



National Dairy  
Development  
Board

# DAIRYING IN

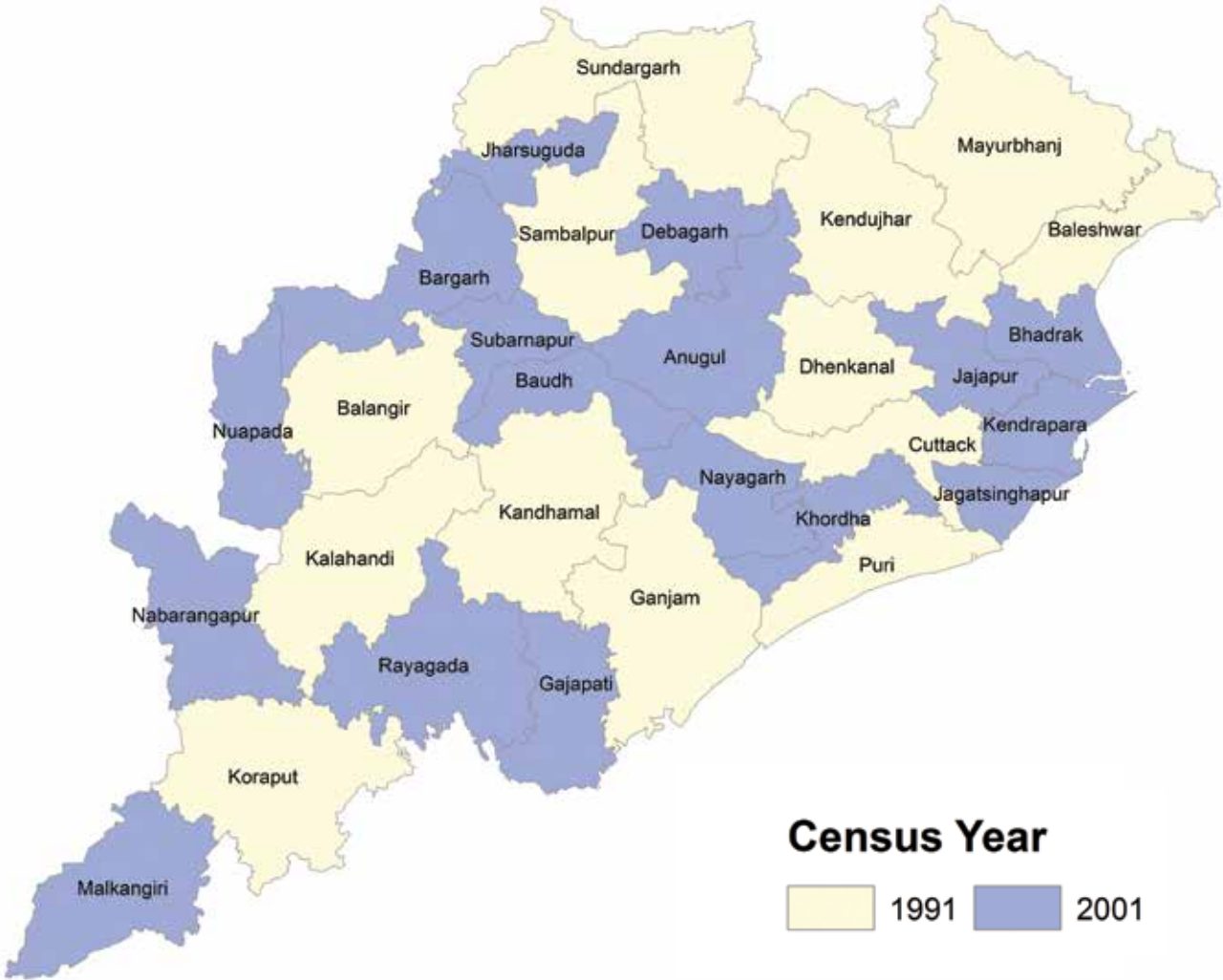


# ODISHA

## A STATISTICAL PROFILE 2016



# District Map of Odisha





## FOREWORD

In this publication “DAIRYING IN ODISHA - A Statistical Profile 2016”, the major highlights are: trend in human demographics, livestock population and production; inputs for enhancement of productivity such as breeding, health and nutrition, and public spending. This publication includes statistical tables and thematic maps on selected parameters along with time series data of districts wherever available.

The objective of this publication is to provide a detailed presentation of various parameters, underlying factors and their inter-linkages so as to enable effective planning and implementation of various development interventions. We hope that a wide range of readers, students, researchers, veterinarians, planners, scientists, administrators, policy makers and professionals in government and non-governmental organisations, will find this publication useful. This publication aims at balancing the most comprehensive information with the most relevant.

We sincerely thank government and non-government agencies for providing information. While extreme care has been taken in putting together data in a systematic and comprehensible manner, some errors cannot be ruled out.

This publication “Dairying in Odisha - A Statistical Profile 2016” is amongst a series of similar publications for different states being brought out by National Dairy Development Board (NDDB).

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February 2016

Anand, Gujarat



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# PART I : GENERAL STATISTICS

Odisha is blessed with plentiful natural resources and a long coastline. It contains a fifth of India's coal, a quarter of its iron ore, one third of its bauxite reserves and abundant quantities of chromite. Major aluminum and steel plants are located in Odisha. It is also the first state in India to initiate privatization of its electricity transmission and distribution business.

About 60 per cent of the population depends on agriculture and the performance of Odisha's agriculture sector is highly dependent and susceptible to adverse impact of natural shocks in form of cyclones, droughts and floods. As per Census, the percentage share of cultivators and agricultural workers in the state has declined from about 65 per cent in 2001 to 62 per cent in 2011.

Earlier, Odisha had high deficit levels as close to 50 per cent to GSDP which has now declined to less than 20 per cent of GSDP in 2013-14. Thus, the overall macro scenario is rapidly improving in Odisha.





## I.1. Odisha at a Glance

**TABLE I.1.1: General Statistics: Odisha vs. India**

Particulars	Unit	Year	Odisha	India
<b>State Geography &amp; Rural Infrastructure</b>				
Geographical area	'000 sq km	2011	155.8	3,287.3
Districts	Nos	"	30	640
Sub-Districts	"	"	476	5,924
Villages	'000	"	51.3	640.9
Households	Million	"	9.6	249.5
<b>Rural Households</b>				
2001	'000	2001	6,783	137,414
2011	"	2011	8,144	168,565
<b>Rural Households with Electricity</b>				
2001	%	2001	19	44
2011	"	2011	36	55
<b>Rural Households with Tap water supply</b>				
2001	%	2001	3	24
2011	"	2011	7	31
<b>Human Population</b>				
Population	Millions	2011	41.9	1,210.1
Urban (As % of total)	%	"	16.7	31.2
Rural (As % of total)	"	"	83.3	68.8
Density of Population	Persons/ sq.km	"	269	382
Scheduled Castes (As % of total)	%	"	17.1	16.6
Scheduled Tribes (As % of total)	"	"	22.8	8.6
Sex Ratio	Ratio	"	978	943
<b>Literacy Rate (excluding population of 0 to 6 age group)</b>				
Male	%	2011	82.4	80.9
Female	%	"	64.4	64.6
Urban	%	"	86.5	84.1
Rural	%	"	70.8	67.8
Per Capita Income (at current prices)	₹	2013-14	54,241	74,380
<b>Livestock Population</b>				
	Million	2012	20.7	512.0
Bovine	"	"	12.3	299.9
Indigenous Cattle	"	"	10.3	151.2
Crossbred Cattle	"	"	1.3	39.7
Buffaloes	"	"	0.7	108.7
Small Ruminants	"	"	8.1	200.2
Poultry	"	"	19.9	729.2
<b>Livestock Population</b>				
	Million	2007	23.1	529.7
Bovine	"	"	13.5	304.8
Indigenous Cattle	"	"	10.6	166.0
Crossbred Cattle	"	"	1.7	33.1
Buffaloes	"	"	1.2	105.3
Small Ruminants	"	"	8.9	212.1
Poultry	"	"	20.6	648.9



## I.1. Odisha at a Glance

**TABLE I.1.1: General Statistics: Odisha vs. India**

Particulars	Unit	Year	Odisha	India
Number of Major Cattle Breeds	nos	2015	4	36
Number of Major Buffalo Breeds	"	"	2	13
<b>Milk Production</b>				
Milk Production - Total	'000 MT	2014-15	1,903	146,313
Crossbred Cattle	"	"	844	36,938
Indigenous Cattle	"	"	860	29,484
Buffaloes	"	"	194	74,709
Goats	"	"	4	5,180
Per Capita Milk Availability	grams/day	2013-14	117	307
Egg Production	million	2014-15	1,924	78,484
Estimated Meat Production	'000 MT	"	162.5	6,691
Marine & Inland Fish Production	"	2013-14	413.8	9,579
Wool Production	'000 kg	2014-15	-	48,139
<b>Veterinary Infrastructure</b>				
Veterinary Institutes	nos	2013-14	3,479	60,896
Semen Stations	"	"	1	57
AI Centers	"	"	5,826	83,796
<b>Veterinary Services</b>				
AI Done	'000	2013-14	1,435	58,532
Vaccination Done				
H.S. Vaccination	"	2013-14	8,282	
B.Q. Vaccination	"	"	5,297	
FMD Vaccination	"	"	2,663	
Total Treatment	"	"	7,658	
Total Castration	"	"	556	
<b>Agricultural Resources</b>				
Forest Cover	%	2012-13	37.3	21.30
Pasture and Grazing Land	'000 ha	"	536	10,240
As % of total reporting area	%	"	3.5	3.3
Area Under Fodder Crops	'000 ha	"	-	9,188
Gross Irrigated Area As % Gross Cropped Area	%	"	38.0	47.6
Cropping Intensity	%	"	166	139
Irrigation Intensity	%	"	154	138
<b>Production of Major Crops</b>				
Cereals	'000 MT	2013-14	8,574	245,790
Pulses	"	"	1,058	19,253
Oilseeds	"	"	699	32,749
Cotton	'000 bales (170 kg Each)	"	299	35,902
Sugarcane	'000 MT	"	2,544	352,142
<b>Ground Water Status</b>				
Safe	% of Blocks	2011 & (2009)	98 (98)	69 (73)
Semi Critical	"	"	0 (0)	11 (9)





## I.1. Odisha at a Glance

**TABLE I.1.1: General Statistics: Odisha vs. India**

Particulars	Unit	Year	Odisha	India
Critical	"	"	0 (0)	3 (3)
Over Exploited	"	"	0 (0)	16 (14)
Salinity Affected	"	"	2 (2)	1 (1)

SOURCES: Census 2001 & 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.  
 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
 Minutes of the Meeting of Technical Committee on Direction for improvement of Animal Husbandry Statistics held during 4<sup>th</sup> to 5<sup>th</sup> June, 2015,  
 Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
 Dynamic Ground Water Resources of India as on 31<sup>st</sup> March, 2009, 2011, Central Ground Water Board, Ministry of Water Resources, Govt. of India.  
 Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.  
 Ministry of Statistics and Programme Implementation, Govt. of India.  
 Odisha Economic Survey, 2014-15, Planning and Coordination Department, Govt. of Odisha.

**TABLE I.1.2: Formation of Districts in Odisha**

New Districts	Year of Formation	Carved Out of
Anugul	1993	Dhenkanal
Bargarh	1993	Sambalpur
Baudh	1994	Kandhamal
Bhadrak	1993	Baleshwar
Debagarh	1994	Sambalpur
Gajapati	1992	Ganjam
Jagatsinghapur	1993	Cuttack
Jajapur	1993	Cuttack
Jharsuguda	1994	Sambalpur
Kendrapara	1993	Cuttack
Khordha	1993	Puri
Malkangiri	1992	Koraput
Nabarangapur	1992	Koraput
Nayagarh	1995	Puri
Nuapada	1993	Kalahandi
Rayagada	1992	Koraput
Subarnapur	1993	Balangir

SOURCE: District Administration Websites of Govt. of Odisha.



## I.2. Social Statistics: Human Population

**TABLE I.2.1: Human Population by Residence and Sex –2001**

Districts	Rural ('000)			Urban ('000)			Total ('000)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>ODISHA</b>	<b>15,749</b>	<b>15,538</b>	<b>31,287</b>	<b>2,912</b>	<b>2,606</b>	<b>5,517</b>	<b>18,661</b>	<b>18,144</b>	<b>36,805</b>
Anugul	501	480	982	86	73	158	587	553	1,140
Balangir	594	589	1,183	80	75	154	674	663	1,337
Baleshwar	922	882	1,804	115	106	220	1,037	988	2,025
Bargarh	628	615	1,243	54	50	104	682	665	1,346
Baudh	179	176	355	9	9	18	188	185	373
Bhadrak	603	590	1,193	73	68	141	676	658	1,334
Cuttack	866	834	1,700	342	299	641	1,208	1,133	2,341
Debagarh	128	126	254	11	10	20	138	136	274
Dhenkanal	495	479	974	49	44	93	544	523	1,067
Gajapati	229	237	466	27	26	53	255	263	519
Ganjam	1,295	1,309	2,604	287	269	556	1,582	1,579	3,161
Jagatsinghapur	480	473	953	58	46	104	539	519	1,058
Jajapur	785	766	1,551	38	35	73	824	801	1,624
Jharsuguda	164	160	324	98	88	186	262	248	510
Kalahandi	616	620	1,235	52	48	100	668	668	1,335
Kandhamal	300	304	604	23	21	44	323	325	648
Kendrapara	608	619	1,228	38	36	74	646	656	1,302
Kendujhar	678	671	1,349	112	101	213	790	772	1,562
Khordha	543	528	1,072	443	362	806	987	891	1,877
Koraput	489	493	982	102	97	198	591	590	1,181
Malkangiri	235	235	470	18	17	35	253	252	504
Mayurbhanj	1,041	1,027	2,068	82	74	156	1,123	1,100	2,223
Nabarangapur	484	482	966	31	29	59	515	511	1,026
Nayagarh	427	401	827	19	18	37	446	418	865
Nuapada	249	252	501	15	15	30	264	266	531
Puri	657	641	1,299	106	98	204	763	739	1,503
Rayagada	351	365	716	59	57	115	410	421	831
Sambalpur	343	339	682	132	122	254	475	460	936
Subarnapur	255	247	502	21	19	40	276	266	542
Sundargarh	603	599	1,201	333	296	629	936	895	1,831

SOURCE: Census 2001, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.







## I.2. Social Statistics: Human Population

**TABLE I.2.2: Human Population by Residence and Sex –2011**

Districts	Rural ('000)			Urban ('000)			Total ('000)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>ODISHA</b>	<b>17,586</b>	<b>17,384</b>	<b>34,971</b>	<b>3,626</b>	<b>3,378</b>	<b>7,004</b>	<b>21,212</b>	<b>20,762</b>	<b>41,974</b>
Anugul	546	521	1,067	109	97	207	656	618	1,274
Balangir	729	723	1,452	101	96	197	830	819	1,649
Baleshwar	1,056	1,011	2,067	129	124	253	1,186	1,135	2,321
Bargarh	673	659	1,331	77	74	150	749	732	1,481
Baudh	211	210	421	10	10	20	222	220	441
Bhadrak	665	655	1,320	95	91	186	760	746	1,506
Cuttack	971	918	1,888	382	354	736	1,353	1,272	2,624
Debagarh	147	143	290	12	11	22	158	154	313
Dhenkanal	551	524	1,075	61	56	118	613	580	1,193
Gajapati	248	259	507	35	35	71	283	295	578
Ganjam	1,384	1,377	2,761	396	372	768	1,779	1,750	3,529
Jagatsinghapur	517	504	1,021	61	55	116	578	559	1,137
Jajapur	857	836	1,692	69	66	135	926	901	1,827
Jharsuguda	176	172	348	121	111	231	297	283	580
Kalahandi	725	730	1,455	62	60	122	787	790	1,577
Kandhamal	324	337	661	36	36	72	360	373	733
Kendrapara	675	682	1,357	43	41	84	718	723	1,440
Kendujhar	775	774	1,549	132	121	253	906	895	1,802
Khordha	596	572	1,167	571	513	1,084	1,167	1,085	2,252
Koraput	564	590	1,153	115	111	226	679	701	1,380
Malkangiri	278	286	564	26	24	50	304	310	613
Mayurbhanj	1,158	1,169	2,327	99	94	193	1,256	1,264	2,520
Nabarangapur	561	573	1,133	44	44	88	605	616	1,221
Nayagarh	461	422	883	42	38	80	503	460	963
Nuapada	285	292	576	17	17	34	302	308	610
Puri	728	706	1,434	137	128	265	865	833	1,699
Rayagada	398	423	821	74	73	147	472	496	968
Sambalpur	369	364	733	158	150	308	527	514	1,041
Subarnapur	286	275	560	26	24	50	311	299	610
Sundargarh	676	679	1,355	385	353	738	1,061	1,032	2,093

SOURCE: Census 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.

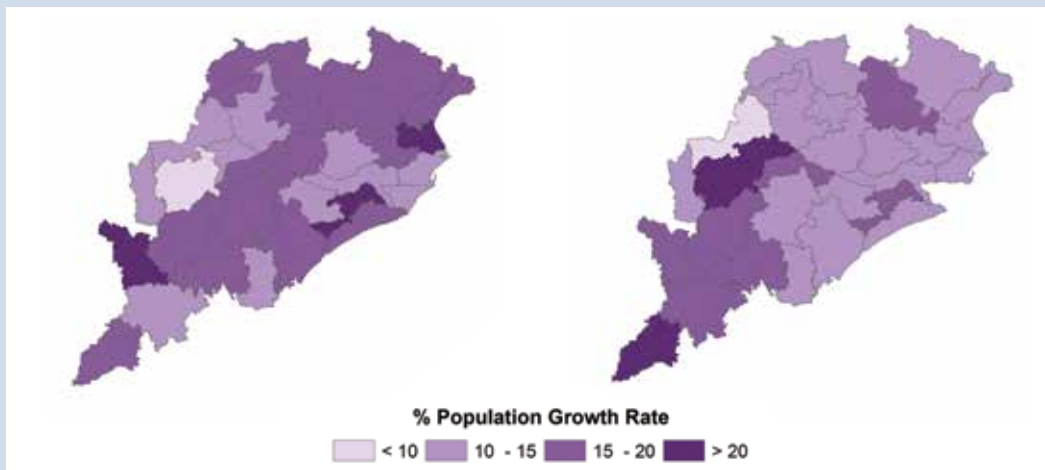




### Decadal Growth Rate of Population

1991-2001

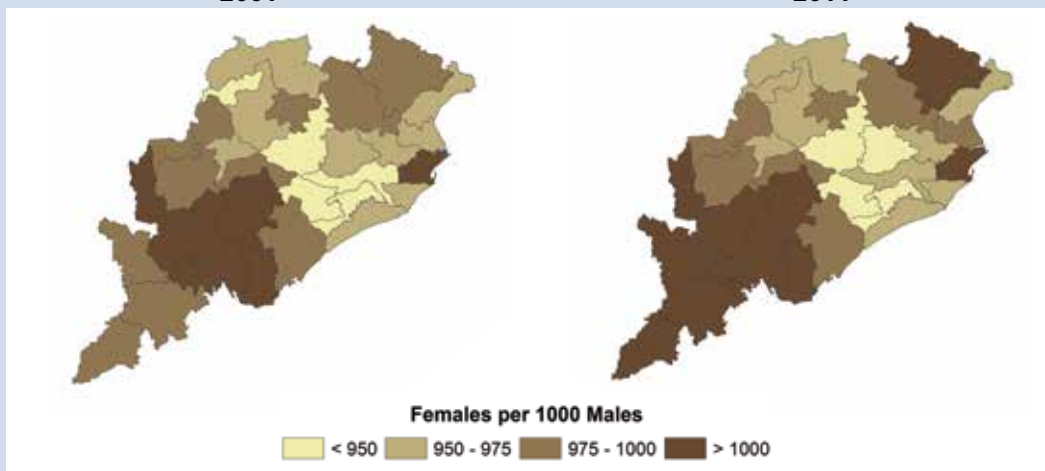
2001-2011



### Sex Ratio (all age groups)

2001

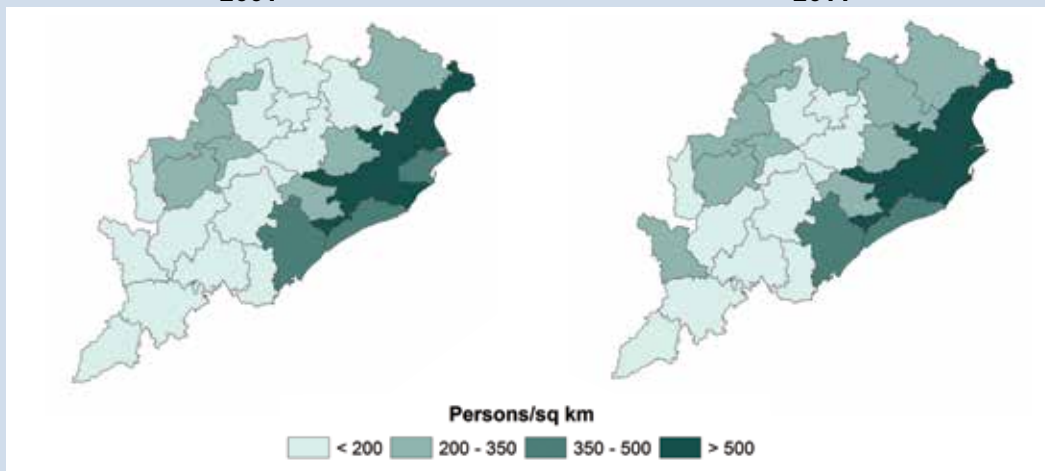
2011



### Population Density

2001

2011





## I.2. Social Statistics: Human Population

**TABLE I.2.3: Rural Households, Electricity and Tap Water Supply - 2001 and 2011**

Districts	Rural Households ('000)		Rural Households with Electricity ('000)		Rural Households with Tap Water (inclusive – treated & untreated) ('000)	
	2001	2011	2001	2011	2001	2011
<b>ODISHA</b>	<b>6,783</b>	<b>8,144</b>	<b>1,312</b>	<b>2,895</b>	<b>188</b>	<b>609</b>
Anugul	195.5	249.6	41.3	94.8	7.3	18.1
Balangir	306.1	387.3	30.5	87.9	11.1	25.9
Baleshwar	362.4	473.5	99.4	249.4	8.7	45.6
Bargarh	280.4	339.4	70.4	136.8	12.5	51
Baudh	81.2	103.2	8.6	15.8	1.3	2
Bhadrak	220	274.2	48.7	138.1	7.1	9.9
Cuttack	352.9	425.1	107.6	219.8	7.5	32.3
Debagarh	54	70.5	4.8	18.5	0.4	3
Dhenkanal	206.8	253.1	46.4	97.4	5.2	10.7
Gajapati	101.8	112.9	12	50.5	3.6	17.8
Ganjam	564.7	602.2	149.5	278.2	22.4	105.3
Jagatsinghapur	207.9	237.4	35.6	121.6	8.5	15.1
Jajapur	328.2	378.1	92.7	169	7.4	16.1
Jharsuguda	69	83.7	21.8	37.1	3.4	6.2
Kalahandi	304.5	377	29.8	70.1	4.7	12.6
Kandhamal	136.9	155.3	10.8	17	1.9	3.3
Kendrapara	278.2	311.5	66.7	159.8	5.4	18.8
Kendujhar	287.3	349.7	37.6	80.5	10	16.2
Khordha	202.4	247.9	76.8	142	4	23.2
Koraput	241.7	283.5	21.7	42.4	7.4	24.8
Malkangiri	102	126.3	6.7	17	2.1	5
Mayurbhanj	443	544.8	52.5	107	5.4	23
Nabarangapur	215	253.5	10.8	21.5	3.3	9.5
Nayagarh	174.9	213.3	42.9	111.1	5.8	28.1
Nuapada	123.4	151.9	12.9	37.9	5.6	12
Puri	255.8	317	61.8	155.3	6.6	15.1
Rayagada	165.2	191.6	18.4	33.6	6.5	20.2
Sambalpur	148.3	179	32.2	64	3.3	15.3
Sonapur	109.6	140.7	17.1	41.6	2.9	7
Sundargarh	263.8	310.8	44.7	79.6	6.9	15.4

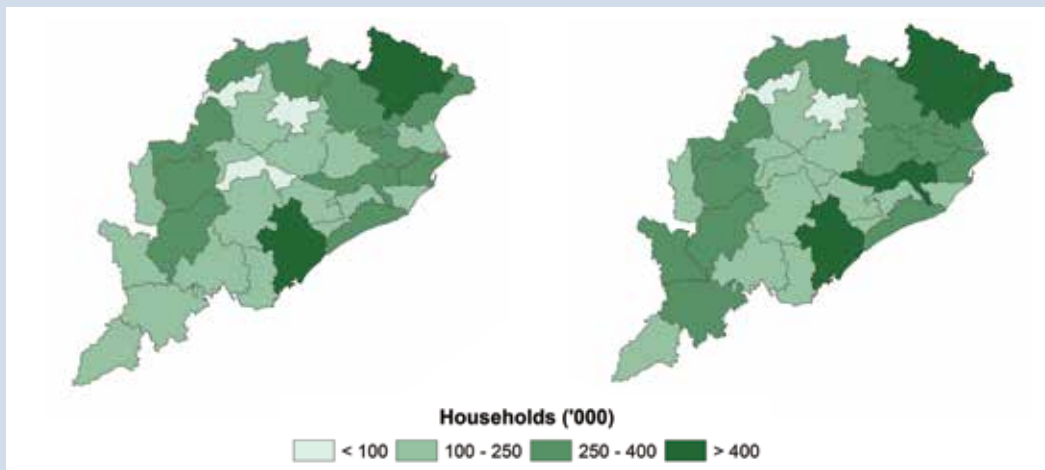
SOURCE: Census 2001 and 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.



### Rural Households

2001

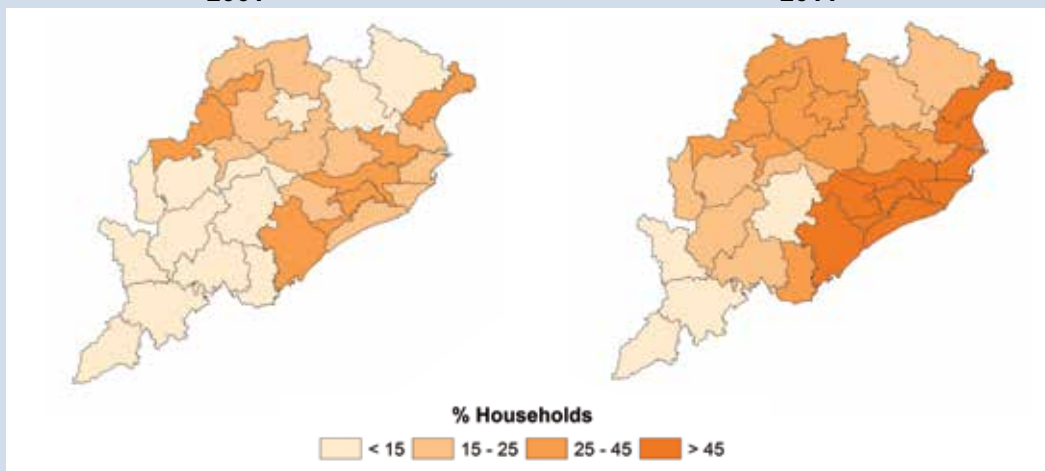
2011



### Rural Households with Electricity

2001

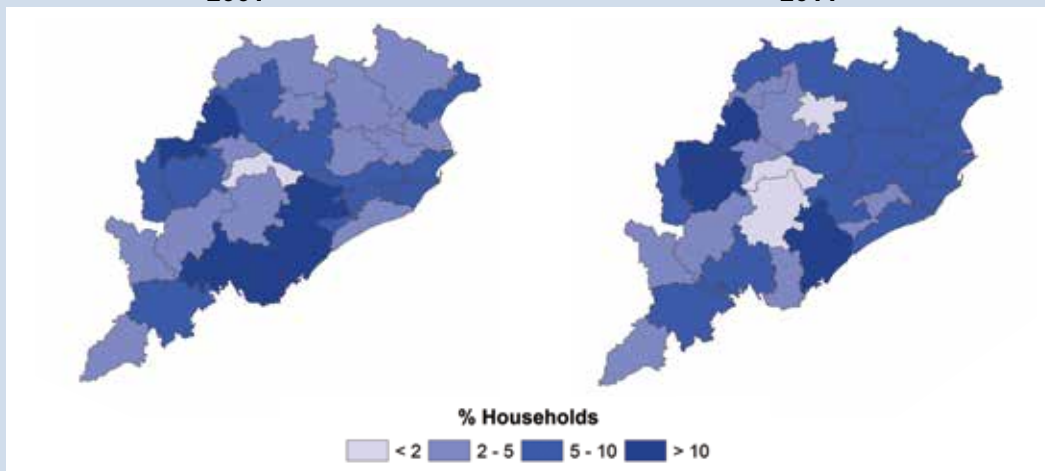
2011



### Rural Households with Tap Water

2001

2011





## I.2. Social Statistics: Human Population

**TABLE I.2.4: District-wise SC and ST Population – 2001 and 2011**

Districts	SC Population ('000)		ST Population ('000)	
	2001	2011	2001	2011
<b>ODISHA</b>	<b>6,082</b>	<b>7,188</b>	<b>8,145</b>	<b>9,591</b>
Anugul	196	240	133	180
Balangir	226	295	276	347
Baleshwar	381	479	228	276
Bargarh	261	299	261	281
Baudh	82	105	47	55
Bhadrak	287	335	25	30
Cuttack	447	499	84	94
Debagarh	42	52	92	110
Dhenkanal	197	234	137	162
Gajapati	39	39	263	314
Ganjam	587	688	91	119
Jagatsinghapur	223	248	9	8
Jajapur	374	433	126	151
Jharsuguda	87	105	160	177
Kalahandi	236	287	383	449
Kandhamal	110	116	337	393
Kendrapara	267	310	7	9
Kendujhar	181	209	695	819
Khordha	254	297	97	115
Koraput	154	197	586	698
Malkangiri	108	138	290	355
Mayurbhanj	171	185	1,258	1,480
Nabarangapur	145	177	564	681
Nayagarh	121	136	51	59
Nuapada	72	82	184	206
Puri	274	325	4	6
Rayagada	116	140	463	542
Sambalpur	159	192	323	355
Subarnapur	128	156	53	57
Sundargarh	158	192	919	1,062

SC: Scheduled Caste, ST: Scheduled Tribe

Source: Census 2001 and 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.

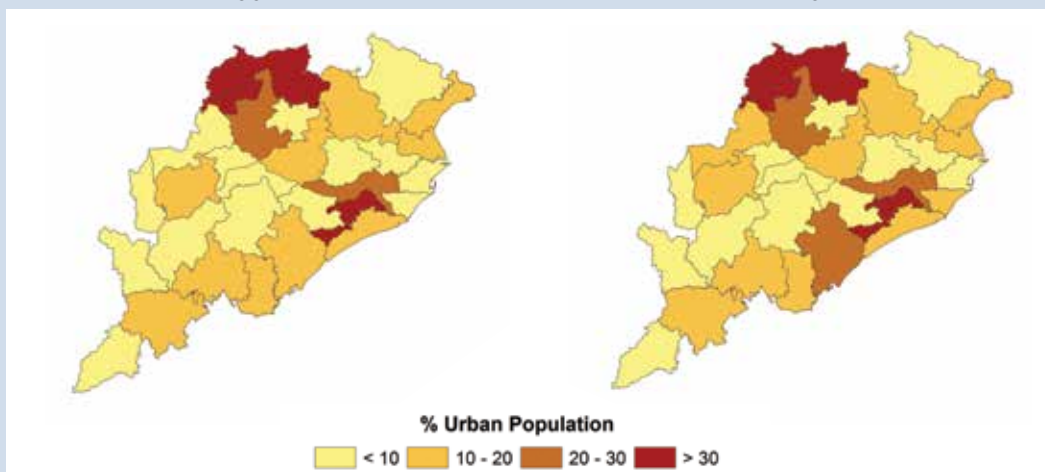




### Urbanisation (%)

2001

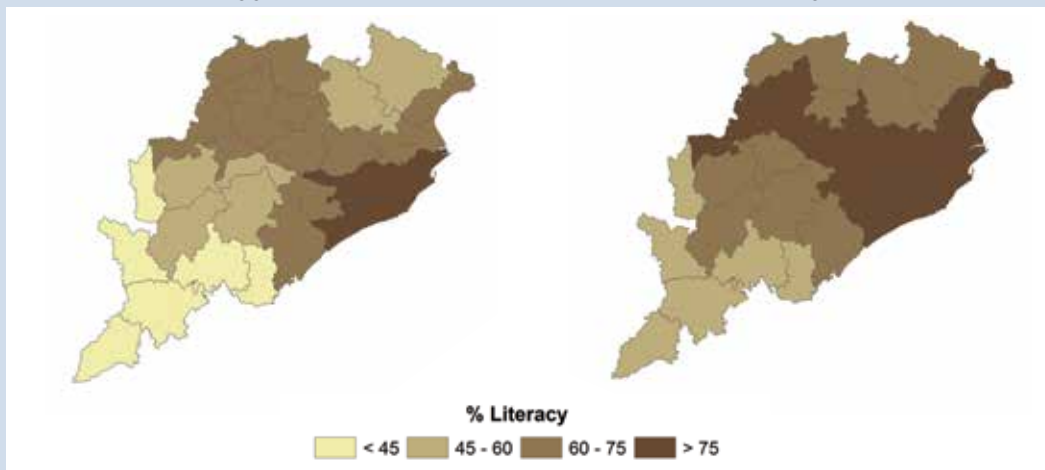
2011



### Literacy Rate

2001

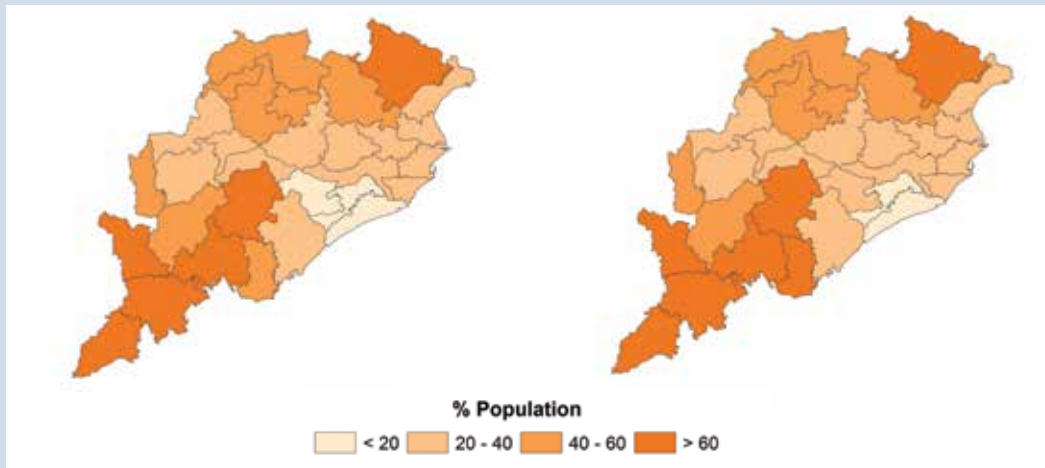
2011



### Scheduled Caste and Scheduled Tribe Population (%)

2001

2011





### I.3. State Economy

**TABLE I.3.1: Net State Domestic Product (NSDP) and Per Capita Income**

Sector	At Current Prices (₹ crores)										
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<b>State Domestic Product</b>	<b>67,987</b>	<b>73,550</b>	<b>87,921</b>	<b>111,109</b>	<b>127,516</b>	<b>135,837</b>	<b>164,760</b>	<b>183,522</b>	<b>210,622</b>	<b>227,877</b>	<b>260,222</b>
1. Agriculture	13,678	14,709	16,690	25,175	25,070	27,315	29,435	28,718	40,671	39,035	44,667
2. Forestry & Logging	2,543	2,390	2,716	3,198	3,228	3,520	4,456	4,604	4,638	5,582	5,538
3. Fishing	948	1,047	1,115	1,208	1,456	1,605	1,996	2,230	2,774	3,134	3,789
4. Agriculture & Allied (1+2+3)	17,169	18,147	20,521	29,581	29,754	32,440	35,888	35,553	48,084	47,751	53,995
As % of NSDP	25.25	24.67	23.34	26.62	23.33	23.88	21.78	19.37	22.83	20.95	20.75
Sub-total of Primary	22,009	23,937	27,534	39,465	42,614	44,397	53,378	56,507	68,842	69,976	76,644
As % of NSDP	32.37	32.55	31.32	35.52	33.42	32.68	32.40	30.79	32.69	30.71	29.45
Sub-total of Secondary	15,851	15,602	20,540	25,701	28,930	23,837	28,859	33,879	36,787	39,699	47,432
As % of NSDP	23.31	21.21	23.36	23.13	22.69	17.55	17.52	18.46	17.47	17.42	18.23
Services	30,127	34,010	39,847	45,943	55,972	67,603	82,524	93,136	104,993	118,202	136,146
As % of NSDP	44.31	46.24	45.32	41.35	43.89	49.77	50.09	50.75	49.85	51.87	52.32
<b>Per Capita Income (₹)</b>	<b>17,650</b>	<b>18,846</b>	<b>22,237</b>	<b>27,735</b>	<b>31,416</b>	<b>33,029</b>	<b>39,537</b>	<b>43,463</b>	<b>49,227</b>	<b>52,559</b>	<b>59,229</b>

Sector	At 2004-05 Prices (₹ crores)										
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
<b>State Domestic Product</b>	<b>67,987</b>	<b>71,005</b>	<b>79,845</b>	<b>86,692</b>	<b>93,207</b>	<b>93,957</b>	<b>99,880</b>	<b>103,628</b>	<b>107,664</b>	<b>108,081</b>	<b>116,566</b>
1. Agriculture	13,678	14,152	14,339	15,088	15,281	16,760	17,031	16,784	18,903	16,337	16,584
2. Forestry & Logging	2,543	2,615	2,699	2,700	2,737	2,757	2,669	2,735	2,752	2,613	2,619
3. Fishing	948	979	1,009	1,053	1,086	1,067	1,122	1,120	1,253	1,380	1,426
4. Agriculture & Allied (1+2+3)	17,169	17,745	18,047	18,840	19,104	20,584	20,823	20,639	22,908	20,330	20,629
As % of NSDP	25.25	24.99	22.60	21.73	20.50	21.91	20.85	19.92	21.28	18.81	17.70
Sub-total of Primary	22,009	22,833	24,177	24,699	25,194	26,829	26,322	25,469	27,311	24,684	24,289
As % of NSDP	32.37	32.16	30.28	28.49	27.03	28.55	26.35	24.58	25.37	22.84	20.84
Sub-total of Secondary	15,851	15,101	18,461	21,580	22,419	17,339	18,586	20,025	20,003	20,030	23,115
As % of NSDP	23.31	21.27	23.12	24.89	24.05	18.45	18.61	19.32	18.58	18.53	19.83
Services	30,127	33,071	37,206	40,412	45,593	49,789	54,971	58,133	60,350	63,367	69,162
As % of NSDP	44.31	46.58	46.60	46.62	48.92	52.99	55.04	56.10	56.05	58.63	59.33
<b>Per Capita Income (₹)</b>	<b>17,650</b>	<b>18,194</b>	<b>20,194</b>	<b>21,640</b>	<b>22,963</b>	<b>22,846</b>	<b>23,968</b>	<b>24,542</b>	<b>25,163</b>	<b>24,929</b>	<b>26,531</b>

SOURCE: Ministry of Statistics and Programme Implementation, Govt. of India.

