.99	2393.82	358.09	403.37	148.96	166.69	2548.04	2963.88
	2023-24	1296.03	1755.67	601.94	444.24	209.10	168.29	2107.07	2368.20
KarnatakaVeterinary, Animal and Fisheries Sciences University, Bidar									
	2015-16	1393.63	1655.99	91.47	99.84	28.44	26.85	1513.54	1782.68
	2016-17	1500.91	1689.13	114.19	79.86	25.43	23.96	1640.53	1792.95
	2017-18	1567.88	1828.41	30.64	91.82	21.76	22.73	1620.28	1942.96
University of Horticultural Sciences, Bagalkot									
	2017-18	751.90	751.90	106.10	65.12	145.37	87.26	1003.37	904.28
	2018-19	753.30	753.30	98.65	57.43	110.18	50.05	962.13	860.79
	2019-20	826.62	826.62	40.57	40.57	42.93	42.93	910.12	910.12
University of Agricultural Sciences, Raichur									
	2020-2021	1116.45	1193.94	273.99	305.32	226.47	235.87	1616.91	1735.13
	2021-2022	1056.19	1440.32	274.30	260.78	267.42	288.98	1597.91	1990.08
	2022-2023	1124.68	1076.76	239.17	263.26	112.58	146.08	1476.43	1486.11
University of Agricultural and Horticultural Sciences, Shivamogga									
	2018-19	722.29	703.61	103.64	95.54	117.75	117.75	943.68	916.91
	2019-20	790.48	727.05	122.75	122.75	63.80	63.80	977.03	913.60
	2020-21	801.48	801.48	124.98	124.98	102.29	102.29	1028.74	1028.74
Kerala									
Kerala Agricultural University, Vellanikkara, Thrissur									
	2020-21	5068.37	3691.76	570.28	457.58	518.58	378.62	6157.23	4527.96
	2021-22	6912.48	4708.47	643.35	527.03	598.88	396.24	8154.70	5631.74
	2022-23	6800.22	4633.41	621.03	492.75	849.06	480.91	8270.31	5607.08
Kerala Veterinary and Animal Sciences University, Pookode, Wayanad									
	2021-22	1562.34	1969.96	47.08	47.08	26.80	26.80	1636.22	2043.83
	2022-23	1291.60	1612.00	34.40	33.10	18.33	18.33	1344.30	1663.43
	2023-24	1274.28	1598.60	36.22	35.13	16.73	8.26	1327.30	1642.00

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Kerala University of Fisheries and Ocean Studies, Papangad, Kochi									
	2013-14	218.76	172.77	16.15	16.06	12.63	10.30	247.55	199.13
	2014-15	219.40	214.90	16.00	16.00	8.52	7.18	243.92	238.08
	2015-16	337.48	283.35	18.74	18.74	3.37	2.52	359.59	304.61
Madhya Pradesh									
Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur									
	2017-18	1246.1	1246.10	478.30	446.82	118.68	109.69	1843.08	1802.61
	2018-19	1303.52	1440.48	551.21	628.71	58.48	67.25	1913.21	2136.44
	2019-20	1140.90	1542.36	459.99	486.80	59.18	63.50	1660.07	2092.66
Nanaji Deshmukh Pashuchikitsa Vigyan Vishwavidyalaya, Jabalpur									
	2015-16	2962.05	3541.01	418.16	415.94	2057.87	1216.91	5438.08	5173.86
	2016-17	3913.66	4084.11	474.05	360.06	57.99	36.44	4445.70	4480.61
	2017-18	4233.04	3971.01	412.91	412.91	191.41	191.41	4837.36	4575.33
Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior									
	2017-18	567.75	581.28	526.24	530.85	67.13	84.20	1161.12	1196.33
	2018-19	609.00	647.05	423.67	413.24	248.67	122.35	1281.34	1182.64
	2019-20	446.85	681.36	459.01	432.56	291.23	150.79	1197.09	1264.70
Maharashtra									
Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli									
	2018-19	1447.81	1378.01	161.08	123.43	20.78	15.91	1629.67	1517.35
	2019-20	1394.29	1305.38	187.11	143.14	17.75	13.49	1599.15	1462.10
	2020-21	1750.91	1649.60	159.03	158.61	18.11	6.90	1928.05	1815.11
Mahatma Phule Krishi Vidyapeeth Rahuri, Rahuri									
	2016-17	3020.30	2870.50	396.90	407.70	344.30	316.80	3761.50	3595.00
	2017-18	3232.20	3156.50	446.20	414.90	289.90	304.90	3968.30	3876.30
	2018-19	3520.30	3287.20	568.60	445.40	425.40	318.80	4514.30	4051.40
Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani									
	2020-21	795.47	795.47	30.32	30.32	153.16	153.16	978.95	978.95
	2021-22	714.77	714.77	71.50	71.50	103.65	103.65	889.92	889.92
	2022-23	604.25	604.25	10.02	10.02	80.65	80.65	694.92	694.92
Dr. Punjabrao Deshmukh Krishi Vidyapeeth, Akola									
	2021-2022	3027.80	2998.00	344.40	341.00	10.77	10.66	3382.97	3349.66
	2022-2023	4065.80	4025.00	326.20	323.00	8.20	8.12	4400.20	4356.12
	2023-2024	3704.60	3668.00	313.10	310.00	13.50	13.37	4031.15	3991.37
Maharashtra Animal & Fishery Sciences University, Nagpur									
	2019-20	1.25	1.16	0.09	0.06	0.02	0.01	1.36	1.23
	2020-21	1.24	1.21	0.09	0.07	0.07	0.05	1.40	1.33
	2021-22	1.93	1.90	0.14	0.00	0.02	0.00	2.09	1.90
Manipur									
Central Agricultural University, Imphal									
	2020-2021	N.A.	N.A.	1900.00	2027.30	N.A.	N.A.	1900.00	2027.30
	2021-2022	N.A.	N.A.	2515.50	2292.25	N.A.	N.A.	2515.50	2292.25
	2022-2023	N.A.	N.A.	2700.00	2699.95	N.A.	N.A.	2700.00	2699.95

