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National Dairy  
Development  
Board

# DAIRYING IN



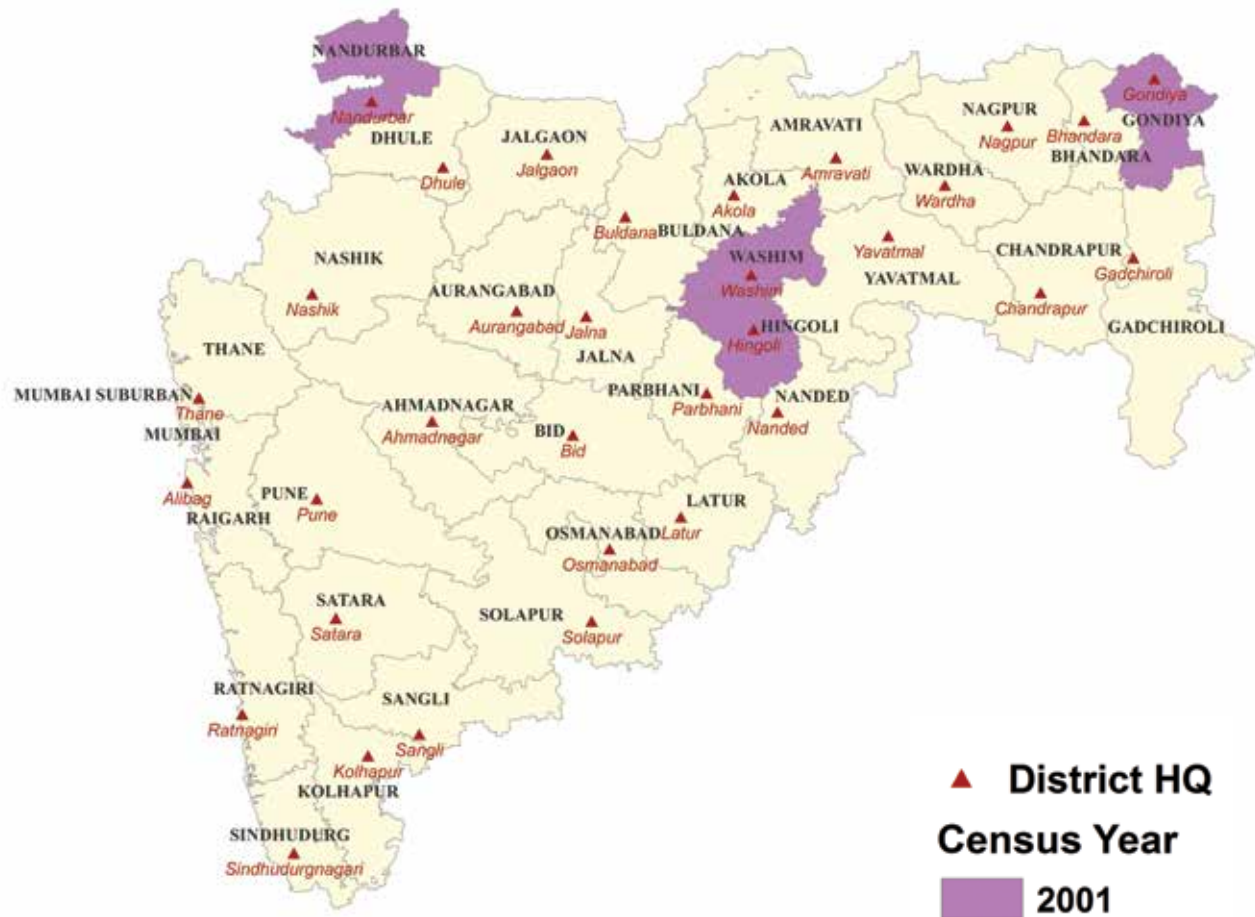
# MAHARASHTRA

A STATISTICAL PROFILE 2015



# Maharashtra

## Formation of districts: Census 1991 to 2011





## FOREWORD

In this compilation of the statistical profile of the dairy sector in various States, the main landmarks or highlights are: Trends in human demographics, animal population and production; Inputs for enhancement of productivity such as breeding, health and nutrition; and Government expenditure, along with supporting resources.

This review includes statistical tables on selected parameters for each State taken as a whole, along with time-series data for districts wherever available. Since spatial presentation of data can yield insights not immediately comprehensible from tables, thematic maps for selected parameters (with data both at a point of time as well as changes over a period of time) have also been included.

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 development interventions. We also hope that a wide range of readers, students, researchers, veterinarians, planners, scientists, administrators, policy makers and academics, as well as other development practitioners and professionals in government and non-governmental organisations, will find this publication useful for their studies and projects.

Although a wealth of information is available on many aspects of dairying from different sources, it is not only scattered but also there are inconsistencies on the same aspect in data maintained by different agencies. While limited data could mean being less informed, extensive information could mean an overload and defeat the very purpose of organising it. This review, therefore 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 juxtaposing data, some errors cannot be ruled out.

This publication "Dairying in Maharashtra – A Statistical Profile 2015" is amongst a series of similar publications for different states being brought out by National Dairy Development Board (NDDB).

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# PART I : GENERAL STATISTICS

Maharashtra has a geographical area of about 3 lakh sq km which makes it third largest state in the country. It is divided into seven regions and 35 districts. With a population of 112.4 million people, it has second largest population amongst all states and union territories in India. Maharashtra is one of the most industrialized and urbanized state in India with 45 per cent population residing in urban areas.

In terms of Net State Domestic Product, it has emerged as the second richest state amongst all major states in India. It has one of the fastest growing economy in India with sustained higher growth rate and its per capita income is significantly higher than national average.

The capital of Maharashtra "Mumbai" is the headquarter of all major banks, financial institutions, insurance companies, corporate houses and export units. Tier-II cities are emerging as software export hubs. The four urban districts of Mumbai, Thane, Pune and Nasik account for about 50 per cent of the state income and balance 31 district share remaining other half. The Coastal and Inland Western regions are better off than the state average in terms of standards of living, rainfall, resources, poverty etc, compared to other regions.





## I.1. Maharashtra at a Glance

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

Particulars	Unit	Year	Maharashtra	India
<b>State Geography &amp; Rural Infrastructure</b>				
Geographical area	'000 sq km	2012	307.7	3,287.3
Districts	Nos	2011	35	640
Talukas	"	"	355	5,924
Villages	'000	"	43.6	640.9
Households	Million	"	24.4	249.5
<b>Rural Households</b>				
2001	'000	2001	11,174	137,414
2011	"	2011	13,215	168,565
<b>Rural Households with Electricity</b>				
2001	%	2001	65	44
2011	"	2011	74	55
<b>Rural Households with Tap water supply</b>				
2001	%	2001	46	24
2011	"	2011	50	31
<b>Human Population</b>				
Population	Millions	2011	112.4	1,210.1
Urban (As % of total)	%	"	45.2	31.2
Rural (As % of total)	"	"	54.8	68.8
Density of Population	Persons/ sq.km	"	365	382
Scheduled Castes (As % of total)	%	"	11.8	16.6
Scheduled Tribes (As % of total)	"	"	9.3	8.6
Sex Ratio	Ratio	"	929	943
<b>Literacy Rate (excluding population of 0 to 6 age group)</b>				
Male	%	2011	89.8	80.9
Female	%	"	75.5	64.6
Urban	%	"	89.8	84.1
Rural	%	"	77.1	67.8
Per Capita Income (at current prices)	₹	2013-14	114,392	74,380
<b>Livestock Population</b>				
	Million	2012	32.5	512.0
Bovine	"	"	21.1	299.9
Indigenous Cattle	"	"	11.8	151.2
Crossbred Cattle	"	"	3.7	39.7
Buffaloes	"	"	5.6	108.7
Small Ruminants	"	"	11.0	200.2
Poultry	"	"	77.8	729.2
<b>Livestock Population</b>				
	Million	2007	35.9	529.7
Bovine	"	"	22.3	304.8
Indigenous Cattle	"	"	13.1	166.0
Crossbred Cattle	"	"	3.1	33.1
Buffaloes	"	"	6.1	105.3
Small Ruminants	"	"	13.3	212.1
Poultry	"	"	64.7	648.9



## I.1. Maharashtra at a Glance

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

Particulars	Unit	Year	Maharashtra	India
Number of Major Cattle Breeds	nos	2015	5	39
Number of Major Buffalo Breeds	"	"	3	13
<b>Milk Production</b>				
Milk Production - Total	'000 MT	2014-15	9,542	146,313
Crossbred Cattle	"	"	3,998	36,939
Indigenous Cattle	"	"	1,270	29,484
Buffaloes	"	"	4,027	74,710
Goats	"	"	247	5,180
Per Capita Milk Availability (estimated)	grams/day	"	222	315
Egg Production	million	"	5,079	78,484
Estimated Meat Production	'000 MT	"	631	6,691
Wool Production	'000 Kg	"	1,385	48,139
Marine & Inland Fish Production	'000 MT	2013-14	603	9,579
<b>Veterinary Infrastructure#</b>				
Veterinary Institutes	nos	2013-14	4,861	60,896
Semen Stations	"	"	3	57
AI Centers (Govt)	"	"	4,861	83,796
<b>Veterinary Services</b>				
AI Done (Govt)	'000	2013-14	2,361	58,532
Vaccination Done				
H.S. Vaccination	"	2012-13	3,921	
B.Q. Vaccination	"	"	4,032	
FMD Vaccination	"	"	28,552	
Total Treatment	"	"	16,060	
Total Castration	"	"	880	
<b>Agricultural Resources</b>				
Forest Cover	%	2012-13	16.9	21.30
Pasture and Grazing Land	'000 ha	"	1,245	10,240
As % of total reporting area	%	"	4.0	3.3
Area Under Fodder Crops	'000 ha	"	901	9,188
Gross Irrigated Area As % Gross Cropped Area	%	"	18.5	47.6
Cropping Intensity	%	"	126	139
Irrigation Intensity	%	"	126	138
<b>Production of Major Crops</b>				
Cereals	'000 MT	2013-14	10,677	245,790
Pulses	"	"	3,169	19,253
Oilseeds	"	"	5,294	32,749
Cotton	'000 bales (170 kg Each)	"	8,834	35,902
Sugarcane	'000 MT	"	76,901	352,142
<b>Ground Water Status</b>				
Safe	% of Talukas	2011 & (2009)	92 (92)	69 (73)
Semi Critical	"	"	5(5)	11 (9)





## I.1. Maharashtra at a Glance

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

Particulars	Unit	Year	Maharashtra	India
Critical	"	"	1(0)	3 (3)
Over Exploited	"	"	3(3)	16 (14)
Salinity Affected	"	"	-	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.