NOTE: The estimates are as on 31.07.2015.







### I.3. State Economy

**TABLE I.3.2: Value of Output: Agriculture and Livestock**

Item	At Current Prices						
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Value of Output (₹ billion)</b>							
Agriculture & Allied	235	245	279	383	397	436	482
Agriculture	159	170	190	278	274	291	311
Livestock	32	32	41	49	65	80	90
Milk	16	17	19	22	25	29	32
Meat	13	12	16	19	25	35	40
Egg	2	2	2	3	5	6	7
Dung	3	3	5	5	11	12	13
Others <sup>^</sup>	-2	-2	-2	-1	-1	-1	-2
<b>Share of Value of Output to Agriculture and Allied (%)</b>							
Agriculture	67.7	69.4	68.1	72.6	69.0	66.7	64.5
Livestock	13.6	13.1	14.7	12.8	16.4	18.3	18.7
<b>Share of Value of Output to Livestock Output (%)</b>							
Milk	50.9	52.3	46.1	45.6	39.1	36.1	35.5
Meat	40.5	37.8	39.9	39.4	39.1	43.7	44.7
Egg	5.9	6.1	6.1	6.4	7.2	7.6	7.5
Dung	9.4	9.7	11.6	10.1	16.9	14.4	14.1
Others <sup>^</sup>	-6.7	-5.9	-3.8	-1.5	-2.3	-1.8	-1.8

Item	At Constant Prices (2004-05)						
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
<b>Value of Output (₹ billion)</b>							
Agriculture & Allied	235	242	248	260	257	289	297
Agriculture	159	164	165	171	173	188	193
Livestock	32	33	37	42	49	52	54
Milk	16	17	18	20	20	21	21
Meat	13	13	14	15	18	20	21
Egg	2	2	2	2	3	4	4
Dung	3	3	4	4	9	9	10
Others <sup>^</sup>	-2	-2	-2	-1	-2	-1	-1
<b>Share of Value of Output to Agriculture and Allied (%)</b>							
Agriculture	67.7	67.8	66.5	65.8	67.3	65.1	65.0
Livestock	13.6	13.6	14.9	16.2	19.1	18.0	18.2
<b>Share of Value of Output to Livestock Output (%)</b>							
Milk	50.9	50.4	48.1	48.9	41.2	39.5	38.5
Meat	40.5	39.9	38.5	37.0	36.6	38.4	38.2
Egg	5.9	6.0	5.9	5.9	6.4	6.9	6.7
Dung	9.4	9.0	11.5	10.3	19.1	17.8	18.8
Others <sup>^</sup>	-6.7	-5.3	-4.1	-2.0	-3.2	-2.6	-2.2

<sup>^</sup> Includes Wool and Hair, Silkworm Cocoons & Honey, Increment in Stock.

SOURCE: State wise estimates of value of output from agriculture and allied activities with new base year 2004-2005 (Published in 2013), Ministry of Statistics and Programme Implementation, Govt. of India.





### I.3. State Economy

**TABLE I.3.3: Approved Project Cost for Dairying under Rashtriya Krishi Vikas Yojana (RKVY) in Odisha**

Segment	Approved Project Cost (₹ crores)							Grand Total
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	
Dairy Development (Including Infrastructure)	4.69	29.40	1.99	9.80	6.77	1.40	37.91	91.97
Establishment of Cattle Feed Plant							26.60	26.60
Others						5.10	2.71	7.81
Strengthening of Dairy educational Institutes, Training Centers				2.32				2.32
<b>Total</b>	<b>4.69</b>	<b>29.40</b>	<b>1.99</b>	<b>12.12</b>	<b>6.77</b>	<b>6.50</b>	<b>67.23</b>	<b>128.70</b>

SOURCE: Rashtriya Krishi Vikas Yojana, Department of Agriculture and Cooperation, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**TABLE I.3.4: Approved Project Cost for Animal Husbandry under Rashtriya Krishi Vikas Yojana (RKVY) in Odisha**

Segment	Approved Project Cost (₹ crores)							Grand Total
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	
Animal Breeding Improvement (Including improving AI delivery system, Frozen Semen Lab, Calf rearing)		2.43		22.11	11.17	85.67	19.96	141.34
Infrastructure Development-Veterinary Institutes, Mobile Veterinary unit, Semen Station and lab, Disease Lab, Diagnostic center, Training center etc		7.20			13.10	15.33	12.71	48.34
Poultry Development		12.26						12.26
Goat Development					2.5	2.5	5.00	10.00
Capacity Building				8.99				8.99
Cattle Feed Plant		5.83						5.83
Animal Health camp							2.69	2.69
Others		0.83		0.65				1.48
Development of Farm	0.57							0.57
<b>Total</b>	<b>0.57</b>	<b>28.55</b>	<b>0.00</b>	<b>31.75</b>	<b>26.77</b>	<b>103.49</b>	<b>40.36</b>	<b>231.49</b>

SOURCE: Rashtriya Krishi Vikas Yojana, Department of Agriculture and Cooperation, Ministry of Agriculture & Farmers Welfare, Govt. of India.

## PART II : LIVESTOCK CENSUS

Odisha constitutes 4 per cent of the total bovine population in the country. According to the 19th Livestock Census, Odisha has witnessed secular decline in bovine population during the inter-census period from 2007 to 2012. During the same period, there has been an increase of 77 per cent in the in-milk exotic and cross-bred cattle and 3.5 per cent in in-milk indigenous cows.

In case of buffaloes, the number of in-milk has fallen by 11 per cent from 1.43 lakh to 1.27 lakh in the 2012 census. In order to give a major push to buffalo breeding, the Odisha Bovine Breeding Policy 2015 has been announced for genetic improvement of the buffalo population. The key focus of the policy is also to conserve indigenous buffalo breeds that include nationally recognized Chilika and Kalahandi along with Parlakhemundi, Manda, Jerangi, Sambalpur and Kujang.





## II.1. Animal Population

**TABLE II.1.1: Summary of Livestock Census (1997-2012) - Odisha**

Population	Livestock Census			
	1997	2003	2007	2012
<b>Total Bovine</b>	<b>151,98,463</b>	<b>152,96,783</b>	<b>134,99,704</b>	<b>123,47,578</b>
<b>Total Cattle</b>	<b>138,10,439</b>	<b>139,03,117</b>	<b>123,09,973</b>	<b>116,21,272</b>
<b>Total Exotic/ Crossbred cows</b>	<b>9,12,164</b>	<b>10,63,240</b>	<b>17,03,258</b>	<b>13,05,773</b>
Females	6,55,437	7,35,154	8,25,906	9,86,054
under 1 year	1,41,922	1,48,822	1,31,271	2,28,136
1 to 2.5 year	1,33,094	1,44,076	1,52,469	1,82,765
In-milk	2,34,057	2,48,362	2,03,886	3,60,976
Dry	1,19,779	1,37,448	1,28,350	1,67,648
Milch	3,53,836	3,85,810	3,32,236	5,28,624
Not even calved once	23,612	37,053	1,14,910	42,325
Others	2,973	19,393	95,020	4,204
Males	2,56,727	3,28,086	8,77,352	3,19,719
<b>Total Indigenous cows</b>	<b>128,98,275</b>	<b>128,39,877</b>	<b>106,06,715</b>	<b>103,15,499</b>
Females	58,81,142	60,02,101	50,27,257	48,12,614
under 1 year	9,98,218	10,74,722	9,12,202	9,72,899
1 to 3 years	12,15,191	12,09,734	9,75,519	9,55,731
In-milk	17,05,325	16,49,180	13,42,548	13,94,219
Dry	16,93,411	15,86,304	10,34,897	11,60,500
Milch	33,98,736	32,35,484	23,77,445	25,54,719
Not even calved once	2,54,991	3,59,647	3,47,905	2,72,762
Others	14,006	1,22,514	4,14,186	56,503
Males	70,17,133	68,37,776	55,79,458	55,02,885
<b>Total Buffaloes</b>	<b>13,88,024</b>	<b>13,93,666</b>	<b>11,89,731</b>	<b>7,26,306</b>
Females	6,39,845	6,41,039	5,88,531	3,91,051
under 1 year	1,17,968	1,12,709	1,11,141	74,276
1 to 3 years	1,36,515	1,08,166	1,05,736	66,469
In-milk	2,06,031	1,96,418	1,43,016	1,27,265
Dry	1,48,986	1,61,858	1,38,365	96,274
Milch	3,55,017	3,58,276	2,81,381	2,23,539
Not even calved once	26,800	43,346	54,071	20,828
Others	3,545	18,542	36,202	5,939
Males	7,48,179	7,52,627	6,01,200	3,35,255

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, Govt of India.





## II.1. Animal Population

**TABLE II.1.2: District-wise Bovine Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>12,898</b>	<b>12,840</b>	<b>10,607</b>	<b>10,315</b>	<b>912</b>	<b>1,063</b>	<b>1,703</b>	<b>1,306</b>	<b>1,388</b>	<b>1,394</b>	<b>1,190</b>	<b>726</b>
Anugul	533	475	430	412	30	30	22	25	45	35	20	12
Balangir	478	486	428	294	30	42	88	67	100	120	118	41
Baleshwar	921	854	852	728	28	36	46	37	5	4	5	4
Bargarh	410	348	352	195	97	130	131	136	38	37	34	19
Baudh	230	225	178	164	7	11	7	14	39	42	41	17
Bhadrak	535	586	395	485	25	29		28	12	9	14	5
Cuttack	507	391	240	354	116	135	126	181	37	39	39	23
Debagarh	176	176	157	164	3	3		4	13	12	11	4
Dhenkanal	471	442	450	405	25	40	15	15	63	49	50	25
Gajapati	229	207	56	166	11	17	23	17	25	24	15	10
Ganjam	816	803	525	569	25	21		20	131	132	85	64
Jagatsinghapur	204	201	135	119	83	127		178	14	13	11	11
Jajapur	613	622	637	487	20	21	15	17	12	10	16	5
Jharsuguda	168	158	157	107	6	9	26	13	12	11	8	5
Kalahandi	463	416	291	277	18	21	13	34	96	81	56	44
Kandhamal	302	333	235	331	3	4		2	62	68	80	60
Kendrapara	189	427	396	297	59	32	48	66	32	17	16	14
Kendujhar	679	746	755	601	34	39	35	34	36	36	36	14
Khordha	359	349		257	48	47		59	20	20	14	12
Koraput	444	533	548	454	23	11	24	16	136	177	104	79
Malkangiri	400	324	462	349	3	2	11	5	35	35	48	21
Mayurbhanj	841	879	676	792	38	43		40	26	27	23	14
Nabarangapur	378	432	366	380	6	9	17	14	78	71	49	42
Nayagarh	317	280	223	223	7	8	24	6	47	46	49	20
Nuapada	206	271	124	193	3	4	18	5	32	42	34	24
Puri	377	369	409	274	85	111		170	17	20	27	16
Rayagada	358	323	142	281	4	8		7	112	108	102	64
Sambalpur	381	347	202	257	25	26		36	29	26	17	11
Subarnapur	216	199	89	122	25	30	26	43	29	28	17	10
Sundargarh	695	640	677	580	25	19	11	21	55	55	53	33

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.1. Animal Population

**TABLE II.1.3: District-wise Female Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>5,881</b>	<b>6,002</b>	<b>5,027</b>	<b>4,813</b>	<b>655</b>	<b>735</b>	<b>826</b>	<b>986</b>	<b>640</b>	<b>641</b>	<b>589</b>	<b>391</b>
Anugul	244	211	182	161	22	23	11	18	21	15	19	6
Balangir	189	190	147	85	17	23	65	39	46	58	57	21
Baleshwar	431	412	434	442	20	25	15	30	3	2	3	2
Bargarh	154	114	104	49	59	68	53	80	14	14	13	11
Baudh	110	106	85	64	4	6	5	7	19	21	20	8
Bhadrak	251	334	260	317	17	20		23	10	7	12	4
Cuttack	288	284	179	224	87	105	70	153	19	20	22	15
Debagarh	80	72	58	60	2	2	18	3	5	4	4	2
Dhenkanal	237	236	220	225	17	33	9	11	37	28	29	16
Gajapati	95	83		63	6	8	12	8	11	10	7	6
Ganjam	424	426	240	306	19	15	87	16	74	65	44	43
Jagatsinghapur	105	110	80	71	63	90	41	149	12	11	10	10
Jajapur	325	354	377	316	14	15	10	14	8	7	10	4
Jharsuguda	68	59	64	35	4	5	6	9	3	3	5	3
Kalahandi	182	162	107	101	12	13	7	19	37	32	25	22
Kandhamal	109	120	82	116	2	3	23	2	30	32	37	30
Kendrapara	184	267	235	211	48	26	33	56	27	14	10	12
Kendujhar	259	336	295	232	24	26	23	25	18	18	18	7
Khordha	210	208		159	39	38		50	10	12	6	7
Koraput	202	250	298	189	15	9	16	12	55	78	47	34
Malkangiri	178	142	204	167	2	1	6	4	16	16	23	10
Mayurbhanj	297	307	305	288	27	30	19	27	10	11	10	7
Nabarangapur	141	163	130	126	4	6	12	11	22	20	18	18
Nayagarh	170	145	106	108	6	6	14	5	14	15	16	6
Nuapada	85	106	56	64	2	2	3	4	14	19	15	12
Puri	205	204	254	169	68	86		144	11	14	21	13
Rayagada	154	135	56	128	3	5		4	54	55	55	36
Sambalpur	150	131	111	84	17	17	17	24	12	10	7	5
Subarnapur	93	85	67	47	14	14	20	23	11	10	6	5
Sundargarh	262	249	252	208	19	14		16	17	20	19	15

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



## II.1. Animal Population

**TABLE II.1.4: District-wise Breedable Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>4,275</b>	<b>4,323</b>	<b>3,627</b>	<b>3,362</b>	<b>447</b>	<b>514</b>	<b>618</b>	<b>667</b>	<b>454</b>	<b>474</b>	<b>425</b>	<b>284</b>
Anugul	175	151	119	111	15	16	6	12	15	11	11	4
Balangir	135	134	104	57	12	16	54	29	32	42	41	15
Baleshwar	319	293	293	305	13	17	11	19	2	2	2	2
Bargarh	116	81	70	35	39	48	36	56	10	10	9	8
Baudh	80	77	64	43	2	4	4	5	14	15	14	6
Bhadrak	181	243	215	219	11	15		15	7	5	10	3
Cuttack	202	198	126	152	61	72	49	103	14	15	13	11
Debagarh	60	54	43	44	1	1	15	2	4	3	3	1
Dhenkanal	172	166	162	154	11	28	6	7	27	21	21	11
Gajapati	66	62		46	4	6	9	6	8	7	4	4
Ganjam	301	299	171	212	14	11	64	12	53	47	32	32
Jagatsinghapur	73	77	53	48	43	61	28	94	9	8	7	7
Jajapur	230	249	272	218	9	10	7	9	5	5	7	3
Jharsuguda	49	42	55	25	3	4	5	6	2	2	3	2
Kalahandi	128	115	80	69	8	9	5	12	26	23	17	16
Kandhamal	81	90	62	84	2	2	11	1	22	25	29	22
Kendrapara	157	198	169	150	33	17	22	39	18	10	7	9
Kendujhar	189	244	212	161	16	18	16	17	13	14	13	5
Khordha	149	147		108	27	27		35	8	9	5	5
Koraput	151	193	220	140	11	6	12	9	39	61	35	25
Malkangiri	136	108	163	124	2	1	4	2	12	12	17	7
Mayurbhanj	214	225	209	199	18	21	13	19	7	8	7	6
Nabarangapur	104	115	91	92	3	4	10	8	16	14	13	14
Nayagarh	120	100	76	73	4	4	13	3	10	10	12	4
Nuapada	62	77	40	43	1	2	2	2	10	13	11	8
Puri	147	146	188	120	47	61		99	8	11	15	10
Rayagada	109	98	43	88	2	4		3	36	41	42	25
Sambalpur	110	96	74	61	12	12	12	17	9	8	6	4
Subarnapur	66	61	53	33	9	10	17	16	8	7	4	3
Sundargarh	192	181	171	148	13	10	5	11	12	16	14	11

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.1. Animal Population

**TABLE II.1.5: District-wise In-milk Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>1,705</b>	<b>1,649</b>	<b>1,343</b>	<b>1,394</b>	<b>234</b>	<b>248</b>	<b>204</b>	<b>361</b>	<b>206</b>	<b>196</b>	<b>143</b>	<b>127</b>
Anugul	66	62	37	50	9	8	2	7	6	5	3	2
Balangir	63	61	45	30	6	8	11	17	16	20	16	8
Baleshwar	123	120	117	126	7	8	6	10	1	1	1	1
Bargarh	39	35	27	16	18	23	18	26	5	5	3	4
Baudh	32	31	23	21	1	2	1	3	5	6	6	3
Bhadrak	72	83	49	78	5	6	19	7	3	3	2	1
Cuttack	87	85	63	67	31	36	23	56	6	6	1	5
Debagarh	22	20	16	16	1	1	2	1	2	1	1	1
Dhenkanal	66	74	63	74	5	6	3	4	11	9	8	5
Gajapati	32	23	11	22	2	3	5	3	4	4	1	2
Ganjam	142	135	61	100	8	6	26	7	27	22	12	18
Jagatsinghapur	34	33	28	22	24	31	18	55	4	4	2	4
Jajapur	94	103	108	90	5	5	4	5	2	3	2	1
Jharsuguda	19	16	10	12	2	2	1	4	2	1	1	1
Kalahandi	59	51	29	33	5	5	3	7	13	11	7	8
Kandhamal	31	36	23	33	1	1	0	1	8	9	9	8
Kendrapara	66	63	67	58	16	8	10	20	7	4	2	4
Kendujhar	70	69	82	69	8	9	7	9	5	5	5	2
Khordha	60	60		50	16	15		19	4	3	1	3
Koraput	49	47	75	46	6	4	3	4	16	17	9	9
Malkangiri	42	31	43	34	1	1	1	1	5	4	6	2
Mayurbhanj	78	82	83	81	9	10	5	10	3	3	2	2
Nabarangapur	38	42	35	34	1	2	3	4	7	6	5	5
Nayagarh	48	42	30	35	2	2	2	2	4	4	5	2
Nuapada	22	29	19	20	1	1	1	1	5	6	5	4
Puri	65	60	67	52	25	30		54	4	5	4	5
Rayagada	47	38	13	35	1	2		2	18	17	15	10
Sambalpur	41	32	30	24	6	6	5	9	4	3	1	2
Subarnapur	27	25	17	14	5	5	6	8	4	3	2	1
Sundargarh	70	61	74	53	7	5	3	6	6	7	6	5

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.1. Animal Population

**TABLE II.1.6: District-wise Milch Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>3,399</b>	<b>3,235</b>	<b>2,377</b>	<b>2,555</b>	<b>354</b>	<b>386</b>	<b>332</b>	<b>529</b>	<b>355</b>	<b>358</b>	<b>281</b>	<b>224</b>
Anugul	139	118	82	86	12	12	4	10	11	9	6	3
Balangir	112	105	72	47	9	12	19	25	26	33	28	12
Baleshwar	253	223	206	221	10	12	8	13	1	1	1	1
Bargarh	93	63	47	27	31	37	27	42	8	8	6	6
Baudh	64	58	36	33	2	3	2	4	10	11	12	4
Bhadrak	140	159	80	164	8	10	38	12	5	4	5	2
Cuttack	159	152	92	118	47	55	35	80	11	11	9	8
Debagarh	47	42	32	33	1	1	5	1	3	3	2	1
Dhenkanal	139	129	109	122	8	9	5	6	21	16	16	9
Gajapati	54	49	18	34	3	5	7	4	7	6	1	3
Ganjam	243	233	103	165	12	9		10	43	38	22	27
Jagatsinghapur	58	59	41	38	35	48	22	77	7	7	4	6
Jajapur	181	190	185	167	7	8	6	8	4	5	5	2
Jharsuguda	40	33	16	19	2	3	2	5	2	2	2	2
Kalahandi	106	87	48	55	6	7	4	10	21	18	12	13
Kandhamal	66	70	48	62	1	2	1	1	18	20	23	17
Kendrapara	123	156	117	110	26	14	16	30	12	8	4	7
Kendujhar	146	142	158	124	13	14	10	13	10	10	9	4
Khordha	119	111		84	23	22		28	6	5	3	4
Koraput	117	123	162	107	9	5	6	7	30	34	19	19
Malkangiri	104	80	95	88	1	1	1	2	9	9	11	5
Mayurbhanj	167	171	150	150	14	15	7	14	5	6	4	4
Nabarangapur	85	89	62	71	2	4	5	6	13	11	9	11
Nayagarh	94	79	51	58	3	3	4	3	8	8	10	4
Nuapada	50	62	32	36	1	1	1	2	8	11	8	7
Puri	117	114	101	90	37	47		80	7	9	7	7
Rayagada	88	73	26	66	2	3	27	2	29	31	29	19
Sambalpur	89	76	50	48	9	9	8	13	7	6	3	3
Subarnapur	52	48	30	26	8	8	8	12	6	6	3	3
Sundargarh	155	141	127	107	11	8	4	9	10	13	10	9

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



## II.1. Animal Population

**TABLE II.1.7: District-wise Male Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>7,017</b>	<b>6,838</b>	<b>5,579</b>	<b>5,503</b>	<b>257</b>	<b>328</b>	<b>877</b>	<b>320</b>	<b>748</b>	<b>753</b>	<b>601</b>	<b>335</b>
Anugul	289	264	248	251	8	7	12	6	24	19	1	6
Balangir	289	296	281	209	13	19	23	28	54	62	61	20
Baleshwar	491	442	418	286	8	11	31	7	2	2	2	2
Bargarh	256	234	248	146	39	61	78	56	25	23	21	8
Baudh	120	119	93	100	3	5	2	6	20	21	22	9
Bhadrak	284	251	135	168	8	9	15	5	3	3	2	1
Cuttack	219	107	61	130	29	30	55	27	18	18	16	7
Debagarh	96	104	99	104	1	1	3	1	8	7	7	2
Dhenkanal	235	205	230	180	8	7	6	4	26	21	21	10
Gajapati	134	124		104	5	9	11	9	13	14	7	4
Ganjam	392	377	286	264	7	6		4	57	67	40	21
Jagatsinghapur	99	90	55	48	19	37	15	28	2	2	1	1
Jajapur	288	268	260	171	5	6	4	3	4	3	6	1
Jharsuguda	100	100	93	72	2	4		4	8	8	3	2
Kalahandi	281	254	184	177	6	9	5	15	59	49	31	22
Kandhamal	193	213	153	214	1	1	9	1	32	36	42	30
Kendrapara		160	161	86	10	7	15	10	5	3	5	2
Kendujhar	420	410	460	369	10	13	13	9	19	18	18	6
Khordha	149	141		99	9	9	1	9	9	9	7	5
Koraput	242	283	250	265	8	3	8	3	80	99	57	45
Malkangiri	222	182	257	182	1	0	6	1	20	19	26	11
Mayurbhanj	544	571	371	504	11	13		12	16	16	14	7
Nabarangapur	237	268	236	254	2	3	4	3	57	51	31	24
Nayagarh	147	135	117	115	1	2	10	1	34	31	33	14
Nuapada	121	166	68	129	1	2	15	2	18	23	19	12
Puri	172	165	155	106	17	25	8	25	5	6	6	3
Rayagada	204	188	86	153	1	2		2	58	54	47	28
Sambalpur	231	216	91	172	8	9		12	17	16	9	7
Subarnapur	123	114	22	75	11	15	6	20	18	18	11	6
Sundargarh	433	391	426	372	7	5	3	5	38	35	34	18

Zero denotes either Nil or Negligible.

SOURCE: 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



## II.2. Sex Ratio in Dairy Animals

**TABLE II.2.1: District-wise Male - Female Ratio**

Districts	Indigenous Cattle (%)				Crossbred Cattle (%)				Buffalo (%)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>54</b>	<b>53</b>	<b>53</b>	<b>53</b>	<b>28</b>	<b>31</b>	<b>52</b>	<b>24</b>	<b>54</b>	<b>54</b>	<b>51</b>	<b>46</b>
Anugul	54	56	58	61	25	24	53	26	53	56	5	53
Balangir	61	61	66	71	43	46	27	42	54	51	51	48
Baleshwar	53	52	49	39	27	30	67	19	47	52	40	38
Bargarh	62	67	70	75	40	47	59	41	64	61	61	45
Baudh	52	53	52	61	48	46	29	46	52	50	52	52
Bhadrak	53	43	34	35	31	30	9	18	21	27	16	21
Cuttack	43	27	26	37	25	22	44	15	48	47	42	33
Debagarh	54	59	63	63	26	25	16	26	58	63	63	57
Dhenkanal	50	47	51	44	33	18	37	25	42	42	43	38
Gajapati	58	60	44	62	45	54	48	50	54	60	51	42
Ganjam	48	47	54	46	26	27	59	18	43	51	48	33
Jagatsinghapur	49	45	41	40	23	29	27	16	14	12	12	10
Jajapur	47	43	41	35	26	27	30	16	36	28	36	27
Jharsuguda	60	63	59	67	28	41	76	28	72	73	41	42
Kalahandi	61	61	63	64	34	40	41	45	62	61	55	50
Kandhamal	64	64	65	65	24	23	28	29	52	53	53	50
Kendrapara	3	37	41	29	18	21	31	16	16	16	34	14
Kendujhar	62	55	61	61	29	33	36	27	51	49	49	45
Khordha	41	40	60	38	18	19	28	16	48	43	54	39
Koraput	54	53	46	58	34	24	34	21	59	56	55	57
Malkangiri	56	56	56	52	25	25	51	19	55	55	53	52
Mayurbhanj	65	65	55	64	29	30	91	31	61	59	59	48
Nabarangapur	63	62	64	67	31	30	26	22	72	72	64	57
Nayagarh	46	48	52	52	19	28	41	21	71	68	67	69
Nuapada	59	61	55	67	44	45	83	31	55	55	55	51
Puri	46	45	38	39	20	22	40	15	31	30	23	21
Rayagada	57	58	60	54	26	31	52	37	52	50	46	44
Sambalpur	61	62	45	67	31	34	87	33	59	61	57	58
Subarnapur	57	57	25	62	45	52	24	47	62	64	64	55
Sundargarh	62	61	63	64	26	25	33	25	69	63	64	54

SOURCE: Estimated from 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



### II.3. Wet-Dry Ratio of Dairy Animals

**TABLE II.3.1: District-wise Wet-Dry Ratio**

Districts	Indigenous Cattle (%)				Crossbred Cattle (%)				Buffalo (%)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>50</b>	<b>51</b>	<b>56</b>	<b>55</b>	<b>66</b>	<b>64</b>	<b>61</b>	<b>68</b>	<b>58</b>	<b>55</b>	<b>51</b>	<b>57</b>
Anugul	48	52	44	59	74	69	43	71	55	55	58	52
Balangir	56	58	62	65	67	66	58	70	62	59	58	62
Baleshwar	49	54	57	57	70	65	70	71	55	59	91	65
Bargarh	42	56	57	57	59	61	67	62	65	62	56	71
Baudh	50	53	62	63	64	70	44	76	48	57	53	58
Bhadrak	51	52	61	48	63	61	50	64	59	67	51	63
Cuttack	55	56	68	57	67	64	66	70	58	55	8	59
Debagarh	46	48	49	49	66	67	36	65	51	51	51	54
Dhenkanal	48	58	58	61	64	68	66	69	53	56	52	59
Gajapati	60	48	64	64	72	59	70	69	65	62	50	70
Ganjam	59	58	59	61	67	66	59	70	63	59	56	66
Jagatsinghapur	59	56	68	57	68	65	82	72	63	64	56	65
Jajapur	52	54	59	54	69	66	67	66	58	56	50	58
Jharsuguda	48	48	62	61	69	64	45	72	79	67	69	71
Kalahandi	56	59	61	61	71	71	73	70	61	61	55	62
Kandhamal	48	52	48	53	69	58	12	73	46	45	38	44
Kendrapara	53	40	57	53	60	60	67	66	57	51	55	62
Kendujhar	48	49	52	55	64	63	67	67	54	49	55	54
Khordha	51	54	33	59	70	70	19	69	66	61	53	66
Koraput	42	38	46	43	73	72	48	62	53	50	47	47
Malkangiri	40	38	45	38	66	69	61	66	53	47	51	45
Mayurbhanj	47	48	55	54	63	66	64	68	53	48	46	43
Nabarangapur	44	48	57	48	64	65	66	69	55	50	55	48
Nayagarh	50	53	59	61	70	71	40	73	50	48	48	55
Nuapada	45	46	58	55	63	59	67	64	60	52	57	56
Puri	56	53	66	58	67	63	49	67	56	58	55	65
Rayagada	53	53	51	53	69	55	57	73	62	54	50	51
Sambalpur	46	43	61	49	64	63	68	64	62	55	45	56
Subarnapur	53	52	56	55	68	64	66	66	61	55	55	56
Sundargarh	46	43	58	50	65	61	72	69	62	56	55	59

SOURCE: Estimated from 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.4. Livestock Density

**TABLE II.4.1: District-wise Density of Total Livestock and Bovine**

Districts	Livestock (No. per sq km)				Bovine (No. per sq km)			
	1997	2003	2007	2012	1997	2003	2007	2012
<b>ODISHA</b>	<b>150</b>	<b>150</b>	<b>148</b>	<b>133</b>	<b>98</b>	<b>98</b>	<b>87</b>	<b>79</b>
Anugul	142	128	128	109	95	85	74	70
Balangir	152	165	164	114	92	99	96	61
Baleshwar	355	329	337	304	251	235	237	202
Bargarh	135	122	123	98	93	88	89	60
Baudh	146	151	133	123	89	90	73	63
Bhadrak	304	319	319	265	228	249	231	207
Cuttack	261	235	204	217	168	144	103	142
Debagarh	95	103	113	106	65	65	64	59
Dhenkanal	158	169	169	143	126	119	116	100
Gajapati	96	89	63	75	61	57	22	45
Ganjam	165	161	146	127	118	117	100	80
Jagatsinghapur	272	308	245	264	180	204	121	185
Jajapur	332	335	346	244	222	225	230	176
Jharsuguda	115	113	128	94	88	84	90	59
Kalahandi	115	104	88	83	73	65	45	45
Kandhamal	76	83	78	85	46	50	43	49
Kendrapara	165	246	245	187	106	180	174	143
Kendujhar	159	170	174	156	90	99	99	78
Khordha	205	198	69	155	152	148	14	117
Koraput	109	123	122	97	68	82	77	62
Malkangiri	118	94	260	100	76	62	90	65
Mayurbhanj	168	180	196	220	87	91	88	81
Nabarangapur	133	133	112	112	87	97	82	82
Nayagarh	128	121	122	95	95	86	76	64
Nuapada	93	119	77	87	63	82	46	58
Puri	194	200	189	184	138	144	131	132
Rayagada	102	95	83	81	67	62	50	50
Sambalpur	97	94	87	87	66	60	53	46
Subarnapur	171	164	110	139	116	110	56	75
Sundargarh	144	128	128	132	80	74	76	65

SOURCE: Estimated from 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



## II.4. Livestock Density

**TABLE II.4.2: District-wise Density of Small Ruminants**

Districts	Small Ruminants (No. per sq km)			
	1997	2003	2007	2012
<b>ODISHA</b>	<b>48</b>	<b>48</b>	<b>57</b>	<b>52</b>
Anugul	46	43	52	39
Balangir	59	66	67	53
Baleshwar	99	90	95	101
Bargarh	40	32	34	38
Baudh	57	61	60	60
Bhadrak	74	63	84	58
Cuttack	92	91	101	75
Debagarh	28	36	47	47
Dhenkanal	32	49	53	43
Gajapati	31	26	34	28
Ganjam	44	43	44	47
Jagatsinghapur	89	102	120	78
Jajapur	107	108	113	67
Jharsuguda	26	25	36	34
Kalahandi	41	38	42	37
Kandhamal	25	27	27	32
Kendrapara	56	66	69	44
Kendujhar	66	68	71	77
Khordha	51	49	54	38
Koraput	35	24	37	31
Malkangiri	33	23	159	29
Mayurbhanj	73	81	100	137
Nabarangapur	34	29	29	28
Nayagarh	32	35	46	31
Nuapada	30	36	31	29
Puri	56	56	58	51
Rayagada	29	28	27	28
Sambalpur	29	30	31	40
Subarnapur	55	54	53	63
Sundargarh	52	44	42	61

SOURCE: Estimated from 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.5. Breed-wise Population

**TABLE II.5.1: District and Breed-wise Population of Indigenous Cattle in Odisha - 2007**

Districts	Breed-wise Population of Indigenous Cattle ('000)						
	Binjharपुरi	Ghumusari	Motu	Red Sindhi	Other Graded	Non-descript	Total Indigenous Cattle
<b>ODISHA</b>	<b>29.7</b>	<b>82.1</b>	<b>700.9</b>	<b>457.1</b>	<b>371.7</b>	<b>8,891.3</b>	<b>10,606.7</b>
Anugul			0.4	0.9		428.9	430.1
Balangir		0.1		0.6	0.5	427.1	428.2
Baleshwar			2.6	0.4		849.0	851.9
Bargarh		0.1		3.9		348.0	352.0
Baudh						178.0	178.0
Bhadrak	1.7			393.1		0.0	394.8
Cuttack	1.8		0.4	0.2	108.3	129.4	240.1
Debagarh						156.9	156.9
Dhenkanal				0.5		449.4	449.9
Gajapati		15.2	6.0		5.0	29.4	55.6
Ganjam		54.2	51.8	53.1	113.2	253.2	525.5
Jagatsinghapur	0.7			0.1		60.2	134.7
Jajapur	16.4			0.1		620.3	636.8
Jharsuguda					0.1	156.7	156.8
Kalahandi				1.4		289.8	291.2
Kandhamal			0.2	0.2		234.8	235.2
Kendrapara	0.1	0.1		0.6		395.2	396.0
Kendujhar	5.8	0.1		0.1		749.2	755.2
Khordha				0.2		20.0	20.2
Koraput	0.1	0.1	528.8	0.3	0.1	18.7	548.0
Malkangiri			37.7			423.8	461.5
Mayurbhanj			1.7	0.8		673.1	675.6
Nabarangapur			0.3	0.1		366.0	366.4
Nayagarh					2.3	220.6	222.9
Nuapada	0.1			0.2	123.7	0.0	123.9
Puri			1.0			408.1	409.1
Rayagada	3.1	12.3	68.5			58.3	142.2
Sambalpur			1.7	0.4		200.0	202.1
Subarnapur					18.6	69.9	88.5
Sundargarh				0.1		677.1	677.2

SOURCE: 18<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## II.5. Breed-wise Population

**TABLE II.5.2: District and Breed-wise Population of Crossbred Animals in Odisha - 2007**

Districts	Crossbred Cattle Population ('000)			
	Jersey Crossbred	Holstein Friesian Crossbred	Other Crossbred	Total Crossbred
<b>ODISHA</b>	<b>1,343.7</b>	<b>15.1</b>	<b>344.3</b>	<b>1,703.2</b>
Anugul	12.3	0.0	9.8	22.1
Balangir	62.1	0.5	25.8	88.3
Baleshwar	42.8	0.4	3.1	46.4
Bargarh	120.2	0.4	10.9	131.5
Baudh			7.2	7.2
Bhadrak	132.1	3.4	34.3	169.8
Cuttack	113.8	0.2	11.8	125.7
Debagarh	5.7	4.4	11.0	21.1
Dhenkanal	5.2	0.6	9.2	15.0
Gajapati	22.2		0.9	23.0
Ganjam	93.3		120.2	213.6
Jagatsinghapur	50.9	0.3	5.0	56.1
Jajapur	9.3		5.6	14.9
Jharsuguda	22.5	0.3	3.0	25.8
Kalahandi	9.7	0.2	2.6	12.5
Kandhamal	19.9	0.1	11.8	31.8
Kendrapara	43.9	0.6	3.8	48.3
Kendujhar	22.8	0.3	12.1	35.2
Khordha	2.5	0.1	1.1	3.6
Koraput	21.1	0.6	2.4	24.1
Malkangiri	4.7		6.6	11.3
Mayurbhanj	210.7	0.1	6.2	216.9
Nabarangapur	12.1		4.7	16.8
Nayagarh	19.6	0.2	4.2	23.9
Nuapada	11.3		6.3	17.6
Puri	18.2		2.1	20.3
Rayagada	101.1	1.0	9.3	111.4
Sambalpur	127.0	1.3	3.7	132.0
Subarnapur	20.6		5.7	26.2
Sundargarh	6.2	0.1	4.3	10.6

SOURCE: 18<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.