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Nagaland									
Nagaland University SASRD, Medziphema Campus									
	2017-18	0.25	0.25	29.40	29.40	252.01	252.01	281.66	281.66
	2018-19	0.11	0.11	42.26	42.26	303.73	303.73	346.10	346.10
	2019-20	0.50	0.50	39.81	39.79	346.19	346.19	386.51	386.48
Odisha									
Odisha University of Agriculture & Technology, Bhubaneswar									
	2021-22	4843.45	3183.48	1114.76	771.63	970.53	343.93	6928.74	4299.04
	2022-23	5536.6	3810.73	1054.65	744.82	991.54	522.32	7582.79	5077.87
	2023-24	6491.17	6367.07	1120.28	1120.28	722.75	619.53	8334.2	8106.88
Punjab									
Punjab Agricultural University, Ludhiana									
	2021-22	6165.15	4477.29	1516.49	992.14	587.12	365.71	8268.76	5835.15
	2022-23*	7150.14	4907.46	1131.60	930.53	624.82	565.66	8906.56	6403.65
	2023-24*	7105.54	5432.46	1215.95	1119.49	551.56	516.34	8873.05	7068.29
Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana									
	2021-22	1361.25	1178.66	196.61	167.84	168.29	149.50	1726.14	1496.00
	2022-23	1363.21	1216.95	197.68	145.06	83.97	42.15	1644.86	1404.16
	2023-24	1691.05	1438.04	189.05	180.27	85.30	59.68	1965.40	1678.00
Rajasthan									
Swami Keshwanand Rajasthan Agricultural University, Bikaner									
	2021-22	634.52	524.73	214.60	171.73	24.30	20.00	873.42	714.46
	2022-23	735.88	626.31	188.32	172.71	26.00	23.15	950.20	822.17
	2023-24	768.29	725.56	215.88	208.14	43.01	32.06	1027.18	965.76
Maharana Pratap University of Agriculture and Technology, Udaipur									
	2021-22	912.00	912.00	715.63	715.63	114.59	114.59	1742.22	1742.22
	2022-23	891.30	891.30	784.12	784.12	120.77	120.77	1796.19	1796.19
	2023-24	845.50	845.50	628.22	628.22	130.41	130.41	1604.13	1604.13
Rajasthan University of Veterinary and Animal Sciences, Bikaner									
	2021-22	964.20	964.20	20.61	18.49	25.17	10.67	1009.98	993.37
	2022-23	1867.12	1867.12	40.17	38.97	61.93	61.93	1969.22	1968.03
	2023-24	1376.50	1376.50	106.92	106.53	1.30	1.30	1484.72	1484.33
Agricultural University, Kota									
	2020-21	215.00	262.15	167.77	187.14	54.31	93.85	437.08	543.14
	2021-22	247.25	247.03	259.63	237.58	37.01	26.24	543.89	510.85
	2022-23	288.87	274.27	199.02	211.87	11.71	18.71	499.60	504.85
Agriculture University, Jodhpur									
	2018-19	456.47	303.05	153.43	124.91	57.43	49.03	667.34	476.98
	2019-20	371.10	410.58	122.61	124.47	39.20	39.60	532.91	574.64
	2020-21	323.20	218.40	158.04	129.78	53.75	52.86	534.99	401.03
Sri Karan Narendra Agriculture University, Jobner, Jaipur									
	2020-21	684.89	684.89	259.90	250.00	52.09	50.09	996.88	984.98
	2021-22	769.00	769.00	249.72	237.64	149.60	64.34	1168.32	1070.98
	2022-23	962.90.	962.90	249.81	227.86	75.47	60.21	1288.18.	1250.97