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

New Districts	Year of Formation	Carved Out of
Gondiya	01 <sup>st</sup> May, 1999	Bhandara
Hingoli	01 <sup>st</sup> May, 1999	Parbhani
Nandurbar	01 <sup>st</sup> July, 1998	Dhule
Washim	01 <sup>st</sup> July, 1998	Akola
Palghar	01 <sup>st</sup> August, 2014	Thane

SOURCE: District Administration Websites of Govt. of Maharashtra.





## 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>MAHARASHTRA</b>	<b>28,459</b>	<b>27,319</b>	<b>55,778</b>	<b>21,942</b>	<b>19,159</b>	<b>41,101</b>	<b>50,401</b>	<b>46,478</b>	<b>96,879</b>
Ahmadnagar	1,662	1,575	3,237	421	382	804	2,083	1,958	4,041
Akola	517	485	1,003	324	304	627	841	789	1,630
Amravati	880	827	1,708	465	434	900	1,346	1,262	2,607
Aurangabad	935	875	1,810	571	517	1,087	1,505	1,392	2,897
Bhandara	484	477	960	90	86	176	573	563	1,136
Bid	915	859	1,774	201	186	387	1,116	1,045	2,161
Buldana	902	857	1,759	245	228	473	1,147	1,085	2,232
Chandrapur	716	690	1,406	347	319	665	1,063	1,008	2,071
Dhule	646	616	1,262	232	214	446	878	830	1,708
Gadchiroli	457	446	903	34	33	67	491	479	970
Gondiya	526	531	1,057	73	71	143	599	602	1,201
Hingoli	426	407	833	80	74	154	505	482	987
Jalgaon	1,357	1,273	2,630	548	504	1,053	1,905	1,777	3,683
Jalna	667	638	1,305	159	148	308	827	786	1,613
Kolhapur	1,260	1,213	2,473	547	503	1,050	1,807	1,716	3,523
Latur	819	771	1,590	256	234	490	1,075	1,005	2,080
Mumbai	0	0	0	1,878	1,460	3,338	1,878	1,460	3,338
Mumbai Suburban	0	0	0	4,742	3,899	8,640	4,742	3,899	8,640
Nagpur	752	702	1,454	1,354	1,260	2,614	2,105	1,962	4,068
Nanded	1,123	1,064	2,187	358	331	689	1,481	1,395	2,876
Nandurbar	559	551	1,109	105	98	203	664	648	1,312
Nashik	1,571	1,485	3,056	1,020	918	1,938	2,591	2,403	4,994
Osmanabad	648	605	1,253	121	112	233	769	717	1,487
Parbhani	530	513	1,043	250	235	485	780	748	1,528
Pune	1,557	1,474	3,032	2,212	1,989	4,201	3,769	3,463	7,233
Raigarh	834	839	1,673	284	251	535	1,118	1,090	2,208
Ratnagiri	696	809	1,505	99	93	192	794	902	1,697
Sangli	994	956	1,950	326	307	633	1,320	1,263	2,584
Satara	1,202	1,209	2,411	207	192	398	1,408	1,401	2,809
Sindhudurg	376	410	787	42	41	82	418	451	869
Solapur	1,363	1,261	2,624	626	599	1,225	1,990	1,860	3,850
Thane	1,148	1,081	2,229	3,230	2,673	5,902	4,378	3,754	8,132
Wardha	471	441	912	168	157	325	639	598	1,237
Washim	434	408	842	92	86	178	526	494	1,020
Yavatmal	1,030	972	2,001	236	221	457	1,266	1,193	2,458

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>MAHARASHTRA</b>	<b>31,539</b>	<b>30,017</b>	<b>61,556</b>	<b>26,704</b>	<b>24,114</b>	<b>50,818</b>	<b>58,243</b>	<b>54,131</b>	<b>112,374</b>
Ahmadnagar	1,873	1,758	3,631	470	443	913	2,343	2,200	4,543
Akola	564	530	1,094	368	351	720	932	882	1,814
Amravati	951	901	1,851	530	507	1,037	1,481	1,408	2,888
Aurangabad	1,082	999	2,081	843	778	1,620	1,924	1,777	3,701
Bhandara	487	479	967	118	116	234	606	595	1,200
Bid	1,083	988	2,071	266	248	514	1,349	1,236	2,585
Buldana	1,055	982	2,037	282	267	549	1,338	1,249	2,586
Chandrapur	726	703	1,429	398	378	775	1,124	1,080	2,204
Dhule	759	721	1,480	295	276	571	1,054	997	2,051
Gadchiroli	481	474	955	60	58	118	541	532	1,073
Gondiya	548	549	1,097	114	112	226	662	661	1,323
Hingoli	514	484	999	92	87	179	606	571	1,177
Jalgaon	1,501	1,387	2,887	697	646	1,343	2,197	2,033	4,230
Jalna	817	764	1,582	194	183	377	1,011	948	1,959
Kolhapur	1,349	1,297	2,646	632	598	1,230	1,981	1,895	3,876
Latur	950	880	1,829	323	302	625	1,273	1,181	2,454
Mumbai	0	0	0	1,685	1,401	3,085	1,685	1,401	3,085
Mumbai Suburban	0	0	0	5,031	4,326	9,357	5,031	4,326	9,357
Nagpur	758	716	1,475	1,627	1,552	3,179	2,385	2,269	4,654
Nanded	1,258	1,189	2,447	472	442	914	1,730	1,631	3,361
Nandurbar	688	685	1,373	145	130	275	833	815	1,648
Nashik	1,805	1,705	3,510	1,352	1,245	2,597	3,157	2,950	6,107
Osmanabad	716	660	1,377	145	136	281	862	796	1,658
Parbhani	652	614	1,266	291	279	570	943	893	1,836
Pune	1,903	1,775	3,678	3,021	2,731	5,751	4,924	4,505	9,429
Raigarh	837	827	1,664	507	463	970	1,344	1,290	2,634
Ratnagiri	630	721	1,351	131	133	264	761	854	1,615
Sangli	1,071	1,032	2,103	365	355	719	1,436	1,386	2,822
Satara	1,220	1,214	2,433	291	279	570	1,511	1,493	3,004
Sindhudurg	363	379	743	54	53	107	417	432	850
Solapur	1,518	1,400	2,919	710	690	1,399	2,228	2,090	4,318
Thane	1,300	1,245	2,545	4,565	3,950	8,515	5,865	5,195	11,060
Wardha	452	426	877	217	207	423	668	632	1,301
Washim	512	474	986	109	103	211	620	577	1,197
Yavatmal	1,115	1,059	2,174	305	293	598	1,420	1,352	2,772

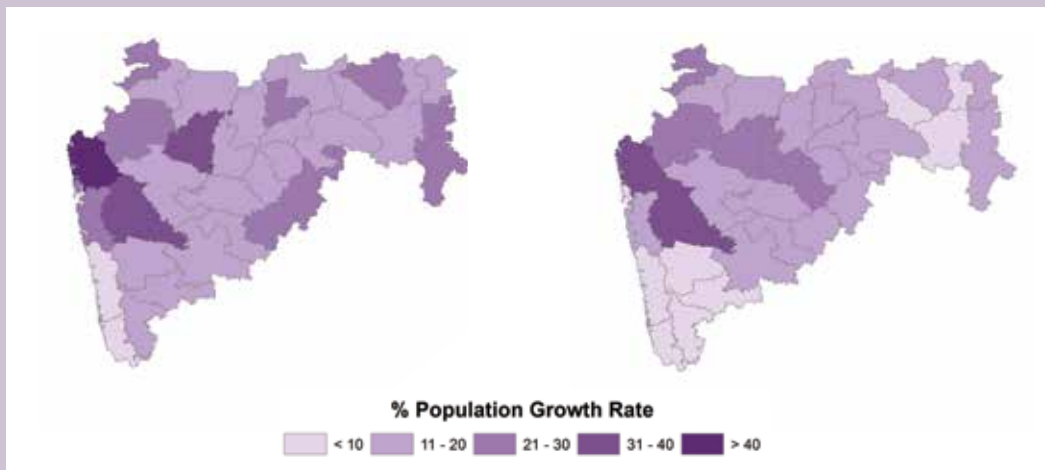
SOURCE: Census 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.