## II.5. Breed-wise Population

**TABLE II.5.3: District and Breed-wise Population of Buffalo in Odisha - 2007**

Districts	Buffalo Breed Population ('000)									
	Chilika	Jerangi	Kalahandi	Kujang	Manda	Parlekh-mundi	Sambal-puri	Other graded	Non-descript	Total Buffalo
<b>ODISHA</b>	<b>1.0</b>	<b>48.3</b>	<b>146.1</b>	<b>3.3</b>	<b>1.4</b>	<b>46.1</b>	<b>30.3</b>	<b>117.2</b>	<b>796.0</b>	<b>1,189.7</b>
Anugul		0.2							20.2	20.4
Balangir			118.2							118.2
Baleshwar									4.7	4.7
Bargarh							4.8		29.3	34.1
Baudh									41.1	41.1
Bhadrak									13.8	13.8
Cuttack				0.6					37.9	38.5
Debagarh							1.7		9.0	10.6
Dhenkanal							0.6		49.2	50.0
Gajapati		0.8	0.3		1.1	6.7			5.7	14.6
Ganjam		0.4				0.4		84.0		84.8
Jagatsinghapur				2.2					9.1	11.3
Jajapur									16.0	16.0
Jharsuguda		0.2					0.7	0.1	6.6	7.6
Kalahandi			9.8			0.2	0.3		45.5	55.7
Kandhamal			0.2						79.3	79.5
Kendrapara									15.6	15.6
Kendujhar				0.1			0.3		35.5	35.9
Khordha	0.7			0.2					13.0	13.9
Koraput	0.3	46.1			0.3	24.0		33.2		104.0
Malkangiri			0.3				0.1		48.0	48.4
Mayurbhanj									23.1	23.1
Nabarangapur		0.4	1.3			0.2			47.6	49.5
Nayagarh						0.2	0.3		48.1	48.6
Nuapada			1.3						32.5	33.8
Puri									27.4	27.4
Rayagada		0.2	14.6	0.2		14.3	0.6		72.5	102.4
Sambalpur							16.7			16.7
Subarnapur									16.8	16.8
Sundargarh							4.2		48.6	52.9

SOURCE: 18<sup>th</sup> Livestock Census, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture & Farmers Welfare, Govt. of India.





## PART III : CATTLE AND BUFFALO BREEDS

On 3<sup>rd</sup> October 2015, the State Government has come out with new “Odisha Bovine Breeding Policy, 2015” to make dairy farming economically viable. The policy aims to increase number of economically productive milch animals, conserve and improve indigenous germ plasm, increase local adaptability of dairy animals. The Odisha Livestock Resource Development Society (OLRDS) is the principal implementing agency for the policy. The policy envisages to gradually replace popular low-milk-yielding cow breed with high-yield Tharparkar and Binjharपुरi breeds. It calls for genetic up-gradation programme with the introduction of germplasms of Sahiwal, Gir and Tharparkar. Rather than mating stray bulls with cows, more scientific and technology-driven artificial insemination programme would be put in place. The target is to cover at least 40 per cent of the non-descript cattle, 70 per cent of the cross bred cattle and 40 per cent of the buffaloes under organised breeding programme. In order to produce good quality stock with higher production potentiality, the Government plans to use imported and progeny tested exotic semen.







### III.1. Distribution of Native Breeds of Odisha

**TABLE III.1.1: Distribution of Cattle Breeds of Odisha**

Breeds	Breeding Tract	Utility	Distribution
Binjharpuri	Primarily in Jajapur district and adjoining areas of Bhadrak and Kendrapara districts of Odisha	Milk and Draught (Dual)	Binjharpur, Bari, Sujanpur and Dasarathapur blocks of Jajapur district and parts of Kendrapara and Bhadrak districts.
Ghumusari	Bhanjanagar area of Ganjam and parts of Kandhamal districts of Odisha	Draught	Soroda, Aska, Bhanjanagar, Dharakote and Shergarh blocks of Ganjam district and some parts of Kandhamal district.
Khariar	Mostly in Nuapada district of Odisha	Draught	Kariar, Komna, Sinapali and Boden blocks of Nuapada district and parts of Kalahandi and Balangir districts.
Motu	Southern part of Malkangiri district and parts of Chhattisgarh and Andhra Pradesh.	Draught and Manure	Podia, Motu, Malkangiri blocks of Malkangiri district and some parts of Chhattisgarh and Andhra Pradesh.

SOURCE: Physical Characterization of Native Cattle Breeds of Odisha by Odisha Livestock Resources Development Society and Orissa University of Agriculture and Technology (2009).





### Distribution of Indigenous Cattle Breeds



Binjharpuri



Ghumusari



### Distribution of Indigenous Cattle Breeds



Khariar

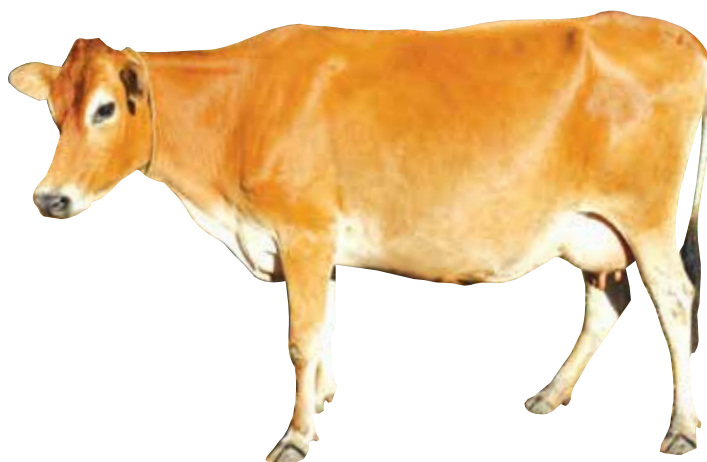


Motu





### Distribution of Jersey Crossbred



Jersey Crossbred

## III.1. Distribution of Native Breed of Odisha

**TABLE III.1.2: Distribution of Buffalo Breeds of Odisha**

Breeds	Breeding Tract	Utility	Distribution
Chilika	Puri and Khordha districts of Odisha and adjoining part of Ganjam district	Milk and Draught	Krushna Prasad, Brahamagiri blocks in Puri district and Balugaon block of Khordha district and parts of Ganjam district.
Kalahandi	Mostly found in Kalahandi districts of Odisha	Milk, Draught, Manure	Mainly found in Bhawanipatna, Junagarh, Golamunda and Dharmagarh blocks of Kalahandi district and parts of Rayagada district.

SOURCE: Physical Characterization of Native Cattle Breeds of Odisha by Odisha Livestock Resources Development Society and Orissa University of Agriculture and Technology (2009).

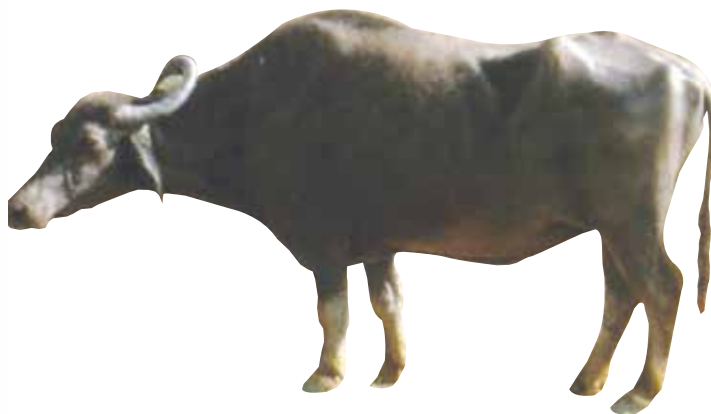




### Distribution of Buffalo Breeds



Chilika



Kalahandi



## III.2. Performance of Breeds

**TABLE III.2.1: Performance of Cattle Breeds**

Parameters	Cattle			
	Binjharपुरi	Ghumusari	Khariar	Motu
Population (As on 2012)	110,553	83,988	383,824	536,758
Colour	Mostly White. Brown, black and grey are not uncommon	Mainly white and sometimes grey	Mostly brown sometimes grey	Mainly brown (reddish) sometimes grey. Few animals are white in colour
Average Adult Body Weight (Kg)	Male : 255 Female : 207	Male : 208 Female : 167	Male : 195 Female : 156	Male : 172 Female : 137
Lactation Yield (Kg)	915-1,350	450-650	308-360	100-140
Lactation Length (days)	273-308	280-320	270-290	155-170
Calving Interval (days)	404	412	510	420
Age at First Calving (days)	1,230	1,496	1,520	1,573
Average Milk Fat (%)	4.3-4.4	4.8-4.9	4.9	4.9-5.0

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR; Physical Characterization of Native Cattle Breeds of Odisha by Odisha Livestock Resources Development Society and Orissa University of Agriculture and Technology (2009), Dairy Farmers' Manual, Ministry of Agriculture and Farmers Welfare, Govt. of India.







## III.2. Performance of Breeds

**TABLE III.2.2: Performance of Buffalo Breeds**

Parameters	Buffalo	
	Kalahandi	Chilika
Population (As on 2012)	142,021	7,570
Colour	Coat colour is usually blackish grey, sometimes grey	Brownish black or black
Average Adult Body Weight (Kg)	Male : 378 Female : 351	Male : 352 Female : 341
Lactation Yield (Kg)	680-912	500 (440-514)
Lactation Length (days)	276-280	260-280
Calving Interval (days)	525	421
Age at First Calving (days)	1,509	1,344
Average Milk Fat (%)	7.8-8.2	8.7 (8.5-8.8)

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR; Physical Characterization of Native Cattle Breeds of Odisha by Odisha Livestock Resources Development Society and Orissa University of Agriculture and Technology (2009), Dairy Farmers' Manual, Ministry of Agriculture and Farmers Welfare, Govt. of India.



## PART IV : MILK PRODUCTION

Over the two decades, ending in 2014-15, milk production in Odisha has increased from 5.8 lakh metric tonnes (LMT) in 1994-95 to 19.0 LMT exhibiting a CAGR of 6.4 per cent. The increase is amidst decline in the number of in-milk bovine and can solely be attributed to milk yield which is rising at CAGR of 6.7 per cent. The growth in yield of in-milk dairy animals is phenomenal. Milk production in the districts of Malkangiri, Koraput, Jajapur, Debagarh, Subarnapur and Baleshwar is rapidly growing at a CAGR of 10 per cent or higher. However, six districts of Cuttack, Puri, Ganjam, Jagatsinghapur, Baleshwar and Jajapur remain major milk sheds accounting for 40 per cent of States milk production. Specie-wise, the milk production in Odisha is cattle based and the share of buffalo milk is merely 15per cent in total production.

Regarding utilisation, the dairy farmers in the State retain only 25 per cent of the milk at household level, sell about 60 per cent as fluid milk and convert only 18 per cent of the milk into value added dairy products.







## IV.1. Production Performance

**TABLE IV.1.1: Year-wise In-milk Bovine Population, Milk Yield and Milk Production**

Year	In-milk Bovine ('000)	Milk Yield (kg per day)	Bovine Milk Production ('000 MT)
1992-93	2,020	0.732	540
1993-94	2,038	0.756	563
1994-95	2,067	0.771	582
1997-98	2,008	0.913	669
1998-99	2,118	0.944	730
1999-00	2,089	1.112	848
2000-01	2,101	1.138	873
2001-02	2,139	1.186	926
2002-03	2,149	1.197	939
2003-04	2,107	1.292	994
2004-05	2,310	1.519	1,281
2005-06	2,297	1.597	1,339
2006-07	2,378	1.645	1,428
2007-08	2,379	1.869	1,623
2008-09	2,176	2.009	1,596
2009-10	2,197	2.055	1,648
2010-11	2,255	2.026	1,668
2011-12	2,319	2.030	1,718
2012-13	1,900	2.482	1,721
2013-14	1,921	2.650	1,858
2014-15	1,952	2.665	1,899

SOURCE: Basic Animal Husbandry Statistics (1992-93 to 2014-15), Department of Animal Husbandry, Dairying and Fisheries, Govt. of India.



## IV.1. Production Performance: Animal Population

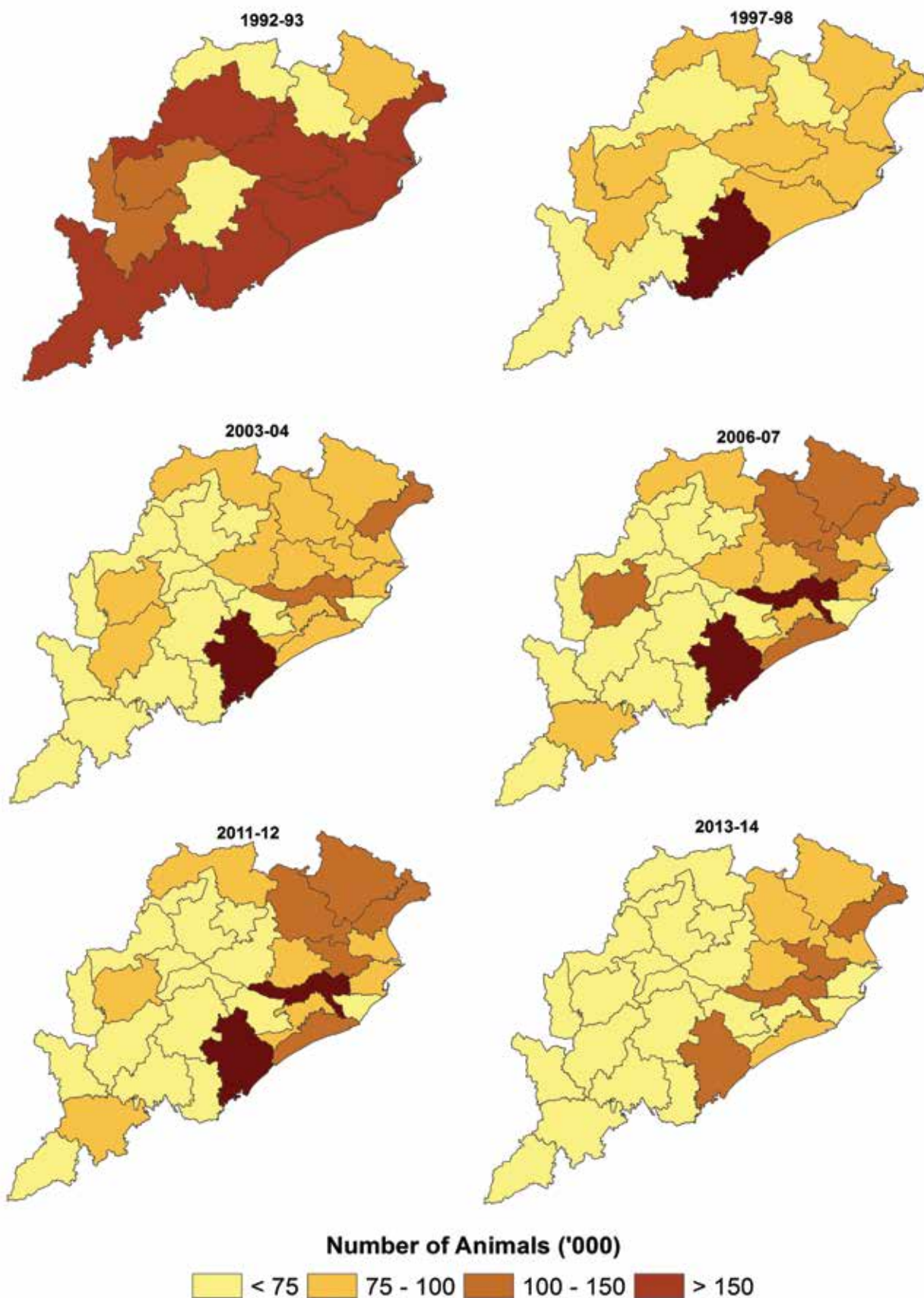
**TABLE IV.1.2: Year and District-wise In-milk Bovine Population**

Districts	In-milk Bovine Population ('000)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>2,019.5</b>	<b>2,008.1</b>	<b>2,107.5</b>	<b>2,377.9</b>	<b>2,176.9</b>	<b>2,197.0</b>	<b>2,255.0</b>	<b>2,314.0</b>	<b>1,907.1</b>	<b>1,921.0</b>
Anugul		74.4	83.3	78.6	71.7	72.0	74.5	72.9	62.9	61.9
Balangir	145.6	88.0	77.6	102.7	95.0	95.0	96.8	99.8	81.1	71.0
Baleshwar	200.0	97.4	122.4	145.7	130.5	134.0	136.8	140.5	114.3	114.1
Bargarh		60.6	59.5	68.5	65.2	65.0	67.2	69.0	59.7	52.2
Baudh		33.3	38.5	40.4	36.9	37.0	38.1	39.2	31.7	31.4
Bhadrak		68.7	76.6	96.8	87.4	88.0	91.5	93.6	76.3	77.9
Cuttack	320.7	99.5	120.1	159.3	148.8	151.0	154.0	158.1	133.7	133.0
Debagarh		22.5	24.7	22.0	19.7	20.0	20.5	21.2	17.1	26.4
Dhenkanal	158.5	76.9	83.3	95.2	86.6	87.0	89.8	92.4	75.3	75.8
Gajapati		37.1	39.1	32.1	29.1	29.0	30.2	31.2	25.3	29.8
Ganjam	212.5	188.1	171.5	188.8	171.2	173.0	177.0	181.3	146.9	144.5
Jagatsinghapur		71.8	62.4	73.6	71.2	72.0	73.3	73.2	66.6	65.8
Jajapur		87.5	97.5	128.4	115.6	117.0	120.7	123.5	100.8	107.9
Jharsuguda		22.1	23.8	21.0	19.2	20.0	19.9	20.5	16.8	17.2
Kalahandi	121.2	81.9	77.5	72.3	66.1	67.0	68.1	70.2	56.9	57.5
Kandhamal	55.2	38.4	42.1	47.7	43.4	43.0	44.7	45.8	36.9	35.1
Kendrapara		62.8	77.8	85.0	77.6	78.0	80.6	82.9	68.2	66.2
Kendujhar	73.9	72.5	82.6	108.6	99.2	101.0	103.0	105.8	87.2	81.8
Khordha		102.8	80.5	81.0	74.5	76.0	77.4	79.5	66.3	72.5
Koraput	196.6	58.7	73.0	83.3	77.0	77.0	78.6	84.3	65.7	68.7
Malkangiri		38.6	47.6	50.3	45.3	45.0	46.9	48.4	38.9	47.6
Mayurbhanj	86.5	86.1	82.7	108.7	98.6	100.0	102.8	104.5	86.6	88.7
Nabarangapur		45.7	47.6	59.2	54.0	54.0	56.0	57.6	47.2	41.1
Nayagarh		59.1	53.7	48.9	44.1	45.0	45.8	47.2	38.0	37.0
Nuapada		41.4	27.7	36.4	33.0	34.0	34.0	35.2	28.2	31.4
Puri	206.5	79.0	95.3	105.6	99.2	99.0	102.4	105.2	89.5	98.3
Rayagada		63.2	68.5	65.3	59.8	59.0	61.3	63.2	50.8	49.6
Sambalpur	168.2	46.6	52.7	48.2	44.3	45.0	45.8	47.2	38.9	38.5
Subarnapur		28.1	38.1	38.9	35.9	36.0	37.2	38.1	31.5	32.3
Sundargarh	74.2	76.6	79.8	85.4	77.6	78.0	80.5	82.9	67.6	65.7

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise In-milk Bovine Population





## IV.1. Production Performance: Animal Population

**TABLE IV.1.3: Year and District-wise In-milk Indigenous Cattle Population**

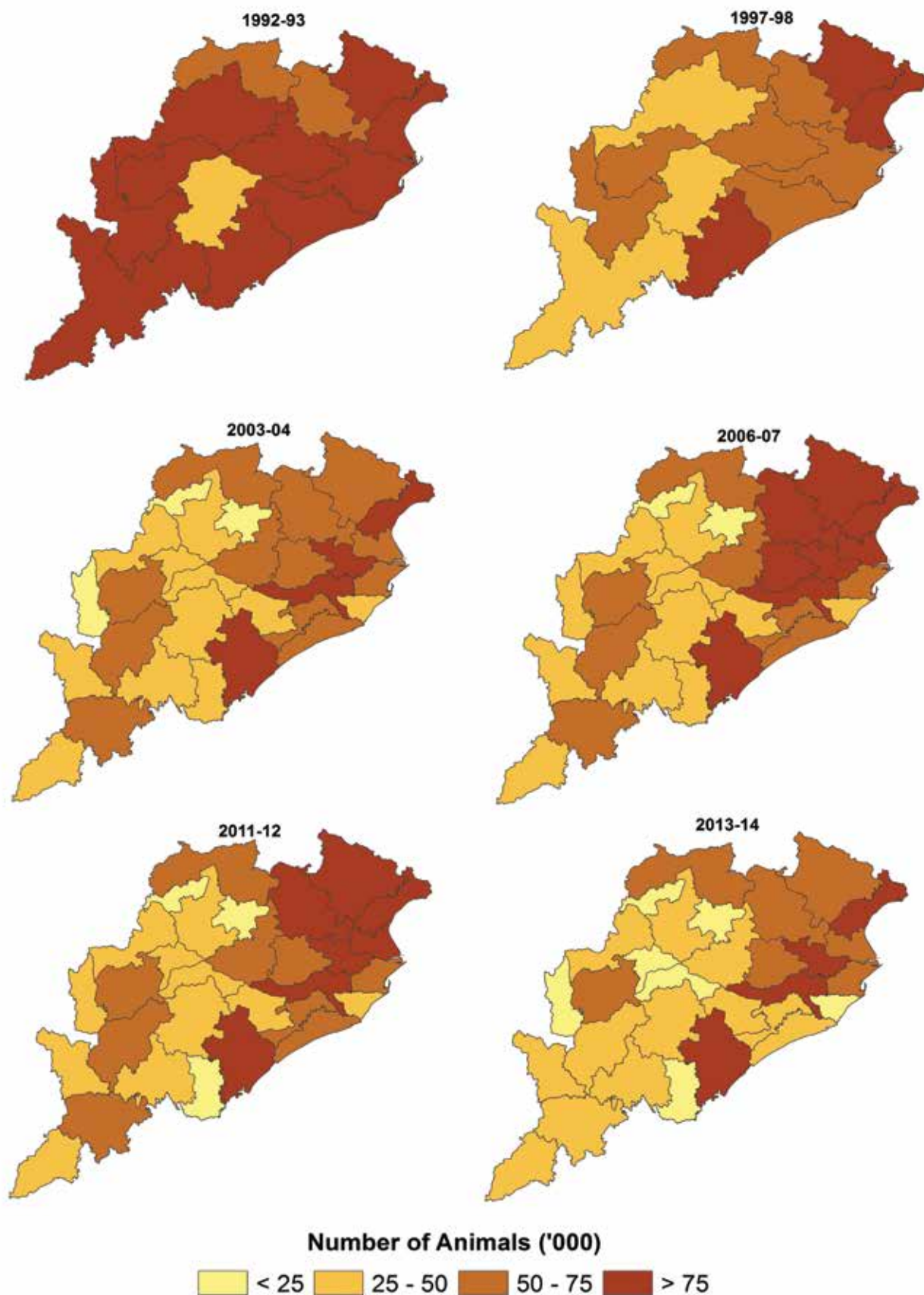
Districts	In-milk Indigenous Cattle Population ('000)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>1,675.9</b>	<b>1,622.3</b>	<b>1,661.0</b>	<b>1,830.3</b>	<b>1,625.0</b>	<b>1,655.0</b>	<b>1,703.0</b>	<b>1,745.0</b>	<b>1,403.1</b>	<b>1,393.0</b>
Anugul		60.3	67.4	63.4	56.3	57.0	59.0	57.0	48.6	48.2
Balangir	118.6	67.5	54.6	72.8	65.0	66.0	67.7	69.5	55.7	55.4
Baleshwar	177.4	90.4	114.3	134.5	119.4	122.0	125.2	128.6	103.1	102.4
Bargarh		41.8	39.3	35.5	31.5	32.0	33.0	33.9	27.2	27.0
Baudh		28.0	32.4	31.2	27.7	28.0	29.0	29.8	23.8	23.7
Bhadrak		61.9	67.9	84.5	75.0	76.0	78.6	80.8	65.0	64.3
Cuttack	270.1	70.7	80.9	104.0	92.4	94.0	96.8	99.4	79.7	79.2
Debagarh		18.9	22.3	19.9	17.7	18.0	18.5	19.0	15.3	15.2
Dhenkanal	129.4	59.1	67.4	77.6	68.9	70.0	72.2	74.2	59.5	59.1
Gajapati		31.7	32.0	25.3	22.4	23.0	23.5	24.2	19.4	19.2
Ganjam	181.8	163.2	133.1	154.3	137.0	140.0	143.6	147.5	118.3	117.4
Jagatsinghapur		46.2	31.7	29.9	26.6	27.0	27.8	28.6	22.9	22.8
Jajapur		82.2	89.5	116.6	103.5	105.0	108.5	111.0	89.4	88.7
Jharsuguda		18.3	19.9	16.8	14.9	15.0	15.7	16.1	12.9	12.8
Kalahandi	100.6	61.2	60.6	54.0	47.9	49.0	50.2	51.6	41.4	41.1
Kandhamal	46.1	29.0	32.1	38.6	34.3	35.0	35.9	36.9	29.6	29.4
Kendrapara		54.6	63.0	67.9	60.3	61.0	63.2	64.9	52.1	51.7
Kendujhar	61.0	59.2	68.3	87.1	77.4	79.0	81.1	83.2	66.8	66.3
Khordha		84.7	60.4	61.4	54.5	56.0	57.2	58.7	47.1	46.8
Koraput	154.1	41.4	51.3	54.3	48.2	49.0	50.5	51.9	41.6	41.3
Malkangiri		33.6	41.8	43.6	38.7	39.0	40.5	41.6	33.4	33.1
Mayurbhanj	80.2	77.0	71.8	92.8	82.4	84.0	86.4	88.7	71.2	70.6
Nabarangapur		36.8	37.9	46.9	41.6	42.0	43.6	44.8	35.9	35.7
Nayagarh		53.4	47.6	42.8	38.0	39.0	39.8	40.9	32.8	32.6
Nuapada		33.8	22.4	29.5	26.2	27.0	27.4	28.2	22.6	22.4
Puri	152.7	50.3	66.4	64.6	57.4	58.0	60.1	61.8	49.5	49.2
Rayagada		45.4	49.2	45.9	40.7	41.0	42.7	43.8	35.2	34.9
Sambalpur	142.7	37.1	40.0	35.3	31.3	32.0	32.8	33.7	27.0	26.8
Subarnapur		23.6	28.6	29.1	25.9	26.0	27.1	27.8	22.3	22.2
Sundargarh	61.2	61.3	66.7	70.2	62.3	63.0	65.3	67.1	53.8	53.4

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise In-milk Indigenous Cattle Population





## IV.1. Production Performance: Animal Population

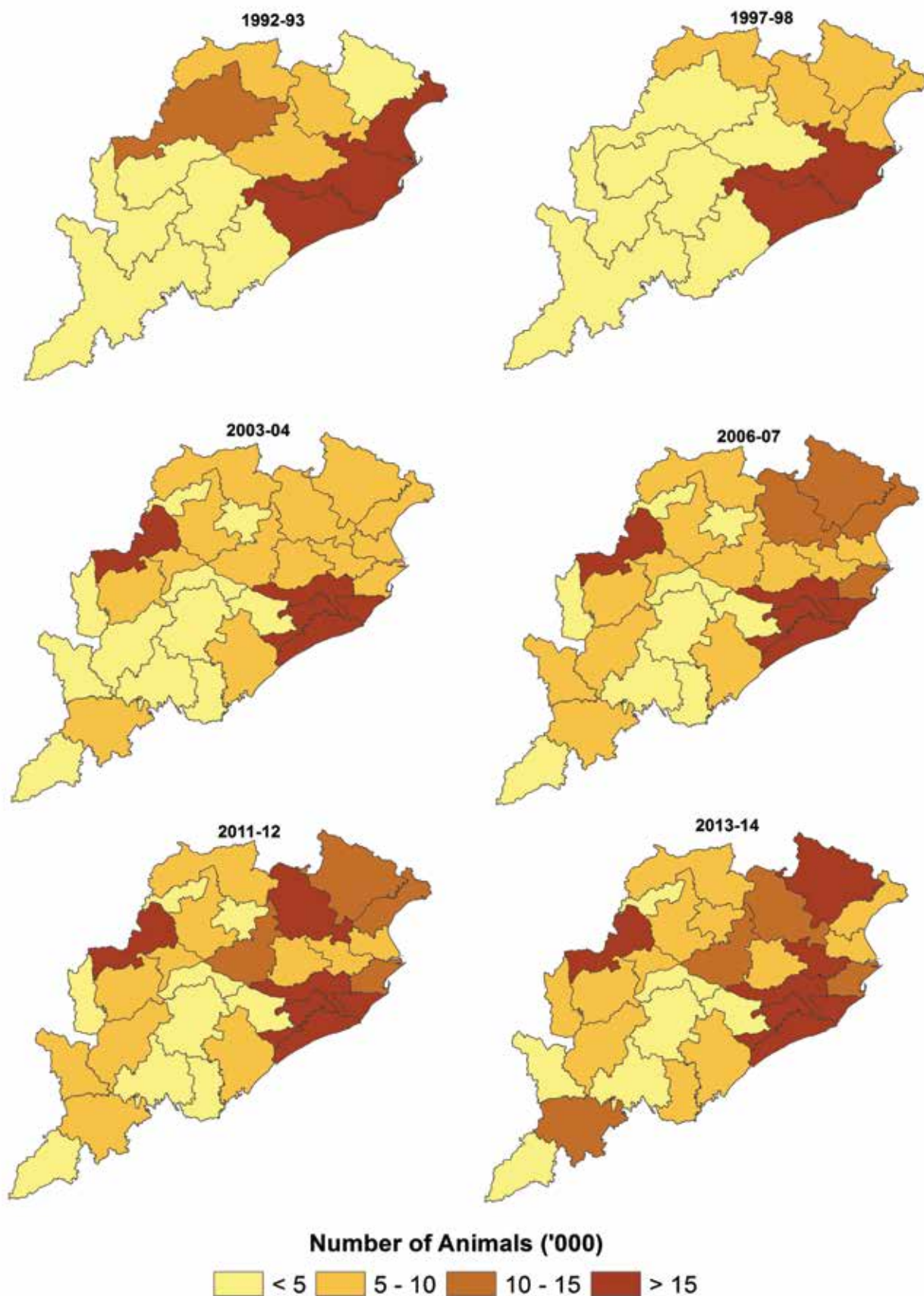
**TABLE IV.1.4: Year and District-wise in In-milk Crossbred Cattle Population**