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Tamil Nadu									
Tamil Nadu Agricultural University, Coimbatore									
	2020-21	5917.33	5627.55	858.32	858.90	563.48	442.13	7339.13	6928.58
	2021-22	5431.23	5418.96	914.78	912.94	579.04	446.05	6925.06	6777.94
	2022-23*	5309.61	5257.20	1036.30	1159.92	478.16	332.83	6824.07	6749.96
Tamil Nadu Veterinary and Animal Sciences University, Chennai									
	2020-21	4893.68	4654.98	138.04	150.24	218.49	182.76	5250.21	4987.98
	2021-22	3279.24	3282.55	161.33	120.55	173.33	185.09	3613.80	3588.19
	2022-23	2775.06	***	122.89	***	109.41	***	3007.36	0.00
Tamil Nadu Fisheries University, Nagapattinam									
	2014-15	454.40	454.40	45.98	45.98	34.93	34.93	535.30	535.30
	2015-16	465.80	465.80	26.26	26.26	31.91	31.91	523.97	523.97
	2016-17	744.19	744.19	31.92	31.92	107.11	107.11	883.23	883.23
Telangana									
Professor Jayashankar Telangana State Agricultural University, Hyderabad									
	2021-22	3351.44	3896.64	414.30	441.64	193.53	205.37	3959.27	4543.65
	2022-23	3462.14	4182.32	417.01	451.09	201.53	231.15	4080.68	4864.56
	2323-24	3444.59	4352.96	501.24	455.67	210.57	230.04	4156.40	5038.66
P.V. Narsimha Rao Telangana Veterinary University, Hyderabad									
	2019-20	685.075	685.075	54.723	54.723	121.903	68.176	861.702	807.975
	2020-21	670.379	670.379	50.751	50.751	42.972	40.472	764.104	761.604
	2021-22	867.058	803.958	50.664	52.35	27.189	5.944	944.913	862.203
Sri Konda Laxman Telangana state Horticultural University, Mulugu, Siddipet									
	2018-19	386.41	386.41	46.21	36.78	21.50	16.29	454.12	439.47
	2019-20	302.23	302.23	36.68	35.43	40.97	21.22	379.88	358.87
	2020-21	254.76	254.76	40.70	40.70	99.56	11.23	395.02	306.70
Uttarakhand									
G.B. Pant University of Agriculture & Technology, Pantnagar									
	2020-21	2237.60	2087.60	62.24	60.21	-	-	2299.84	2147.81
	2021-22	2170.61	2162.35	40.00	37.84	-	-	2210.61	2200.19
	2022-23	2040.00	2020.36	0.00	0.00	-	-	2040.00	2020.36
VCSG Uttarakhand University of Horticulture & Forestry, Bharsar, Pauri Garhwal									
	2020-21	172.72	164.71	73.16	49.85	30.75	3.58	276.64	218.14
	2021-22	252.33	227.85	46.83	23.04	27.96	6.00	327.12	256.89
	2022-23	275.91	244.09	41.72	25.98	38.71	6.52	356.34	276.59
Uttar Pradesh									
C.S. Azad University of Agriculture & Technology, Kanpur									
	2017-18	791.71	976.52	333.05	345.88	88.50	13.92	1213.26	1336.32
	2018-19	925.59	1066.56	404.31	334.99	244.03	160.52	1573.93	1562.07
	2019-20	938.19	1068.78	296.78	282.55	111.83	66.33	1346.80	1417.65
Acharya Narendra Dev University of Agriculture & Technology, Faizabad									
	2018-19	1587.94	1321.57	389.55	343.96	9.70	10.33	1987.19	1675.86
	2019-20	1034.05	998.63	434.97	322.06	9.80	11.04	1478.82	1331.73
	2020-21	1270.58	1213.30	499.33	534.31	29.94	17.76	1799.84	1765.37

State Agricultural University	Year	State		ICAR		Other Sources		Total	
		Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Institute of Agricultural Sciences, BHU, Varanasi									
	2019-20	-	-	48.91	46.38	-	-	-	-
	2020-21	-	-	38.97	38.26	-	-	-	-
	2021-22	-	-	24.26	22.02	-	-	-	-
Sam Higginbottom Institute of Agriculture, Technology & Sciences (Deemed University), Allahabad									
	2011-12	162.23	162.23	139.87	144.10	878.88	880.94	1180.98	1187.27
	2012-13	135.47	135.47	74.59	74.60	992.03	1077.50	1202.09	1287.57
	2013-14*	160.09	160.09	46.26	46.26	1009.29	1009.29	1215.64	1215.64
Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut									
	2021-22	572.25	506.60	483.94	379.94	314.56	16383.20	1370.75	1050.37
	2022-23	561.26	520.61	613.50	523.89	474.73	39245.10	1649.49	1436.96
	2023-24	772.67	716.61	487.46	428.23	333.97	22723.30	1594.11	1372.07
U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan, Mathura									
	2017-18	6149.42	5215.52	939.89	865.47	1690.68	1427.17	8779.99	7508.16
	2018-19	7543.76	4820.66	293.38	271.40	1601.24	908.30	9438.38	6000.36
	2019-20	6179.12	6098.61	218.20	172.88	1302.19	1203.25	7699.51	7474.74
Banda University of Agriculture & Technology, Banda									
	2021-22	239.76	238.10	133.89	123.57	113.59	110.10	487.24	471.77
	2022-23	595.59	591.41	123.82	118.84	85.88	75.47	805.28	785.71
	2023-24	586.96	576.87	142.24	133.37	70.25	64.53	799.46	774.77
West Bengal									
Bidhan Chandra Krishi Vishwa Vidyalaya, Haringhatta									
	2014-15	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	2015-16	17086.29	9199.45	2375.00	1544.46	1783.50	1507.47	21244.79	12251.38
	2016-17	25246.59	**	3162.80	**	1722.00	**	30131.39	**
Uttar Banga Krishi Viswavidyalaya, Pundibari									
	2016-17	363.704	407.57	65.89	48.43	58.348	9.18	487.942	465.28
	2017-18	494.30	473.64	40.12	86.54	131.71	69.09	666.13	629.27
	2018-19	416.73	452.25	26.457	20.03	145.20	109.80	588.387	582.08
W.B. University of Animal & Fishery Sciences, Kolkata									
	2014-15	292.21[b]	288.34[b]	65.96[c]	53.96[c]	45.74[d]	45.70[d]	403.91	388.02
	2015-16	365.11[b]	357.63[b]	94.73[c]	93.14[c]	4.80[d]	4.70[d]	464.63	455.48
	2016-17	377.88[b]	360.42[b]	83.79[c]	**	5.63[d]	**	467.30	**

Note : 1.*: Un-audited/Tentative/Provisional, 2.**:The budget accounts are yet to be finalized, 3. ***: It will be furnished after the compilation of accounts for all schemes and audit. 4. a: Allocation includes pay and allowances and contingencies, 5. b: Includes salary, capital, revenue Plan & Non-Plan expenditure, 6. c: Includes the funding support from ICAR under Education, AICRP, KVK etc., 7. d: Includes the amount received from DBT, DST etc. 8. #: Sum of Head- salary and non-salary.