### Decadal Growth Rate of Population

1991-2001

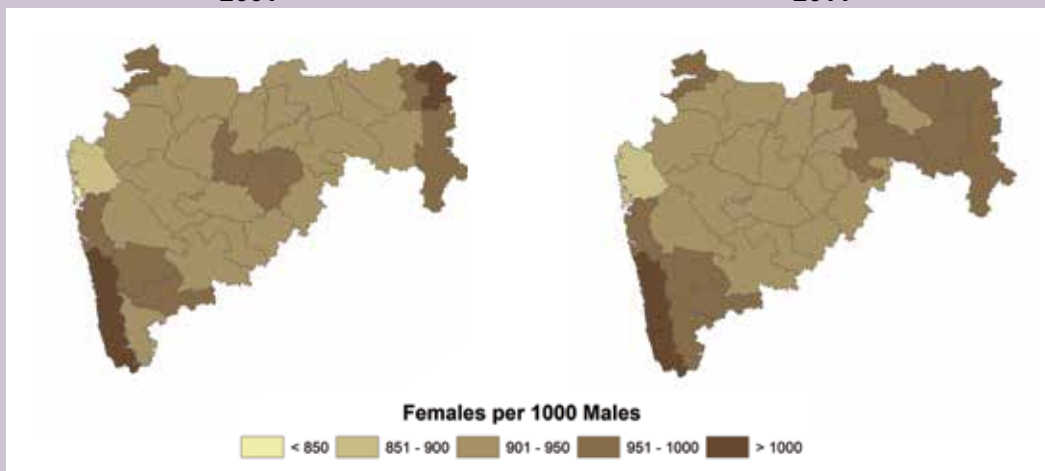
2001-2011



### Sex Ratio (all age groups)

2001

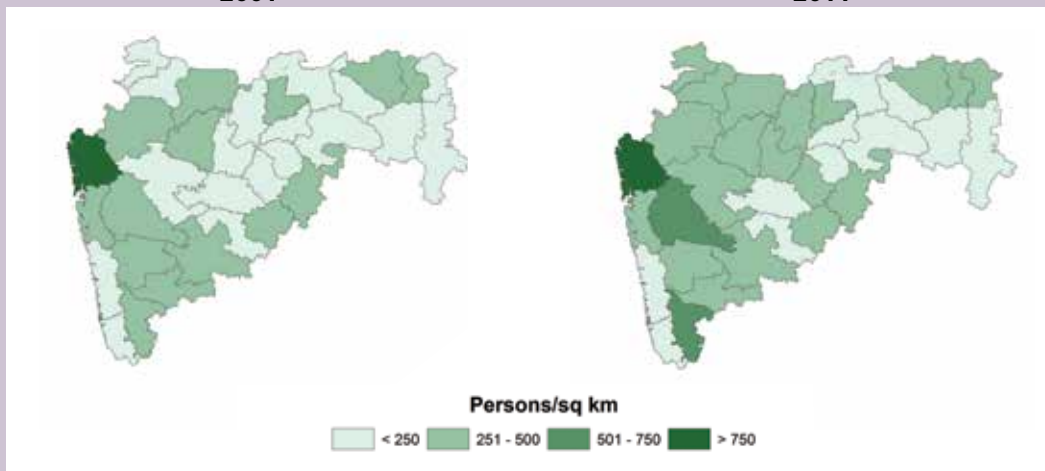
2011



### 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>MAHARASHTRA</b>	<b>10,994</b>	<b>13,017</b>	<b>7,164</b>	<b>9,605</b>	<b>5,007</b>	<b>6,540</b>
Ahmadnagar	594	718	341	503	231	295
Akola	202	248	126	184	111	137
Amravati	351	425	227	315	232	320
Aurangabad	335	419	222	282	165	200
Bhandara	205	223	135	177	58	70
Bid	365	446	226	310	131	154
Buldana	359	445	207	327	163	223
Chandrapur	311	353	161	254	66	99
Dhule	253	299	167	211	182	243
Gadchiroli	191	219	78	121	27	30
Gondiya	223	242	122	196	21	31
Hingoli	156	195	88	130	30	64
Jalgaon	536	618	400	464	448	539
Jalna	253	319	141	224	102	127
Kolhapur	482	557	421	513	341	452
Latur	294	360	202	274	152	183
Mumbai	0	0	0	0	0	0
Mumbai Suburban	0	0	0	0	0	0
Nagpur	294	325	229	268	163	208
Nanded	411	488	220	332	180	193
Nandurbar	215	271	88	143	101	141
Nashik	530	662	295	411	205	269
Osmanabad	252	295	156	192	114	155
Parbhani	204	256	109	178	60	87
Pune	567	744	427	620	269	382
Raigarh	359	377	303	333	167	234
Ratnagiri	329	334	295	310	122	197
Sangli	373	433	270	340	222	260
Satara	472	518	383	447	312	365
Sindhudurg	172	180	159	170	37	55
Solapur	491	584	240	340	202	242
Thane	428	526	283	369	118	184
Wardha	194	210	149	178	83	130
Washim	173	217	92	160	53	82
Yavatmal	422	513	204	330	139	191

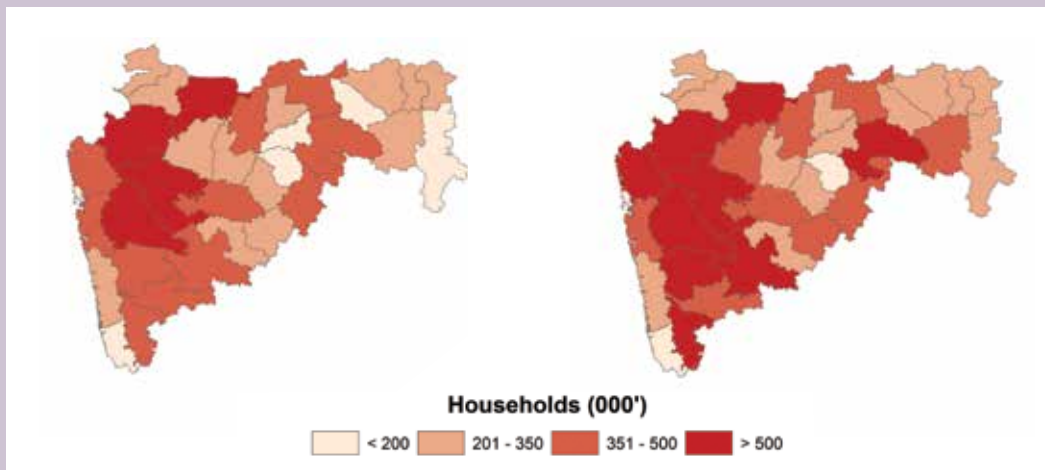
SOURCE: Census 2001 and 2011, Office of the Registrar General and Census Commissioner, Govt. of India, New Delhi.



### Rural Households

2001

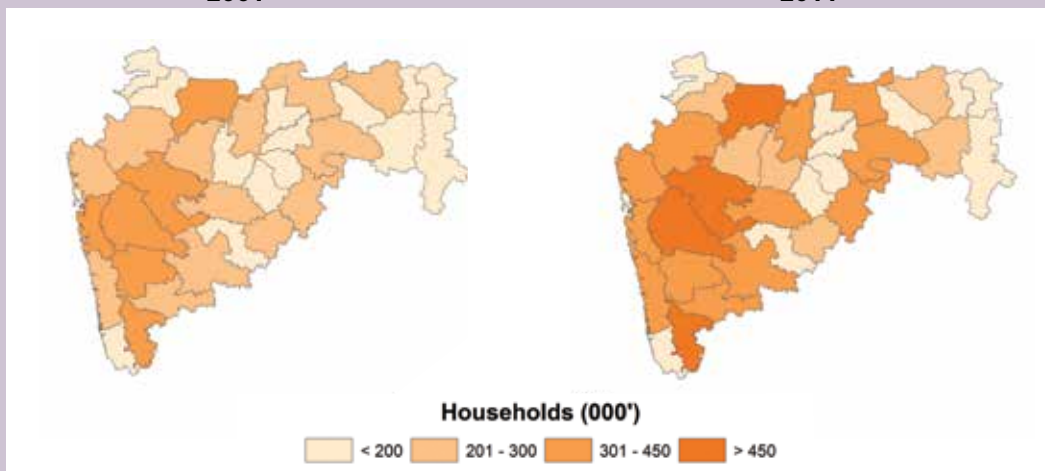
2011



### Rural Households with Electricity

2001

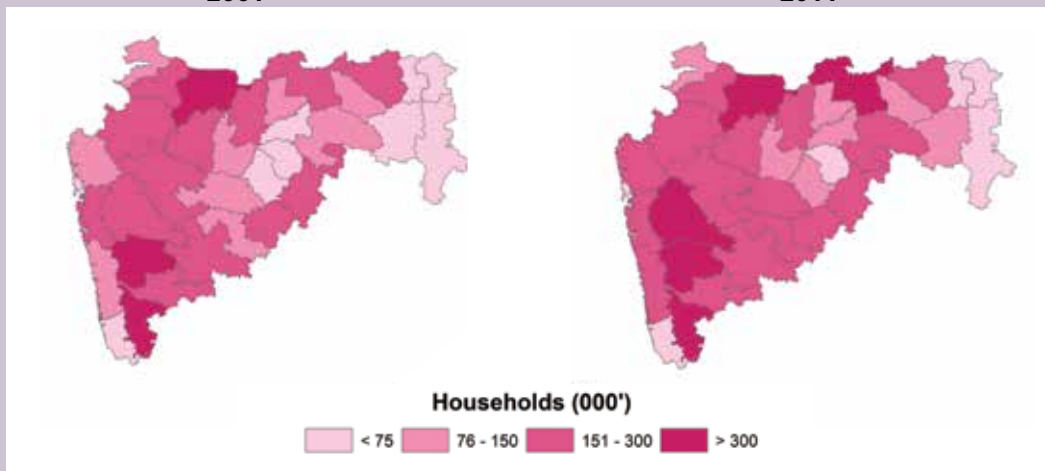
2011



### 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>MAHARASHTRA</b>	<b>9,882</b>	<b>13,276</b>	<b>8,577</b>	<b>10,510</b>
Ahmadnagar	485	574	303	378
Akola	168	364	100	100
Amravati	447	506	357	404
Aurangabad	376	539	100	143
Bhandara	202	200	98	89
Bid	281	351	24	33
Buldana	242	471	115	125
Chandrapur	297	348	375	389
Dhule	109	128	444	647
Gadchiroli	109	121	372	415
Gondiya	168	176	196	214
Hingoli	101	183	87	112
Jalgaon	287	389	436	604
Jalna	181	272	32	42
Kolhapur	450	504	21	30
Latur	404	481	48	57
Mumbai	183	220	21	25
Mumbai Suburban	402	583	70	105
Nagpur	696	868	444	438
Nanded	498	640	254	282
Nandurbar	41	48	860	1,142
Nashik	427	555	1,194	1,564
Osmanabad	246	265	28	36
Parbhani	152	247	35	41
Pune	762	1,181	262	349
Raigarh	54	135	269	305
Ratnagiri	25	67	20	20
Sangli	313	353	18	18
Satara	246	323	22	30
Sindhudurg	39	56	5	7
Solapur	578	650	69	78
Thane	340	730	1,199	1,542
Wardha	159	189	154	150
Washim	163	229	71	80
Yavatmal	253	329	473	514