Districts	In-milk Crossbred Cattle Population ('000)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>143.0</b>	<b>175.5</b>	<b>232.1</b>	<b>319.4</b>	<b>328.1</b>	<b>331.0</b>	<b>336.0</b>	<b>343.0</b>	<b>326.0</b>	<b>336.0</b>
Anugul		7.1	9.1	9.9	10.2	10.0	10.5	10.7	10.2	10.4
Balangir	5.0	4.4	6.2	8.6	9.0	9.0	9.0	9.2	8.8	7.0
Baleshwar	16.8	5.9	7.5	10.4	10.4	11.0	10.9	11.1	10.6	9.7
Bargarh		14.2	15.8	27.4	28.2	28.0	28.9	29.5	28.0	15.4
Baudh		0.9	1.2	2.7	2.8	3.0	2.9	2.9	2.8	2.2
Bhadrak		3.8	5.3	6.7	6.9	7.0	7.6	7.2	6.9	7.1
Cuttack	32.4	23.0	31.7	45.0	46.3	47.0	47.4	48.4	46.0	47.3
Debagarh		0.5	0.7	0.9	0.9	1.0	0.9	1.0	0.9	9.1
Dhenkanal	8.9	4.9	5.5	8.6	8.9	9.0	9.1	9.3	8.8	9.1
Gajapati		0.7	2.3	3.0	3.0	3.0	3.1	3.2	3.0	6.2
Ganjam	3.8	4.3	8.5	7.6	7.8	8.0	8.0	8.1	7.7	8.0
Jagatsinghapur		20.7	25.6	39.6	40.6	41.0	41.6	40.5	40.4	39.5
Jajapur		3.4	5.3	8.9	9.2	9.0	9.4	9.6	9.1	15.6
Jharsuguda		1.9	2.1	2.5	2.6	3.0	2.6	2.7	2.6	2.6
Kalahandi	2.8	4.0	4.1	5.3	5.5	6.0	5.6	5.7	5.4	5.6
Kandhamal	0.9	0.6	0.9	1.3	1.4	1.0	1.4	1.1	1.3	1.4
Kendrapara		4.2	7.9	12.0	12.3	12.0	12.6	12.9	12.2	12.6
Kendujhar	6.9	6.7	8.7	15.0	15.4	16.0	15.7	16.1	15.3	11.6
Khordha		14.7	16.0	16.4	16.8	17.0	17.2	17.6	16.7	15.4
Koraput	4.0	2.3	5.9	6.5	6.7	7.0	6.8	10.0	6.6	13.4
Malkangiri		0.2	0.8	0.9	0.9	1.0	0.9	1.0	0.9	1.6
Mayurbhanj	3.8	6.1	8.1	12.6	13.0	13.0	13.3	12.6	12.9	16.4
Nabarangapur		1.2	2.4	6.9	7.1	7.0	7.3	7.4	7.1	1.9
Nayagarh		1.5	2.1	2.3	2.4	2.0	2.4	2.5	2.3	2.4
Nuapada		0.5	0.4	0.8	0.8	1.0	0.8	0.9	0.8	6.0
Puri	40.4	23.3	25.2	33.3	34.2	34.0	35.0	35.7	34.0	32.9
Rayagada		0.9	1.2	2.1	2.1	2.0	2.2	2.2	2.1	3.2
Sambalpur	11.8	4.6	7.8	7.5	7.7	8.0	7.9	8.1	7.7	7.1
Subarnapur		1.8	5.6	6.6	6.8	7.0	7.0	7.1	6.7	6.9
Sundargarh	5.4	7.5	7.9	8.1	8.3	8.0	8.5	8.7	8.3	8.5

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise In-milk Crossbred Cattle Population





## IV.1. Production Performance: Animal Population

**TABLE IV.1.5: Year and District-wise In-milk Buffalo Population**

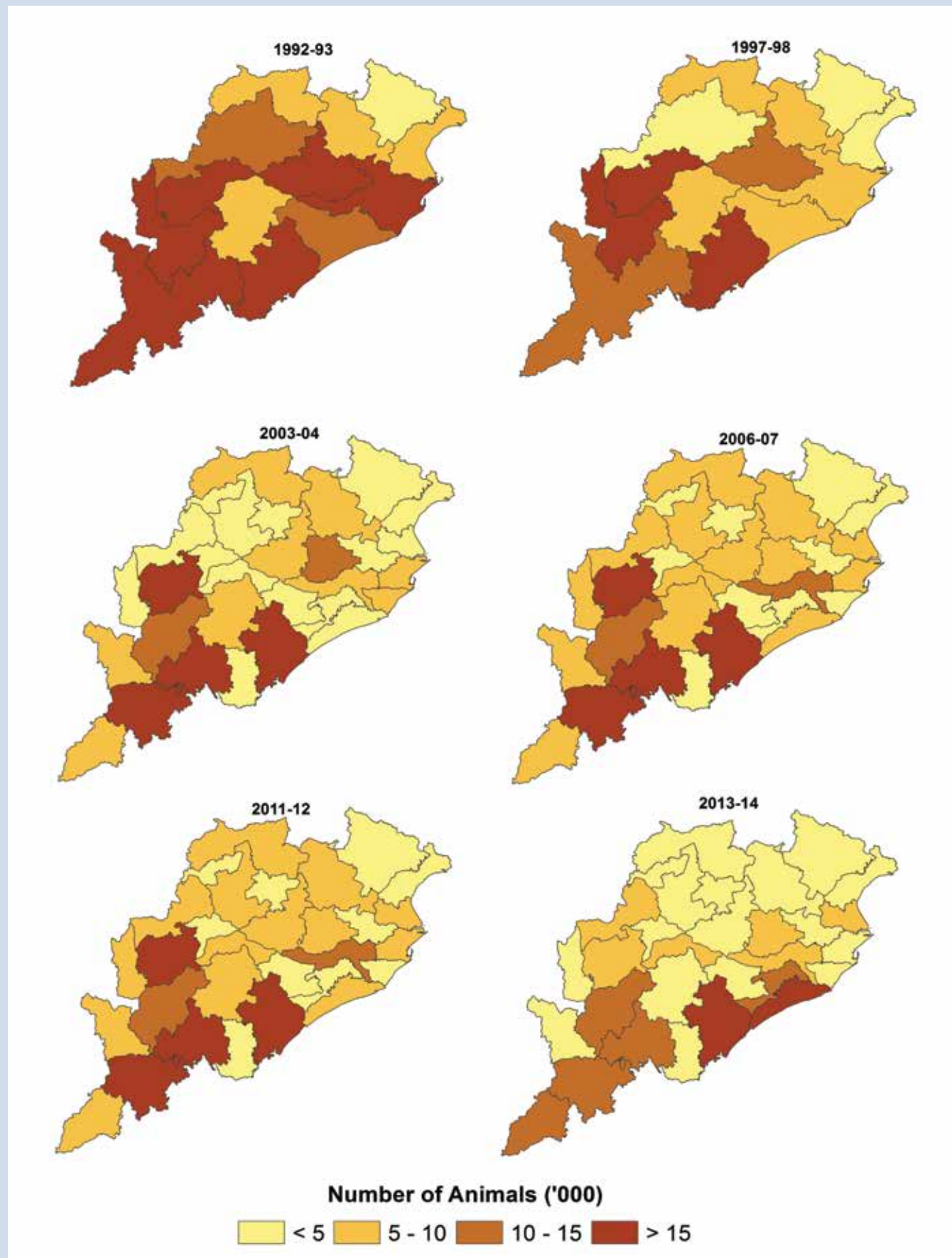
Districts	In-milk Buffalo Population ('000)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>200.6</b>	<b>210.3</b>	<b>214.4</b>	<b>228.2</b>	<b>223.8</b>	<b>211.0</b>	<b>216.0</b>	<b>226.0</b>	<b>178.0</b>	<b>192.0</b>
Anugul		7.0	6.7	5.3	5.2	5.0	5.0	5.2	4.1	3.3
Balangir	22.0	16.1	16.8	21.3	21.0	20.0	20.1	21.1	16.6	8.6
Baleshwar	5.8	1.1	0.6	0.8	0.7	1.0	0.7	0.8	0.6	2.0
Bargarh		4.6	4.4	5.6	5.5	5.0	5.3	5.6	4.5	9.8
Baudh		4.4	5.0	6.5	6.4	6.0	6.2	6.5	5.1	5.5
Bhadrak		3.0	3.4	5.6	5.5	5.0	5.3	5.6	4.4	6.5
Cuttack	18.2	5.8	7.5	10.3	10.1	10.0	9.8	10.3	8.0	6.5
Debagarh		3.1	1.8	1.2	1.1	1.0	1.1	1.2	0.9	2.1
Dhenkanal	20.2	12.9	10.4	9.0	8.8	8.0	8.5	8.9	7.0	7.6
Gajapati		4.7	4.7	3.8	3.7	3.0	3.6	3.8	2.9	4.4
Ganjam	26.9	20.6	29.7	26.9	26.4	25.0	25.4	25.7	20.9	19.1
Jagatsinghapur		4.9	5.1	4.1	4.0	4.0	3.9	4.1	3.3	3.5
Jajapur		1.9	2.6	2.9	2.9	3.0	2.8	2.9	2.3	3.6
Jharsuguda		1.9	1.7	1.7	1.7	2.0	1.6	1.7	1.3	1.8
Kalahandi	17.8	16.7	12.8	13.0	12.7	12.0	12.3	12.9	10.1	10.8
Kandhamal	8.2	8.8	9.1	7.8	7.7	7.0	7.4	7.8	6.0	4.3
Kendrapara		4.0	6.9	5.1	5.0	5.0	4.8	5.1	3.9	1.9
Kendujhar	6.0	6.6	5.6	6.5	6.4	6.0	6.2	6.5	5.1	3.9
Khordha		3.4	4.1	3.2	3.2	3.0	3.0	3.2	2.5	10.3
Koraput	38.5	15.0	15.8	22.5	22.1	21.0	21.3	22.4	17.5	14.0
Malkangiri		4.8	5.0	5.8	5.7	5.0	5.5	5.8	4.6	12.9
Mayurbhanj	2.5	3.0	2.8	3.3	3.2	3.0	3.1	3.2	2.5	1.7
Nabarangapur		7.7	7.2	5.4	5.3	5.0	5.1	5.4	4.2	3.5
Nayagarh		4.2	3.9	3.8	3.7	4.0	3.6	3.8	2.9	2.0
Nuapada		7.1	4.9	6.1	6.0	6.0	5.8	6.1	4.8	3.0
Puri	13.4	5.4	3.7	7.7	7.6	7.0	7.3	7.7	6.0	16.2
Rayagada		16.9	18.1	17.3	17.0	16.0	16.4	17.2	13.5	11.5
Sambalpur	13.7	4.9	4.9	5.4	5.3	5.0	5.1	5.4	4.2	4.6
Subarnapur		2.7	3.8	3.2	3.2	3.0	3.1	3.2	2.5	3.2
Sundargarh	7.6	7.8	5.2	7.1	7.0	7.0	6.7	7.1	5.5	3.8

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise In-milk Buffalo Population





## IV.2. Production Performance: Milk Yield

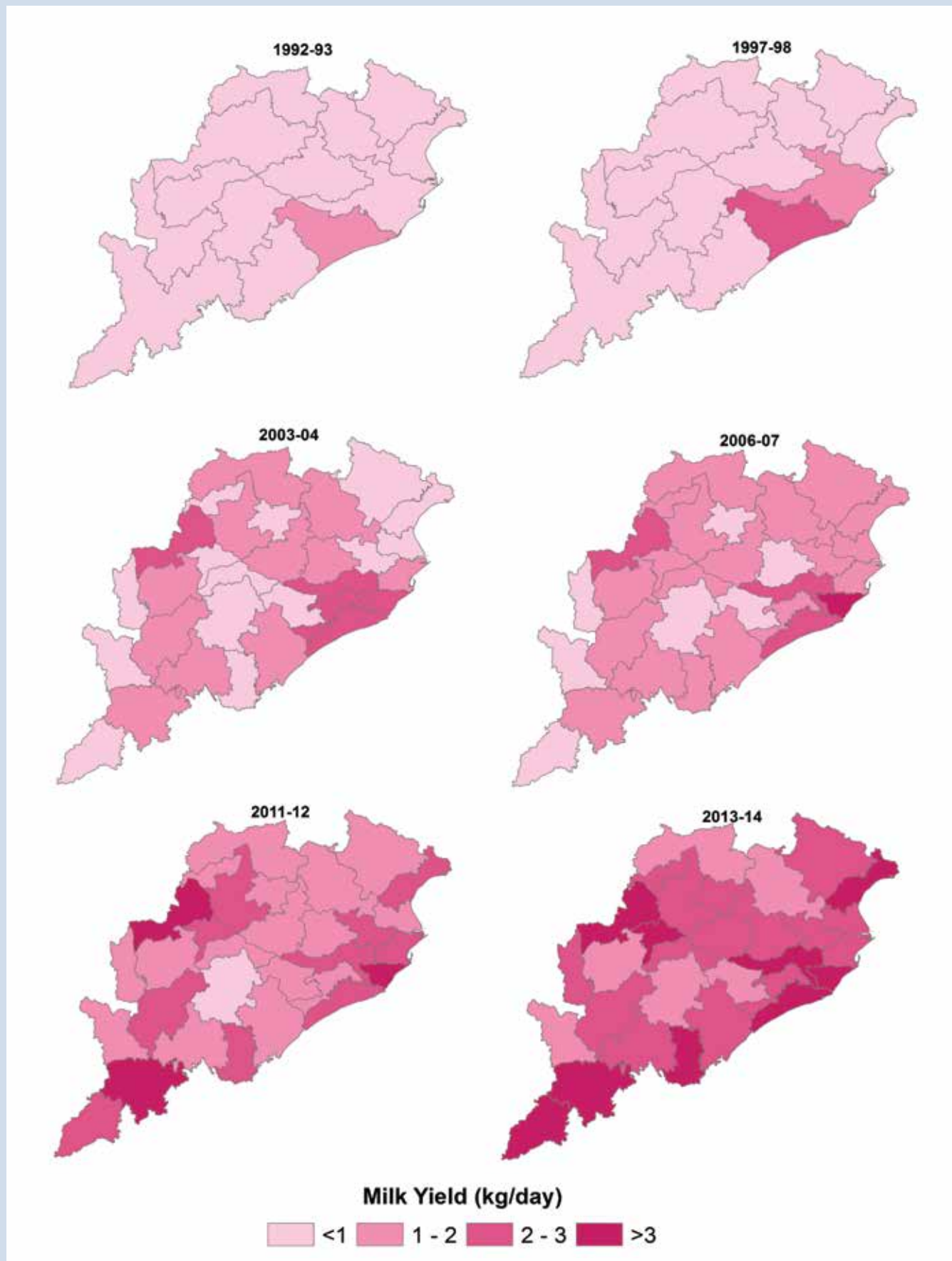
**TABLE IV.2.1: Year & District-wise Bovine Milk Yield**

Districts	Bovine Milk Yield (kg/day)					
	1992-93	1997-98	2003-04	2006-07	2011-12	2013-14
<b>ODISHA</b>	<b>0.732</b>	<b>0.913</b>	<b>1.290</b>	<b>1.646</b>	<b>2.031</b>	<b>2.650</b>
Anugul		0.814	1.148	1.440	1.563	2.182
Balangir	0.621	0.694	1.197	1.419	1.252	1.578
Baleshwar	0.588	0.667	0.752	1.224	2.424	3.335
Bargarh		1.560	2.427	2.232	3.379	4.225
Baudh		0.494	0.804	1.858	1.510	2.042
Bhadrak		0.670	0.869	1.279	1.077	2.465
Cuttack	0.950	1.724	2.320	2.852	2.608	3.207
Debagarh		0.572	0.566	0.872	1.176	2.646
Dhenkanal	0.686	0.887	1.099	0.999	1.634	2.125
Gajapati		0.620	0.841	1.110	2.292	3.043
Ganjam	0.590	0.733	1.257	1.476	1.555	2.057
Jagatsinghapur		1.881	2.915	3.324	3.821	4.384
Jajapur		0.673	0.688	1.684	2.216	2.793
Jharsuguda		0.731	0.909	1.631	1.844	2.039
Kalahandi	0.502	0.642	1.018	1.057	2.010	2.535
Kandhamal	0.521	0.671	0.950	0.896	0.873	1.280
Kendrapara		0.977	1.099	1.815	2.165	2.810
Kendujhar	0.612	0.805	1.098	1.799	1.367	1.521
Khordha		1.157	2.168	1.894	1.826	2.706
Koraput	0.619	0.840	1.205	1.460	4.088	3.920
Malkangiri		0.547	0.627	0.795	2.343	3.097
Mayurbhanj	0.462	0.754	0.987	1.669	1.788	2.218
Nabarangapur		0.528	0.892	0.898	1.099	1.227
Nayagarh		0.552	0.816	0.975	1.416	1.903
Nuapada		0.510	0.890	0.835	1.245	2.513
Puri	1.282	2.046	2.400	2.364	2.813	3.679
Rayagada		0.776	1.124	1.401	1.595	2.425
Sambalpur	0.704	0.923	1.638	1.722	2.084	2.434
Subarnapur		0.546	0.899	1.796	2.977	3.461
Sundargarh	0.698	0.869	1.106	1.822	1.414	1.814

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise In-milk Bovine Milk Yield





## IV.2. Production Performance: Milk Yield

**TABLE IV. 2.2: Year and District-wise Indigenous Cattle Milk Yield**

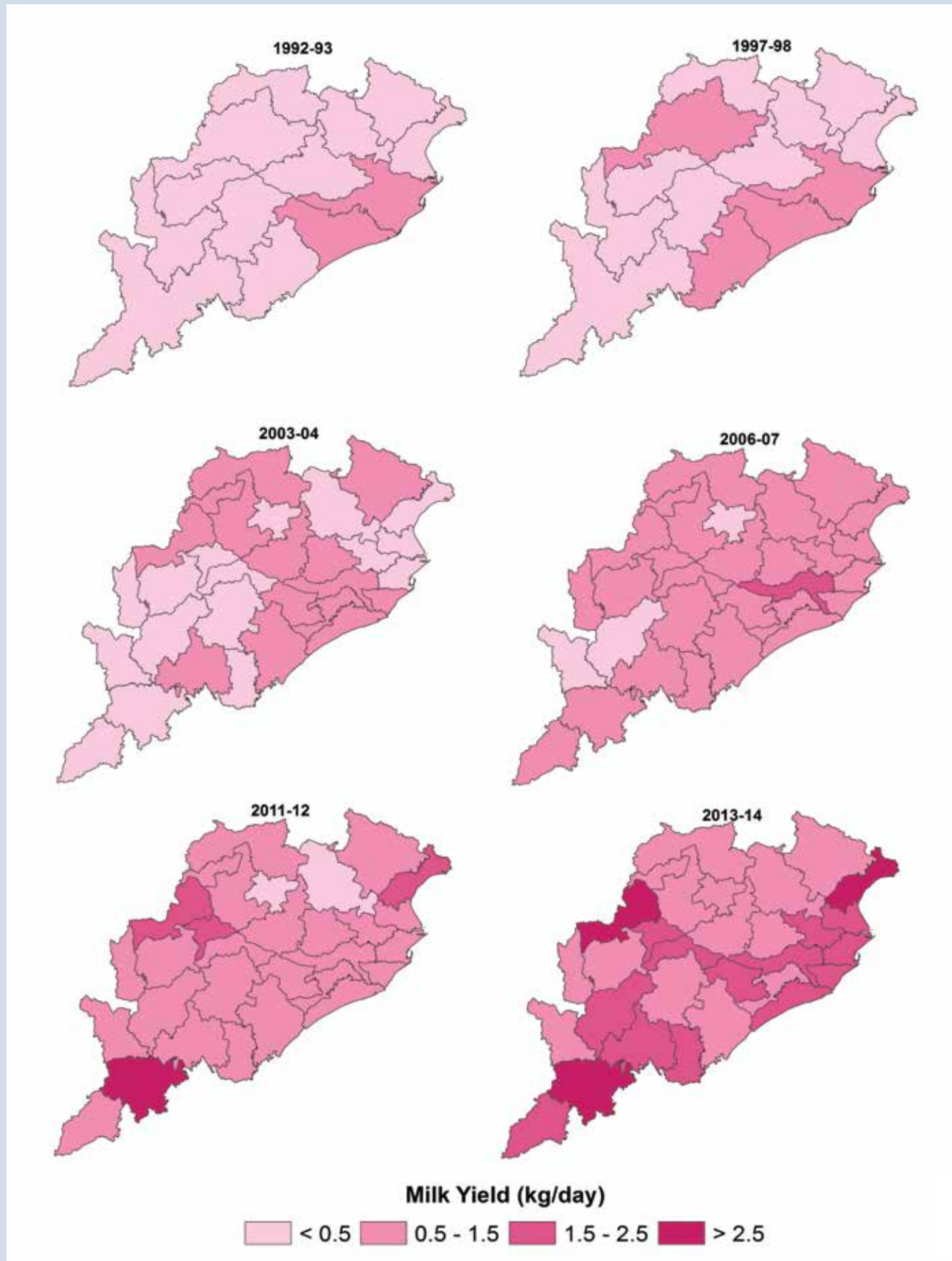
Districts	Indigenous Cattle Milk Yield (kg/day)					
	1992-93	1997-98	2003-04	2006-07	2011-12	2013-14
<b>ODISHA</b>	<b>0.450</b>	<b>0.494</b>	<b>0.528</b>	<b>0.915</b>	<b>1.150</b>	<b>1.630</b>
Anugul		0.488	0.508	0.948	0.860	1.400
Balangir	0.412	0.358	0.428	0.716	0.600	0.850
Baleshwar	0.418	0.466	0.456	0.915	2.150	3.050
Bargarh		0.542	0.737	0.525	2.150	3.060
Baudh		0.387	0.452	1.196	1.060	1.510
Bhadrak		0.485	0.468	0.891	0.750	1.740
Cuttack	0.582	0.778	0.765	1.664	1.100	1.560
Debagarh		0.342	0.442	0.490	0.470	0.660
Dhenkanal	0.475	0.447	0.502	0.552	0.950	1.350
Gajapati		0.392	0.417	0.561	1.470	2.080
Ganjam	0.413	0.566	0.590	0.971	1.010	1.440
Jagatsinghapur		0.662	0.787	1.205	1.240	1.760
Jajapur		0.533	0.406	1.307	1.450	2.050
Jharsuguda		0.411	0.501	0.799	0.850	1.210
Kalahandi	0.306	0.321	0.465	0.448	1.230	1.740
Kandhamal	0.358	0.400	0.491	0.540	0.580	0.830
Kendrapara		0.637	0.476	0.932	1.310	1.860
Kendujhar	0.368	0.430	0.464	1.099	0.500	0.700
Khordha		0.587	0.891	0.941	0.910	1.290
Koraput	0.388	0.477	0.427	0.600	2.840	2.990
Malkangiri		0.387	0.377	0.708	1.500	2.130
Mayurbhanj	0.364	0.468	0.514	1.000	0.780	1.110
Nabarangapur		0.335	0.398	0.475	0.580	0.820
Nayagarh		0.431	0.517	0.687	1.100	1.570
Nuapada		0.380	0.467	0.549	1.000	1.420
Puri	0.601	0.696	0.583	0.975	1.120	1.600
Rayagada		0.443	0.506	1.001	1.130	1.600
Sambalpur	0.427	0.540	0.699	0.799	1.110	1.130
Subarnapur		0.307	0.433	0.688	1.740	2.480
Sundargarh	0.411	0.447	0.528	1.037	0.630	0.900

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise Indigenous Cattle Milk Yield





## IV.2. Production Performance: Milk Yield

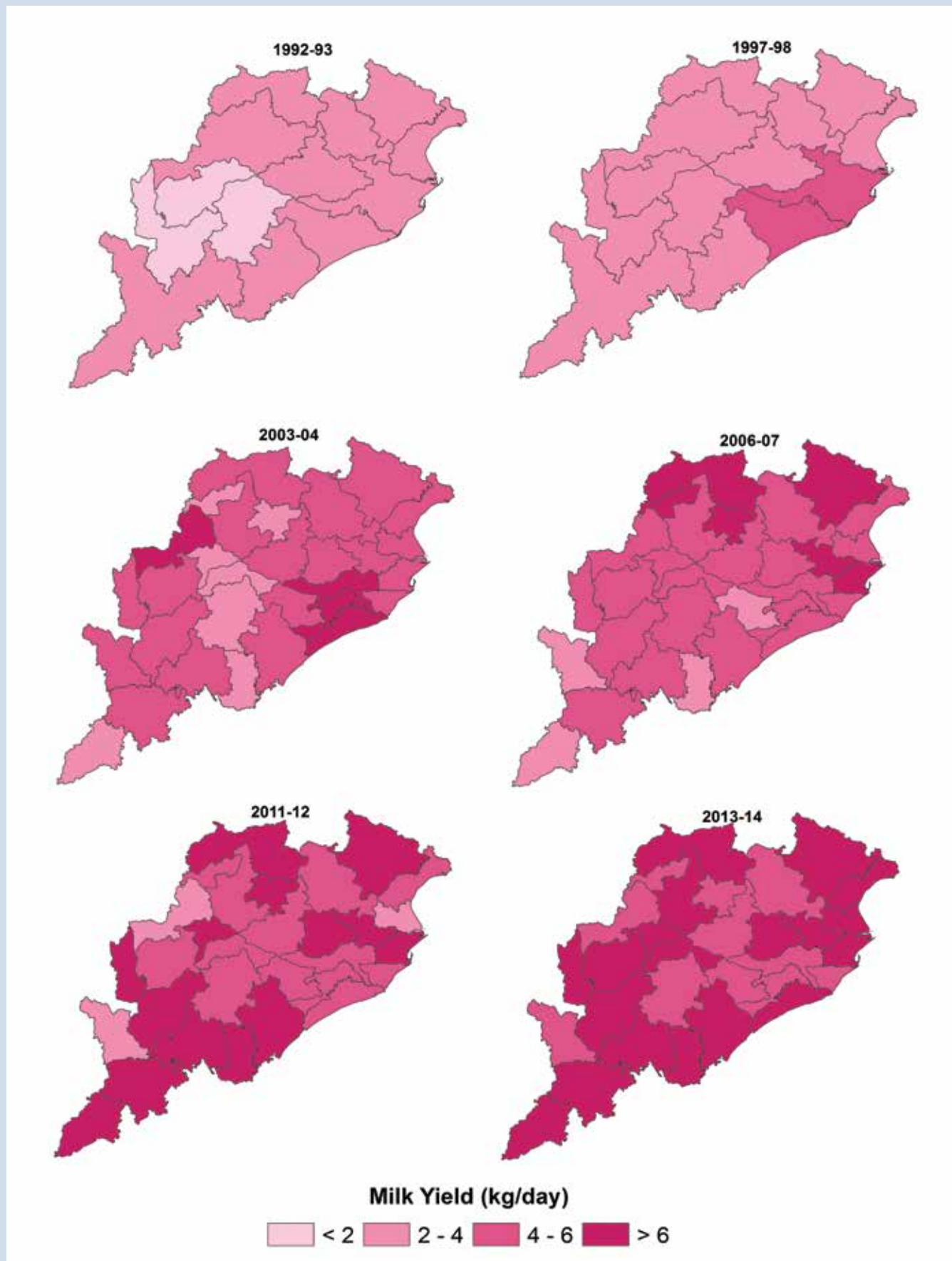
**TABLE IV.2.3: Year and District-wise Crossbred Cattle Milk Yield**

Districts	Crossbred Cattle Milk Yield (kg/day)					
	1992-93	1997-98	2003-04	2006-07	2011-12	2013-14
<b>ODISHA</b>	<b>3.057</b>	<b>3.892</b>	<b>5.503</b>	<b>5.142</b>	<b>5.900</b>	<b>6.180</b>
Anugul		2.616	4.604	4.124	4.990	5.270
Balangir	1.994	2.311	4.186	4.365	4.650	6.310
Baleshwar	2.139	3.436	5.136	5.159	5.230	6.440
Bargarh		4.353	6.369	4.315	3.870	5.580
Baudh		2.574	3.434	5.296	4.630	6.460
Bhadrak		2.912	4.987	5.103	3.930	6.820
Cuttack	3.655	4.502	6.212	5.663	5.610	5.880
Debagarh		2.727	2.640	8.168	8.790	5.600
Dhenkanal	2.210	3.272	5.007	4.291	6.490	6.500
Gajapati		2.576	3.103	3.816	7.520	6.060
Ganjam	2.912	3.608	5.818	5.434	6.050	6.350
Jagatsinghapur		4.495	5.610	5.001	5.670	5.970
Jajapur		3.543	4.471	6.387		6.590
Jharsuguda		2.812	3.962	6.053	5.130	5.390
Kalahandi	1.950	2.245	4.179	4.157	6.060	6.350
Kandhamal	1.812	2.035	2.777	5.161	5.190	5.960
Kendrapara		4.361	5.157	6.489	6.240	6.550
Kendujhar	2.215	3.057	5.033	5.487	5.840	5.840
Khordha		4.343	6.872	5.296	4.800	5.620
Koraput	2.237	2.677	4.576	4.492		6.480
Malkangiri		2.260	2.926	3.677	7.880	6.250
Mayurbhanj	2.001	3.583	4.489	6.286	8.620	6.800
Nabarangapur		2.152	4.036	3.183	3.810	5.700
Nayagarh		2.848	4.204	3.600	5.540	5.810
Nuapada		2.318	4.213	5.084	7.940	6.220
Puri	3.805	5.015	7.055	5.016	5.840	6.510
Rayagada		2.252	4.352	4.160	6.250	6.710
Sambalpur	3.015	3.602	5.503	5.245	5.910	6.860
Subarnapur		2.420	2.554	5.649	7.600	6.480
Sundargarh	2.560	2.941	4.980	6.057	6.520	6.840

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise Crossbred Cattle Milk Yield





## IV.2. Production Performance: Milk Yield

**TABLE IV.2.4: Year and District-wise Buffalo Milk Yield**

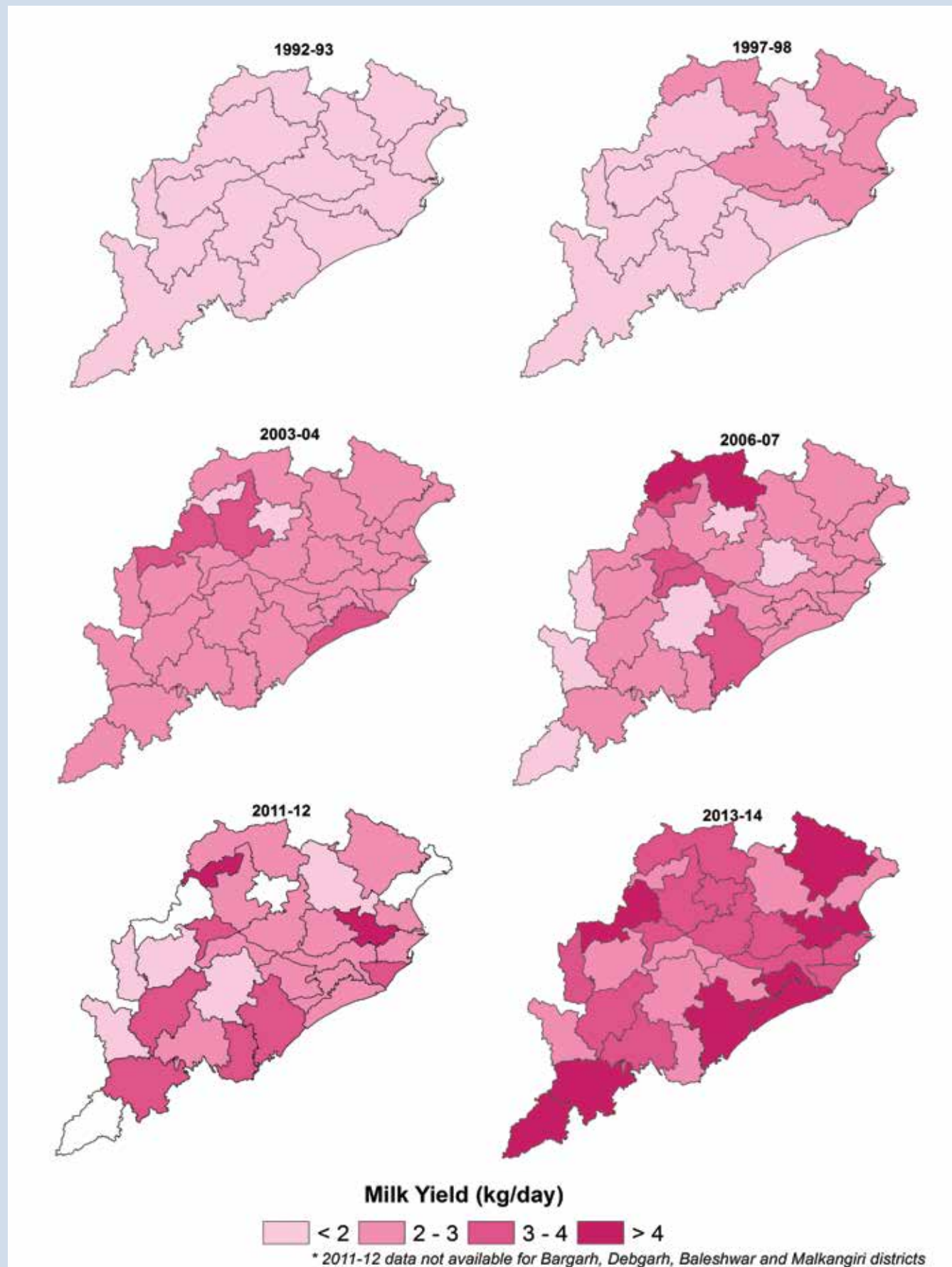
Districts	Buffalo Milk Yield (kg/day)					
	1992-93	1997-98	2003-04	2006-07	2011-12	2013-14
<b>ODISHA</b>	<b>1.432</b>	<b>1.659</b>	<b>2.632</b>	<b>2.613</b>	<b>2.900</b>	<b>3.880</b>
Anugul		1.830	2.877	2.273	2.180	3.870
Balangir	1.436	1.670	2.583	2.642	1.900	2.460
Baleshwar	1.289	2.359	2.632	2.660		2.820
Bargarh		2.166	3.250	2.854		5.270
Baudh		0.758	2.483	3.566	2.090	2.590
Bhadrak		1.667	2.469	2.551	2.040	4.860
Cuttack	1.597	2.292	2.632	2.661	2.970	3.760
Debagarh		1.659	1.234	1.733		3.980
Dhenkanal	1.353	2.022	2.896	1.711	2.250	3.020
Gajapati		1.850	2.620	2.654	3.100	2.980
Ganjam	1.471	1.452	2.909	3.265	3.220	4.100
Jagatsinghapur		2.324	2.621	2.567	3.350	3.740
Jajapur		1.663	2.600	2.387	4.230	4.660
Jharsuguda		1.865	1.849	3.398	5.980	2.970
Kalahandi	1.395	1.419	2.617	2.316	3.330	3.600
Kandhamal	1.302	1.488	2.390	1.919	1.390	2.880
Kendrapara		2.182	2.093	2.590	2.650	3.690
Kendujhar	1.263	1.921	2.647	2.675	1.400	2.630
Khordha		1.695	2.632	2.741	2.190	4.770
Koraput	1.374	1.564	2.458	2.668	3.780	4.210
Malkangiri		1.613	2.305	0.966		5.210
Mayurbhanj	1.238	2.256	2.925	2.800	2.720	4.300
Nabarangapur		1.216	2.434	1.673	1.620	2.850
Nayagarh		1.273	2.632	2.664	2.090	2.650
Nuapada		0.990	2.519	1.650	1.410	3.250
Puri	1.429	1.825	3.364	2.544	2.220	4.250
Rayagada		1.603	2.588	2.130	2.180	3.710
Sambalpur	1.582	1.365	3.187	2.812	2.380	3.110
Subarnapur		1.397	2.023	3.932	3.190	3.640
Sundargarh	1.665	2.235	2.632	4.735	2.470	3.290