Source : This information is collected from respective State Agricultural Universities through Dy. Director General (Agri.Edn.), Indian Council of Agricultural Research, New Delhi.

Table 9.8: Details of financial outlay of Department of Agricultural Research and Education

(crore ₹)

Schemes	2022-2023 Budget			2022-2023 Revised			2023-2024 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
Demand No. 2 Department of Agricultural Research and Education									
Gross	8513.62	...	8513.62	8658.89	...	8658.89	9493.59	10.41	9504.00
Recoveries	...	...	...	...	...	...	...	...	...
Receipts	...	...	...	...	...	...	...	...	...
Net	**8513.62**	**...**	**8513.62**	**8658.89**	**...**	**8658.89**	**9493.59**	**10.41**	**9504.00**
A. The Budget allocations, net of recoveries									
Centre's Expenditure	**2022-2023 Budget**			**2022-2023 Revised**			**2023-2024 Budget**		
I. Establishment Expenditure of the Centre	**Revenue**	**Capital**	**Total**	**Revenue**	**Capital**	**Total**	**Revenue**	**Capital**	**Total**
1.Secretariat	39.68	...	39.68	44.80	...	44.80	33.30	10.41	43.71
Central Sector Schemes/Projects									
2. Agricultural Extension	243.72	...	243.72	243.72	...	243.72	327.00	...	327.00
3. Agricultural Engineering	48.30	...	48.30	48.30	...	48.30	65.00	...	65.00
4.Management of Natural Resources									
4.1 Natural Resource Management Institutes including Agro-Forestry Research	144.90	...	144.90	144.90	...	144.90	240.00	...	240.00
4.2 Climate Resilient Agriculture Initiative	40.87	...	40.87	40.87	...	40.87	...	...	...
Total-Management of Natural Resources	**185.77**	**...**	**185.77**	**185.77**	**...**	**185.77**	**240.00**	**...**	**240.00**
5. Crop Sciences									
5.1 Crop Science	526.08	...	526.08	526.04	...	526.04	714.41	...	714.41

Schemes	2022-2023 Budget			2022-2023 Revised			2023-2024 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
5.2 Horticultural Science	157.53	...	157.53	157.53	...	157.53	212.00	...	212.00
5.3 National Agricultural Science Fund	35.67	...	35.67	35.67	...	35.67	...	...	...
Total-Crop Sciences	**719.28**	**...**	**719.28**	**719.24**	**...**	**719.24**	**926.41**	**...**	**926.41**
6.Animal Sciences									
6.1 Animal Science	224.41	...	224.41	224.41	...	224.41	300.00	...	300.00
6.2 Fisheries Science	118.89	...	118.89	118.89	...	118.89	150.00	...	150.00
Total-Animal Sciences	**343.30**	...	**343.30**	**343.30**	...	**343.30**	**450.00**	...	**450.00**
7.Agricultural Education									
7.1 Agricultural Universities and Institutions	263.77	...	263.77	263.77	...	263.77	322.74	...	322.74
7.2 Economic Statistics and Management	24.51	...	24.51	24.51	...	24.51	...	...	...
7.3 National Agricultural Higher Education project	167.18	...	167.18	167.00	...	167.00	92.26	...	92.26
Total-Agricultural Education	**455.46**	**...**	**455.46**	**455.46**	**...**	**455.46**	**415.00**		**415.00**
Total - Central Sector Schemes	**1995.83**	**...**	**1995.83**	**1995.83**	**...**	**1995.83**	**2423.41**	**...**	**2423.41**
Other Central Sector Schemes/Projects									
Autonomous Bodies									
1.1 ICAR Headquarter	5877.06	...	5877.06	6006.28	...	6006.28	6384.59	...	6384.59
1.2 Central Agricultural Universities	599.45	...	599.45	611.02	...	611.02	651.53	...	651.53
1.3 National Academy of Agricultural Sciences	1.6	...	1.6	1.18	...	1.18	0.76	...	0.76
1.4 Agricultural Scientists Recruitment Board	...	...	...	...	...	...	...	...	...

Schemes	2022-2023 Budget			2022-2023 Revised			2023-2024 Budget		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
Total-Autonomous Bodies	6478.11	...	6478.11	6618.48	...	6618.48	7036.88	...	7036.88
Actual Recoveries	...	...	...	...	...	...	...	...	...
Grand Total	**8513.62**	**...**	**8513.62**	**8658.89**	**...**	**8658.89**	**9504.00**	**10.41**	**9504.00**
B. Developmental Heads									
Economic Services									
1.1 Agricultural Research and Education	8013.39	...	8013.39	8151.94	...	8151.94	8941.93	...	8941.93
1.2 Secretaries-Economic Services	32.65	...	32.65	37.37	...	37.37	25.87	...	25.87
Total-Economic Services	**8046.04**	**...**	**8046.04**	**8189.31**	**...**	**8189.31**	**8967.80**	**10.41**	**8978.21**
2. Others									
2.1 North Eastern Areas	467.58	...	467.58	469.58	...	469.58	525.79	...	525.79
Total -Others	467.58	...	467.58	469.58	...	469.58	525.79	...	525.79
Grand Total	**8513.62**	**...**	**8513.62**	**8658.89**	**...**	**8658.89**	**9493.59**	**10.41**	**9504.00**

Source : *DARE/ICAR Annual Report 2023–24,* Ministry of Agriculture& Farmers Welfare, Govt. of India.