SC: Scheduled Caste, ST: Scheduled Tribe

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

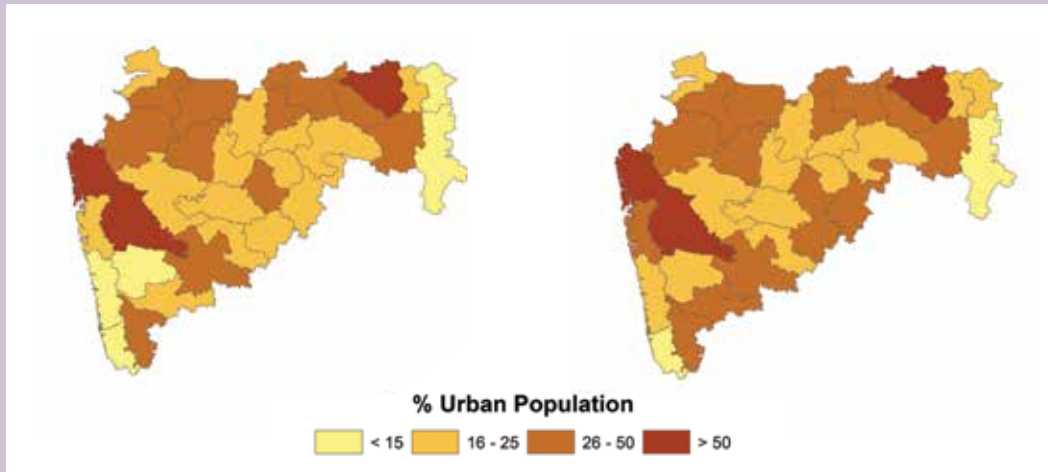




### Urbanisation (%)

2001

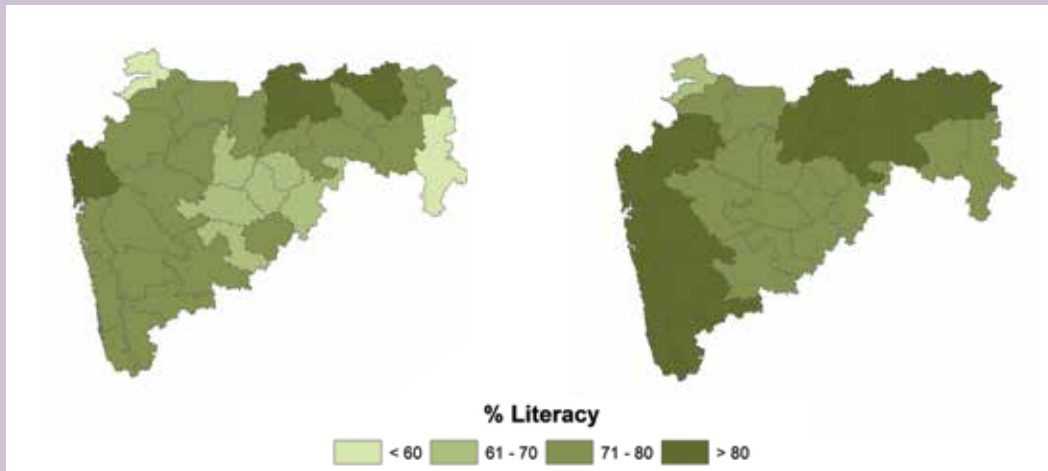
2011



### Literacy Rate

2001

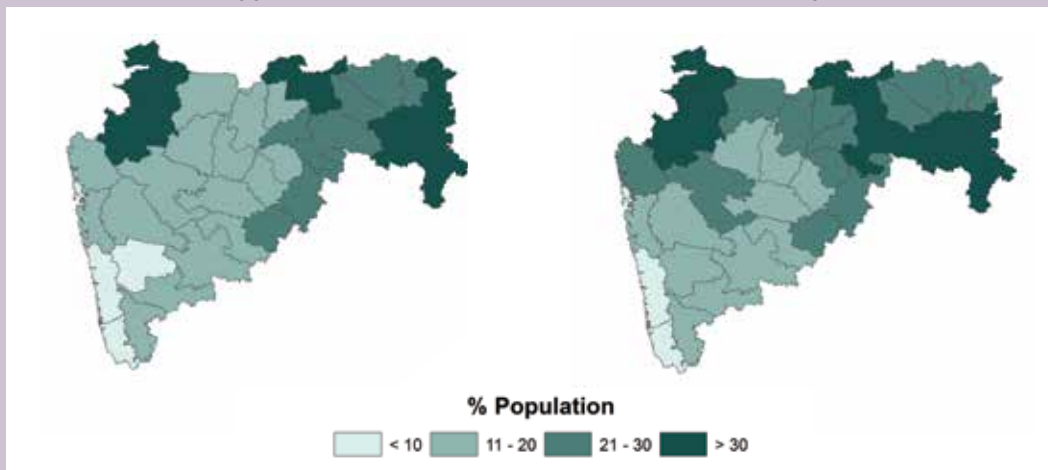
2011



### 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
<b>State Domestic Product</b>	<b>370,023</b>	<b>437,103</b>	<b>526,910</b>	<b>619,884</b>	<b>677,781</b>	<b>770,794</b>	<b>950,771</b>	<b>1,064,689</b>	<b>1,196,754</b>	<b>1,333,684</b>
1. Agriculture	31,136	36,191	46,938	60,384	55,204	63,842	101,305	106,740	108,174	120,859
2. Forestry & Logging	9,009	11,191	14,441	13,990	14,705	17,729	19,592	22,497	24,899	28,926
3. Fishing	1,196	1,343	1,437	1,574	1,493	1,648	2,035	2,482	3,002	3,598
4. Agriculture & Allied (1+2+3)	41,341	48,725	62,816	75,948	71,402	83,219	122,932	131,718	136,075	153,383
As % of NSDP	11.17	11.15	11.92	12.25	10.53	10.80	12.93	12.37	11.37	11.50
Sub-total of Primary	44,252	51,889	65,403	78,976	75,458	87,342	126,922	136,844	141,288	158,297
As % of NSDP	11.96	11.87	12.41	12.74	11.13	11.33	13.35	12.85	11.81	11.87
Sub-total of Secondary	96,016	126,284	154,416	185,502	192,938	209,057	259,522	274,696	299,909	313,225
As % of NSDP	25.95	28.89	29.31	29.93	28.47	27.12	27.30	25.80	25.06	23.49
Services	229,755	258,930	307,091	355,405	409,386	474,394	564,326	653,150	755,557	862,162
As % of NSDP	62.09	59.24	58.28	57.33	60.40	61.55	59.35	61.35	63.13	64.65
<b>Per Capita Income (₹)</b>	<b>36,077</b>	<b>41,965</b>	<b>49,831</b>	<b>57,760</b>	<b>62,234</b>	<b>69,765</b>	<b>84,858</b>	<b>93,748</b>	<b>103,991</b>	<b>114,392</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
<b>State Domestic Product</b>	<b>370,023</b>	<b>423,632</b>	<b>481,983</b>	<b>538,081</b>	<b>546,533</b>	<b>599,338</b>	<b>667,625</b>	<b>698,086</b>	<b>739,040</b>	<b>811,268</b>
1. Agriculture	31,136	34,816	40,966	48,193	38,398	39,857	50,221	49,501	47,833	49,684
2. Forestry & Logging	9,009	9,013	9,659	10,045	10,625	9,451	10,086	10,703	11,346	11,881
3. Fishing	1,196	1,364	1,343	1,365	1,281	1,228	1,236	1,246	1,251	1,371
4. Agriculture & Allied (1+2+3)	41,341	45,193	51,969	59,603	50,304	50,536	61,543	61,450	60,430	62,936
As % of NSDP	11.17	10.67	10.78	11.08	9.20	8.43	9.22	8.80	8.18	7.76
Sub-total of Primary	44,252	48,115	55,000	62,563	52,949	53,275	64,672	64,794	63,760	65,960
As % of NSDP	11.96	11.36	11.41	11.63	9.69	8.89	9.69	9.28	8.63	8.13
Sub-total of Secondary	96,016	119,353	138,882	157,117	151,011	162,877	186,240	185,578	189,561	208,626
As % of NSDP	25.95	28.17	28.81	29.20	27.63	27.18	27.90	26.58	25.65	25.72
Services	229,755	256,165	288,102	318,401	342,574	383,186	416,714	447,713	485,719	536,682
As % of NSDP	62.09	60.47	59.77	59.17	62.68	63.93	62.42	64.13	65.72	66.15
<b>Per Capita Income (₹)</b>	<b>36,077</b>	<b>40,671</b>	<b>45,582</b>	<b>50,138</b>	<b>50,183</b>	<b>54,246</b>	<b>59,587</b>	<b>61,468</b>	<b>64,218</b>	<b>69,584</b>

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





### 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	695	802	957	1,140	1,151	1,360	1,775
Agriculture	458	527	627	790	736	894	1,246
Livestock	130	142	165	191	231	246	279
Milk	100	108	122	138	155	173	199
Meat	28	30	39	43	57	54	60
Egg	4	5	5	7	9	8	9
Dung	5	8	8	8	9	9	9
Others^	-7	-8	-10	-5	2	2	2
<b>Share of Value of Output to Agriculture and Allied (%)</b>							
Agriculture	65.96	65.68	65.52	69.24	63.89	65.74	70.20
Livestock	18.74	17.74	17.19	16.72	20.03	18.06	15.70
<b>Share of Value of Output to Livestock Output (%)</b>							
Milk	77.11	75.56	74.40	72.35	67.13	70.42	71.52
Meat	21.20	21.15	23.56	22.49	24.63	22.00	21.46
Egg	3.43	3.49	3.21	3.51	3.73	3.21	3.13
Dung	3.80	5.28	4.84	4.36	3.70	3.51	3.11
Others^	-5.54	-5.49	-6.01	-2.71	0.81	0.86	0.78