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise Buffalo Milk Yield





### IV.3. Production Performance: Milk Production

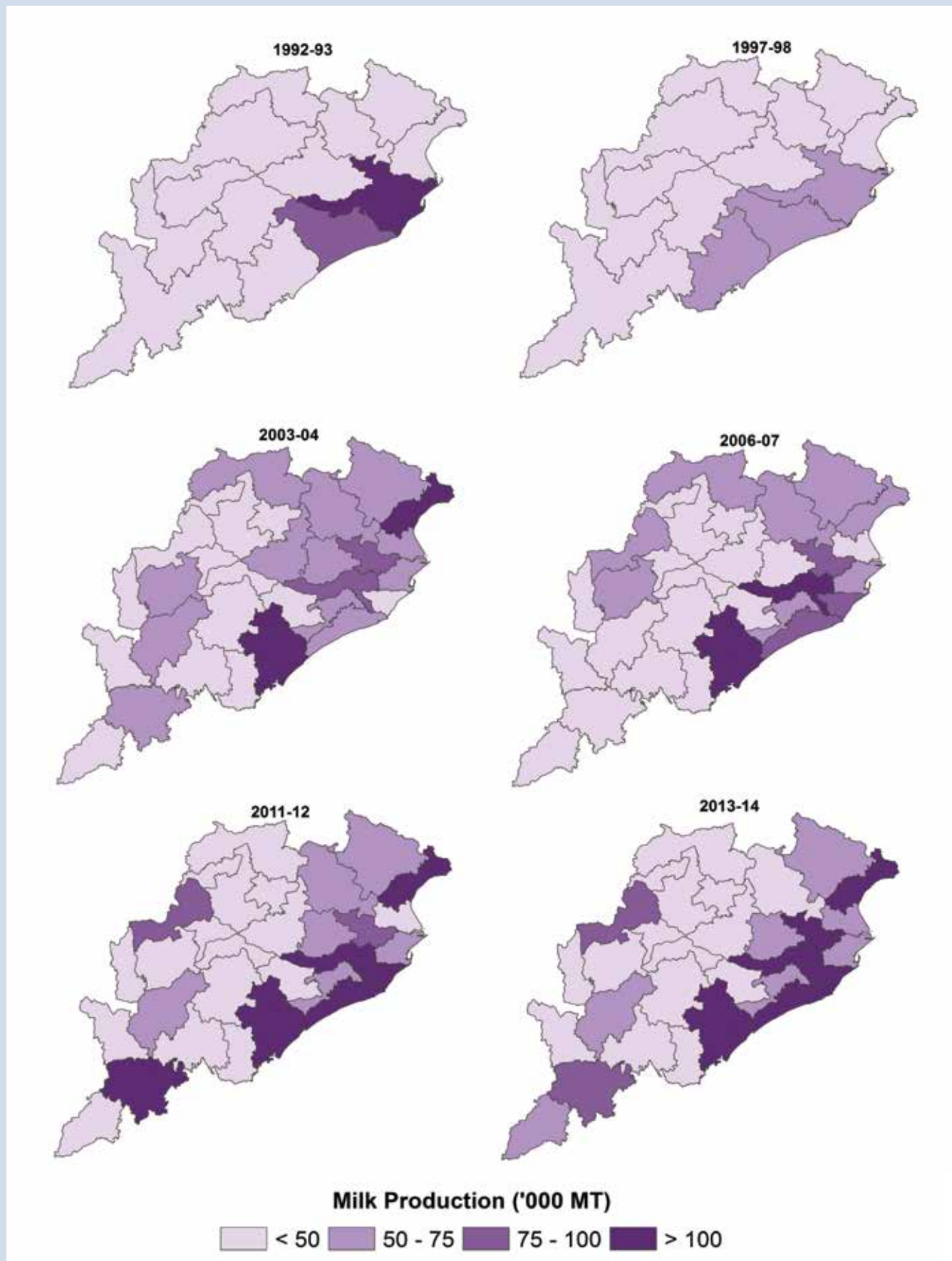
**TABLE IV.3.1: Year and District-wise Bovine Milk Production**

Districts	Bovine Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>539.6</b>	<b>669.2</b>	<b>992.3</b>	<b>1,428.2</b>	<b>1,595.7</b>	<b>1,648.5</b>	<b>1,667.0</b>	<b>1,715.0</b>	<b>1,781.0</b>	<b>1,858.3</b>
Anugul		22.1	34.9	41.3	41.9	43.4	44.6	41.6	47.3	49.3
Balangir	33.0	22.3	33.9	53.2	62.5	64.4	71.3	45.6	39.1	40.9
Baleshwar	42.9	23.7	33.6	65.1	118.6	120.8	111.6	124.3	133.4	138.9
Bargarh		34.5	52.7	55.8	50.1	52.8	78.9	85.1	77.0	80.5
Baudh		6.0	11.3	27.4	21.0	21.6	15.2	21.6	22.4	23.4
Bhadrak		16.8	24.3	45.2	64.0	65.4	34.1	36.8	67.1	70.1
Cuttack	111.2	62.6	101.7	165.8	142.8	149.2	156.4	150.5	149.8	155.7
Debagarh		4.7	5.1	7.0	12.0	11.4	11.3	9.1	24.4	25.5
Dhenkanal	39.7	24.9	33.4	34.7	52.0	53.1	53.7	55.1	56.4	58.8
Gajapati		8.4	12.0	13.0	20.8	21.5	22.3	26.1	31.7	33.1
Ganjam	45.8	50.3	78.7	101.7	85.9	87.6	98.2	102.9	103.6	108.5
Jagatsinghapur		49.3	66.4	89.3	88.8	93.6	92.7	102.1	101.5	105.3
Jajapur		21.5	24.5	78.9	74.4	76.1	64.9	99.9	105.6	110.0
Jharsuguda		5.9	7.9	12.5	16.9	17.6	11.0	13.8	12.2	12.8
Kalahandi	22.2	19.2	28.8	27.9	42.0	43.0	47.2	51.5	50.8	53.2
Kandhamal	10.5	9.4	14.6	15.6	20.3	20.7	13.0	14.6	15.6	16.4
Kendrapara		22.4	31.2	56.3	53.6	55.3	95.1	65.5	65.2	67.9
Kendujhar	16.5	21.3	33.1	71.3	69.0	71.9	47.8	52.8	43.7	45.4
Khordha		43.4	63.7	56.0	56.2	58.4	42.4	53.0	68.4	71.6
Koraput	44.4	18.0	32.1	44.4	55.4	56.9	154.5	125.8	94.0	98.3
Malkangiri		7.7	10.9	14.6	31.5	32.1	39.4	41.4	51.1	53.8
Mayurbhanj	14.6	23.7	29.8	66.2	80.3	83.3	69.4	68.2	69.1	71.8
Nabarangapur		8.8	15.5	19.4	21.9	22.4	15.3	23.1	17.6	18.4
Nayagarh		11.9	16.0	17.4	20.0	20.4	20.7	24.4	24.8	25.7
Nuapada		7.7	9.0	11.1	25.4	25.9	15.2	16.0	27.6	28.8
Puri	96.6	59.0	83.5	91.1	102.8	107.7	99.8	108.0	126.5	132.0
Rayagada		17.9	28.1	33.4	33.8	34.6	30.9	36.8	41.8	43.9
Sambalpur	43.2	15.7	31.5	30.3	39.7	41.2	37.7	35.9	32.9	34.2
Subarnapur		5.6	12.5	25.5	52.5	54.4	31.9	41.4	39.1	40.8
Sundargarh	18.9	24.3	32.2	56.8	40.5	41.9	40.4	42.8	41.8	43.5

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise Bovine Milk Production





### IV.3. Production Performance: Milk Production

**TABLE IV.3.2: Year and District-wise Indigenous Cattle Milk Production**

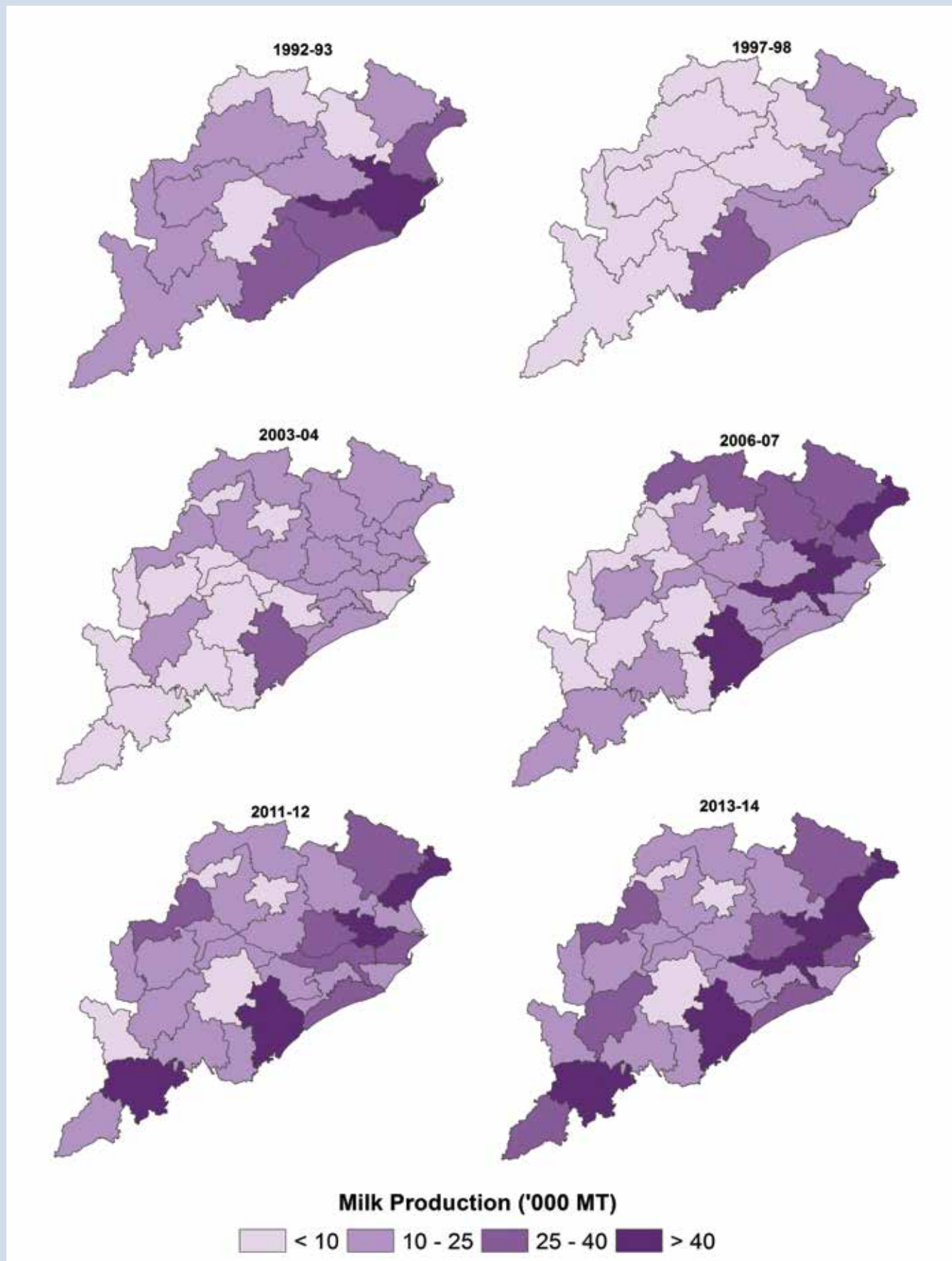
Districts	Indigenous Cattle Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>275.1</b>	<b>292.6</b>	<b>320.2</b>	<b>611.1</b>	<b>712.4</b>	<b>718.7</b>	<b>727.0</b>	<b>734.0</b>	<b>794.0</b>	<b>828.0</b>
Anugul		10.7	12.5	21.9	19.5	19.7	20.3	17.9	23.6	24.6
Balangir	17.8	8.8	8.5	19.0	28.2	28.5	31.8	15.2	16.4	17.1
Baleshwar	27.1	15.4	19.0	44.9	92.9	93.7	86.1	101.1	109.4	114.0
Bargarh		8.3	10.6	6.8	5.2	5.2	27.9	26.7	28.9	30.1
Baudh		4.0	5.3	13.6	11.7	11.8	8.4	11.6	12.6	13.1
Bhadrak		10.9	11.6	27.5	40.9	41.2	21.8	22.3	39.3	41.0
Cuttack	57.4	20.1	22.6	63.2	41.9	42.3	43.5	40.0	43.3	45.1
Debagarh		2.4	3.6	3.6	4.9	5.0	1.3	3.3	3.5	3.7
Dhenkanal	22.5	9.6	12.3	15.6	31.0	31.2	26.2	25.7	27.8	29.0
Gajapati		4.5	4.9	5.2	10.4	10.5	10.8	13.0	14.0	14.6
Ganjam	27.4	33.7	28.7	54.7	47.7	48.1	52.6	54.6	59.1	61.6
Jagatsinghapur		11.2	9.1	13.2	13.7	13.9	12.1	13.0	14.0	14.6
Jajapur		16.0	13.3	55.6	51.0	51.4	34.2	58.9	63.7	66.4
Jharsuguda		2.7	3.6	4.9	6.1	6.2	4.7	5.0	5.4	5.7
Kalahandi	11.2	7.2	10.3	8.8	19.4	19.5	21.1	23.1	25.0	26.1
Kandhamal	6.0	4.2	5.8	7.6	12.4	12.5	7.6	7.9	8.5	8.9
Kendrapara		12.7	11.0	23.1	29.0	29.3	52.5	31.2	33.7	35.2
Kendujhar	8.2	9.3	11.6	35.0	21.3	21.4	13.7	15.1	16.3	17.0
Khordha		18.1	19.6	21.1	22.2	22.4	16.5	19.5	21.1	22.0
Koraput	21.8	7.2	8.0	11.9	15.5	15.6	76.0	54.0	43.3	45.1
Malkangiri		4.7	5.8	11.3	17.6	17.8	18.4	22.8	24.7	25.7
Mayurbhanj	10.7	13.2	13.5	33.9	31.3	31.5	26.7	25.3	27.4	28.6
Nabarangapur		4.5	5.5	8.1	12.1	12.2	8.4	9.5	10.3	10.7
Nayagarh		8.4	9.0	10.7	12.9	13.0	13.6	16.5	17.9	18.6
Nuapada		4.7	3.8	5.9	19.0	19.2	7.2	10.3	11.1	11.6
Puri	33.5	12.8	14.1	23.0	25.1	25.3	23.8	25.4	27.5	28.7
Rayagada		7.3	9.1	16.8	16.4	16.6	16.4	18.1	19.6	20.4
Sambalpur	22.3	7.3	10.2	10.3	17.1	17.3	15.7	13.7	10.7	11.1
Subarnapur		2.6	4.5	7.3	21.5	21.7	12.8	17.8	19.2	20.1
Sundargarh	9.2	10.0	12.9	26.6	14.5	14.7	14.9	15.6	16.9	17.6

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise Indigenous Cattle Milk Production





### IV.3. Production Performance: Milk Production

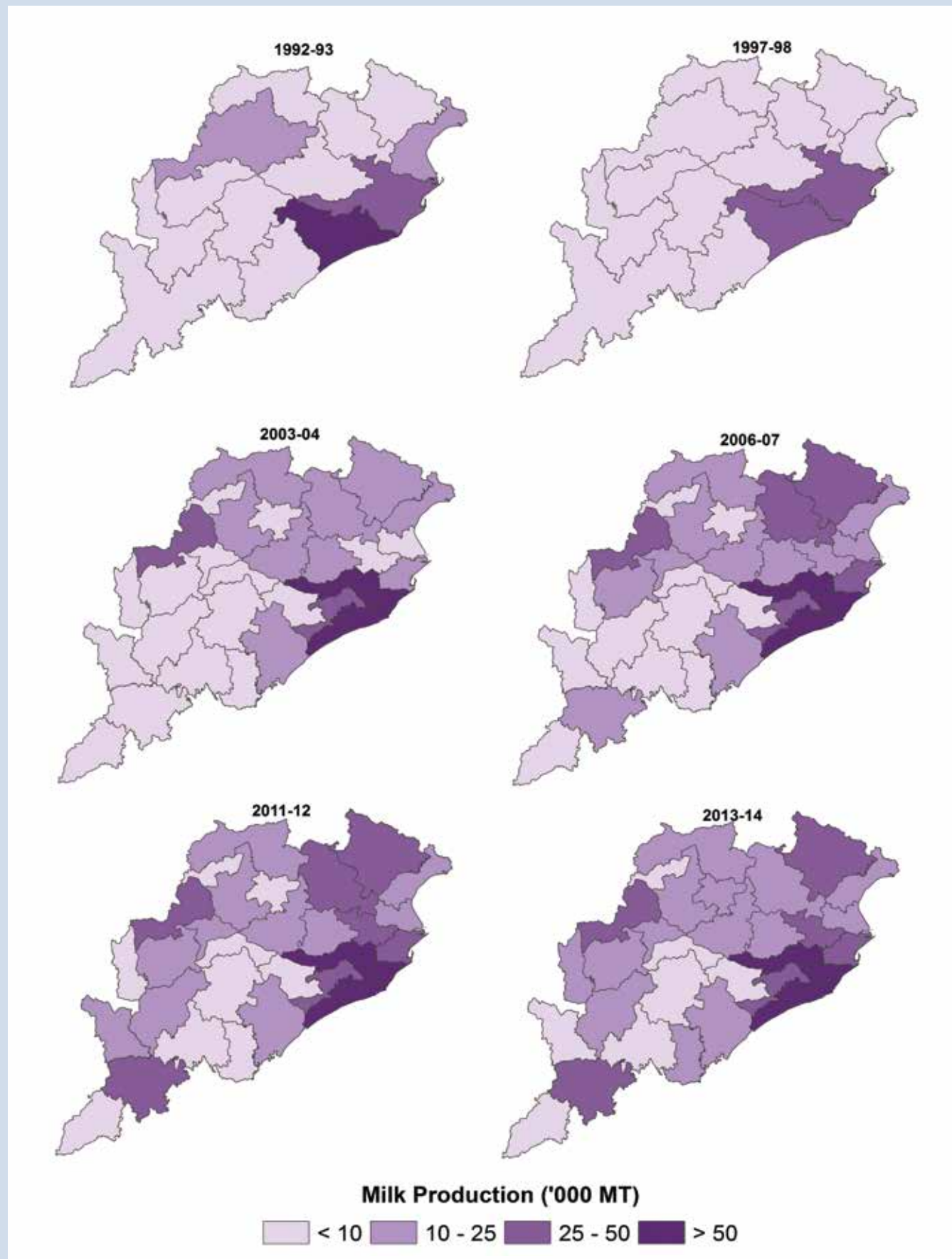
**TABLE IV.3.3: Year and District-wise Crossbred Cattle Milk Production**

Districts	Crossbred Cattle Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>159.6</b>	<b>249.2</b>	<b>466.2</b>	<b>599.4</b>	<b>664.5</b>	<b>706.7</b>	<b>711.0</b>	<b>741.0</b>	<b>732.0</b>	<b>758.0</b>
Anugul		6.8	15.4	15.0	18.5	19.7	20.2	19.5	19.3	20.0
Balangir	3.6	3.7	9.5	13.7	20.8	22.1	24.5	15.7	15.5	16.1
Baleshwar	13.1	7.4	14.0	19.5	20.0	21.3	19.7	21.3	22.0	22.8
Bargarh		22.6	36.8	43.2	39.5	42.0	33.5	41.7	30.4	31.5
Baudh		0.8	1.5	5.3	5.7	6.1	4.2	5.0	4.9	5.1
Bhadrak		4.1	9.7	12.5	15.4	16.4	8.3	10.4	17.0	17.6
Cuttack	43.2	37.7	71.9	92.6	91.1	96.9	102.0	99.3	98.1	101.6
Debagarh		0.4	0.7	2.7	2.7	2.8	7.3	3.1	18.0	18.7
Dhenkanal	7.2	5.8	10.1	13.5	13.9	14.7	21.4	22.0	20.8	21.5
Gajapati		0.7	2.6	4.1	6.8	7.3	7.7	8.8	13.2	13.7
Ganjam	4.0	5.7	18.5	15.0	12.9	13.7	17.0	18.0	17.8	18.4
Jagatsinghapur		34.0	52.4	72.2	70.7	75.2	75.9	84.1	83.1	86.0
Jajapur		4.4	8.7	20.8	18.8	20.0	26.2	36.5	36.1	37.4
Jharsuguda		1.9	3.1	5.5	7.1	7.6	2.8	5.1	5.0	5.2
Kalahandi	2.0	3.3	6.3	8.1	9.6	10.2	11.6	12.7	12.5	13.0
Kandhamal	0.6	0.4	0.9	2.5	3.4	3.6	2.6	2.7	2.9	3.0
Kendrapara		6.6	14.9	28.4	20.0	21.3	37.2	29.4	29.0	30.1
Kendujhar	5.6	7.4	16.1	30.0	43.0	45.7	31.0	34.4	23.9	24.7
Khordha		23.2	40.2	31.7	30.9	32.9	23.5	30.9	30.6	31.7
Koraput	3.3	2.2	9.9	10.6	13.7	14.6	46.8	40.9	30.5	31.6
Malkangiri		0.2	0.9	1.2	2.0	2.1	6.7	2.8	3.4	3.5
Mayurbhanj	2.8	8.0	13.3	29.0	45.4	48.2	39.6	39.7	39.2	40.6
Nabarangapur		0.9	3.6	8.0	6.9	7.3	4.9	10.4	3.9	4.1
Nayagarh		1.5	3.2	3.0	4.5	4.8	4.5	5.0	5.0	5.1
Nuapada		0.4	0.7	1.5	2.1	2.3	5.3	2.5	13.1	13.6
Puri	56.1	42.6	64.8	60.9	71.8	76.4	70.1	76.3	75.4	78.1
Rayagada		0.7	1.9	3.2	5.0	5.3	2.8	5.0	7.6	7.9
Sambalpur	13.0	6.0	15.6	14.4	18.8	20.0	18.3	17.5	17.3	17.9
Subarnapur		1.6	5.2	13.6	25.3	26.9	15.8	19.8	15.9	16.4
Sundargarh	5.1	8.0	14.3	17.9	18.3	19.4	19.5	20.8	20.6	21.3

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise Crossbred Cattle Milk Production





### IV.3. Production Performance: Milk Production

**TABLE IV.3.4: Year and District-wise Buffalo Milk Production**

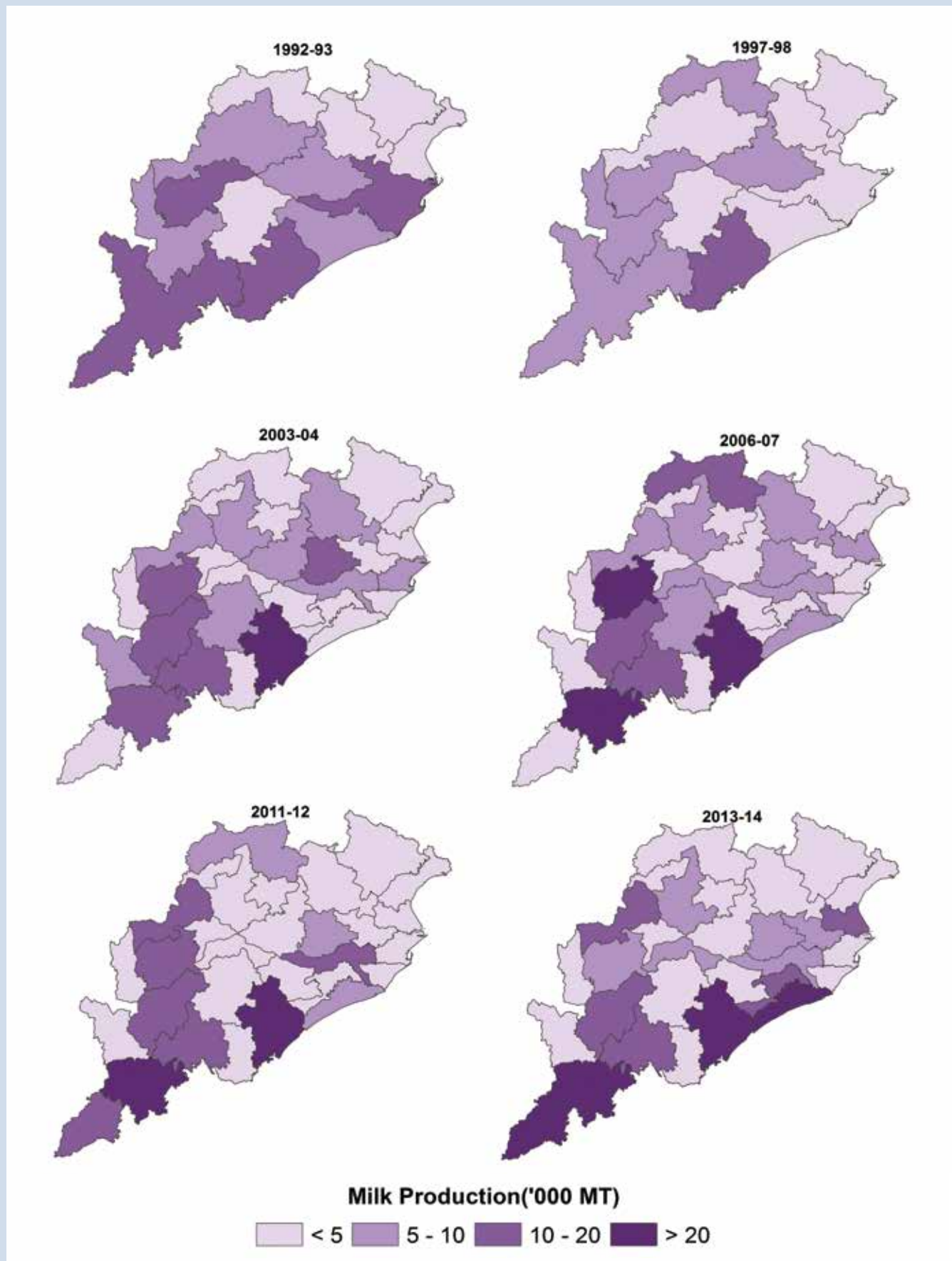
Districts	Buffalo Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>104.9</b>	<b>127.4</b>	<b>205.9</b>	<b>217.7</b>	<b>218.8</b>	<b>223.1</b>	<b>229.0</b>	<b>240.0</b>	<b>255.0</b>	<b>272.3</b>
Anugul		4.6	7.0	4.4	3.9	4.0	4.1	4.2	4.4	4.7
Balangir	11.6	9.8	15.9	20.5	13.5	13.8	15.0	14.7	7.2	7.7
Baleshwar	2.7	0.9	0.6	0.7	5.7	5.8	5.8	1.9	2.0	2.1
Bargarh		3.6	5.3	5.8	5.4	5.6	17.5	16.7	17.7	18.9
Baudh		1.2	4.5	8.5	3.6	3.7	2.6	5.0	4.9	5.2
Bhadrak		1.8	3.0	5.2	7.7	7.8	4.0	4.1	10.8	11.5
Cuttack	10.6	4.8	7.2	10.0	9.8	10.0	10.9	11.2	8.4	9.0
Debagarh		1.9	0.8	0.7	4.4	3.6	2.7	2.7	2.9	3.1
Dhenkanal	10.0	9.5	11.0	5.6	7.1	7.2	6.1	7.4	7.8	8.3
Gajapati		3.2	4.5	3.7	3.6	3.7	3.8	4.3	4.5	4.8
Ganjam	14.4	10.9	31.5	32.0	25.3	25.8	28.6	30.3	26.7	28.5
Jagatsinghapur		4.1	4.9	3.9	4.4	4.5	4.7	5.0	4.4	4.7
Jajapur		1.1	2.5	2.5	4.6	4.7	4.5	4.5	5.8	6.2
Jharsuguda		1.3	1.2	2.1	3.7	3.8	3.5	3.7	1.8	1.9
Kalahandi	9.0	8.7	12.2	11.0	13.0	13.3	14.5	15.7	13.3	14.1
Kandhamal	3.9	4.8	7.9	5.5	4.5	4.6	2.8	4.0	4.2	4.5
Kendrapara		3.1	5.3	4.8	4.6	4.7	5.4	4.9	2.5	2.6
Kendujhar	2.7	4.6	5.4	6.3	4.7	4.8	3.1	3.3	3.5	3.7
Khordha		2.1	3.9	3.2	3.1	3.1	2.4	2.6	16.7	17.9
Koraput	19.3	8.6	14.2	21.9	26.2	26.7	31.7	30.9	20.2	21.6
Malkangiri		2.8	4.2	2.1	11.9	12.2	14.3	15.8	23.0	24.6
Mayurbhanj	1.1	2.5	3.0	3.3	3.6	3.6	3.1	3.2	2.5	2.6
Nabarangapur		3.4	6.4	3.3	2.9	2.9	2.0	3.2	3.4	3.6
Nayagarh		2.0	3.8	3.7	2.6	2.6	2.6	2.9	1.9	2.0
Nuapada		2.6	4.5	3.7	4.3	4.4	2.7	3.2	3.4	3.6
Puri	7.0	3.6	4.6	7.2	5.9	6.0	5.9	6.3	23.6	25.2
Rayagada		9.9	17.1	13.4	12.4	12.7	11.7	13.7	14.6	15.6
Sambalpur	7.9	2.4	5.7	5.6	3.8	3.9	3.7	4.7	4.9	5.2
Subarnapur		1.4	2.8	4.6	5.7	5.8	3.3	3.8	4.0	4.3
Sundargarh	4.6	6.3	5.0	12.3	7.7	7.8	6.0	6.4	4.3	4.6

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





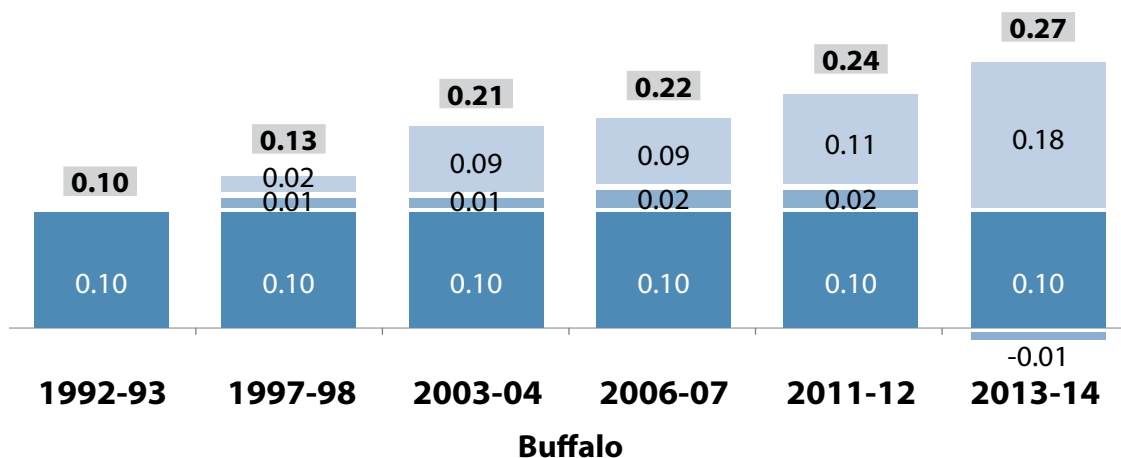
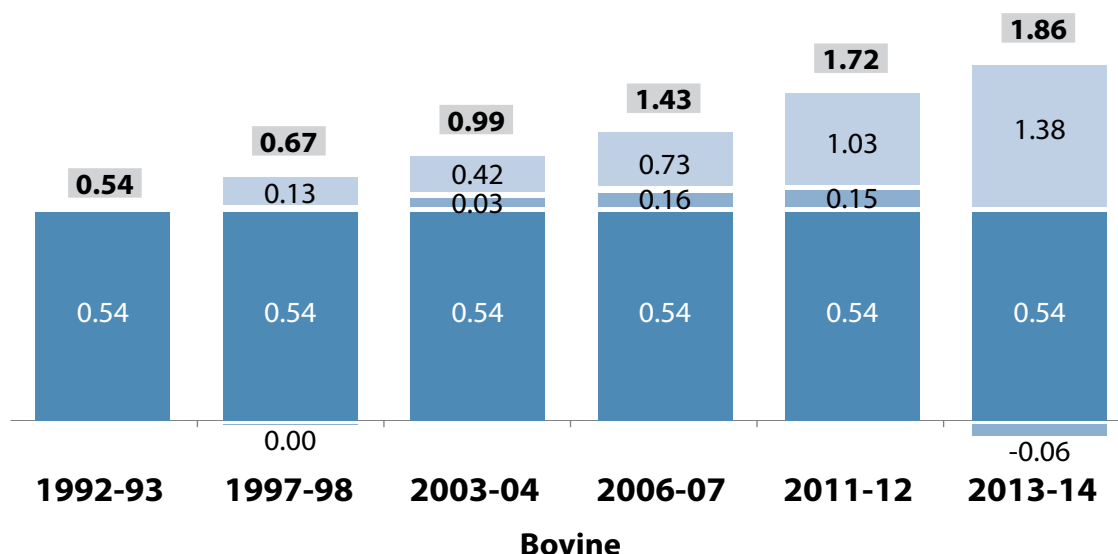
### District-wise Buffalo Milk Production





## Odisha's Milk Production (MMT)

(Change due to no. of in-milk animals and average yield)



- Milk production in base year - 1992-1993 - MMT
- Total milk production - MMT
- Increase in milk production due to change in numbers of in milk animals - MMT
- Increase in milk production due to change in average yield - MMT

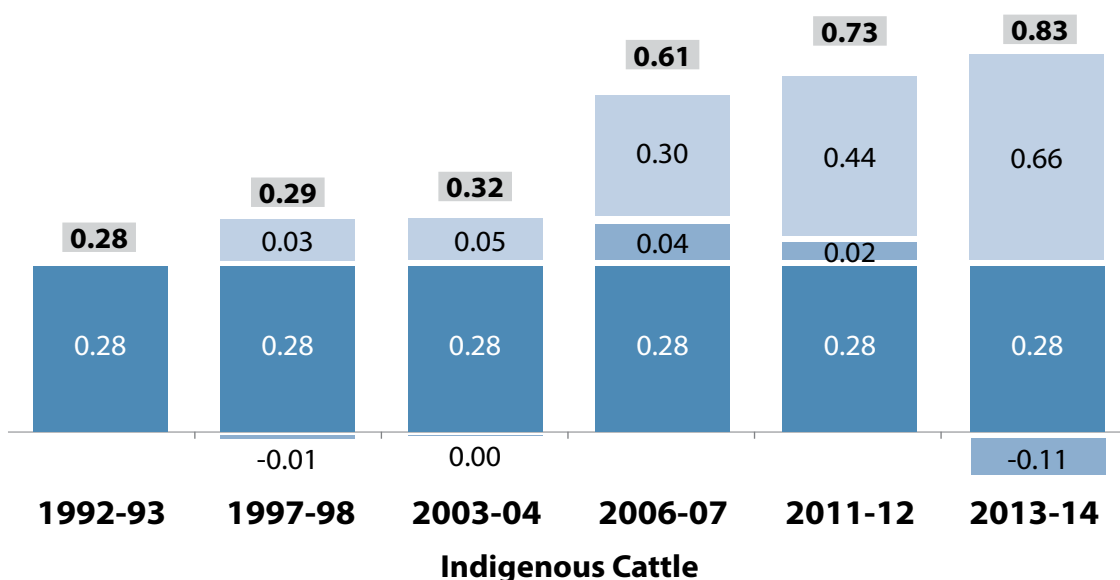
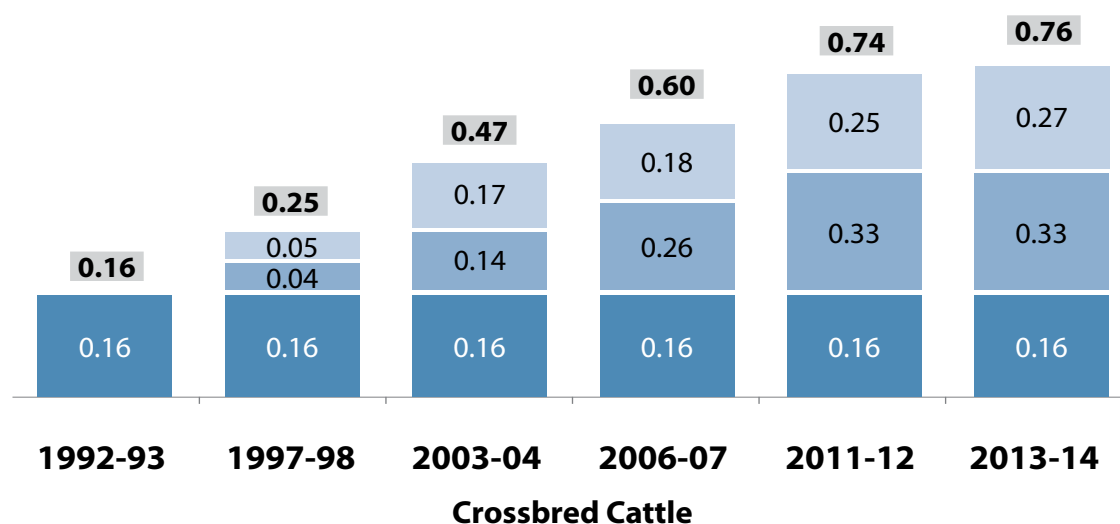