भाग-X
मानव संसाधन

SECTION-X
Human Resources

Human Resources

भाकृअनुप
ICAR

Table 10.1: Enrolment in Science/Engineering and other disciplines

(in 000')

Enrolment	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16*
Science and Technology Disciplines (A)							
Science	2822.6	3127.0	3789.9	3992	4095	4675	5417.5
	(19.3)	(18.4)	(18.6)	(18.6)	(17.2)	(17.6)	(19)
Engineering/ Technology	1510.8	2862.4	3261.6	3333.2	3696.1	4326.3	4885.1
	(10.3)	(16.8)	(16.1)	(15.5)	(15.6)	(16.3)	(17.2)
Medicine	509.0	652.5	715.7	752.3	992.9	1070	1118.2
	(3.5)	(3.8)	(3.5)	(3.5)	(4.2)	(4)	(3.9)
Agricultural Sciences	80.4	93.2	97.3	103	107.2	207.8	240.09
	(0.5)	(0.6)	(0.5)	(0.5)	(0.5)	(0.8)	(0.8)
Veterinary Science	20.5	27.4	28.5	29.3	28	28	31.33
	(0.14)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Total (A)	**4943.2**	**6762.6**	**7893**	**8209.8**	**8919.2**	**10307.1**	**11692.2**
	(33.8)	**(39.8)**	**(38.8)**	**(38.2)**	**(37.5)**	**(38.8)**	**(41)**
Other Disciplines (B)							
Arts (including Oriental Learning)	6144.0	6177.7	7539.5	8157.3	8690.4	9945.7	10271.3
	(42.0)	(36.4)	(37.1)	(37.9)	(36.6)	(37.4)	(36.1)
Commerce/Management	2607.6	2904.8	3571.1	3762	4181.6	4357.1	4637.32
	(17.8)	(17.1)	(17.6)	(17.5)	(17.6)	(16.4)	(16.3)
Law	343.7	327.1	373.2	400.8	426	444.6	474.4
	(2.6)	(1.9)	(1.8)	(1.9)	(1.8)	(1.7)	(1.7)
Education	365.6	570.0	732.6	741.9	1288.9	1215.4	1085.9
	(2.5)	(3.4)	(3.6)	(3.5)	(5.4)	(4.6)	(3.8)
Others	220.8	232.7	217.9	229.3	258.8	315.5	323.6
	(1.5)	(1.4)	(1.1)	(1.1)	(1.1)	(1.2)	(1.1)
Total (B)	**9681.7**	**10212.3**	**12434.4**	**13291.3**	**14845.7**	**16278.3**	**16792.6**
	(66.2)	**(60.2)**	**(61.2)**	**(61.8)**	**(62.5)**	**(61.2)**	**(59)**
Total (A+B)	**14625.0**	**16974.9**	**20327.4**	**21501.1**	**23764.9**	**26585.4**	**28484.8**
	(100)	**(100)**	**(100)**	**(100)**	**(100)**	**(100)**	**(100)**

Note : 1. Figures in parentheses indicate percentage, 2.*: Provisional.

Source : *Research and Development Statistics 2017-18,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

Table 10.2: Total number of employees in the R&D establishments of public and private sector industries

(in Lac)

S. No.	Class of posts	Total personnel employed
1.	R&D activities	3.42 (61.8%)
2.	Auxiliary activities	0.98 (17.9%)
3.	Administrative / non-technical support activities	1.12 (20.3%)
	Total	5.52 (100%)

Note : Figures in parentheses indicate percentage.

Source : *Research and Development Statistics at a Glance 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

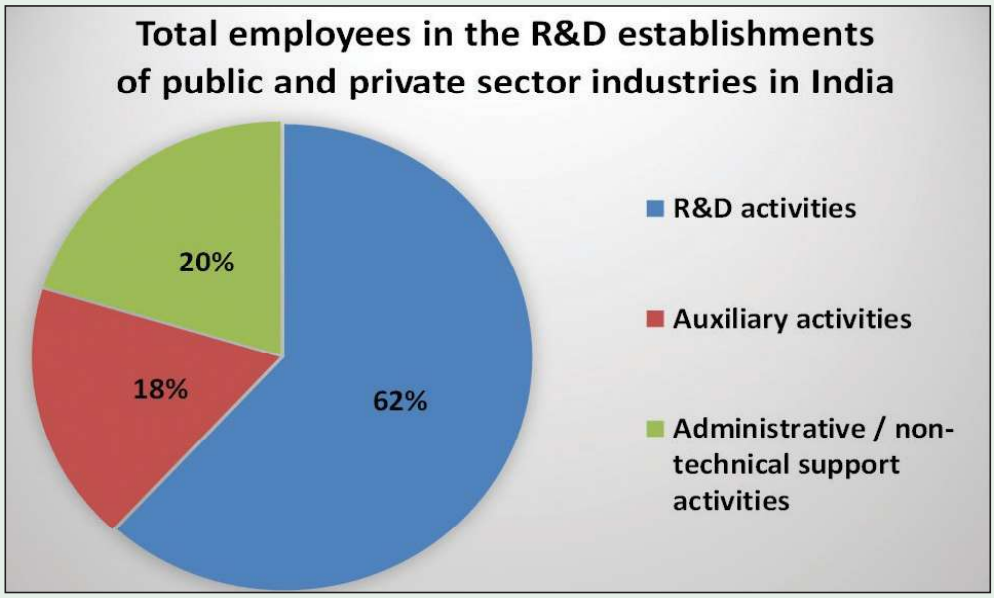


Table 10.3: R&D expenditure incurred by Central Government sources during 2017-18 in India