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	695	751	838	926	762	832	960
Agriculture	458	502	571	656	509	536	646
Livestock	130	137	143	148	162	163	170
Milk	100	103	106	110	114	117	122
Meat	28	28	31	32	35	33	34
Egg	4	5	4	5	5	5	5
Dung	5	7	7	7	7	7	7
Others^	-7	-6	-6	-5	1	1	1
<b>Share of Value of Output to Agriculture and Allied (%)</b>							
Agriculture	65.96	66.83	68.16	70.83	66.75	64.42	67.27
Livestock	18.74	18.22	17.12	15.97	21.27	19.56	17.69
<b>Share of Value of Output to Livestock Output (%)</b>							
Milk	77.11	75.62	74.28	74.23	70.19	71.90	72.05
Meat	21.20	20.65	21.91	21.75	21.60	20.01	19.77
Egg	3.43	3.35	3.08	3.04	3.38	3.09	3.23
Dung	3.80	5.09	4.87	4.65	4.36	4.38	4.20
Others^	-5.54	-4.70	-4.14	-3.67	0.46	0.63	0.75

^ 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 Maharashtra**

Segment	Fund Utilisation (₹ crores)								Grand Total
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Integrated Dairy Farm projects		21.6							21.6
Strengthening of Dairy educational Institutes and Training to Farmers				1.86					1.86
Accelerated Dairy Development Programme					26.3				26.3
Dairy Infrastructure					19.83		13.6	37.81	71.24
National Mission for Protein Supplement							42.16		42.16
<b>Total</b>	<b>0</b>	<b>21.6</b>	<b>0</b>	<b>1.86</b>	<b>46.13</b>	<b>0</b>	<b>55.76</b>	<b>37.81</b>	<b>163.16</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 Maharashtra**

Segment	Fund Utilisation (₹ crores)								Grand Total
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Fodder Development/ Silage Preparation				0.79	30.00	22.82	25.00	54.31	132.92
Sheep and Goat Development			10.00	7.50	8.83	7.14	31.65	29.68	94.80
Poultry Development		15.99		0.27	1.65	0.20	23.15		41.26
Infrastructure Development- Veterinary Institutes, Semen Station and lab, Disease Lab, Diagnostic center, Training center etc			152.30	7.33	11.50			3.34	174.47
Animal Breeding Improvement (Including AI, Frozen Semen Lab)		204.00							204.00
Conservation of Germ plasm of Elite Animals/ Breeding bull production				0.40	7.99				8.39
Others				3.31	1.00		10.00	1.32	15.63
Infrastructure Development for Market of cattle				0.50					0.50
Capacity Building					2.99				2.99
<b>Total</b>	<b>0</b>	<b>219.99</b>	<b>162.30</b>	<b>20.10</b>	<b>63.96</b>	<b>30.16</b>	<b>89.80</b>	<b>88.65</b>	<b>674.95</b>

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



### I.3. State Economy

**TABLE I.3.5: Total Outlay (Plan + Non-Plan outlay) & Expenditure on Animal Husbandry and Dairy Development**

(₹ in crore)

Sub-major head	Minor head	Expenditure item	2009-10		2010-11		2011-12		2012-13		2013-14		2014-15
			Budget Estimates	Actual	Budget Estimates	Actual	Budget Estimates	Actual	Budget Estimates	Actual	Budget Estimates	Actual	Budget Estimates
<b>Animal Husbandry</b>													
2403	001	Direction & administration	55.67	55.78	65.01	68.90	75.93	71.50	79.42	79.87	84.97	87.28	94.04
	101	Veterinary Services & AH	269.12	261.51	326.18	295.47	351.60	309.54	358.73	355.43	409.15	400.45	428.78
	102	Cattle & buffalo development	48.69	42.62	47.60	46.38	77.50	74.65	75.89	76.06	92.36	90.53	102.09
	107	Fodder & Feed development	1.12	0.12	0.86	1.61	1.01	-	21.56	23.82	47.77	23.63	52.59
	109	Extension & training	47.04	46.99	65.88	65.91	72.76	70.57	77.85	75.77	70.59	71.39	90.79
	195	Assistance to AH coops	-	-	-	-	-	-	-	-	-	-	-
		<b>Sub-total</b>		<b>421.64</b>	<b>407.02</b>	<b>505.53</b>	<b>478.26</b>	<b>578.79</b>	<b>526.26</b>	<b>613.44</b>	<b>610.95</b>	<b>704.86</b>	<b>673.27</b>
<b>Dairy Development</b>													
2404	001	Direction & administration	25.71	26.40	30.40	28.52	33.18	32.79	36.57	36.54	42.24	39.68	42.39
	102	Dairy Development	17.77	32.59	26.80	27.42	30.26	47.48	33.65	39.32	34.03	44.21	30.76
	109	Extension & training	2.46	1.80	1.63	3.57	1.80	1.92	2.99	1.87	2.02	1.69	1.81
	195	Asst to coops	1.00	1.72	3.10	2.49	3.10	0.90	4.80	1.66	1.90	-	1.90
		<b>Sub-total</b>		<b>46.95</b>	<b>62.51</b>	<b>61.92</b>	<b>62.00</b>	<b>68.34</b>	<b>83.08</b>	<b>78.00</b>	<b>79.39</b>	<b>80.19</b>	<b>85.59</b>
<b>Agri Research &amp; Education</b>													
2415	003	Animal Husbandry	4.39	4.39	5.41	5.55	5.89	7.23	6.56	6.83	7.07	7.29	7.30
	004	Dairy Development	1.39	1.01	1.41	0.94	1.40	1.16	1.72	1.19	1.74	1.10	1.40
		<b>Sub-total</b>		<b>5.77</b>	<b>5.39</b>	<b>6.81</b>	<b>6.49</b>	<b>7.29</b>	<b>8.38</b>	<b>8.27</b>	<b>8.02</b>	<b>8.81</b>	<b>8.39</b>

SOURCE: Budget Estimation, Allocation & Monitoring System, Finance Department, Govt. of Maharashtra.



## PART II : LIVESTOCK CENSUS

In Maharashtra, more than three-fourth of the agriculture is rain-fed. Moreover uneven distribution of rainfall across various regions of the state and also with erratic pattern, dairying is gaining importance as a source of livelihood for the small and marginal farmers of the state.

As per "19<sup>th</sup> Livestock Census-2012", bovine population in Maharashtra has declined by about 5 per cent to 2.1 crore as against 2.2 crore in 2007. While crossbreds cattle increased by 19 per cent, local cows and buffaloes have shown 8-9 per cent decline. However, the indigenous cattle and buffalo milch population declined by 5-7 per cent between 2007 and 2012, while there has been an impressive growth of 26 percent in crossbred milch animals.

Region-wise, the Marathwada and Vidarbha regions are characterised by frequent droughts, cracked soils, parched wells, dry hand pumps, low yielding livestock and accordingly, dairying is relegated to western parts of the state. The perpendicular strip of land in western part comprising of Ahmadnagar, Nasik, Pune, Satara, Sangli, Kolhapur and Solapur districts comprises more than one-third of bovine population of the state, mainly crossbred cows and buffaloes.







## II.1. Animal Population

**TABLE II.1.1: Summary of Livestock Census (1992-2012) - Maharashtra**

Population	Livestock Census				
	1992	1997	2003	2007	2012
<b>Total Bovine</b>	<b>22,888,246</b>	<b>24,144,225</b>	<b>22,447,724</b>	<b>22,256,144</b>	<b>21,078,599</b>
<b>Total Cattle</b>	<b>17,441,008</b>	<b>18,071,537</b>	<b>16,303,019</b>	<b>16,183,527</b>	<b>15,484,207</b>
<b>Total Exotic/ Crossbred cows</b>	<b>1,769,333</b>	<b>2,456,884</b>	<b>2,776,001</b>	<b>3,122,291</b>	<b>3,650,877</b>
Females	1,385,341	1,878,747	2,238,377	2,580,347	3,207,011
under 1 year	249,476	342,250	413,256	453,060	562,352
1 to 2.5 year	225,607	293,000	352,171	393,209	506,966
In-milk	548,027	732,957	933,877	1,138,932	1,444,659
Dry	277,770	399,125	455,549	483,670	593,064
Milch	825,797	1,132,082	1,389,426	1,622,602	2,037,723
Not even calved once	71,012	90,621	69,753	69,333	77,128
Others	13,449	20,794	13,771	42,143	22,842
Males	383,992	578,137	537,624	541,944	443,866
<b>Total Indigenous cows</b>	<b>15,671,675</b>	<b>15,614,653</b>	<b>13,527,018</b>	<b>13,061,236</b>	<b>11,833,330</b>
Females	6,935,409	6,831,738	5,917,121	5,430,316	5,053,490
under 1 year	953,530	1,063,591	981,359	933,617	964,142
1 to 3 years	1,044,958	1,125,970	1,133,696	847,295	786,906
In-milk	1,998,490	2,181,531	1,887,802	1,959,654	1,712,728
Dry	2,442,978	2,037,806	1,644,113	1,324,280	1,340,368
Milch	4,441,468	4,219,337	3,531,915	3,283,934	3,053,096
Not even calved once	437,583	377,999	217,029	211,675	186,972
Others	57,870	44,841	53,122	153,795	62,374
Males	8,736,266	8,782,915	7,609,897	7,630,920	6,779,840
<b>Total Buffaloes</b>	<b>5,447,238</b>	<b>6,072,688</b>	<b>6,144,705</b>	<b>6,072,617</b>	<b>5,594,392</b>
Females	4,445,418	5,007,678	5,274,414	5,201,654	4,997,703
under 1 year	642,399	749,074	860,382	879,353	875,381
1 to 3 years	579,169	649,780	718,643	737,809	763,208
In-milk	1,799,093	2,150,753	2,241,693	2,307,376	2,161,990
Dry	1,141,338	1,167,282	1,234,426	1,017,553	1,009,485
Milch	2,940,431	3,318,035	3,476,119	3,324,929	3,171,475
Not even calved once	260,941	265,511	176,019	160,928	148,734
Others	22,478	25,278	43,251	98,635	38,905
Males	1,001,820	1,065,010	870,291	870,963	596,689