## Odisha's Milk Production (MMT)

(Change due to no. of in-milk animals & average yield)



- Milk production in base year - 1992-1993 - MMT
- Total milk production - MMT
- Increase in milk production due to change in numbers of in milk animals - MMT
- Increase in milk production due to change in average yield - MMT







### IV.3. Production Performance: Milk Production

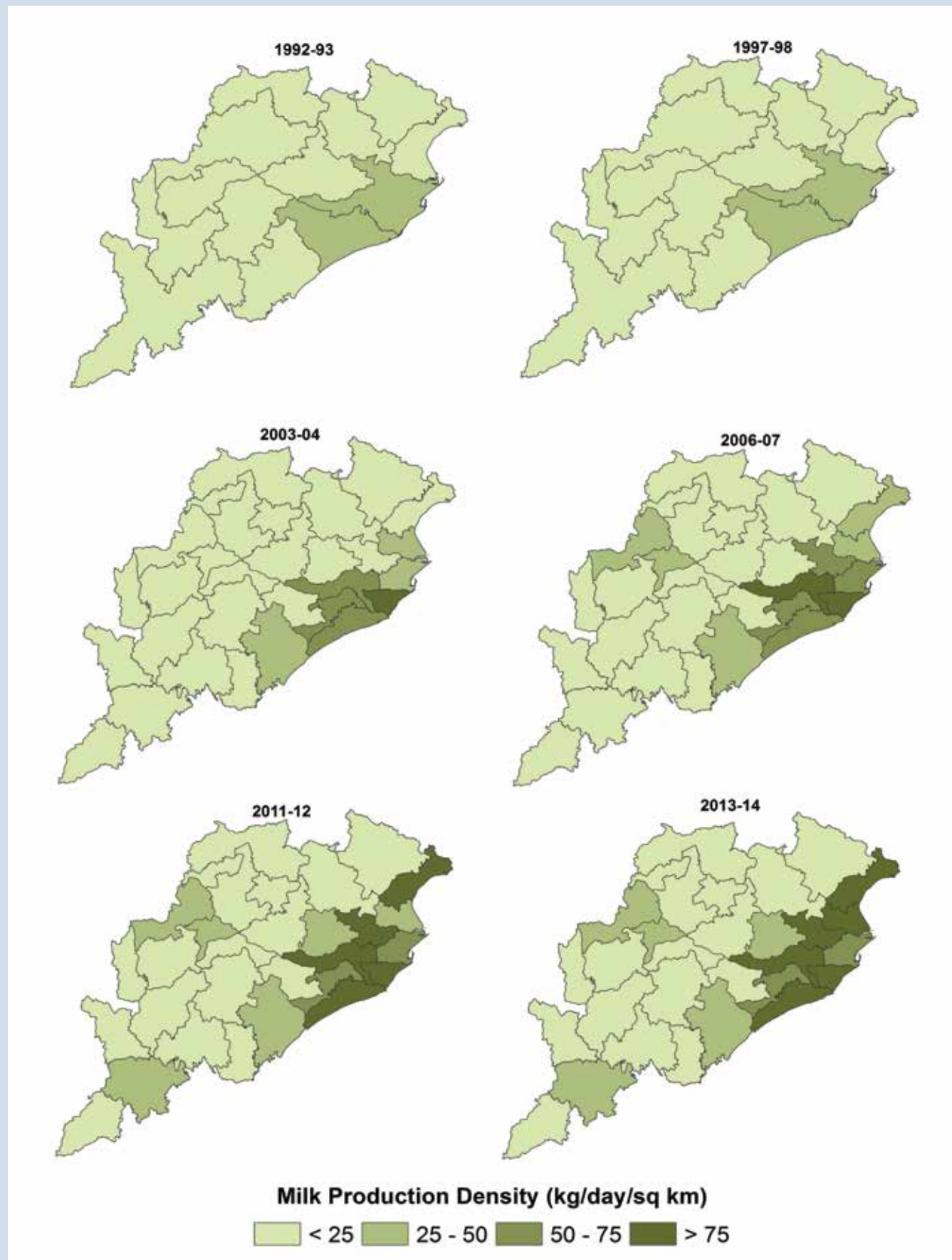
**TABLE IV.3.5: Year and District-wise Total Milk Production Density**

Districts	Milk Production Density (Kg/day/sq km)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>9</b>	<b>12</b>	<b>17</b>	<b>25</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>33</b>
Anugul		9	15	18	18	19	19	18	20	21
Balangir	10	9	14	22	26	27	30	19	16	17
Baleshwar	19	17	24	47	85	87	80	89	96	100
Bargarh		16	25	26	24	25	37	40	36	38
Baudh		5	10	24	19	19	13	19	20	21
Bhadrak		18	27	49	70	72	37	40	73	77
Cuttack	27	44	71	116	99	104	109	105	104	108
Debagarh		4	5	7	11	11	11	8	23	24
Dhenkanal	10	15	21	21	32	33	33	34	35	36
Gajapati		5	8	8	13	14	14	16	20	21
Ganjam	10	17	26	34	29	29	33	34	35	36
Jagatsinghapur		81	109	147	146	154	152	168	167	173
Jajapur		20	23	75	70	72	61	94	100	104
Jharsuguda		8	10	16	22	23	14	18	16	17
Kalahandi	5	7	10	10	14	15	16	18	18	18
Kandhamal	3	3	5	5	7	7	4	5	5	6
Kendrapara		23	32	58	56	57	99	68	68	70
Kendujhar	5	7	11	24	23	24	16	17	14	15
Khordha		42	62	55	55	57	41	52	67	70
Koraput	5	6	10	14	17	18	48	39	29	31
Malkangiri		4	5	7	15	15	19	20	24	25
Mayurbhanj	4	6	8	17	21	22	18	18	18	19
Nabarangapur		5	8	10	11	12	8	12	9	10
Nayagarh		8	11	12	14	14	15	17	17	18
Nuapada		5	6	8	18	18	11	11	20	20
Puri	26	46	66	72	81	85	79	85	100	104
Rayagada		7	11	13	13	13	12	14	16	17
Sambalpur	7	6	13	12	16	17	16	15	14	14
Subarnapur		7	15	30	62	64	37	48	46	48
Sundargarh	5	7	9	16	11	12	11	12	12	12

SOURCE: Estimated from Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### District-wise Milk Production Density





## IV.4. Production Performance: Milk Availability

**TABLE IV.4.1: Year and District-wise Per Capita Milk Availability**

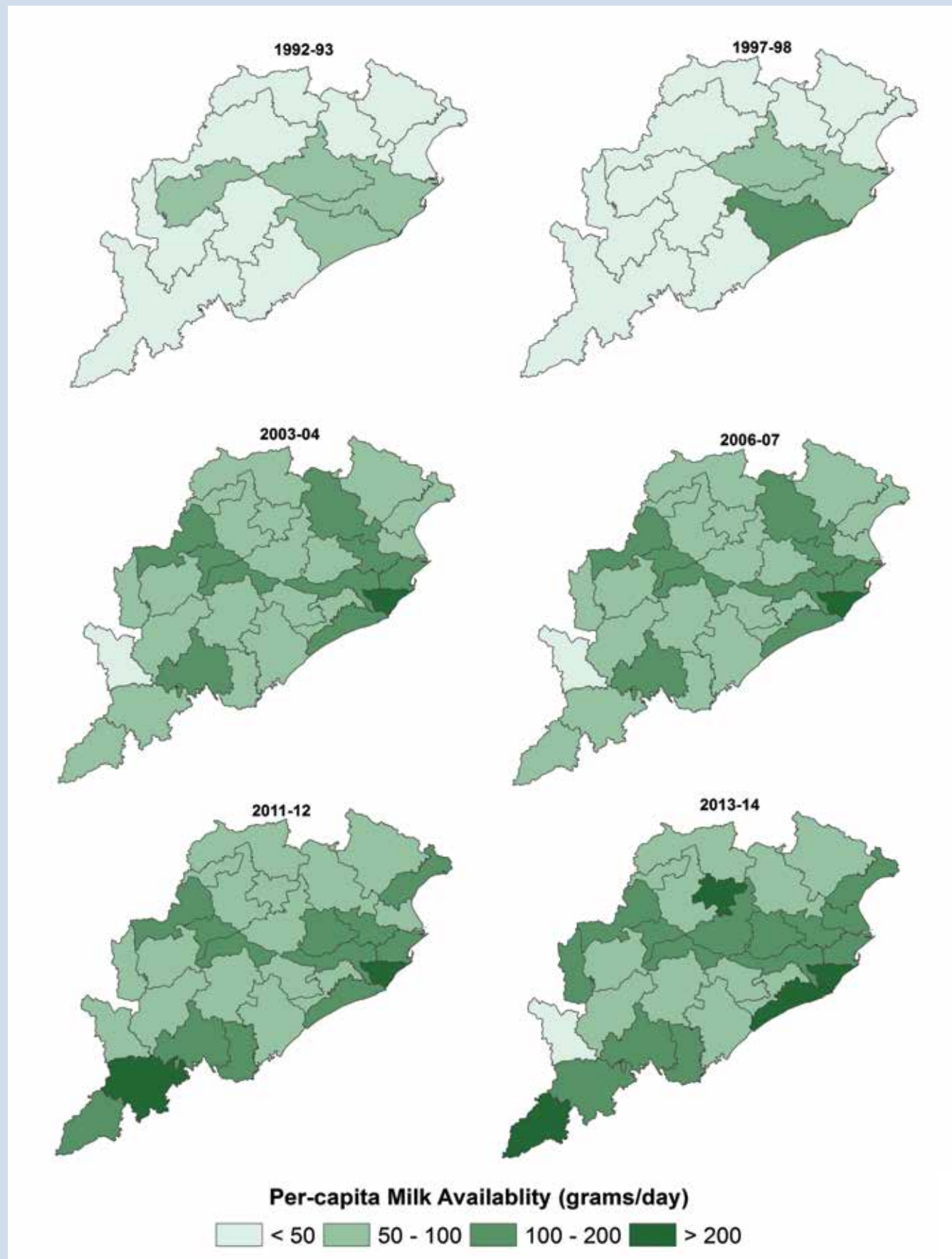
Districts	Per Capita Availability of Milk (grams/day)									
	1992-93	1997-98	2003-04	2006-07	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>46</b>	<b>53</b>	<b>72</b>	<b>100</b>	<b>108</b>	<b>110</b>	<b>110</b>	<b>112</b>	<b>115</b>	<b>118</b>
Anugul		56	82	94	93	95	97	89	101	104
Balangir	52	48	67	98	111	111	121	76	64	65
Baleshwar	41	35	44	82	146	147	134	147	155	160
Bargarh		75	105	108	95	100	147	157	141	146
Baudh		47	80	185	137	138	96	134	137	141
Bhadrak		37	49	87	121	122	63	67	120	124
Cuttack	54	77	116	183	154	159	165	157	155	159
Debagarh		50	50	65	109	102	100	80	212	216
Dhenkanal	54	67	84	85	123	125	125	127	128	132
Gajapati		47	62	65	102	104	107	123	149	154
Ganjam	39	46	67	83	69	70	77	80	80	82
Jagatsinghapur		135	169	223	219	229	225	246	243	250
Jajapur		38	40	125	116	117	98	150	157	161
Jharsuguda		34	41	63	83	85	53	65	57	59
Kalahandi	38	42	57	52	77	77	83	89	87	89
Kandhamal	33	43	60	62	79	79	49	54	58	60
Kendrapara		50	64	113	105	107	183	125	123	126
Kendujhar	33	40	56	116	109	112	74	80	65	67
Khordha		68	90	75	72	74	53	64	82	84
Koraput	40	45	72	95	115	117	312	250	184	189
Malkangiri		45	57	71	150	149	180	185	224	231
Mayurbhanj	21	31	36	77	91	93	77	74	74	76
Nabarangapur		25	40	48	52	52	35	52	39	40
Nayagarh		40	50	53	59	59	60	69	70	72
Nuapada		42	45	53	119	119	69	71	122	126
Puri	72	115	149	156	172	178	163	174	202	208
Rayagada		63	90	102	100	101	89	104	117	121
Sambalpur	44	49	90	84	108	111	100	94	85	88
Subarnapur		29	62	122	244	251	145	185	174	179
Sundargarh	32	39	47	79	55	56	54	56	54	55

SOURCE: Estimated from Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





### District-wise Per Capita Milk Availability





## IV.5. Production Performance: Milk Utilisation

**TABLE IV.5.1: Milk Utilisation Pattern in Households (1992-93 to 2013-14)**

(In Percent)

Parameters	1992-93	1995-96	2005-06	2012-13	2013-14
Consumed as fluid milk	42	32	23	14	25
Sold as fluid milk	43	45	55	60	57
Converted into Milk products	15	22	21	26	18

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.







## PART V : VETERINARY INFRASTRUCTURE AND SERVICE DELIVERY SYSTEM

The State has devised several strategies for improving veterinary infrastructure and service delivery system. To this end, animal health care is being provided through a network of 540 veterinary hospitals & dispensaries and 2,939 Livestock Aid Centres (LAC) at Gram Panchayat level. Beside these, two Biological Products Institutes are functional at Bhubaneswar and Berhampur to provide different vaccines needed for the Disease Control Programme in the State.

Artificial insemination is a thrust area for dairy development and is being rendered through a network of 5,826 AI centres in the State. Special attention has been given for production of quality frozen semen for insemination purpose and accordingly activities at the Frozen Semen Bank (FSB) located at Cuttack has been strengthened with rearing of 39 Jersey, 18 Cross-bred, 16 Red-Sindhi and 12 Haryana donating breeding bulls. In addition, special infertility camps are organized in the state. Moreover, there are farms in the State to produce high pedigree bull calves.

A livestock insurance scheme covering 45,000 animals in 30 districts has been put in place and the premium of the insurance is subsidized to the tune of 50 per cent.







## V.1. Veterinary Infrastructure

**TABLE V.1.1: Year and District-wise Veterinary Institutes**

Districts	Number of Veterinary Institutes					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>3,479</b>	<b>3,479</b>	<b>3,479</b>	<b>3,479</b>	<b>3,479</b>	<b>3,479</b>
Anugul	97	97	97	97	97	97
Balangir	139	139	139	139	139	139
Baleshwar	145	145	145	145	145	145
Bargarh	138	138	138	138	138	138
Baudh	35	35	35	35	35	35
Bhadrak	111	111	111	111	111	111
Cuttack	198	198	198	198	198	198
Debagarh	24	24	24	24	24	24
Dhenkanal	104	104	104	104	104	104
Gajapati	65	65	65	65	65	65
Ganjam	284	284	284	284	284	284
Jagatsinghapur	104	104	104	104	104	104
Jajapur	120	120	120	120	120	120
Jharsuguda	44	44	44	44	44	44
Kalahandi	150	150	150	150	150	150
Kandhamal	107	107	107	107	107	107
Kendrapara	102	102	102	102	102	102
Kendujhar	135	135	135	135	135	135
Khordha	118	118	118	118	118	118
Koraput	154	154	154	154	154	154
Malkangiri	63	63	63	63	63	63
Mayurbhanj	209	209	209	209	209	209
Nabarangapur	89	89	89	89	89	89
Nayagarh	88	88	88	88	88	88
Nuapada	55	55	55	55	55	55
Puri	160	160	160	160	160	160
Rayagada	117	117	117	117	117	117
Sambalpur	131	131	131	131	131	131
Subarnapur	48	48	48	48	48	48
Sundargarh	145	145	145	145	145	145

*Veterinary Institute includes Veterinary Hospitals/Dispensaries and Livestock Aid Centres*

*SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.*



## V.1. Veterinary Infrastructure

**TABLE V.1.2: District-wise AI Centres – Government Agencies**

Districts	Number of AI Centres						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>3,214</b>	<b>4,319</b>	<b>4,417</b>	<b>4,469</b>	<b>4,495</b>	<b>4,439</b>	<b>4,416</b>
Anugul	81	145	145	145	153	153	153
Balangir	134	176	162	163	163	163	167
Baleshwar	127	214	223	221	223	196	214
Bargarh	154	166	162	180	183	183	183
Baudh	34	44	44	45	36	38	38
Bhadrak	85	137	164	165	166	168	168
Cuttack	185	270	272	272	272	272	272
Debagarh	20	34	30	30	30	30	30
Dhenkanal	99	158	153	153	153	153	153
Gajapati	57	70	64	65	65	65	65
Ganjam	244	327	331	330	330	324	324
Jagatsinghapur	101	189	151	156	156	156	156
Jajapur	103	198	216	215	216	215	232
Jharsuguda	41	56	55	53	53	52	52
Kalahandi	111	186	178	184	184	184	184
Kandhamal	62	89	85	75	75	75	75
Kendrapara	87	139	158	158	183	186	155
Kendujhar	163	166	174	169	169	169	169
Khordha	104	166	170	177	177	177	172
Koraput	140	143	140	137	131	131	131
Malkangiri	42	50	50	41	41	41	41
Mayurbhanj	218	236	319	308	309	309	286
Nabarangapur	77	88	95	105	104	101	101
Nayagarh	91	110	113	113	113	113	113
Nuapada	72	66	81	82	82	58	56
Puri	164	208	183	220	220	220	220
Rayagada	83	82	95	104	104	104	117
Sambalpur	105	148	148	149	150	149	149
Subarnapur	47	65	65	68	68	68	68
Sundargarh	183	193	191	186	186	186	172

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



## V.1. Veterinary Infrastructure

**TABLE V.1.3: District-wise AI Centres – Cooperatives & Others**

Unions	Number of AI Centres					
	Cooperatives		BAIF		JK Trust	
	2012-13	2013-14	2013-14	2014-15	2013-14	2014-15
<b>ODISHA</b>	<b>1,410</b>	<b>1,410</b>	<b>100</b>	<b>100</b>	<b>580</b>	<b>580</b>
Anugul	20	20	15	15	0	0
Balangir			15	15	0	0
Baleshwar	101	67	0	0	12	12
Bargarh	156	156	10	10	22	22
Baudh	5	10	5	5	40	40
Bhadrak	111	113	0	0	0	0
Cuttack	149	149	0	0	0	0
Debagarh	1	1	0	0	0	0
Dhenkanal	12	12	0	0	0	0
Gajapati	15	15	0	0	0	0
Ganjam	17	17	0	0	31	31
Jagatsinghapur	225	225	0	0	0	0
Jajapur	14	14	0	0	0	0
Jharsuguda	2	2	0	0	0	0
Kalahandi	33	33	10	10	56	56
Kandhamal	2	2	0	0	0	0
Kendrapara	75	64	0	0	0	0
Kendujhar	40	40	0	0	32	32
Khordha	32	32	0	0	0	0
Koraput	22	22	5	5	135	135
Malkangiri		37	0	0	75	75
Mayurbhanj	5	2	0	0	37	37
Nabarangapur	57	57	10	10	53	53
Nayagarh	10	20	0	0	0	0
Nuapada	13	13	10	10	28	28
Puri	222	222	0	0	0	0
Rayagada	13	13	0	0	59	59
Sambalpur	18	12	10	10	0	0
Subarnapur	40	40	10	10	0	0
Sundargarh			0	0	0	0

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



## V.2. Service Delivery System - Artificial Insemination

**TABLE V.2.1: District-wise AI Performed by Government Agencies – Cattle**

Districts	Number of AI Performed ('000)				
	2007-08	2008-09	2009-10	2010-11	2011-12
<b>ODISHA</b>	<b>733.1</b>	<b>812.3</b>	<b>915.1</b>	<b>937.2</b>	<b>910.1</b>
Anugul	24.5	28.0	30.8	31.0	33.8
Balangir	28.2	30.8	33.7	35.2	39.5
Baleshwar	37.1	41.2	57.9	61.5	61.9
Bargarh	36.7	36.0	37.2	37.9	39.9
Baudh	9.4	11.2	11.4	11.9	12.3
Bhadrak	27.5	30.1	34.6	38.7	37.7
Cuttack	85.1	89.1	92.7	94.9	86.0
Debagarh	5.4	5.7	6.7	7.4	7.0
Dhenkanal	25.4	29.0	31.2	32.3	31.8
Gajapati	6.8	7.1	7.4	7.8	7.1
Ganjam	41.6	45.7	48.5	46.9	42.0
Jagatsinghapur	48.2	50.4	55.6	57.0	55.5
Jajapur	29.6	34.2	41.6	44.9	41.7
Jharsuguda	8.4	9.3	9.7	8.8	8.6
Kalahandi	21.7	25.3	25.9	26.8	28.7
Kandhamal	9.4	9.2	11.5	9.0	9.2
Kendrapara	35.6	38.5	47.7	50.1	48.7
Kendujhar	26.7	30.0	41.1	43.1	39.9
Khordha	26.6	31.1	35.6	38.2	36.5
Koraput	12.5	15.6	16.7	16.4	17.4
Malkangiri	3.9	4.9	5.1	4.6	4.2
Mayurbhanj	35.9	39.0	52.3	52.8	45.6
Nabarangapur	9.0	10.6	11.9	12.2	14.8
Nayagarh	16.7	19.3	20.7	21.0	19.7
Nuapada	7.7	10.1	9.5	9.2	9.8
Puri	48.1	48.8	51.0	49.4	44.9
Rayagada	7.5	9.2	9.3	9.0	8.2
Sambalpur	20.4	25.8	27.5	29.9	30.5
Subarnapur	13.2	17.2	18.4	18.6	19.0
Sundargarh	24.2	29.9	31.7	30.8	28.3

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





## V.2. Service Delivery System - Artificial Insemination

**TABLE V.2.2: District-wise AI Performed by Government Agencies – Buffalo**

Districts	Number of AI Performed ('000)				
	2007-08	2008-09	2009-10	2010-11	2011-12
<b>ODISHA</b>	<b>16.2</b>	<b>16.6</b>	<b>17.7</b>	<b>18.0</b>	<b>16.1</b>
Anugul	0	0	0	0	0.1
Balangir	1.0	0.9	0.9	1.0	0.9
Baleshwar	0	0	0	0	0
Bargarh	0.9	0.8	1.1	1.1	1.0
Baudh	0.1	0.2	0.2	0.1	0.1
Bhadrak	0	0.1	0.1	0	0.1
Cuttack	0	0.1	0.1	0.1	0
Debagarh	0	0	0	0	0
Dhenkanal	0.2	0.3	0.2	0.3	0.3
Gajapati	0.7	0.7	0.7	0.7	0.6
Ganjam	5.0	5.0	5.5	5.3	4.3
Jagatsinghapur	0	0	0.1	0.1	0.1
Jajapur	0	0	0	0	0
Jharsuguda	0.3	0.3	0.3	0.2	0.2
Kalahandi	1.3	1.5	1.3	1.4	1.1
Kandhamal	0.2	0.3	0.2	0.2	0.2
Kendrapara	0	0	0	0	0
Kendujhar	0.1	0	0.2	0.1	0.1
Khordha	0	0.1	0.2	0.2	0.1
Koraput	0.7	0.6	0.7	0.6	0.6
Malkangiri	0	0.2	0.1	0.1	0.1
Mayurbhanj	0	0	0.1	0.1	0.1
Nabarangapur	0.6	0.4	0.3	0.5	0.6
Nayagarh	0.1	0.1	0.2	0.1	0.1
Nuapada	0.5	0.5	0.6	0.5	0.6
Puri	0.1	0.2	0.2	0.2	0.1
Rayagada	2.2	1.6	1.8	1.8	1.8
Sambalpur	0.6	1.1	0.9	1.3	1.1
Subarnapur	0.3	0.3	0.3	0.2	0.2
Sundargarh	1.2	1.3	1.5	1.7	1.8

Zero denotes either Nil or Negligible.

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



## V.2. Service Delivery System - Artificial Insemination

**TABLE V.2.3: District-wise AI Performed by Government Agencies – Bovine**

Districts	Number of AI Performed ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>749.3</b>	<b>828.9</b>	<b>932.8</b>	<b>955.2</b>	<b>926.2</b>	<b>942.9</b>	<b>973.5</b>
Anugul	24.5	28.0	30.8	31.0	33.9	26.5	28.3
Balangir	29.2	31.7	34.6	36.2	40.4	29.7	31.5
Baleshwar	37.1	41.2	57.9	61.5	61.9	64.3	64.3
Bargarh	37.6	36.8	38.3	39.0	40.9	35.5	38.8
Baudh	9.5	11.4	11.6	12.0	12.4	9.0	7.4
Bhadrak	27.5	30.2	34.7	38.7	37.8	37.6	36.9
Cuttack	85.1	89.2	92.8	95.0	86	70.9	80.4
Debagarh	5.4	5.7	6.7	7.4	7.0	7.7	9.8
Dhenkanal	25.6	29.3	31.4	32.6	32.1	31.6	29.8
Gajapati	7.5	7.8	8.1	8.5	7.7	7.9	6.4
Ganjam	46.6	50.7	54.0	52.2	46.3	43.7	42.2
Jagatsinghapur	48.2	50.4	55.7	57.1	55.6	53.8	57.9
Jajapur	29.6	34.2	41.6	44.9	41.7	38.0	41.6
Jharsuguda	8.7	9.6	10.0	9.0	8.8	8.0	8.3
Kalahandi	23.0	26.8	27.2	28.2	29.8	27.2	26.8
Kandhamal	9.6	9.5	11.7	9.2	9.4	10.5	10.3
Kendrapara	35.6	38.5	47.7	50.1	48.7	44.6	48.3
Kendujhar	26.8	30.0	41.3	43.2	40.0	33.5	35.2
Khordha	26.6	31.2	35.8	38.4	36.6	34.1	34.0
Koraput	13.2	16.2	17.4	17.0	18.0	17.3	16.7
Malkangiri	3.9	5.1	5.2	4.7	4.3	4.6	4.4
Mayurbhanj	35.9	39.0	52.4	52.9	45.7	45.7	43.7
Nabarangapur	9.6	11.0	12.2	12.7	15.4	12.2	11.2
Nayagarh	16.8	19.4	20.9	21.1	19.8	19.1	22.5
Nuapada	8.2	10.6	10.1	9.7	10.4	8.6	9.0
Puri	48.2	49.0	51.2	49.6	45.0	37.4	39.5
Rayagada	9.7	10.8	11.1	10.8	10.0	12.4	13.2
Sambalpur	21.0	26.9	28.4	31.2	31.6	26.0	28.5
Subarnapur	13.5	17.5	18.7	18.8	19.2	12.8	13.4
Sundargarh	25.4	31.2	33.2	32.5	30.1	27.0	30.4

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



## V.3. Service Delivery System - Animal Health

**TABLE V.3.1: District-wise Vaccination Performed for Foot-and-Mouth Disease**

Districts	Foot-and-Mouth Disease Vaccination ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>2,442.0</b>	<b>3,473.0</b>	<b>3,403.5</b>	<b>3,370.9</b>	<b>2,731.5</b>	<b>3,556.9</b>	<b>2,663.3</b>
Anugul	89.0	128.8	107.0	113.2	114.3	104.7	79.3
Balangir	108.0	101.8	95.1	91.8	148.2	129.0	73.6
Baleshwar	130.0	260.5	161.8	169.7	127.9	157.2	156.3
Bargarh	144.0	176.9	171.4	146.1	129.6	126.3	143.6
Baudh	56.0	85.0	74.8	55.5	38.0	59.1	41.3
Bhadrak	107.0	114.4	92.4	102.3	98.3	141.1	97.8
Cuttack	150.0	272.8	191.0	219.4	200.2	197.9	166.3
Debagarh	80.0	63.3	57.1	35.8	53.4	62.1	47.9
Dhenkanal	89.0	111.2	135.2	106.9	70.1	144.6	68.9
Gajapati	28.0	50.1	62.4	92.9	33.9	55.4	40.9
Ganjam	118.0	178.2	211.3	179.5	146.1	183.1	181.7
Jagatsinghapur	42.0	116.4	115.4	89.1	49.6	73.7	32.7
Jajapur	27.0	65.7	95.0	89.7	76.9	91.8	87.8
Jharsuguda	66.0	83.6	65.4	66.4	52.3	49.7	23.2
Kalahandi	111.0	123.0	129.3	112.9	92.0	102.1	42.2
Kandhamal	40.0	42.4	54.7	76.6	45.1	120.9	68.0
Kendrapara	37.0	97.6	76.9	65.8	56.7	61.5	52.8
Kendujhar	98.0	150.3	168.7	155.1	129.6	182.8	137.5
Khordha	53.0	93.9	75.7	66.7	70.1	80.0	109.7
Koraput	78.0	89.2	143.7	173.8	93.7	115.4	135.9
Malkangiri	41.0	53.1	59.9	68.1	60.6	109.9	98.6
Mayurbhanj	190.0	258.0	316.4	245.3	253.0	353.6	230.4
Nabarangapur	65.0	51.1	60.5	85.3	68.6	109.1	61.1
Nayagarh	65.0	74.6	80.5	110.6	56.3	94.3	80.9
Nuapada	29.0	43.2	64.2	62.6	43.2	78.2	32.9
Puri	49.0	72.1	77.2	104.0	34.8	87.1	67.3
Rayagada	49.0	91.8	76.4	86.1	66.6	77.9	94.7
Sambalpur	116.0	191.6	158.4	133.5	110.3	117.7	134.6
Subarnapur	61.0	62.3	44.0	46.4	30.2	39.8	15.5
Sundargarh	127.0	170.1	181.7	219.8	181.9	250.9	59.9

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### V.3. Service Delivery System - Animal Health

**TABLE V.3.2: District-wise Vaccination Preformed for Haemorrhagic Septicaemia**

Districts	Haemorrhagic Septicaemia Vaccination ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>6,638.0</b>	<b>7,340.0</b>	<b>8,809.7</b>	<b>9,017.3</b>	<b>8,869.6</b>	<b>7,249.4</b>	<b>8,281.9</b>
Anugul	183.0	395.8	350.8	375.9	315.9	206.2	245.4
Balangir	284.0	294.6	392.4	341.6	434.8	269.6	418.2
Baleshwar	407.0	308.5	294.9	474.5	413.2	377.0	410.1
Bargarh	280.0	262.1	319.4	276.5	307.4	183.8	341.2
Baudh	140.0	163.9	171.8	244.7	194.0	132.2	162.7
Bhadrak	226.0	277.8	211.9	335.9	349.6	301.8	360.3
Cuttack	396.0	411.4	508.5	528.3	415.0	360.3	437.9
Debagarh	48.0	69.3	189.5	139.2	155.6	80.0	86.8
Dhenkanal	227.0	273.8	278.2	263.7	297.8	259.8	252.0
Gajapati	133.0	113.4	107.2	143.9	176.7	147.4	128.2
Ganjam	379.0	418.4	405.5	515.4	459.9	359.4	497.2
Jagatsinghapur	92.0	124.6	233.4	187.6	154.8	147.9	172.9
Jajapur	171.0	194.7	283.0	353.6	358.0	299.9	302.5
Jharsuguda	108.0	87.6	165.5	171.9	191.7	165.4	163.5
Kalahandi	348.0	290.3	415.9	346.7	365.2	289.4	214.0
Kandhamal	202.0	208.1	272.2	263.2	258.8	312.2	334.8
Kendrapara	195.0	200.1	238.4	197.7	230.2	198.4	219.4
Kendujhar	333.0	360.5	353.4	371.9	389.4	280.3	376.8
Khordha	129.0	193.9	197.2	228.2	230.4	192.8	169.2
Koraput	219.0	266.0	329.0	390.0	385.8	319.4	316.8
Malkangiri	129.0	161.6	185.6	168.7	267.2	191.7	210.6
Mayurbhanj	457.0	517.6	800.6	527.8	390.2	320.0	483.6
Nabarangapur	232.0	219.5	278.3	268.1	262.1	164.4	310.3
Nayagarh	166.0	175.5	307.5	305.8	210.7	224.6	189.4
Nuapada	149.0	129.4	139.6	192.1	188.7	209.6	172.1
Puri	147.0	185.8	145.0	277.6	255.3	181.2	261.1
Rayagada	157.0	225.1	284.8	255.0	239.7	235.2	298.5
Sambalpur	233.0	326.2	381.3	361.8	312.9	336.1	327.9
Subarnapur	158.0	130.4	165.2	161.9	162.3	121.3	130.4
Sundargarh	311.0	354.1	403.7	348.1	496.3	382.1	288.1

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





## V.3. Service Delivery System - Animal Health

**TABLE V.3.3: District-wise Vaccination Preformed for Black Quarter**

Districts	Black Quarter Vaccination ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>4,519.0</b>	<b>5,545.4</b>	<b>5,682.0</b>	<b>6,161.9</b>	<b>6,143.8</b>	<b>5,496.3</b>	<b>5,296.7</b>
Anugul	167.0	225.5	212.7	278.5	248.5	214.6	198.0
Balangir	150.0	179.0	174.2	235.3	221.2	151.9	154.0
Baleshwar	305.0	286.7	278.0	296.3	333.2	315.9	315.3
Bargarh	174.0	166.3	179.2	184.0	173.4	125.6	172.9
Baudh	47.0	143.1	122.3	120.4	121.5	83.3	88.4
Bhadrak	158.0	287.2	165.9	210.3	260.0	209.0	209.0
Cuttack	267.0	351.1	320.0	379.6	411.5	410.0	447.0
Debagarh	55.0	56.2	49.3	87.1	92.6	74.2	64.9
Dhenkanal	250.0	243.0	226.3	312.1	278.5	311.6	315.5
Gajapati	74.0	77.5	76.8	82.3	101.6	67.0	67.0
Ganjam	312.0	353.7	386.3	372.1	318.8	289.7	293.8
Jagatsinghapur	70.0	87.3	105.5	103.1	114.2	120.6	130.4
Jajapur	167.0	189.3	220.5	239.6	250.7	201.2	205.8
Jharsuguda	67.0	71.6	97.7	87.8	86.4	84.4	104.1
Kalahandi	170.0	166.7	190.9	175.3	171.1	167.4	139.7
Kandhamal	91.0	122.3	169.7	137.7	135.0	116.8	116.9
Kendrapara	117.0	184.5	175.5	156.4	172.0	174.8	164.5
Kendujhar	273.0	301.2	342.7	306.6	265.8	258.9	242.1
Khordha	135.0	172.7	175.2	198.8	171.9	162.2	158.7
Koraput	78.0	203.1	164.7	225.0	204.9	144.1	124.2
Malkangiri	64.0	189.0	129.1	129.6	120.9	128.8	87.4
Mayurbhanj	400.0	417.1	517.9	523.0	557.4	435.7	342.8
Nabarangapur	170.0	142.7	184.0	154.5	142.3	106.4	118.4
Nayagarh	109.0	117.5	176.5	197.1	184.4	194.7	191.8
Nuapada	56.0	81.9	112.1	123.3	104.7	100.1	88.5
Puri	112.0	161.0	123.7	224.5	175.8	177.3	186.6
Rayagada	90.0	123.5	119.3	131.1	125.7	156.4	123.9
Sambalpur	103.0	161.6	186.3	189.0	191.0	184.7	152.3
Subarnapur	84.0	82.5	84.4	79.2	104.8	52.1	57.4
Sundargarh	204.0	200.6	215.3	222.3	304.0	276.9	235.4

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### V.3. Service Delivery System - Animal Health

**TABLE V.3.4: District-wise Bovine Vaccination**

Districts	Bovine Vaccination ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>13,599.0</b>	<b>16,358.4</b>	<b>17,895.2</b>	<b>18,550.1</b>	<b>17,744.9</b>	<b>16,302.6</b>	<b>16,241.9</b>
Anugul	439.0	750.1	670.5	767.6	678.7	525.5	522.7
Balangir	542.0	575.4	661.7	668.7	804.2	550.5	645.8
Baleshwar	842.0	855.7	734.7	940.5	874.3	850.1	881.7
Bargarh	598.0	605.3	670.0	606.6	610.4	435.7	657.7
Baudh	243.0	392.0	368.9	420.6	353.5	274.6	292.4
Bhadrak	491.0	679.4	470.2	648.5	707.9	651.9	667.1
Cuttack	813.0	1,035.3	1,019.5	1,127.3	1,026.7	968.2	1,051.2
Debagarh	183.0	188.8	295.9	262.1	301.6	216.3	199.6
Dhenkanal	566.0	628.0	639.7	682.7	646.4	716.0	636.4
Gajapati	235.0	241.0	246.4	319.1	312.2	269.8	236.1
Ganjam	809.0	950.3	1,003.1	1,067.0	924.8	832.2	972.7
Jagatsinghapur	204.0	328.3	454.3	379.8	318.6	342.2	336.0
Jajapur	365.0	449.7	598.5	682.9	685.6	592.9	596.1
Jharsuguda	241.0	242.8	328.6	326.1	330.4	299.5	290.8
Kalahandi	629.0	580.0	736.1	634.9	628.3	558.9	395.9
Kandhamal	333.0	372.8	496.6	477.5	438.9	549.9	519.7
Kendrapara	349.0	482.2	490.8	419.9	458.9	434.7	436.7
Kendujhar	704.0	812.0	864.8	833.6	784.8	722.0	756.4
Khordha	317.0	460.5	448.1	493.7	472.4	435.0	437.6
Koraput	375.0	558.3	637.4	788.8	684.4	578.9	576.9
Malkangiri	234.0	403.7	374.6	366.4	448.7	430.4	396.6
Mayurbhanj	1,047.0	1,192.7	1,634.9	1,296.1	1,200.6	1,109.3	1,056.8
Nabarangapur	467.0	413.3	522.8	507.9	473.0	379.9	489.8
Nayagarh	340.0	367.6	564.5	613.5	451.4	513.6	462.1
Nuapada	234.0	254.5	315.9	378.0	336.6	387.9	293.5
Puri	308.0	418.9	345.9	606.1	465.9	445.6	515.0
Rayagada	296.0	440.4	480.5	472.2	432.0	469.5	517.1
Sambalpur	452.0	679.4	726.0	684.3	614.2	638.5	614.8
Subarnapur	303.0	275.2	293.6	287.5	297.3	213.2	203.3
Sundargarh	642.0	724.8	800.7	790.2	982.2	909.9	583.4

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.