S.No.	Name	Expenditure in %
1.	Defence Research and Development Organisation (DRDO)	31.60
2.	Department of Space (DOS)	19.00
3.	Indian Council of Agricultural Research (ICAR)	11.10
4.	Department of Atomic Energy, (DAE)	10.80
5.	Council of Scientific & Industrial Research (CSIR)	9.50
6.	Department of Science and Technology (DST)	7.30
7.	Department of Biotechnology (DBT)	3.70
8.	Indian Council of Medical Research (ICMR)	3.10
9.	Ministry of Earth Sciences (MoES)	2.30
10.	Ministry of Electronics and Information Technology (MEITY)	0.80
11.	Ministry of Environment, Forest and Climate Change (MoEFCC)	0.50
12.	Ministry of New and Renewable Energy (MNRE)	0.10
13.	Others	0.20

Source : *Research and Development Statistics at a Glance 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

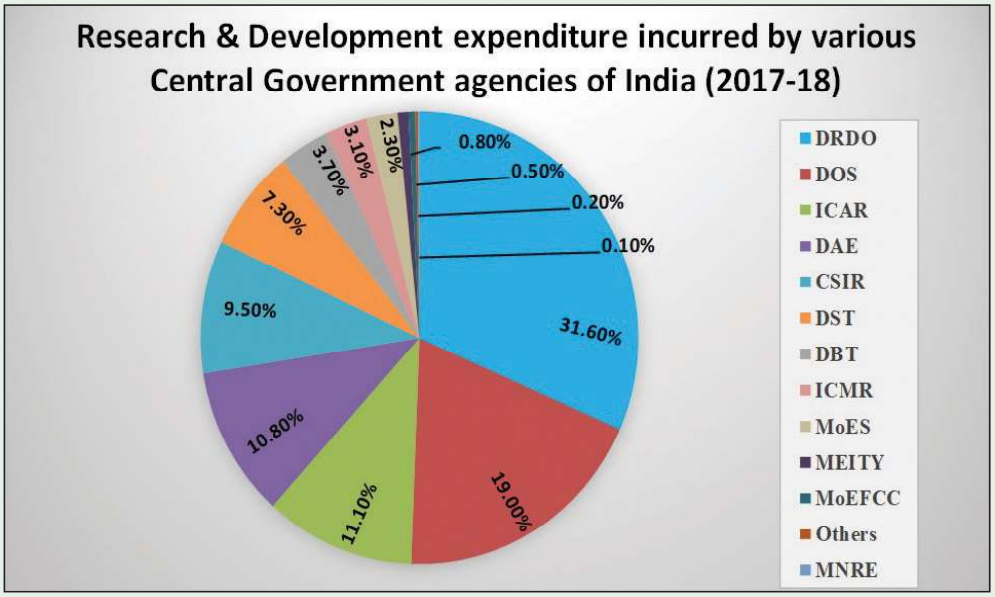


Table 10.4: R&D expenditure incurred by different sectors in India during 2017-18

S.No.	Name	Expenditure in %
1.	**Central government sector**	45.40
2.	**Private sector**	36.80
3.	**State sector**	6.40
4.	**Public sector**	4.60
5.	**Higher Education sector**	6.80

Source : *Research and Development Statistics at a Glance 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

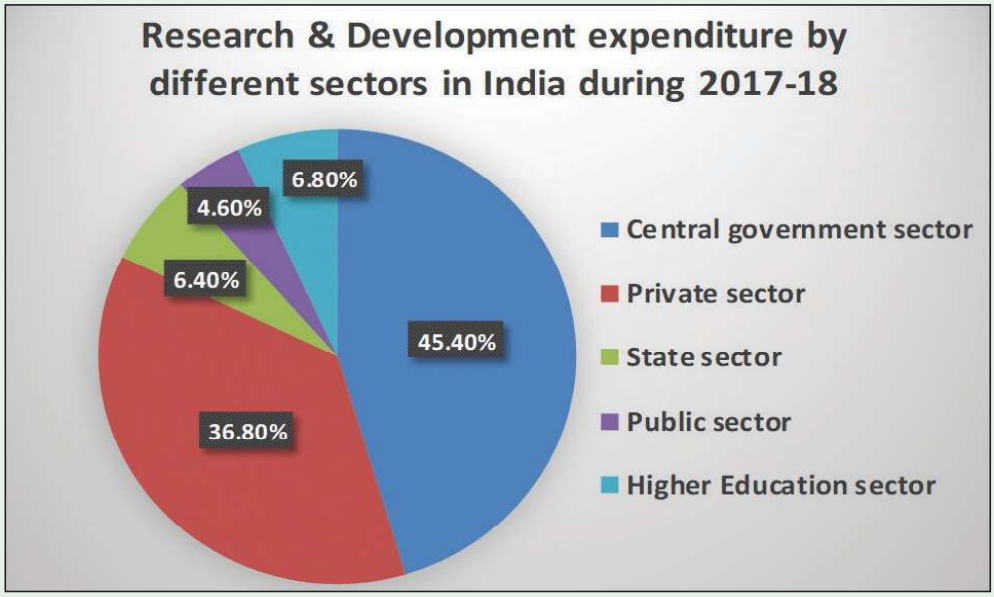


Table 10.5: Percentage Share of Goverment and Business enterprise sector in Gross Expenditure on R&D