SOURCE: 15<sup>th</sup>, 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.1.2: District-wise Total Bovine Population**

Districts	Indigenous Cattle ('000)				Crossbred Cattle ('000)				Buffalo ('000)			
	1997	2003	2007	2012	1997	2003	2007	2012	1997	2003	2007	2012
<b>MAHARASHTRA</b>	<b>15,615</b>	<b>13,527</b>	<b>13,061</b>	<b>11,833</b>	<b>2,457</b>	<b>2,776</b>	<b>3,122</b>	<b>3,651</b>	<b>6,073</b>	<b>6,145</b>	<b>6,072</b>	<b>5,594</b>
Ahmadnagar	762	582	565	545	516	675	818	882	173	192	241	221
Akola	642	284	271	254	26	19	15	15	149	66	63	49
Amravati	563	496	473	489	28	28	28	47	128	120	124	125
Aurangabad	503	410	415	416	110	113	115	167	102	83	99	94
Bhandara	704	228	210	157	47	43	52	82	191	90	96	90
Bid	528	471	494	451	96	124	174	131	188	209	258	240
Buldana	507	470	495	427	44	49	61	53	122	130	153	120
Chandrapur	650	584	559	492	12	20	19	24	114	108	87	73
Dhule	766	311	314	316	75	41	47	41	207	96	104	100
Gadchiroli	600	536	645	501	3	4	6	7	95	86	119	76
Gondiya		376	372	315		13	14	22		102	99	88
Hingoli		278	268	260		19	13	16		80	82	66
Jalgaon	639	517	487	466	84	86	68	86	363	331	301	257
Jalna	440	594	369	371	32	35	35	43	86	226	86	79
Kolhapur	176	150	124	102	85	112	129	173	655	662	642	613
Latur	360	354	343	337	35	33	26	24	229	246	257	233
Mumbai	4	5	1	2	2	3	1	3	78	76	23	30
Nagpur	576	470	448	369	64	79	88	100	98	88	100	84
Nanded	699	642	641	635	33	25	17	15	260	258	249	212
Nandurbar		420	405	322		16	14	15		102	95	72
Nashik	1,011	832	799	752	164	167	177	264	262	232	242	238
Osmanabad	303	277	256	215	77	96	119	140	148	166	170	173
Parbhani	739	322	382	350	26	14	8	7	203	102	139	97
Pune	508	341	367	307	388	377	417	456	287	245	300	294
Raigarh	443	380	289	214	9	10	8	10	147	128	75	69
Ratnagiri	552	456	386	300	29	26	15	19	95	62	50	44
Sangli	225	207	182	170	52	64	98	171	468	527	519	493
Satara	312	217	200	182	153	157	158	195	361	358	347	353
Sindhudurg	220	189	167	134	9	11	10	13	105	90	80	67
Solapur	465	441	408	390	182	230	277	340	325	389	408	450
Thane	552	478	444	398	9	12	10	12	223	214	193	187
Wardha	374	304	294	258	50	45	56	46	68	65	63	49
Washim		170	291	234		9	7	9		74	77	63
Yavatmal	792	738	697	698	21	22	21	22	143	144	131	96

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>6,832</b>	<b>5,917</b>	<b>5,430</b>	<b>5,053</b>	<b>1,879</b>	<b>2,238</b>	<b>2,580</b>	<b>3,207</b>	<b>5,008</b>	<b>5,274</b>	<b>5,201</b>	<b>4,998</b>
Ahmadnagar	356	268	266	250	417	590	729	839	149	170	214	205
Akola	293	126	118	119	17	12	11	11	131	60	58	46
Amravati	268	233	219	238	20	20	22	36	113	107	108	112
Aurangabad	190	152	142	150	75	82	82	127	85	71	87	84
Bhandara	288	88	80	55	32	32	40	66	136	74	80	77
Bid	209	183	177	158	74	99	135	106	160	180	220	217
Buldana	204	186	190	178	28	29	37	35	108	117	135	110
Chandrapur	280	233	215	182	8	13	13	18	91	88	70	62
Dhule	303	109	112	121	53	31	34	31	171	83	91	90
Gadchiroli	260	226	278	211	2	3	3	5	34	40	48	35
Gondiya		161	145	132		9	10	17		65	68	63
Hingoli		118	108	108		11	7	11		68	69	60
Jalgaon	272	201	199	164	56	61	46	69	315	295	240	238
Jalna	171	357	128	132	20	21	21	28	71	213	75	71
Kolhapur	51	44	32	24	72	100	119	165	577	609	603	586
Latur	149	156	144	154	27	24	19	20	192	208	221	206
Mumbai	3	3	1	2	2	2	1	3	74	71	22	29
Nagpur	273	214	202	168	47	56	65	79	81	75	84	72
Nanded	349	318	312	317	24	18	13	12	219	219	216	188
Nandurbar		166	152	121		11	9	11		87	80	64
Nashik	453	355	326	327	111	118	125	217	197	174	185	186
Osmanabad	118	112	105	79	57	75	89	111	121	142	148	153
Parbhani	329	131	156	147	17	9	5	5	172	89	118	87
Pune	218	135	141	127	320	332	378	431	252	223	275	274
Raigarh	203	172	123	94	6	6	6	7	95	88	57	54
Ratnagiri	228	179	147	111	20	16	11	14	61	42	36	32
Sangli	102	100	88	93	41	53	88	162	404	472	470	462
Satara	141	87	86	85	128	145	149	186	322	329	320	331
Sindhudurg	79	69	58	49	6	7	7	10	61	57	53	47
Solapur	235	235	216	233	144	192	240	307	269	336	357	409
Thane	226	190	175	161	6	8	8	10	168	170	158	159
Wardha	190	144	139	120	36	32	38	38	58	56	54	43
Washim		129	122	110		5	5	6		66	68	58
Yavatmal	388	338	328	333	15	15	15	17	122	127	112	86

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>5,205</b>	<b>4,369</b>	<b>4,073</b>	<b>3,696</b>	<b>1,390</b>	<b>1,649</b>	<b>1,931</b>	<b>2,393</b>	<b>3,934</b>	<b>4,055</b>	<b>3,953</b>	<b>3,741</b>
Ahmadnagar	264	201	211	191	310	433	560	630	117	130	172	157
Akola	229	97	89	88	12	8	8	8	106	49	47	36
Amravati	205	173	164	173	15	14	16	25	90	82	84	84
Aurangabad	144	115	107	111	54	60	60	92	67	55	69	65
Bhandara	208	63	58	39	23	22	28	46	103	54	59	54
Bid	156	134	131	113	53	72	97	78	118	133	161	156
Buldana	160	142	143	130	21	22	27	26	87	91	104	84
Chandrapur	210	171	155	129	6	9	9	13	69	65	50	43
Dhule	231	83	84	90	39	22	25	22	133	63	68	68
Gadchiroli	190	163	204	149	1	2	2	3	25	29	34	24
Gondiya		116	103	91		6	7	12		47	49	43
Hingoli		88	81	80		8	5	8		51	52	45
Jalgaon	209	151	152	122	42	45	34	51	248	225	182	176
Jalna	132	214	95	94	15	16	15	20	55	197	57	52
Kolhapur	40	34	25	19	58	77	92	129	465	479	480	459
Latur	115	114	106	110	20	16	14	15	144	150	159	146
Mumbai	3	2	0	1	2	2	1	2	72	62	20	28
Nagpur	207	158	150	119	34	39	46	55	64	57	62	53
Nanded	268	234	229	226	18	13	9	8	169	159	154	132
Nandurbar		128	117	90		8	7	8		67	61	47
Nashik	349	274	250	246	82	85	93	160	156	135	143	144
Osmanabad	89	81	77	57	41	54	65	82	93	103	108	113
Parbhani	250	96	116	104	12	6	4	4	132	65	88	62
Pune	166	105	109	95	240	256	286	325	203	179	219	211
Raigarh	157	128	90	66	4	4	4	5	75	68	44	41
Ratnagiri	178	132	108	81	15	12	8	9	49	32	27	24
Sangli	79	76	69	73	31	39	66	126	309	350	349	342
Satara	109	67	68	66	94	110	114	142	248	252	244	248
Sindhudurg	59	49	42	35	4	5	5	7	47	42	39	34
Solapur	174	172	161	176	103	139	176	231	199	243	263	297
Thane	176	144	134	119	5	6	6	8	147	145	133	135
Wardha	143	107	104	87	26	22	28	26	45	42	40	31
Washim		98	94	82		4	4	5		51	51	44
Yavatmal	307	261	247	244	11	11	11	12	97	101	83	63

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.

Zero denotes either nil or negligible

NOTE: Mumbai and Mumbai Suburban districts data are merged.