NOTE: Bovine vaccination includes BQ, HS and FMD.



### V.3. Service Delivery System - Animal Health

**TABLE V.3.5: District-wise Total Cases Treated**

Districts	Total Cases Treated ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>4,980.0</b>	<b>5,548.2</b>	<b>5,569.2</b>	<b>5,303.4</b>	<b>6,099.5</b>	<b>6,324.1</b>	<b>7,657.8</b>
Anugul	145.0	186.6	181.9	182.4	244.1	202.3	218.1
Balangir	215.0	243.5	253.6	226.3	256.2	371.4	447.8
Baleshwar	298.0	296.7	351.9	332.2	418.0	459.7	510.9
Bargarh	125.0	127.8	140.2	124.9	137.8	142.6	115.1
Bhadrak	174.0	174.7	178.5	171.4	221.2	224.8	273.3
Baudh	58.0	73.6	78.9	75.4	106.4	90.9	87.1
Cuttack	291.0	396.6	317.8	258.4	317.0	294.9	413.7
Debagarh	43.0	39.8	53.0	45.9	77.4	67.8	79.5
Dhenkanal	178.0	202.8	190.5	205.8	207.3	234.3	255.0
Gajapati	39.0	42.3	45.3	49.9	49.0	64.3	50.0
Ganjam	362.0	384.7	388.9	397.6	391.7	446.0	618.1
Jagatsinghapur	114.0	126.1	114.7	109.4	150.6	142.1	180.9
Jajapur	207.0	227.1	166.0	150.3	194.7	152.6	183.3
Jharsuguda	47.0	55.1	58.7	54.3	64.4	71.0	71.5
Kalahandi	161.0	189.0	186.8	189.5	209.3	218.4	273.7
Kandhamal	130.0	162.8	176.7	163.9	169.1	230.6	282.6
Kendrapara	152.0	197.9	168.1	137.7	188.1	97.5	104.0
Kendujhar	306.0	329.4	358.7	336.4	394.3	358.0	369.4
Khordha	156.0	182.7	195.6	159.3	178.6	179.9	234.4
Koraput	128.0	153.4	153.7	167.6	176.8	194.7	423.4
Malkangiri	88.0	98.4	95.1	94.4	99.7	161.5	161.4
Mayurbhanj	503.0	507.0	603.7	599.6	606.0	584.9	632.8
Nabarangapur	65.0	62.6	72.1	79.8	115.5	110.4	104.8
Nayagarh	175.0	129.1	129.3	114.2	158.9	159.2	255.9
Nuapada	46.0	50.7	51.8	53.6	51.6	107.8	137.0
Puri	155.0	233.9	148.1	144.9	168.8	173.9	235.8
Rayagada	100.0	99.5	113.1	104.4	111.1	129.5	234.9
Sambalpur	178.0	187.6	186.7	183.6	211.1	218.4	229.4
Subarnapur	55.0	58.5	59.4	55.6	64.9	60.5	77.6
Sundargarh	286.0	328.3	350.4	334.7	359.9	374.2	396.4

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.



### V.3. Service Delivery System - Animal Health

**TABLE V.3.6: District-wise Total Castration**

Districts	Total Castration ('000)						
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>ODISHA</b>	<b>453.0</b>	<b>441.1</b>	<b>492.4</b>	<b>520.1</b>	<b>494.6</b>	<b>524.5</b>	<b>555.6</b>
Anugul	13.0	12.3	13.5	18.9	14.4	12.7	13.4
Balangir	32.0	31.0	34.1	34.5	33.8	34.9	50.0
Baleshwar	31.0	27.3	32.7	37.3	34.1	39.6	36.2
Bargarh	20.0	18.8	20.6	21.8	21.1	21.9	24.6
Bhadrak	16.0	15.0	17.6	17.4	16.3	18.5	17.1
Baudh	5.0	6.1	5.3	4.6	4.8	4.6	5.2
Cuttack	26.0	23.4	23.8	24.2	21.4	21.2	21.4
Debagarh	4.0	4.0	5.7	5.5	5.7	6.3	6.6
Dhenkanal	15.0	15.3	16.1	16.6	18.2	15.9	18.1
Gajapati	1.0	1.0	0.9	1.3	1.7	1.7	1.4
Ganjam	16.0	15.8	16.0	17.2	16.5	17.0	15.5
Jagatsinghapur	10.0	8.5	9.4	10.2	9.9	9.8	10.7
Jajapur	19.0	22.8	18.7	21.5	20.0	21.7	24.9
Jharsuguda	6.0	6.1	6.4	6.5	6.3	5.9	5.5
Kalahandi	17.0	16.6	17.8	19.6	21.1	21.0	21.4
Kandhamal	9.0	9.8	11.5	10.7	11.9	15.1	15.7
Kendrapara	10.0	11.6	10.9	11.7	10.5	10.6	10.5
Kendujhar	26.0	25.3	29.4	31.5	29.6	30.6	32.2
Khordha	13.0	11.8	13.4	13.6	13.3	14.0	14.3
Koraput	4.0	4.2	4.8	5.5	5.6	6.6	8.2
Malkangiri	3.0	3.7	3.7	4.2	4.7	4.8	5.2
Mayurbhanj	71.0	67.4	89.8	93.8	81.4	92.7	72.9
Nabarangapur	3.0	3.5	4.5	4.5	5.1	4.5	4.8
Nayagarh	7.0	7.0	7.4	7.5	7.7	8.8	9.8
Nuapada	7.0	6.5	6.3	6.5	7.0	8.8	10.9
Puri	18.0	15.8	16.1	16.4	17.0	19.4	18.7
Rayagada	3.0	3.4	4.1	3.8	3.5	4.4	5.6
Sambalpur	13.0	13.2	13.9	15.0	14.1	15.5	18.7
Subarnapur	7.0	6.9	7.1	7.1	7.7	6.9	7.2
Sundargarh	27.0	27.0	30.9	31.2	30.2	29.1	48.9

SOURCE: Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.







## PART VI : FEED RESOURCES

Odisha is one of the few states that has estimated present demand for green fodder in the State at about 312 lakh MT and that of dry fodder at 139 lakh MT and juxtaposed these figures with availability of about 161 lakh MT green fodder and 106 lakh MT dry fodder. Accordingly, the activities of eight departmental fodder seed production units have been to provide fodder seeds (at subsidized rates), mini kits, perennial roots & slips to the farmers. Under fodder development programme, farmers are encouraged to develop fodder plots in their own land. It also provides chaff cutters and feeding troughs to the farmers. In addition to fodder plots, demonstrations are also being given for Azola and UTPS pits. Under technology-knowledge and strategy programme, breeder fodder seeds are produced which get multiplied into certified seeds in the farmers fields. Beside State Plan, many new schemes have been introduced to augment feed resources in Odisha.





## VI.1. Feed Resources - Availability vs. Requirement

**TABLE VI.1.1: District-wise Dry Matter (DM) Availability, Requirement and Balance**

Districts	Available/ Required/ Balance	Dry Matter Availability, Requirement and Balance ('000 MT)							
		1992	1997	2003	2007	2008	2009	2010	2011
Anugul	Available	930.2	668.8	407.3	551.9	522.7	522.7	478.9	333.6
	Required	1,152.9	1,154.4	1,155.8	919.5	934.0	962.3	1,004.1	1,059.8
	Balance	-222.7	-485.6	-748.5	-367.7	-411.3	-439.7	-525.2	-726.2
Balangir	Available	643.2	637.6	474.2	812.2	800.9	800.9	826.6	365.0
	Required	1,473.9	1,356.9	1,167.9	1,439.4	1,399.2	1,372.4	1,357.6	1,353.9
	Balance	-830.7	-719.3	-693.7	-627.2	-598.2	-571.5	-531.1	-988.8
Baleshwar	Available	594.8	584.3	493.0	696.5	675.6	675.6	705.4	218.5
	Required	1,758.9	1,931.0	1,864.6	1,798.1	1,930.0	2,091.6	2,288.9	2,529.2
	Balance	-1,164.1	-1,346.7	-1,371.6	-1,101.6	-1,254.4	-1,416.1	-1,583.5	-2,310.7
Bargarh	Available	996.3	1,012.3	850.3	1,142.2	1,174.2	1,174.2	1,226.9	314.4
	Required	1,121.8	1,179.5	1,313.4	1,099.5	1,031.6	977.4	934.9	902.7
	Balance	-125.5	-167.2	-463.1	42.7	142.6	196.8	292.0	-588.4
Baudh	Available	326.7	329.9	323.5	336.2	310.7	310.7	300.3	149.4
	Required	537.2	506.9	476.5	504.5	448.5	407.3	377.8	357.4
	Balance	-210.5	-177.0	-153.0	-168.2	-137.8	-96.7	-77.5	-208.0
Bhadrak	Available	460.1	484.2	386.4	533.7	582.0	582.0	555.3	144.3
	Required	1,086.7	1,158.0	518.3	1,289.7	1,380.4	1,491.1	1,624.8	1,785.3
	Balance	-626.6	-673.8	-132.0	-756.0	-798.3	-909.1	-1,069.5	-1,641.0
Cuttack	Available	1,025.2	750.6	475.9	524.8	501.2	501.2	625.8	215.6
	Required	1,473.0	1,009.7	546.4	1,003.3	1,095.2	1,212.4	1,359.1	1,540.6
	Balance	-447.8	-259.1	-70.4	-478.6	-594.0	-711.3	-733.4	-1,325.1
Debagarh	Available	236.5	236.5	171.6	301.4	301.4	301.4	124.8	124.8
	Required	369.6	380.1	359.0	401.1	316.9	261.0	224.8	202.6
	Balance	-133.1	-143.6	-187.4	-99.7	-15.5	40.4	-100.0	-77.7
Dhenkanal	Available	1,443.1	873.6	314.1	502.7	527.2	527.2	454.7	223.1
	Required	1,162.8	1,008.3	853.8	1,091.7	1,190.5	1,309.8	1,450.1	1,612.7
	Balance	280.3	-134.7	-539.8	-589.0	-663.3	-782.6	-995.4	-1,389.7
Gajapati	Available	306.2	284.7	277.7	334.7	291.7	291.7	281.2	185.6
	Required	586.5	569.5	409.8	250.0	214.9	194.3	182.7	177.1
	Balance	-280.3	-284.8	-132.1	84.7	76.8	97.4	98.5	8.5
Ganjam	Available	1,071.3	1,003.8	1,157.1	1,310.4	1,175.4	1,175.4	1,265.9	506.5
	Required	1,611.8	1,533.8	1,689.8	1,845.8	1,909.5	1,982.9	2,067.7	2,165.9
	Balance	-540.5	-530.0	-532.7	-535.4	-734.1	-807.5	-801.8	-1,659.4
Jagatsinghapur	Available	289.0	315.6	259.5	318.4	371.6	371.6	346.6	112.5
	Required	971.9	722.0	623.7	525.3	495.6	479.4	474.6	480.2
	Balance	-682.9	-406.4	-364.2	-207.0	-123.9	-107.8	-128.0	-367.7
Jajapur	Available	834.9	582.4	329.9	548.2	579.1	579.1	559.0	172.9
	Required	1,264.6	1,094.6	924.5	1,384.6	1,600.9	1,879.5	2,234.3	2,682.7
	Balance	-429.7	-512.2	-594.6	-836.4	-1,021.8	-1,300.4	-1,675.2	-2,509.9
Jharsuguda	Available	602.2	379.4	156.5	315.2	241.6	241.6	125.5	98.7
	Required	428.2	720.4	1,012.5	386.7	349.7	326.0	312.1	306.0
	Balance	174.0	-341.0	-856.0	-71.5	-108.1	-84.4	-186.6	-207.2
Kalahandi	Available	738.7	775.6	612.7	864.7	938.4	938.4	994.8	438.6
	Required	1,458.9	1,255.7	1,571.1	789.6	711.1	651.8	608.4	578.1
	Balance	-720.2	-480.1	-958.4	75.1	227.2	286.5	386.4	-139.5





Districts	Available/ Required/ Balance	Dry Matter Availability, Requirement and Balance ('000 MT)							
		1992	1997	2003	2007	2008	2009	2010	2011
Kandhamal	Available	88.3	105.7	70.9	140.5	140.7	140.7	88.6	
	Required	767.0	779.2	890.9	764.8	760.1	767.2	786.3	
	Balance	-678.7	-673.5	-820.1	-624.3	-619.3	-626.5	-697.8	
Kendrapara	Available	357.5	386.3	332.4	382.6	440.2	440.2	484.6	161.5
	Required	934.8	848.6	1,491.1	975.1	979.6	1,002.6	1,042.0	1,097.1
	Balance	-577.3	-462.3	-1,158.6	-592.5	-539.4	-562.4	-557.4	-935.6
Kendujhar	Available	643.9	588.9	533.8	745.6	853.3	853.3	728.2	369.0
	Required	1,416.2	1,075.9	735.5	1,734.6	1,998.4	2,318.1	2,705.4	3,174.9
	Balance	-772.3	-487.0	-201.7	-989.0	-1,145.1	-1,464.8	-1,977.2	-2,805.9
Khordha	Available	315.4	293.4	218.3	412.4	368.4	368.4	417.6	145.7
	Required	1,259.6	978.9	1,974.5	99.0	81.2	71.6	66.8	65.2
	Balance	-944.2	-685.5	-1,756.3	313.4	287.2	296.8	350.8	80.5
Koraput	Available	846.7	714.4	582.1	742.0	714.1	714.1	599.1	347.6
	Required	1,247.6	1,299.2	1,072.1	1,432.7	1,532.2	1,650.7	1,790.6	1,954.8
	Balance	-400.9	-584.8	-490.0	-690.7	-818.1	-936.6	-1,191.5	-1,607.2
Malkangiri	Available	411.0	408.9	342.1	479.8	475.7	475.7	423.3	266.3
	Required	805.3	1,012.0	752.9	1,183.0	1,228.7	1,280.8	1,339.9	1,406.7
	Balance	-394.3	-603.1	-410.8	-703.2	-753.0	-805.1	-916.7	-1,140.4
Mayurbhanj	Available	988.0	1,013.5	834.3	1,141.7	1,192.7	1,192.7	1,069.9	488.4
	Required	1,771.9	1,769.9	1,892.4	2,014.8	2,223.9	2,480.1	2,793.8	3,178.1
	Balance	-783.9	-756.4	-1,058.1	-873.0	-1,031.1	-1,287.3	-1,723.9	-2,689.7
Nabarangapur	Available	586.9	613.8	412.5	761.2	815.0	815.0	914.0	254.3
	Required	963.0	955.7	1,142.4	870.4	832.6	803.8	782.2	766.7
	Balance	-376.1	-341.9	-730.0	-109.1	-17.7	11.1	131.8	-512.4
Nayagarh	Available	361.8	345.5	296.2	427.4	394.8	394.8	418.8	201.0
	Required	804.6	785.4	969.3	639.9	601.5	571.3	548.3	531.6
	Balance	-442.8	-439.9	-673.1	-212.5	-206.8	-176.6	-129.5	-330.6
Nuapada	Available	326.1	345.6	257.6	394.6	433.6	433.6	370.8	215.9
	Required	609.5	590.9	819.3	399.7	362.5	335.0	314.7	300.2
	Balance	-283.4	-245.3	-561.8	-5.1	71.1	98.7	56.1	-84.3
Puri	Available	394.3	434.8	353.7	515.8	472.6	472.6	506.5	178.6
	Required	1,081.3	854.3	627.3	969.6	1,063.7	1,180.8	1,324.7	1,500.1
	Balance	-687.0	-419.5	-273.6	-453.8	-591.1	-708.2	-818.2	-1,321.5
Rayagada	Available	434.1	429.6	400.4	467.8	458.8	458.8	470.4	285.6
	Required	1,094.6	1,041.1	1,501.6	875.0	881.1	919.8	988.9	1,089.2
	Balance	-660.5	-611.5	-1,101.2	-407.3	-422.2	-460.9	-518.5	-803.6
Sambalpur	Available	652.0	582.5	512.9	703.3	758.2	758.2	539.7	310.6
	Required	915.4	908.0	1,131.3	750.9	696.7	655.5	624.8	603.0
	Balance	-263.4	-325.5	-618.4	-47.6	61.5	102.7	-85.1	-292.5
Subarnapur	Available	423.8	405.1	305.3	542.2	504.8	504.8	516.3	141.1
	Required	891.7	868.9	595.3	321.6	276.0	247.2	230.5	223.2
	Balance	-467.9	-463.8	-290.0	220.6	228.8	257.6	285.8	-82.1
Sundargarh	Available	679.6	721.2	637.9	804.5	833.6	833.6	612.3	420.8
	Required	1,454.3	1,635.9	1,777.0	1,528.1	1,436.9	1,356.8	1,286.8	1,225.7
	Balance	-774.7	-914.7	-1,139.1	-723.6	-603.3	-523.3	-674.5	-804.9

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.







## VI.1. Feed Resources - Availability vs. Requirement

**TABLE VI.1.2: Availability, Requirement and Surplus/Deficit of Dry Matter**

Year	Dry Matter ('000 MT)		
	Availability	Requirement	Surplus/Deficit
1992	18,007.8	32,475.5	-14,467.7
1997	16,308.5	30,984.7	-14,676.2
2003	12,780.1	31,860.0	-19,079.9
2007	17,754.6	29,288.0	-11,533.4
2008	17,850.2	29,963.1	-12,112.9
2009	17,850.2	31,240.5	-13,390.3
2010	17,031.8	33,127.6	-16,095.8
2011	7,389.9	34,850.7	-27,460.8

SOURCE: Feedbase 2012, National Institute of Animal Nutrition and Physiology, Bangalore.

## VI.2. Feed Resources - Consumption

**TABLE VI.2.1: Year-wise Feed Consumption – Indigenous Cattle**

(kg/animal/day)

Year	In-Milk Animal			Dry Animal (Including Not Calved even Once)		
	Green Fodder	Dry Fodder	Concentrate	Green Fodder	Dry Fodder	Concentrate
1992-93	0.314	2.309	0.700		0.885	
1998-99	0.287	2.233	0.363		1.228	0.150
2003-04	0.310	2.225	0.375		1.125	0.150
2007-08	0.368	1.579	0.313		1.048	0.110
2009-10	0.380	1.700	0.420		1.100	0.150
2010-11	0.400	1.900	0.450		1.370	0.200
2011-12	0.470	1.870	0.470		1.400	0.230
2012-13	0.530	2.170	0.570		1.500	0.230
2013-14	0.530	3.170	0.630	0.170	1.500	0.270
2014-15	0.600	3.670	0.630	0.430	3.200	0.430

SOURCE: Integrated Sample Survey Reports, Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.

**TABLE VI.2.2: Year-wise Feed Consumption – Crossbred Cattle**

(kg/animal/day)

Year	In-Milk Animal			Dry Animal (Including Not Calved even Once)		
	Green Fodder	Dry Fodder	Concentrate	Green Fodder	Dry Fodder	Concentrate
1992-93	1.665	3.125	3.552	0.332	1.995	1.435
1998-99	1.100	1.800	1.303	0.567	1.567	0.358
2003-04	1.425	2.100	1.265	0.650	1.600	0.425
2007-08	1.714	2.010	1.038	0.569	1.389	0.324
2009-10	1.920	2.300	1.500	0.580	1.450	0.350
2010-11	2.170	2.330	1.500	0.600	1.480	0.350
2011-12	2.370	2.330	1.500	0.770	1.600	0.370
2012-13	2.470	2.530	1.500	0.820	1.500	0.370
2013-14	2.700	2.330	1.870	1.330	1.500	0.530
2014-15	2.700	2.430	1.830	2.430	2.200	

SOURCE: Integrated Sample Survey Reports, Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





## VI.2. Feed Resources - Consumption

**TABLE VI.2.3: Year-wise Feed Consumption – Buffalo**

(kg/animal/day)

Year	In-Milk Animal			Dry Animal (Including Not Calved even Once)		
	Green Fodder	Dry Fodder	Concentrate	Green Fodder	Dry Fodder	Concentrate
1992-93	1.225	1.682	3.335	0.255	1.222	0.425
1998-99	0.567	2.190	0.337	0.124	1.535	0.159
2003-04	0.675	2.225	0.400		1.555	0.175
2007-08	0.898	1.759	0.410	0.154	1.380	0.100
2009-10	0.856	1.800	0.500	0.126	1.250	0.200
2010-11	0.820	1.800	0.700	0.130	1.400	0.230
2011-12	0.970	1.930	0.800	0.140	1.470	0.370
2012-13	1.170	2.000	0.970	0.140	1.470	0.370
2013-14	1.230	2.300	1.130	0.150	1.430	0.200
2014-15	1.400	2.770	1.700	1.300	2.430	

SOURCE: Integrated Sample Survey Reports, Directorate of Animal Husbandry and Veterinary Services, Govt. of Odisha.





## PART VII : AGRICULTURE

The agriculture sector in Odisha provides employment and sustenance to more than 60 per cent of the population. Cereals constitute more than 90 per cent of total production of food grains and paddy continues to be the dominant crop. It has more than 35 per cent area under irrigation. However, it has been observed that there has been a gradual shift from paddy to cash crops and from local variety of paddy to HYV paddy.

The sector is susceptible to natural calamities like cyclones, droughts and flash floods which results in wide annual fluctuations in the sectoral growth. The share of agricultural economy to GSDP has been going down over the years. Moreover, there are fluctuations in agricultural income in the state over the years, triggered by environmental factors.

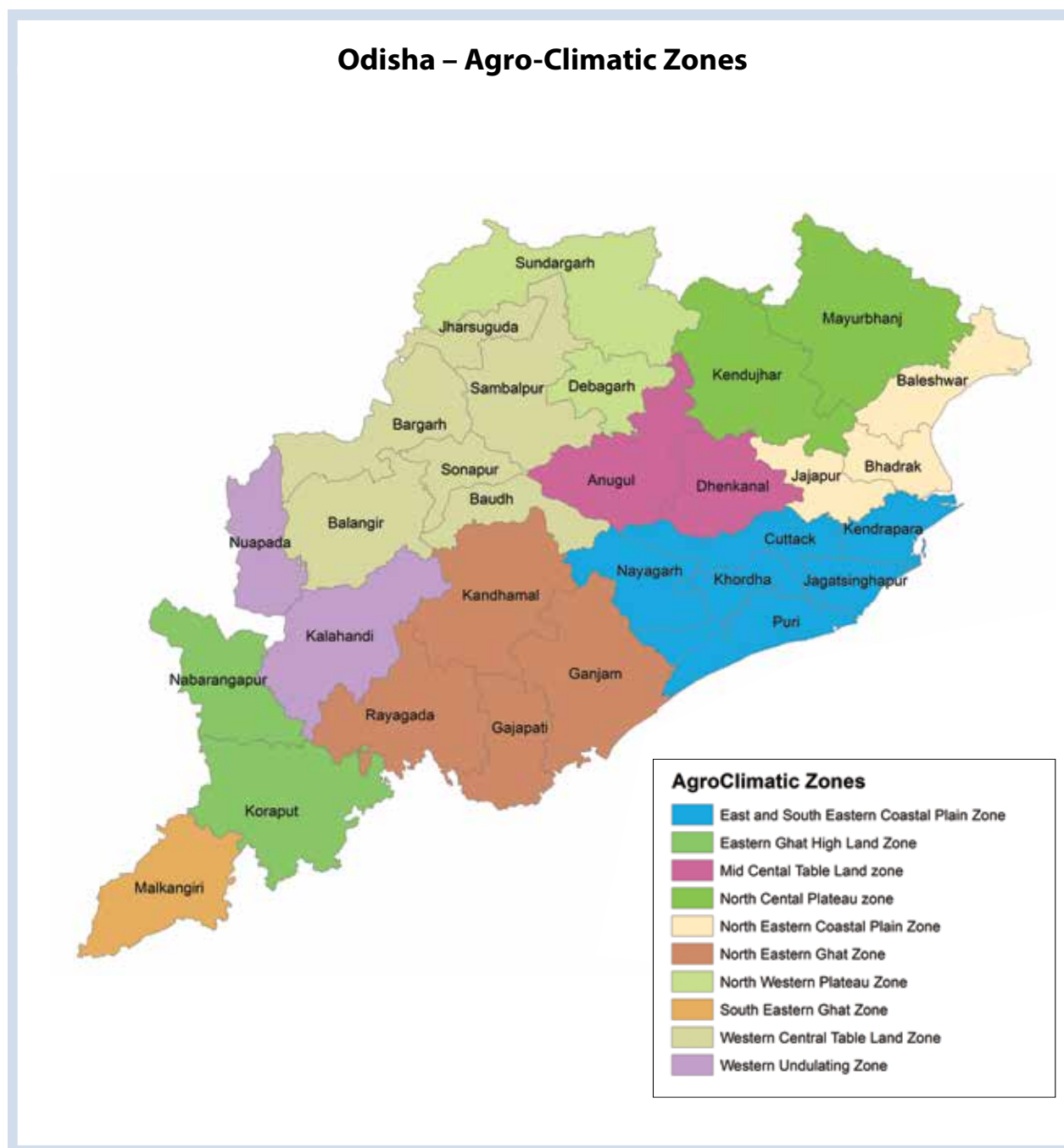
In recent decade, the State economy of Odisha has witnessed a sectoral shift from agriculture towards industry and services sectors. Besides these shifts, agriculture is still being considered as a priority sector for the State and therefore, a new Agricultural Policy is being implemented since 2013. In the drought-hit western part of the state, the current rate of interest on crop loan has been reduced so that small, medium and marginal farmers of the State can continue with farming.







## VII.1. Agro-Climatic Zones



**TABLE VII.1.1: Odisha’s Agro-climatic Zones**

North-Western Plateau	North Central Plateau	North Eastern Coastal Plain
East and South Eastern Coastal Plain	North Eastern Ghat	Eastern Ghat High Land
South Eastern Ghat	Western Undulating Zone	Western Central Table Land
Mid Central Table Land		

SOURCE: Centre for Environmental Studies, Forest and Environment Department, Govt. of Odisha.



## VII.1. Agriculture

**TABLE VII.1.2: Details of Agro-Climatic Zones**

Parameters	North-Western Plateau	North Central Plateau	North Eastern Coastal Plain	East and South Eastern Coastal Plain	North Eastern Ghat
<b>Districts</b>	Sundargarh, Debagarh	Mayurbhanj, Kendujhar	Baleswar, Bhadrak, Jajapur	Kendrapara, Khordha, Jagatsinghapur, Cuttack, Puri, Nayagarh	Kandhamal, Rayagada, Gajapati, Ganjam
<b>Climate</b>	Hot & moist sub-humid	Hot & moist sub-humid	Moist sub-humid	Hot & Humid	Hot & moist, sub-humid
<b>Geographical Area (000ha)</b>	1,265	1,872	921	1,842	2,763
<b>Gross Cropped Area (000ha)</b>	486	860	794	1,454	1,277
<b>Rainfall (mm)</b>	1,600	1,534	1,568	1,577	1,597
<b>Soil</b>	Red, Brown forest, Red & Yellow, Mixed Red & Black	Lateritic, Red & Yellow, Mixed Red & Black	Red, Lateritic, Deltalc alluvial, Coastal alluvial & Saline	Saline, Lateritic, Alluvial, Red & Mixed red & Black	Brown forest, Lateritic Alluvial, Red, Mixed Red & Black
<b>Major Crops</b>	Rice, Mustard, Pulses	Rice, Mustard, Groundnut, Pulses, Jowar, Maize	Paddy, Groundnut, Jute, Til, Sugarcane, Mustard	Rice, Wheat, Maize, Groundnut, Sesame, Mustard	Rice, Wheat, Maize, Groundnut, Sesame, Mustard, Pulses

SOURCE: Centre for Environmental Studies, Forest and Environment Department, Govt. of Odisha. DACNET, Department of Agriculture, Cooperation and Farmers Welfare, Govt. of India, Basket of Projects for various Agro-Climatic Zones of Odisha, Panchayati Raj Department, Govt. of Odisha, Directorate of Agriculture and Food Production, Govt. of Odisha.



## VII.1. Agriculture

**TABLE VII.1.2: Details of Agro-Climatic Zones**

Parameters	Eastern Ghat High Land	South Eastern Ghat	Western Undulating Zone	Western Central Table Land	Mid Central Table Land
<b>Districts</b>	Koraput, Nabarangapur	Malkangiri	Kalahandi & Nuapada	Bargarh, Balangir, Baudh, Subarnapur, Sambalpur & Jharsuguda	Anugul, Dhenkanal
<b>Climate</b>	Warm & humid	Warm & humid	Hot & moist sub-humid	Hot & moist sub-humid	Hot & moist sub-humid
<b>Geographical Area (000ha)</b>	1,410	579	1,177	2,659	1,083
<b>Gross Cropped Area (000ha)</b>	686	232	879	1,653	558
<b>Rainfall (mm)</b>	1,522	1,710	1,352	1,614	1,421
<b>Soil</b>	Red, Mixed Red & Black, Mixed Red & Yellow	Red, Lateritic, Black	Red, Mixed Red & Black and Black	Red & Yellow, Red & Black, Black, Brown forest, Lateritic	Alluvial, Red, Lateritic, Mixed Red & Black
<b>Crops</b>	Ragi, Paddy, Niger, Maize	Rice, Millet, Mesta, Sesame,	Rice, Small Millets, Pulses, Sesame, Maize	Rice, Wheat, Pulses, Mustard, Groundnut	Rice, Pulses, Sesame

SOURCE: Centre for Environmental Studies, Forest and Environment Department, Govt. of Odisha. DACNET, Department of Agriculture, Cooperation and Farmers Welfare, Govt. of India, Basket of Projects for various Agro-Climatic Zones of Odisha, Panchayati Raj Department, Govt. of Odisha, Directorate of Agriculture and Food Production, Govt. of Odisha.



## VII.2. Land Use Pattern

**TABLE VII.2.1: District-wise Land Use Pattern**

(‘000 ha)

Districts	Geographical Area		Forest		Permanent Pasture		Fallow Land		Net Sown Area	
	2003-04	2013-14	2003-04	2013-14	2003-04	2013-14	2003-04	2013-14	2003-04	2013-14
<b>ODISHA</b>	<b>15,571</b>	<b>15,571</b>	<b>5,813</b>	<b>5,813</b>	<b>443</b>	<b>494</b>	<b>803</b>	<b>985</b>	<b>5,796</b>	<b>5,424</b>
Anugul	623	638	272	272	11	36	32	54	202	179
Balangir	657	657	154	154	32	46	15	67	335	292
Baleshwar	363	381	33	33	12	16	20	64	234	191
Bargarh	584	584	122	122	10	20	26	23	320	332
Baudh	345	310	128	128	17	17	33	8	88	85
Bhadrak	268	250	10	10	14	11	13	11	178	170
Cuttack	373	393	79	79	10	11	35	32	165	157
Debagarh	278	294	156	156	8	5	20	7	64	62
Dhenkanal	460	445	174	174	10	8	65	72	168	134
Gajapati	385	433	247	247	6	12	3	6	80	76
Ganjam	871	821	315	315	20	20	25	23	381	389
Jagatsinghapur	197	167	13	13	7	7	19	21	96	90
Jajapur	289	290	72	72	4	4	27	9	153	141
Jharsuguda	220	208	20	20	31	20	13	30	76	61
Kalahandi	836	792	314	254	23	23	27	59	364	335
Kandhamal	765	802	571	571	10	10	22	27	118	107
Kendrapara	255	264	25	25	8	8	26	31	140	135
Kendujhar	830	830	310	310	34	20	16	53	296	245
Khordha	289	281	62	62	6	5	11	27	134	108
Koraput	790	881	188	188	28	45	44	51	276	272
Malkangiri	619	579	335	335	14	21	27	21	135	136
Mayurbhanj	1,042	1,042	439	439	24	28	78	94	399	356
Nabarangapur	529	529	246	246	4	8	18	13	212	181
Nayagarh	424	389	208	208	12	4	1	9	134	126
Nuapada	341	385	125	185	10	2	22	4	158	186
Puri	305	348	14	14	11	9	41	56	141	134
Rayagada	758	707	281	281	26	26	75	38	152	160
Sambalpur	670	666	363	363	12	13	33	32	178	179
Subarnapur	234	234	41	41	13	13	6	14	109	121
Sundargarh	971	971	496	496	16	26	11	29	309	284

SOURCE: : Various Issues of Odisha Agriculture Statistics, Directorate of Agriculture and Food Production, Govt. of Odisha.