Year	Government sector (%)	Business sector (%)
1990-91	75.7	24.3
1995-96	72.5	27.5
2000-01	76.8	23.2
2005-06	67.4	32.6
2006-07	65.1	34.9
2007-08	62.5	37.5
2008-09	64.5	35.5
2009-10	65.8	34.2
2010-11	62.4	37.6
2011-12	59.0	41.0
2012-13	54.8	45.2
2013-14	56.0	44.0
2014-15	57.5	42.5
2015-16	57.6	42.4
2016-17	57.5	42.5
2017-18	58.6	41.4
2018-19	58.7	41.3

Source : *Research and Development Statistics at a Glance 2019-20,* Department of Science and Technology, Ministry of Science and Technology, Govt. of India.

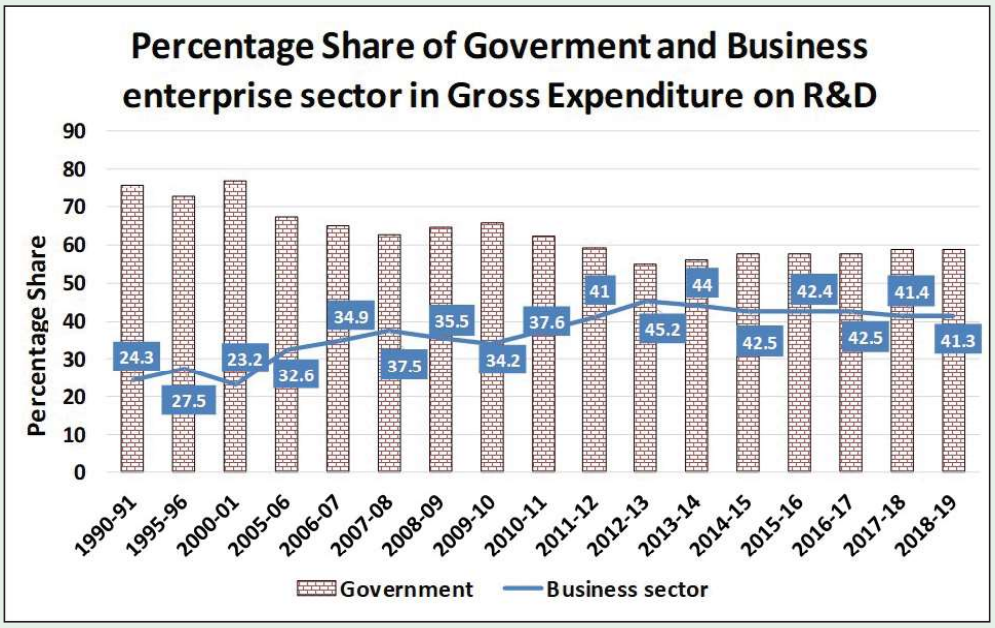
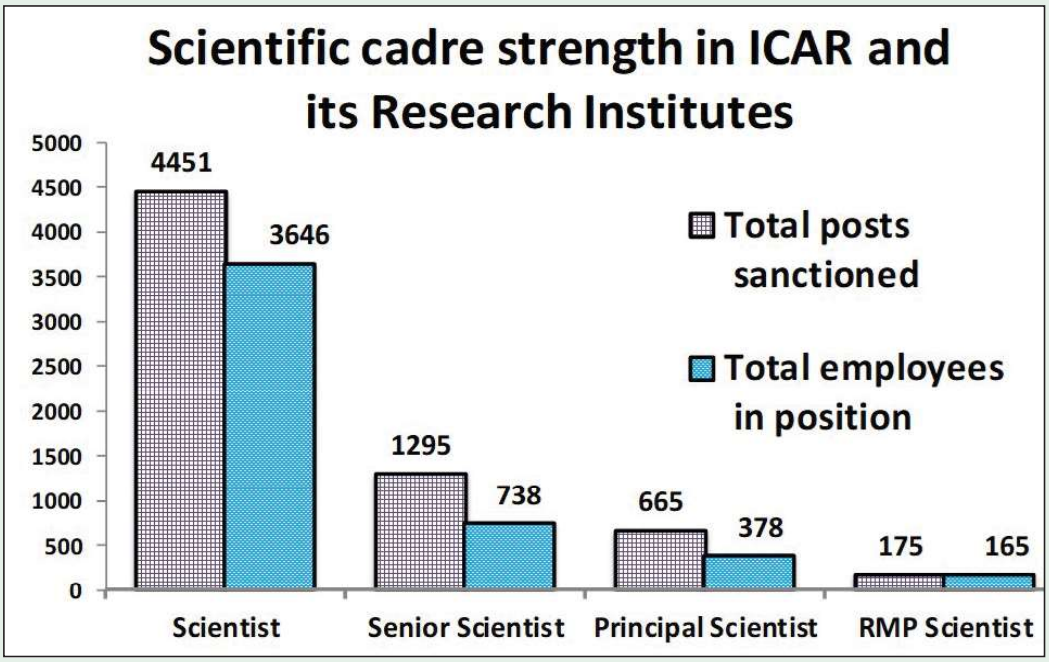
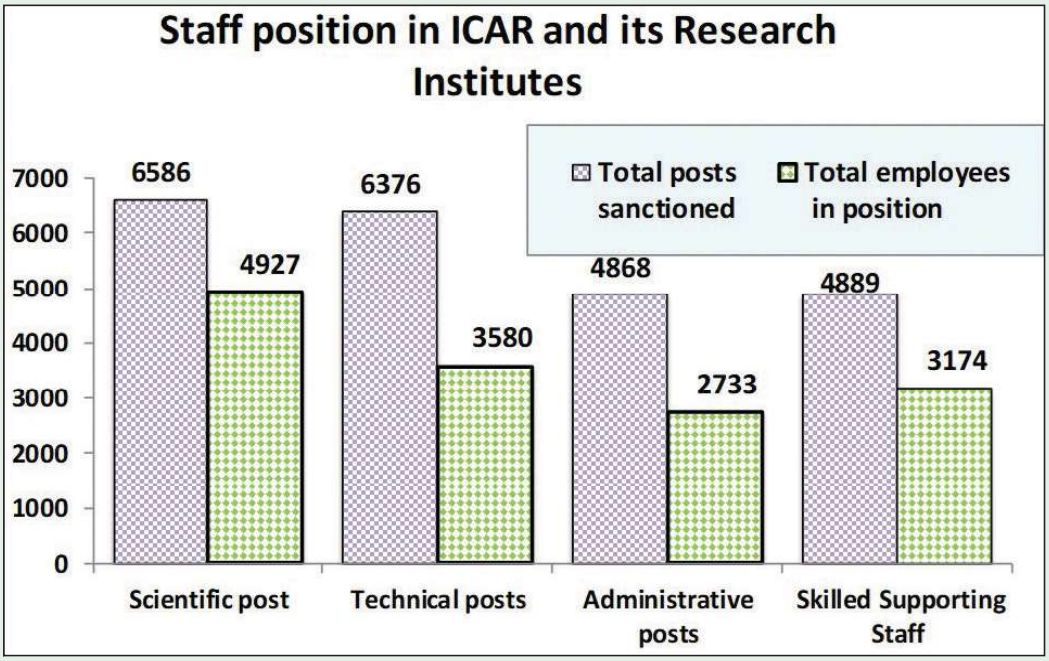