## 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>MAHARASHTRA</b>	<b>2,182</b>	<b>1,888</b>	<b>1,960</b>	<b>1,713</b>	<b>733</b>	<b>934</b>	<b>1,139</b>	<b>1,445</b>	<b>2,151</b>	<b>2,242</b>	<b>2,307</b>	<b>2,162</b>
Ahmadnagar	122	96	105	95	163	242	314	378	56	67	88	83
Akola	95	45	42	39	6	4	4	4	53	27	27	21
Amravati	84	74	76	77	7	7	9	14	43	40	45	45
Aurangabad	66	55	58	52	27	32	35	52	32	30	40	36
Bhandara	80	25	25	14	12	10	14	21	52	26	28	23
Bid	75	64	67	54	30	39	58	46	60	72	89	80
Buldana	67	63	70	58	10	10	16	15	42	47	60	45
Chandrapur	73	59	63	55	3	4	5	7	29	28	24	21
Dhule	94	40	39	42	19	12	16	13	62	34	39	34
Gadchiroli	63	61	82	57	1	1	1	1	11	13	16	10
Gondiya		44	45	36		3	4	6		23	25	20
Hingoli		40	43	39		4	3	4		27	30	24
Jalgaon	94	77	81	62	21	24	20	31	122	123	103	99
Jalna	56	49	51	46	7	7	9	11	26	26	32	26
Kolhapur	23	21	16	12	36	55	64	93	321	329	334	310
Latur	57	58	53	56	10	10	8	9	81	86	90	80
Mumbai	2	2	0	1	1	1	0	2	68	56	10	26
Nagpur	71	59	65	52	15	19	24	29	29	29	34	29
Nanded	119	111	116	113	9	7	6	5	87	89	90	76
Nandurbar		51	48	39		4	4	5		29	29	23
Nashik	144	110	117	107	39	42	52	92	76	69	81	83
Osmanabad	49	47	44	31	24	35	39	50	53	63	64	65
Parbhani	113	48	61	53	6	3	2	2	66	35	50	34
Pune	78	55	62	53	130	156	178	203	111	108	139	132
Raigarh	67	61	46	35	2	2	2	3	36	37	26	26
Ratnagiri	59	53	53	38	7	6	5	6	21	17	17	14
Sangli	38	36	36	35	18	24	42	82	182	206	202	197
Satara	54	33	35	33	52	66	70	89	138	145	139	142
Sindhudurg	24	23	21	16	2	2	3	4	21	21	21	16
Solapur	96	92	88	90	58	82	108	141	113	143	150	169
Thane	67	59	57	54	2	3	4	5	99	96	93	101
Wardha	51	38	43	35	11	11	14	14	19	18	18	15
Washim		49	46	37		2	2	2		30	30	25
Yavatmal	101	90	106	97	5	5	6	6	41	50	42	31

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>4,219</b>	<b>3,532</b>	<b>3,284</b>	<b>3,053</b>	<b>1,132</b>	<b>1,389</b>	<b>1,623</b>	<b>2,038</b>	<b>3,318</b>	<b>3,476</b>	<b>3,324</b>	<b>3,171</b>
Ahmadnagar	216	169	178	161	260	369	473	537	99	111	148	131
Akola	193	83	72	74	10	7	6	7	91	42	39	31
Amravati	168	146	136	145	12	12	14	21	75	71	70	71
Aurangabad	119	97	88	94	44	51	50	78	56	47	57	56
Bhandara	162	50	45	32	18	18	22	37	83	44	48	43
Bid	128	113	105	93	44	61	81	66	97	114	132	129
Buldana	134	120	119	111	16	18	23	23	74	78	89	73
Chandrapur	169	137	124	107	4	7	7	11	57	54	41	36
Dhule	186	72	67	74	30	19	22	19	107	54	57	53
Gadchiroli	149	128	150	119	1	1	2	2	20	23	26	19
Gondiya		90	79	71		5	6	9		37	39	33
Hingoli		72	66	68		6	5	6		43	43	38
Jalgaon	171	125	123	102	33	36	29	43	208	189	151	147
Jalna	109	91	78	78	13	14	13	17	46	189	48	44
Kolhapur	32	29	21	16	42	67	77	111	409	420	416	394
Latur	93	95	84	93	16	14	11	13	119	127	132	125
Mumbai	3	2	0	1	1	2	0	2	71	56	13	28
Nagpur	167	132	123	98	27	32	39	45	54	48	53	44
Nanded	215	191	186	186	14	10	7	7	140	132	127	111
Nandurbar		103	85	71		6	6	7		52	47	38
Nashik	287	232	209	201	66	70	78	136	130	114	123	123
Osmanabad	75	69	63	48	35	48	54	71	79	88	90	96
Parbhani	198	82	93	85	9	5	3	3	108	56	73	52
Pune	131	89	92	81	199	219	243	278	172	155	192	184
Raigarh	122	104	69	53	3	3	3	4	61	56	36	35
Ratnagiri	142	102	84	65	12	9	6	8	40	26	23	20
Sangli	62	64	57	62	25	33	56	110	260	299	292	292
Satara	88	57	56	54	76	92	96	120	207	216	208	209
Sindhudurg	43	37	32	27	3	3	4	5	35	33	31	27
Solapur	144	142	133	147	85	118	148	198	167	205	220	250
Thane	144	118	104	92	4	5	5	6	133	129	118	123
Wardha	115	88	83	70	20	18	21	22	37	34	31	26
Washim		85	79	70		3	3	4		45	44	39
Yavatmal	255	220	201	205	9	9	9	10	82	87	69	54

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>8,783</b>	<b>7,610</b>	<b>7,631</b>	<b>6,780</b>	<b>578</b>	<b>538</b>	<b>542</b>	<b>444</b>	<b>1,065</b>	<b>870</b>	<b>871</b>	<b>597</b>
Ahmadnagar	406	314	299	295	99	85	89	43	25	22	27	16
Akola	349	158	153	135	9	7	5	5	19	6	5	4
Amravati	295	263	254	251	8	8	6	11	15	13	16	13
Aurangabad	313	259	273	266	35	31	33	40	18	12	11	9
Bhandara	416	140	130	102	15	12	12	16	55	16	16	13
Bid	319	289	317	293	22	25	39	25	29	28	38	23
Buldana	303	284	305	249	16	20	24	18	14	13	18	9
Chandrapur	370	351	344	310	4	7	6	6	22	20	17	11
Dhule	463	202	202	194	22	10	13	9	36	13	13	10
Gadchiroli	341	310	367	290	1	2	2	3	61	46	71	42
Gondiya		215	227	184		4	4	5		36	32	25
Hingoli		160	160	152		7	5	6		11	13	6
Jalgaon	366	316	288	302	28	24	22	17	48	36	61	20
Jalna	269	237	241	239	12	14	14	15	15	12	10	8
Kolhapur	125	106	92	77	13	11	10	9	79	52	40	27
Latur	210	198	199	184	8	9	7	4	36	38	36	27
Mumbai	1	1	0	0	0	1	0	1	4	5	1	1
Nagpur	302	256	246	201	17	22	23	21	18	13	16	12
Nanded	349	323	329	318	9	7	4	4	41	39	33	24
Nandurbar		254	253	201		6	5	3		16	15	8
Nashik	558	477	473	426	53	49	52	47	65	58	57	52
Osmanabad	185	165	151	136	20	21	31	28	26	24	22	20
Parbhani	410	191	226	203	9	5	3	2	31	13	21	10
Pune	290	206	226	180	68	45	39	26	35	22	24	20
Raigarh	239	207	166	120	3	4	2	3	52	39	18	14
Ratnagiri	324	277	239	189	9	9	4	6	33	19	14	12
Sangli	123	107	94	77	11	11	10	9	63	55	49	30
Satara	171	129	114	97	25	12	10	9	39	29	27	22
Sindhudurg	141	120	109	85	3	4	3	3	44	33	27	20
Solapur	230	206	192	157	38	37	38	33	56	53	51	40
Thane	325	288	269	237	3	4	2	3	55	44	35	29
Wardha	184	159	155	137	14	13	17	9	10	9	10	6
Washim		41	169	125		3	2	2		7	10	5
Yavatmal	404	400	369	365	6	7	5	5	20	17	19	10

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.

Zero denotes either nil or negligible.

NOTE: Mumbai and Mumbai Suburban districts data are merged.





## 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>MAHARASHTRA</b>	<b>56</b>	<b>56</b>	<b>58</b>	<b>57</b>	<b>24</b>	<b>19</b>	<b>17</b>	<b>12</b>	<b>18</b>	<b>14</b>	<b>14</b>	<b>11</b>
Ahmadnagar	53	54	53	54	19	13	11	5	14	12	11	7
Akola	54	56	56	53	35	39	30	30	12	9	8	8
Amravati	52	53	54	51	29	29	22	23	12	11	13	10
Aurangabad	62	63	66	64	32	27	29	24	17	15	11	10
Bhandara	59	61	62	65	31	27	24	19	29	18	16	14
Bid	60	61	64	65	23	20	22	19	15	14	15	10
Buldana	60	60	62	58	37	40	40	34	11	10	12	8
Chandrapur	57	60	62	63	30	34	31	25	20	18	20	15
Dhule	60	65	64	62	29	24	27	23	17	14	12	10
Gadchiroli	57	58	57	58	36	39	39	35	64	53	60	54
Gondiya		57	61	58		32	28	24		36	32	29
Hingoli		58	60	59		39	42	35		14	16	9
Jalgaon	57	61	59	65	33	29	32	20	13	11	20	8
Jalna	61	40	65	64	37	41	39	35	18	6	12	10
Kolhapur	71	71	75	76	15	10	7	5	12	8	6	4
Latur	58	56	58	54	23	27	29	17	16	15	14	11
Mumbai	25	30	12	15	10	19	14	18	5	7	6	3
Nagpur	53	55	55	54	26	28	26	21	18	14	16	14
Nanded	50	50	51	50	27	26	25	24	16	15	13	11
Nandurbar		61	62	62		35	34	23		15	15	12
Nashik	55	57	59	57	32	29	29	18	25	25	24	22
Osmanabad	61	60	59	63	26	22	26	20	18	14	13	11
Parbhani	55	59	59	58	35	38	35	32	15	13	15	10
Pune	57	61	62	59	17	12	9	6	12	9	8	7
Raigarh	54	55	57	56	37	42	28	28	35	31	24	21
Ratnagiri	59	61	62	63	30	36	29	29	35	31	27	26
Sangli	55	52	51	45	21	18	10	5	14	10	9	6
Satara	55	60	57	53	16	8	6	4	11	8	8	6
Sindhudurg	64	64	65	64	33	36	31	26	42	37	33	29
Solapur	50	47	47	40	21	16	14	10	17	14	12	9
Thane	59	60	61	60	35	31	23	22	25	21	18	15
Wardha	49	52	53	53	28	29	31	19	15	13	16	12
Washim		24	58	53		39	32	28		10	13	8
Yavatmal	51	54	53	52	30	31	26	23	14	12	14	11