### VII.3. Area and Production

**TABLE VII.3.1: District-wise Area and Production – Cereals and Pulses**

Districts	Cereals						Pulses					
	Area ('000 ha)			Production ('000 MT)			Area ('000 ha)			Production ('000 MT)		
	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14
<b>ODISHA</b>	<b>4,765</b>	<b>4,519</b>	<b>4,668</b>	<b>7,639</b>	<b>10,362</b>	<b>8,574</b>	<b>2,031</b>	<b>2,042</b>	<b>2,088</b>	<b>957</b>	<b>1,037</b>	<b>1,058</b>
Anugul	99	89	84	98	183	162	102	102	103	49	50	50
Balangir	219	206	213	319	648	670	140	153	151	60	76	74
Baleshwar	242	207	227	418	367	284	20	18	18	10	8	8
Bargarh	308	301	328	670	958	745	78	82	82	32	40	39
Baudh	68	70	69	98	178	124	37	37	37	19	19	19
Bhadrak	173	168	169	315	356	247	17	11	23	10	6	11
Cuttack	142	133	123	254	387	182	112	113	114	51	55	55
Debagarh	44	46	53	54	121	128	25	25	23	10	9	9
Dhenkanal	108	87	96	185	232	253	67	70	71	29	32	31
Gajapati	63	62	67	86	105	76	32	32	33	19	18	18
Ganjam	330	319	315	513	528	168	228	233	251	112	125	132
Jagatsinghapur	87	73	81	169	212	162	53	56	56	22	26	26
Jajapur	136	127	130	203	222	140	62	63	72	23	30	35
Jharsuguda	53	40	42	65	106	56	20	22	16	9	11	9
Kalahandi	286	283	275	448	737	708	192	188	200	123	111	115
Kandhamal	69	64	66	95	103	110	29	27	27	12	13	13
Kendrapara	140	143	135	205	267	158	77	78	78	32	35	35
Kendujhar	221	199	202	316	333	335	74	76	74	37	44	41
Khordha	110	90	99	178	207	82	50	49	58	23	23	27
Koraput	226	227	237	317	380	498	40	39	38	17	19	19
Malkangiri	112	115	117	152	214	205	28	14	14	13	7	7
Mayurbhanj	336	304	317	501	522	449	59	59	69	33	34	39
Nabarangapur	211	215	219	435	523	654	29	22	21	14	11	10
Nayagarh	101	102	108	144	221	98	77	83	83	24	34	38
Nuapada	114	111	119	162	223	232	99	97	104	39	46	49
Puri	158	140	136	241	344	200	71	71	62	22	35	30
Rayagada	109	97	110	184	198	250	58	57	57	36	39	40
Sambalpur	149	145	169	268	428	337	54	52	45	23	27	23
Subarnapur	129	135	138	282	564	423	41	46	45	21	23	22
Sundargarh	223	219	225	265	496	437	61	64	66	33	32	35

\* Average from 2007-08 to 2011-12

Zero denotes either nil or negligible.

SOURCE: Odisha Agriculture Statistics (2007-08 to 2013-14), Directorate of Agriculture and Food Production, Govt. of Odisha.



### VII.3. Area and Production

**TABLE VII.3.2: District-wise Area and Production – Food Grains and Oilseeds**

Districts	Food Grains						Oilseeds					
	Area ('000 ha)			Production ('000 MT)			Area ('000 ha)			Production ('000 MT)		
	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14
<b>ODISHA</b>	<b>6,796</b>	<b>6,561</b>	<b>6,756</b>	<b>8,596</b>	<b>11,399</b>	<b>9,632</b>	<b>801</b>	<b>751</b>	<b>752</b>	<b>660</b>	<b>690</b>	<b>699</b>
Anugul	201	191	187	147	233	212	60	58	56	35	40	39
Balangir	359	359	364	379	724	744	32	20	21	30	25	26
Baleshwar	262	225	245	428	375	292	21	27	30	27	39	35
Bargarh	386	383	410	702	998	784	40	36	37	48	42	41
Baudh	105	107	106	117	197	143	7	8	7	4	5	4
Bhadrak	190	179	192	325	362	258	5	6	8	6	7	9
Cuttack	254	246	237	305	442	237	16	17	16	21	24	23
Debagarh	69	71	76	64	130	137	20	19	13	10	10	7
Dhenkanal	175	157	167	214	264	284	35	35	35	27	30	30
Gajapati	95	94	100	105	123	94	13	12	13	8	10	11
Ganjam	558	552	566	625	653	300	48	44	62	47	44	64
Jagatsinghapur	140	129	137	191	238	188	11	10	10	17	17	17
Jajapur	198	190	202	226	252	175	36	37	36	59	63	61
Jharsuguda	73	62	58	74	117	65	14	13	9	8	8	5
Kalahandi	478	471	475	571	848	823	52	44	47	50	45	49
Kandhamal	98	91	93	107	116	123	30	28	32	10	11	12
Kendrapara	217	221	213	237	302	193	13	13	13	23	21	20
Kendujhar	295	275	276	353	377	376	37	34	32	14	16	15
Khordha	160	139	157	201	230	109	7	5	6	9	6	7
Koraput	266	266	275	334	399	517	46	35	30	17	14	13
Malkangiri	140	129	131	165	221	212	47	49	47	46	53	49
Mayurbhanj	395	363	386	534	556	488	32	30	34	20	25	27
Nabarangapur	240	237	240	449	534	664	8	5	5	5	3	3
Nayagarh	178	185	191	168	255	136	8	9	8	4	4	4
Nuapada	213	208	223	201	269	281	32	31	35	27	29	33
Puri	229	211	198	263	379	230	18	22	19	30	38	34
Rayagada	167	154	167	220	237	290	32	30	29	13	14	14
Sambalpur	203	197	214	291	455	360	34	29	15	17	14	8
Subarnapur	170	181	183	303	587	445	10	12	12	9	13	14
Sundargarh	284	283	291	298	528	472	36	35	36	20	21	21

\* Average from 2007-08 to 2011-12.

Zero denotes either nil or negligible.

SOURCE: Odisha Agriculture Statistics (2007-08 to 2013-14), Directorate of Agriculture and Food Production, Govt. of Odisha.



### VII.3. Area and Production

**TABLE VII.3.3: District-wise Area and Production – Sugarcane and Cotton**

Districts	Sugarcane						Cotton					
	Area ('000 ha)			Production ('000 MT)			Area ('000 ha)			Production ('000 bales)		
	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14	*2007-12	2012-13	2013-14
<b>ODISHA</b>	<b>38</b>	<b>39</b>	<b>35</b>	<b>2,730</b>	<b>2,604</b>	<b>2,544</b>	<b>68</b>	<b>119</b>	<b>124</b>	<b>178</b>	<b>336</b>	<b>299</b>
Anugul	0.27	0.13	0.07	16.7	9.0	4.1						
Balangir	2.34	2.84	2.36	178.6	182.0	171	24.6	38	39.8	58.9	105.9	101.7
Baleshwar	0.35	0.27	0.25	21.7	18.0	15.5						
Bargarh	1.01	0.63	0.64	73.9	43.0	47.1	0.2	1	1.7	0.6	3.8	4.3
Baudh	0.13	0.03	0.04	10.1	2.0	2.9	0.1		0.18	0.1		0.4
Bhadrak	0.62	0.43	0.38	45.6	29.0	26.9						
Cuttack	2.71	2.98	2.27	163.4	182.0	160						
Debagarh	0.04	0.09	0.14	2.4	5.0	8.5						
Dhenkanal	0.85	0.9	1.1	57.5	64.0	79.3						
Gajapati	0.13	0.05	0.06	10.5	3.0	4.2	0.5	1	1.2	1.4	2.4	3.3
Ganjam	3.11	3.42	3.67	232	223.0	265.9	1.4	2	0.9	2.1	4.1	1
Jagatsinghapur	0.72	0.78	0.79	50.1	47.0	56.5						
Jajapur	1.28	2.07	2.07	77.3	132.0	144.5						
Jharsuguda	0.11	0.24	0.24	9.2	16.0	18.3						
Kalahandi	1.61	1.82	2.02	119.5	124.0	135	23.7	43	43.1	60.4	122.9	84.3
Kandhamal	0.01	0.01	0.01	0.4	1.0	0.5	0	0	0.6	0.1	0.8	1.4
Kendrapara	0.4	0.5	0.49	27.1	26.0	34.2						
Kendujhar	0.13	0.07	0.05	7.7	5.0	3.4						
Khordha	1.38	1.13	0.98	94.8	72.0	65.4						
Koraput	10.36	10.64	9.98	860.8	738.0	788.2	0.2	1	1.2	0.4	2.7	3.4
Malkangiri	0.03	0.01	0.01	1.2	1.0	0.5						
Mayurbhanj	0.12	0.03	0	6.2	2.0	0						
Nabarangapur	4.18	4.3	4.26	222.9	284.0	268.6						
Nayagarh	5.48	4.5	2.5	370.1	315.0	178.1						
Nuapada	0.04	0.07	0.05	2	5.0	3.1	2.2	5	5.2	5.3	12.5	10.4
Puri	0.52	0.41	0.18	32.9	27.0	12.2						
Rayagada	0.16	0.22	0.24	10.2	14.0	15.5	14.2	25	26.7	47.6	74.6	78.4
Sambalpur	0.06	0.05	0.05	3.4	3.0	3.3						
Subarnapur	0.3	0.49	0.35	19.7	32.0	24.6	0.6	2	3.5	1.4	6.6	10.3
Sundargarh	0.04	0.06	0.09	2.8	4.0	6.3						

\* Average from 2007-08 to 2011-12. 1 bale = 170 kg.

Zero denotes either nil or negligible.

SOURCE: Odisha Agriculture Statistics (2007-08 to 2013-14), Directorate of Agriculture and Food Production, Govt. of Odisha.



## VII.4. Land Holding and Water Resources

**TABLE VII.4.1: Operational Holdings in Odisha**

Size of Holding (ha)	Total Holdings		Average Size of Holding (ha)
	Number ('000)	Area ('000 ha)	
Marginal (<1 ha)	3,368.3	1,921.8	0.57
Small (1-2 ha)	918.6	1,497.8	1.63
Semi-medium (2-4 ha)	311.3	918.9	2.95
Medium (4-10 ha)	63.7	381.3	5.99
Large (>10 ha)	5.6	132.2	23.72
All Classes	4,667.5	4,852.0	1.04

SOURCE: Agricultural Census Database, 2010-11, Ministry of Agriculture & Farmers Welfare, Govt. of India.

**TABLE VII.4.2: Net Irrigated Area under Different Sources of Irrigation**

Particulars	('000 ha)									
	1997-98	2001-02	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Net Irrigated Area	1,401	1,752	1,737	2,027	2,081	2,058	2,085	2,079	2,186	2,253
Gross Irrigated Area	2,318	2,546	2,518	3,308	3,177	3,038	3,106	3,087	3,365	3,521
Net Sown Area	6,122	5,845	5,795	5,624	5,604	5,574	5,421	5,292	5,331	5,424
Gross cropped Area	8,645	8,799	8,637	9,016	9,070	9,074	9,080	8,801	8,879	9,054

SOURCE: Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Govt of India; Odisha Agriculture Statistics (2007-08 to 2013-14), Directorate of Agriculture and Food Production, Govt. of Odisha.

**TABLE VII.4.3: Major River Basins of Odisha**

Name of the River	Origin	Length (km)	Catchment Area (sq km)	States Falling in the Catchment Area
Brahmani	Ranchi (Bihar)	799	39,033	Madhya Pradesh, Bihar and Odisha
Mahanadi	Nazri Town (Madhya Pradesh)	851	141,589	Madhya Pradesh, Maharashtra, Bihar, Chhattisgarh and Odisha
Godavari	Nasik (Maharashtra)	1,465	312,812	Maharashtra, Andhra Pradesh, Madhya Pradesh, Odisha and Pondicherry

SOURCE: Hydrology and Water Resources Information System for India, National Institute of Hydrology, Roorkee.









## VII.4. Land Holding and Water Resources

**TABLE VII.4.4: Medium River Basins of Odisha**

Name of River	Village/District ( <i>origin</i> )	Length ( <i>km</i> )	Catchment Area ( <i>sq km</i> )
<b>East Flowing Rivers</b>			
Burhabalang	Mayurbhanj	164	4,837
Baitarni	Kendujhar	365	12,789
Rushikulya	Kandhamal	146	7,753
Bahuda	Ramgiri village	73	1,248
Vamsadhara	Kalahandi	221	10,830
Nagavali	Kalahandi	217	9,410
Swarnamukhi	Koraput	130	3,225

SOURCE: Hydrology and Water Resources Information System for India, National Institute of Hydrology, Roorkee.





## VII.5. Rainfall

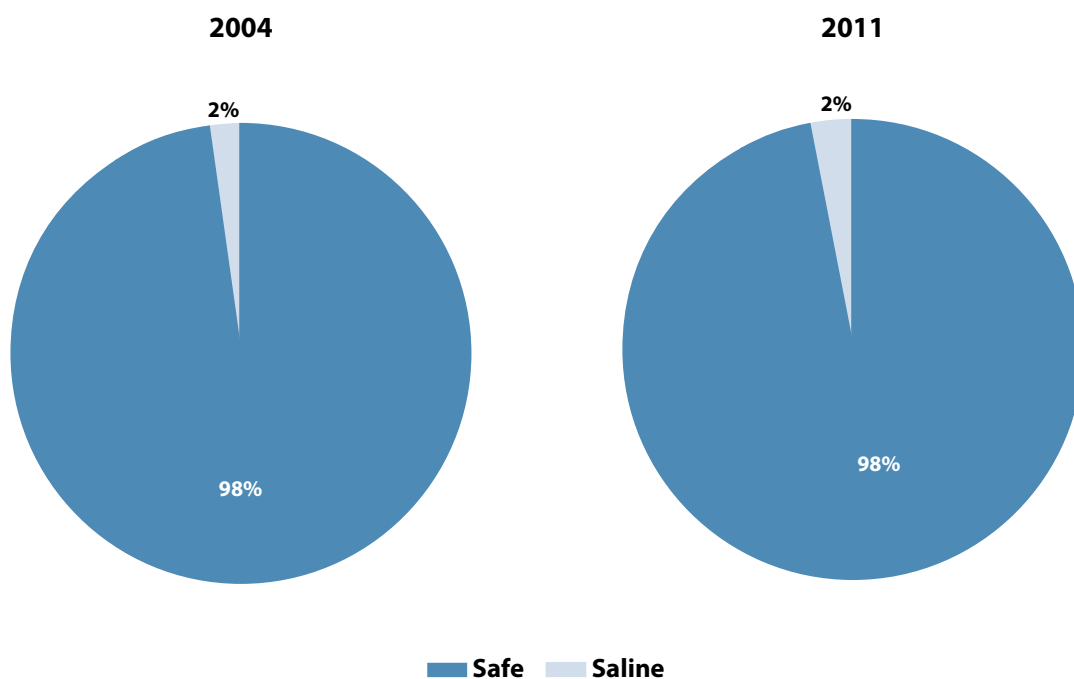
**TABLE VII.5.1: District- wise Average Annual Rainfall**

Districts	Average Annual Rainfall (mm)		
	2007 - 2011	2012	2013
<b>ODISHA</b>	<b>1,449</b>	<b>1,384</b>	<b>1,653</b>
Anugul	1,244	1,389	1,445
Balangir	1,346	1,268	1,423
Baleshwar	1,644	1,029	2,094
Bargarh	1,259	1,470	1,243
Baudh	1,406	1,221	1,170
Bhadrak	1,464	966	1,794
Cuttack	1,686	1,635	1,492
Debagarh	1,344	1,386	1,466
Dhenkanal	1,424	1,478	1,640
Gajapati	1,290	1,364	1,782
Ganjam	1,178	1,220	1,972
Jagatsinghapur	1,492	1,102	1,279
Jajapur	1,590	1,382	1,898
Jharsuguda	1,441	1,800	1,292
Kalahandi	1,597	1,423	1,856
Kandhamal	1,576	1,553	1,705
Kendrapara	1,525	1,119	1,714
Kendujhar	1,655	1,254	1,651
Khordha	1,368	1,331	1,873
Koraput	1,370	1,508	1,831
Malkangiri	1,413	1,718	1,783
Mayurbhanj	1,657	1,290	2,246
Nabarangapur	1,856	1,685	1,999
Nayagarh	1,392	1,735	2,055
Nuapada	1,230	929	1,455
Puri	1,337	1,265	1,765
Rayagada	1,314	1,287	1,486
Sambalpur	1,608	1,887	1,424
Subarnapur	1,355	1,404	1,315
Sundargarh	1,428	1,427	1,451

SOURCE: Odisha Agriculture Statistics (2007-08 to 2013-14), Directorate of Agriculture and Food Production, Govt. of Odisha.

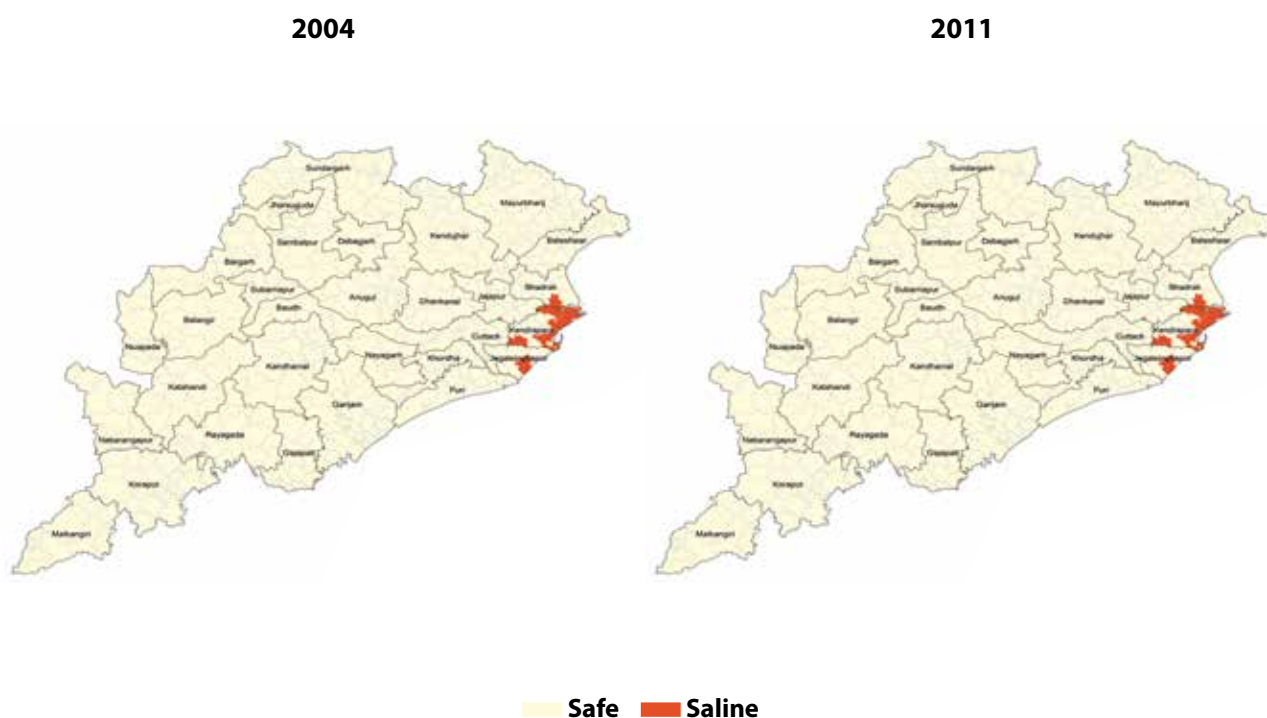


### Status of Ground Water (% of Blocks)



Note: Dynamic Ground Water Resources of India (2004-2011), Central Ground Water Board, Ministry of Water Resources, River Development & Ganga Rejuvenation, Govt. of India.

### Groundwater Status in Odisha









## PART VIII : POLICIES AND SCHEMES FOR DAIRY DEVELOPMENT IN ODISHA

The Department of Fisheries & Animal Resources Development Department (F&ARD) in Odisha came into existence in 1991 after being bifurcated from the erstwhile Forest, Fisheries & Animal Resources Development Department. Within F&ARD, there is a Directorate for Animal Husbandry & Veterinary Services (AH&VS) which is headed by a Director. In the field, AH&VS has thirteen Chief District Veterinary Officers in charge of 13 districts and in remaining 17 districts, the Sub-Divisional Veterinary Officers functioning in the district headquarter are looking after the districts affairs. Besides, there is a Frozen Semen Bank and 2 Orissa Biological Product Institutes. There are 540 veterinary hospitals (VDs), about 3,000 Livestock Aid Centres (LAC) to provide veterinary services. The activities of the department are supported by:

- i) **Odisha Livestock Resource Development Society (OLRDS):** Formed and registered in 2000 for spearheading livestock breeding activities and ensuring timely and meaningful implementation of National Project for Cattle & Buffalo Breeding” (NPCBB) in the State of Orissa for breeding activities;





- ii) **The Odisha Cooperative Milk Producers Federation Ltd (OMFED):** Established in the year 1980, the major objectives of the Federation is to carry out activities for promoting production, procurement, processing and marketing of milk and milk products for economic development of the rural dairy farming community.
- iii) **Utkal Gomangal Samiti (UGS):** Established in the year 1936, the aim and objectives of the Samiti is to bring all round development of the livestock through up-gradation of local indigenous stock by providing improved bulls, Cows, Calves, Buffalo Bulls and Bucks etc. and to propagate different types of fodder cultivation, Cattle Feed and encourage public for the same.
- iv) **State Society for Prevention of Cruelty to Animals (SPCA) 59 of 1960 (Central Act):** In 1976, Government of Odisha has enforced the Act in the state for wellbeing of animals. The main objective of this act is to generate public consciousness towards kindness and compassion to animals. Besides this, Animal Birth Control Programme (ABC), relief and rescue operation, animal health camp, media programmes, relief and rescue operations are also organised.

The ongoing schemes can be classified into four categories viz.

- A. Central Schemes for animal husbandry;
- B. States Schemes for animal husbandry;
- C. Central Schemes for dairy development;
- D. State Plan for dairy development – a) state sector & b) district sector.

## ANIMAL HUSBANDRY

### A. CENTRAL SCHEMES FOR ANIMAL HUSBANDRY (BUDGET HEAD 2403 – AH)

Central Scheme :		
National Livestock Health and Disease Control Programme (LH & DC)		
A.1	<b>Assistance to States for Control of animal disease</b>	This Centrally Sponsored Scheme is implemented with funding pattern of 75:25 as CS: SS. It aims to control livestock diseases through conducting mass vaccination and diagnosis of diseases in the newly established DDLs to reduce the morbidity & mortality of animals.
A.2	<b>Establishment &amp; Strengthening of existing Veterinary Hospitals &amp; Dispensaries (ESVHD)</b>	This Centrally Sponsored Scheme is implemented with funding pattern of 75:25 as CS: SS. It has been proposed to strengthen the existing veterinary hospitals
National Livestock Mission		
A.3	<b>Sub - Mission Livestock Development</b>	It addresses the concerns pertaining to Poultry, Sheep & Goat development in the State.
A.4	<b>Sub- Mission: Fodder and Feed Development</b>	It aims to encourage the farmers for take up production of high yielding varieties of fodders to meet the feed and fodder demand. It envisages to procure seed from the Central Govt. Seed Production Farms.



A.5	<b>Sub- Mission: Skill Development Technology Transfer &amp; Extension</b>	It strengthens regional and district training centers to deliver a range of trainings with appropriate modules, manuals, training materials, reference materials, posters, leaflets, documentary films etc. It also envisages to disseminate the information through various means like Electronic/ Print Media, Melas etc
<b>Centrally Sponsored Plans :</b>		
A.6	<b>Grant to Orissa Veterinary Council for Professional Efficiency Development</b>	This is a centrally sponsored plan with the funding pattern of 50:50 and aims to ensure the professional efficiency by implementing the norms of Veterinary Council of India.
A.7	<b>Salary for Integrated Sample Survey (ISS)</b>	This scheme supports conducting of annual ISS for compiling & disseminating authentic information.
<b>Central Plan Schemes :</b>		
A.8	<b>National Livestock Health &amp; Disease Control</b>	It strengthens veterinary services, surveillance of syndromic diseases like Avian Influenza, BSE & CBPP. It supports strengthening of BSL – II laboratory at ADRI, Phulnakhara. It creates awareness among the farmers regarding syndromic diseases.
A.9	<b>National Animal Disease Reporting System (NADRS)</b>	Under this scheme, information relating to animal diseases is disseminated amongst all stake holders to facilitate remedial action in a timely and efficient manner. To this end, computerized network link all Block, District head quarter for instant alert.
A.10	<b>Brucellosis Control Programme</b>	In Odisha, Brucellosis is observed in animals both at organized and unorganized farms. In order to curb this disease, there is continuous surveillance along with screening of samples suspected for Brucella infection. Accordingly, facilities have been put in place at the DDL/ CIL/ SVL/ ADRI. Moreover, provision for procurement of 50,000 doses of Brucella vaccine is made.
A.11	<b>National Dairy Plan Phase-I (NDP-I)</b>	In order to increase productivity of milch animals and thereby increase milk production to meet the rapidly growing demand for milk and to provide a greater access to the organised milk-processing sector to rural milk producers, NDP-I is being implemented in Odisha. The scheme provides 100 per cent grant-in-aid for animal nutrition & breeding activities and 50 per cent grant on cost of capital items for village-based milk procurement system.

## B. STATE SCHEMES FOR ANIMAL HUSBANDRY

<b>State Level Scheme :</b>		
B.1	<b>Strengthening of OBPI</b>	Odisha Biological Products Institutes (OBPI) at Bhubaneswar and Berhampur are engaged in production of bacterial & viral vaccines. The State Plan Assistance has been extended to meet the expenditure on purchase of chemicals, vaccine bottles, packaging materials, AMCs of OBPIs.
B.2	<b>Up-gradation of Livestock Health Care Services</b>	Under this scheme, essential life saving medicines are made available at veterinary dispensaries and above to provide curative treatment of livestock. Further, animal health camps in the dairy intensive blocks and de-worming camps of livestock are being organized using scheme funds.
B.3	<b>Up-gradation of skill in self employment under Animal Resource Development (ARD) Sector</b>	The funds of this scheme are used to update the skill of the livestock owners; motivate educated unemployed youth for taking up the animal husbandry activity for self- employment & enriching knowledge of existing livestock farmers.
B.4	<b>Establishment of Odisha University of Veterinary &amp; Animal Science</b>	It is a new scheme initiated to streamline veterinary education and research activities to benefit livestock farmers.





B.5	<b>Establishment of College of Veterinary &amp; Animal Science</b>	In order to provide impetus to livestock sector, funds have been earmarked to open one new Veterinary College at Gosala village in Chipilima taluk of Sambalpur district.
<b>District Level Schemes :</b>		
B.6	<b>Capacity Building and strengthening of Training infrastructure under ARD Sector</b>	Regular in-service training of field functionaries is strengthened by renovating existing training infrastructure at Livestock Inspector Training Centers, Veterinary Officers' Training Institute, Animal Disease Research Institute and hostels. In addition, exposure visits are planned for AHD staff at premier institutions outside the state.
B.7	<b>Training and Demonstration in Fodder Cultivation and Pasture Development and strengthening of Departmental Fodder Farms</b>	Under the scheme infrastructure at Departmental Fodder Farms are created to provide training and demonstration in fodder cultivation and pasture development. Funds under this scheme are being used for this purpose and to encourage production of certified fodder seeds at farmers' farm on buy-back arrangement. A provision has been made for procurement of seed produced under different State & Central programmes under fodder seed procurement and distribution.
B.8	<b>Utilization of Crop Residues</b>	The scheme assist farmers of the intensive and potential dairy zones to enrich their crop residues for optimum utilization and preservation of excess seasonal fodder for the lean period.
B.9	<b>Organization of Exhibition for Buyer-Seller meets and transfers of technical know-how to the farmers</b>	The Government organises "Buyer-Seller meet", "Annual exhibition in Adivasi Mela at Bhubaneswar" & "Regional Krishi Mohastav" to provide technical knowhow to farmers and establish direct contacts between stake-holders.
B.10	<b>Nabakalebar</b>	Annually the deities of Shri Jagannath Temple are taken out in a chariot procession called Ratha Yatra covering three-km-long distance. This re-embodiment of deities is known as Nabakalebara festival. The Government arranges for feed & fodder to the stray cattle and bulls during this festival.
B.11	<b>Information, Education &amp; Communication Programme</b>	The Government finances extension activities in dairy sector. It includes support provided for bi-monthly farmers training in Gramsat, hiring of vehicles for extension, advertisements, cultural programmes, film making, exhibition arrangements etc.
B.12	<b>Conservation and Improvement of threatened indigenous breeds</b>	In Odisha, elite indigenous breeds are identified from farmers herd and bred for production of quality progenies. The resultant male progenies are selected for further improvement of breeds based on their dam performance. Funds for such conservation and selective breeding of indigenous breeds come from this scheme.
B.13	<b>Strengthening of Disease Surveillance by Animal Disease Research Institute (ADRI)</b>	This scheme facilitates disease surveillance to control contagious diseases of livestock. It provides support for routine surveillance and monitoring activities for containment of diseases, attending out breaks and disease investigation. Cost towards vehicle hiring, emergency medicines, sensitization expenses and other support required for functioning of ADRI are funded through this scheme.
B.14	<b>Mobile Veterinary Unit</b>	The aim of the programme is to establish 53 mobile veterinary units (MVUs) in tribal dominated districts of the state like Sundergarh, Keonjhar, Mayurbhanj and other interior Blocks such as Badamba, Narsinghpur block in Cuttack district and Nilagiri block in Balasore district to strengthen the service delivery mechanism.



## DAIRY DEVELOPMENT

### C. CENTRALLY SPONSORED SCHEMES UNDER BUDGET HEAD 2404-DD

C.1	<b>Strengthening of Infrastructure for Quality &amp; Clean Milk Production Programme (CMP)</b>	This scheme is implemented through OMFED to strengthen the infrastructure for Quality & Clean Milk Production Programme (CMP). The Organisation share is being borne by OMFED. It is being implemented by OMFED in the District of Ganjam, Bolangir, Kalahandi, Nuapada, Koraput, Malkangiri, Nawarangpur & Raygada districts of Odisha. Under the project, the farmers are trained This project includes training of farmer, supply of 5 ltr Stainless Steel Milk Can & distribution of Safkit & laboratory equipment for BMC Level for Clean Milk Production.
C.2	<b>National Programme for Bovine Breeding (NPBB)</b>	The major objectives of the programme is to strengthen liquid nitrogen transport system; cure infertility control amongst dairy animals; extension & strengthening of the breeding network to cover more number of breedable bovines etc.
C.3	<b>National Programme for Dairy Development (NPDD)</b>	This is a new project being implemented by OMFED under NPDD. The aim of the scheme is to organize Dairy Cooperative societies, support members, install BMCs, up-grade skills, provide margin money, expand processing plants etc.
C.4	<b>Intensive Dairy Development Programme (IDDP)</b>	The IDDP Projects are being implemented by OMFED in different districts of Odisha like IDDP-VII project is implemented in Jagatsinghpur, Kendrapada & Nayagarh districts, IDDP-VIII in Koraput, Malkangiri, Nawarangpur & Raygada districts, IDDP-IX in Ganjam & Gajapati districts, IDDP-X (Sambalpur, Baragarh, Jharsuguda, Sonepur & Deogarh districts).

### D. DAIRY DEVELOPMENT-STATE PLAN UNDER BUDGET HEAD 2404-DD

State Sector :		
D.1	<b>Strengthening of Dairy Organization</b>	The scheme envisages supply of breeding inputs to field Frozen Semen Artificial Insemination (FSAI) centres of the AH department as well as Gomitra centers for conducting AIs and production of CB females. Identified bull mother farms of the State are being strengthened to rear quality bull mothers for production of donor bulls for the future. To this end, a MOU has been signed with NDDDB to establish the Sperm Station for Eastern Region at Kathpal.
D.2	<b>Promotion to Dairy Entrepreneurship</b>	The scheme facilitates dairy entrepreneurs to set-up modern dairy farms having 2 to 10 animals. As per the scheme, 10 per cent is entrepreneur's margin, 25 per cent comes as capital subsidy (33.33 per cent for SC/ST beneficiaries) from state government and balance is financed by banks. The primary objective is to generate self-employment.









District level :		
D.3	<b>Interest Subvention on Long Term Credit Support to Dairy Farmers</b>	Livestock farmers used to avail term loan from banks for equipments, machineries, shed, procurement of livestock and other activities towards asset creation in dairy farming through the ongoing schemes like DEDS, PDE, self finance etc. In order to increase the uptake of term loan in the state, the government provides interest subsidy/ subvention of 3 per cent of the interest rate charged on term loan availed by the dairy farmers. Further, additional interest subvention of 2 per cent will be provided to the farmers for regular/ timely repayment of their loan installment/ dues. The upper ceiling of project cost will be ₹ 10.00 lakh for availing the interest subvention.
D.4	<b>Interest Subvention on Short Term Credit Support to Dairy Farmers</b>	The scheme intends to facilitate credit linkage for livestock farming. Under the scheme, farmers pursuing dairy farming as an income generating activity and availing short term loan at 12 to 14 per cent interest rates would be eligible to avail interest subvention of 5 per cent and if they make timely payment, a further, 3 per cent interest incentive is given. Thus, a farmer availing short term loan for dairy farming and regular in repayment would get interest subvention of 8 per cent.

SOURCE: Annual Plan on Animal Husbandry and Dairy Development Sector (2015-16), Department of Animal Husbandry, Govt. of Odisha.











## GLOSSARY

<b>AI</b>	: Artificial Insemination is the process of deliberate introduction of sperm into the female reproductive tract for impregnation.
<b>Bovine</b>	: Large ruminants like cattle, buffaloes, yak and mithun.
<b>Breedable</b>	: Female animals that have attained the age of puberty.
<b>Breeding Tract</b>	: Area where breeds/group of animals are found.
<b>Calving Interval</b>	: Period between two calvings.
<b>Castration</b>	: Technique by which males are made sterile for use in draught operations.
<b>Crossbred</b>	: Animal produced by hybridization of two different breeds.
<b>DM</b>	: Dry biomass available from feed and fodder.
<b>Dry Animal</b>	: Adult animals calved at least once but not in-milk at present.
<b>Food Grains</b>	: Cereals and pulses.
<b>GSDP</b>	: Basic measure of a State's overall economic performance. It represents the market value of all final goods and services made within the borders of a State in a year.
<b>Indigenous Animals</b>	: Animals native to a particular area.
<b>In-milk Animals</b>	: Animals which are lactating.
<b>Irrigation Intensity</b>	: $(\text{Gross irrigated area}/\text{Net irrigated area}) * 100$ .
<b>Lactation Length</b>	: Number of days the animal secretes milk.
<b>Lactation Yield</b>	: Total milk production over period of 300/305 days.
<b>Literacy Rate</b>	: Percentage of literates in the age group above six years.
<b>Livestock</b>	: Domesticated mammals.
<b>Male to Female Ratio</b>	: Number of males to females.
<b>Milch Animals</b>	: Sum of in-milk and dry animals.
<b>Milk Utilisation Pattern</b>	: Quantities of milk retained for home consumption in liquid form, retained for product conversion and milk sold by the milk producers.
<b>Marginal Holdings</b>	: Farmers possessing less than one hectare of operational holding.
<b>Small Holdings</b>	: Greater than one hectare and less than two hectare of operational holding.
<b>Semi Medium</b>	: Greater than two and less than four hectare of operational holding.
<b>Medium Holdings</b>	: Are more than four and less than ten hectare of operational holding.
<b>Large Holdings</b>	: Are those larger than ten hectare of operational holding.
<b>Population Density</b>	: Number of human beings/animals per square km of geographical area.
<b>Poultry</b>	: All categories of chicken, guinea fowls, turkey, ducks and quails.
<b>Sex Ratio</b>	: Number of females to 1,000 males in a population.
<b>Small Ruminants</b>	: Sum of sheep and goats.
<b>Urbanisation</b>	: Per cent of urban population to total population.
<b>Wet to Dry Ratio</b>	: Number of in-milk to dry animals.



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