Table 10.6: Total number of employees in the ICAR and its research institutes and number of Scheduled Castes, Scheduled Tribes, Other Backward Classes and PwD Employees during 2023-24

Sl. No.	Class of posts	Total posts sanctioned	Total employees in position	Scheduled Castes employees		Scheduled Tribes employees		OBC employees		PwD employees	
				Number	% to total employees	Number	% to total employees	Number	% to total employees	Number	% to total employees
1. Scientific posts											
	Scientist	4451	3646	547	15.00	231	6.33	1106	30.33	28	0.70
	Senior Scientist	1295	738	53	7.18	13	1.76	97	13.14	0	0.00
	Principal Scientist	665	378	24	6.34	6	1.58	44	11.64	1	0.26
	RMP Scientist	175	165	5	3.03	0	0.00	11	6.66	0	0.00
	Total	**6586**	**4927**	**629**	**12.76**	**250**	**5.07**	**1258**	**25.53**	**29**	**0.58**
2. Technical posts											
	Category-I	3622	2161	390	8.05	218	10.09	408	18.88	25	1.16
	Category-II	2427	1294	205	15.84	105	8.11	305	23.57	12	0.93
	Category-III	327	125	10	8.00	11	8.80	25	20.00	12	1.60
	Total	**6376**	**3580**	**605**	**16.90**	**334**	**9.33**	**738**	**20.61**	**39**	**1.09**
3. Administrative posts											
(a)	Category "A" Post Senior Registrar/Director/Deputy Secretary/Under Secretary/ CAOs/SAOs/AOs/CF&AO/F&AO/ Legal Advisor/Director(OL)/ DD(OL)/AD(OL)/PPS	587	388	51	13.14	44	11.34	53	13.66	10	2.58
(b)	Category "B" Post AF/AO/AAO/PS/SO/AD(OL) / ALA/Assistant/PA/Senior Sales Assistant/JAO/ALA	3045	1565	259	16.55	127	8.12	249	15.91	40	2.56
(c)	Category "C" Post UDC/Steno/LDC	1236	780	157	20.13	71	9.10	192	24.62	9	1.15
	Total	**4868**	**2733**	**467**	**17.09**	**242**	**8.85**	**494**	**18.08**	**59**	**2.16**
4. Supporting Skilled Staff		**4889**	**3174**	**775**	**24.42**	**256**	**8.07**	**575**	**18.12**	**24**	**0.76**

Source : *DARE/ICAR Annual Report 2023-24,* Ministry of Agriculture & Farmers Welfare, Govt. of India.


Scientific cadre strength in ICAR and its Research Institutes
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
4451
3646
1295
738
665
378
175
165
Total posts sanctioned
Total employees in position
Scientist
Senior Scientist
Principal Scientist
RMP Scientist


Staff position in ICAR and its Research Institutes
7000
6000
5000
4000
3000
2000
1000
0
6586
4927
6376
3580
4868
2733
4889
3174
Total posts sanctioned
Total employees in position
Scientific post
Technical posts
Administrative posts
Skilled Supporting Staff

भाकृअनुप
ICAR

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