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



### 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>MAHARASHTRA</b>	<b>52</b>	<b>53</b>	<b>60</b>	<b>56</b>	<b>65</b>	<b>67</b>	<b>70</b>	<b>71</b>	<b>65</b>	<b>64</b>	<b>69</b>	<b>68</b>
Ahmadnagar	56	57	59	59	63	65	66	70	57	60	59	63
Akola	49	54	59	52	60	64	64	60	58	63	68	67
Amravati	50	51	56	53	59	58	68	65	58	57	64	63
Aurangabad	55	57	66	56	61	62	69	67	57	64	71	64
Bhandara	50	49	54	44	63	59	60	55	62	59	59	53
Bid	59	57	64	58	68	63	71	69	61	64	67	62
Buldana	50	52	59	52	59	59	68	66	57	60	67	62
Chandrapur	43	43	51	51	64	55	63	63	51	52	59	57
Dhule	51	56	58	57	64	64	73	66	58	63	68	64
Gadchiroli	42	47	55	48	67	53	59	53	55	58	60	54
Gondiya		48	57	51		61	67	63		62	65	59
Hingoli		56	65	57		67	71	70		64	70	62
Jalgaon	55	62	66	61	63	65	70	70	59	65	68	67
Jalna	51	53	64	58	59	55	70	65	56	14	68	61
Kolhapur	71	75	77	73	84	83	83	84	79	78	80	79
Latur	61	61	63	61	66	72	73	69	68	68	69	64
Mumbai	84	82	83	78	80	83	81	84	97	99	80	95
Nagpur	42	45	53	54	57	58	63	65	53	60	64	66
Nanded	56	58	63	61	63	68	75	70	62	68	71	68
Nandurbar		49	57	55		62	65	70		55	62	62
Nashik	50	47	56	53	59	60	66	67	58	60	66	68
Osmanabad	66	68	70	65	69	74	73	72	67	71	71	68
Parbhani	57	59	65	63	63	64	76	74	61	62	68	65
Pune	59	62	67	65	65	71	73	73	64	69	73	72
Raigarh	55	59	66	66	61	67	73	77	59	66	73	74
Ratnagiri	42	52	63	58	61	64	75	74	53	65	74	70
Sangli	61	57	63	56	73	72	74	75	70	69	69	68
Satara	61	59	63	61	68	72	72	74	67	67	67	68
Sindhudurg	55	61	67	59	70	70	74	73	60	66	70	60
Solapur	66	65	67	61	69	69	73	71	68	70	68	68
Thane	47	50	55	58	61	68	74	82	74	75	79	83
Wardha	44	43	51	49	57	59	65	64	52	54	58	57
Washim		57	58	53		58	72	61		67	68	66
Yavatmal	40	41	53	48	59	54	66	61	51	57	62	58

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>129</b>	<b>119</b>	<b>117</b>	<b>106</b>	<b>78</b>	<b>73</b>	<b>72</b>	<b>68</b>
Ahmadnagar	187	165	170	166	85	85	95	97
Akola	116	101	94	82	77	65	61	56
Amravati	89	79	82	84	59	53	51	54
Aurangabad	124	109	108	107	71	60	62	67
Bhandara	149	128	137	121	101	88	87	80
Bid	143	130	139	116	76	75	87	77
Buldana	117	114	118	102	70	67	73	62
Chandrapur	95	89	86	74	68	62	58	51
Dhule	146	149	151	135	80	62	65	64
Gadchiroli	67	59	80	58	48	43	53	41
Gondiya		125	130	112		94	92	81
Hingoli		114	110	96		78	75	71
Jalgaon	147	131	113	104	92	79	73	69
Jalna	121	147	97	94	72	111	64	64
Kolhapur	167	165	163	151	119	120	116	116
Latur	124	121	116	107	87	88	87	83
Mumbai	173	245	54	81	140	139	41	58
Nagpur	110	95	100	84	75	64	64	56
Nanded	136	130	129	112	94	88	86	82
Nandurbar		159	145	119		90	86	69
Nashik	167	148	145	145	93	79	78	81
Osmanabad	117	109	104	98	70	71	72	70
Parbhani	130	105	124	100	88	70	85	73
Pune	146	122	129	113	76	62	69	68
Raigarh	107	90	66	54	84	72	52	41
Ratnagiri	90	71	59	48	82	66	55	44
Sangli	156	165	162	154	87	93	93	97
Satara	157	140	135	125	79	70	67	70
Sindhudurg	72	63	55	47	64	56	49	41
Solapur	149	146	146	140	65	71	73	79
Thane	111	99	90	85	82	74	68	62
Wardha	109	93	97	77	78	66	65	56
Washim		86	116	94		52	77	62
Yavatmal	102	125	98	84	70	67	63	60

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## 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>MAHARASHTRA</b>	<b>48</b>	<b>45</b>	<b>43</b>	<b>36</b>
Ahmadnagar	99	78	73	68
Akola	36	34	31	25
Amravati	28	25	30	30
Aurangabad	50	46	45	39
Bhandara	47	39	50	40
Bid	65	53	51	38
Buldana	43	45	43	38
Chandrapur	25	26	27	22
Dhule	63	82	82	67
Gadchiroli	15	13	22	14
Gondiya		30	38	30
Hingoli		34	34	24
Jalgaon	51	49	38	33
Jalna	44	33	33	27
Kolhapur	47	44	46	35
Latur	35	31	27	22
Mumbai	22	96	11	18
Nagpur	34	30	35	28
Nanded	39	39	41	28
Nandurbar		65	56	48
Nashik	72	66	64	62
Osmanabad	45	37	30	28
Parbhani	40	33	38	26
Pune	68	59	59	45
Raigarh	22	17	13	12
Ratnagiri	7	5	4	4
Sangli	68	71	68	56
Satara	76	70	67	55
Sindhudurg	7	7	6	5
Solapur	82	73	71	60
Thane	27	24	21	21
Wardha	30	27	30	21
Washim		32	37	29
Yavatmal	30	57	35	24

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.

NOTE: Mumbai and Mumbai Suburban districts data are merged.





## II.5. Breed-wise Population

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

Districts	Breed-wise Population of Indigenous Cattle ('000)							
	Dangi	Deoni	Gaolao	Gir	Khillar	Red Kandhari	Non-Descript	Total Indigenous Cattle
<b>MAHARASHTRA</b>	<b>90.2</b>	<b>73.1</b>	<b>36.3</b>	<b>101.8</b>	<b>967.2</b>	<b>176.6</b>	<b>11,599.2</b>	<b>13,061.2</b>
Ahmadnagar	29.5	0.3	3.9	11.0	98.8	0.1	421.1	565.1
Akola	0.2	0.1	0.6	1.1	0.0	0.1	268.9	271.0
Amaravati	0.3	0.2	0.9	2.8	0.0	0.3	468.9	473.3
Aurangabad	0.0	3.4	0.0	2.7	11.5	1.5	396.0	415.2
Bhandara	0.0	0.0	0.3	0.0	0.0	0.0	208.9	209.4
Bid	1.8	6.8	2.1	1.1	87.3	15.2	379.4	493.7
Buldana	0.2	0.6	0.4	1.3	0.4	0.5	491.4	495.0
Chandrapur	0.1	0.2	0.1	0.8	0.0	0.0	557.5	558.8
Dhule	0.7	0.2	2.5	13.6	6.8	0.9	289.3	313.9
Gadchiroli	0.0	0.0	0.0	0.1	0.0	0.4	639.0	644.9
Gondiya	0.0	0.0	0.1	0.2	0.1	0.0	371.0	371.3
Hingoli	0.0	0.2	0.0	0.1	0.1	3.9	263.3	267.6
Jalgaon	0.3	0.3	0.8	10.1	9.4	0.5	465.4	486.8
Jalna	0.0	0.1	0.0	0.4	4.2	0.2	364.1	369.6
Kolhapur	0.0	0.0	0.1	0.6	39.1	0.0	83.6	123.8
Latur	1.3	52.6	1.3	0.1	14.8	54.8	217.6	342.5
Mumbai	0.0	0.0	0.1	0.0	0.0	0.1	0.7	1.1
Nagpur	0.1	0.0	0.6	7.6	0.0	0.0	439.4	447.8
Nanded	0.0	0.3	0.3	0.1	0.1	58.4	582.0	641.7
Nandurbar	0.0	0.0	0.0	13.7	2.9	0.0	383.8	405.7
Nashik	26.0	0.5	2.3	13.1	56.1	1.6	700.0	799.6
Osmanabad	0.7	3.7	1.6	0.8	50.6	1.6	197.0	255.9
Parbhani	0.9	1.5	0.5	0.6	3.3	34.6	339.8	381.1
Pune	0.2	0.1	0.5	9.7	128.4	0.3	225.9	366.3
Raigad	0.2	0.0	0.2	0.2	10.8	0.0	278.2	289.9
Ratnagiri	0.0	0.0	0.0	0.2	5.3	0.0	380.8	386.3
Sangli	0.0	0.0	0.2	0.1	97.1	0.0	84.2	182.5
Satara	0.4	0.0	0.0	0.6	106.4	0.0	91.9	200.6
Sindhudurg	0.0	0.0	0.0	0.0	1.7	0.0	164.2	166.5
Solapur	0.2	0.3	1.3	2.4	228.7	0.5	174.4	407.8
Thane	26.5	0.2	0.4	5.4	2.8	0.1	408.7	444.0
Wardha	0.4	0.2	13.6	1.0	0.1	0.7	278.0	294.0
Washim	0.2	0.9	1.0	0.3	0.3	0.1	288.3	291.2
Yavatmal	0.1	0.0	0.4	0.2	0.1	0.2	696.1	697.1

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

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## II.5. Breed-wise Population

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

Districts	Exotic and Crossbred Cattle Population ('000)					
	Exotic cattle	Jersey crossbred	Holstein Friesian Crossbred	Other Crossbred	Total Crossbred	Total Exotic & Crossbred
<b>MAHARASHTRA</b>	<b>19.3</b>	<b>1,546.0</b>	<b>1,521.1</b>	<b>35.9</b>	<b>3,103.0</b>	<b>3,122.3</b>
Ahmadnagar	5.2	273.5	536.3	3.1	812.9	818.2
Akola	0.2	14.1	0.4	0.6	15.1	15.3
Amaravati	0.0	27.0	1.3	0.0	28.3	28.3
Aurangabad	0.0	69.1	44.4	1.4	114.9	115.0
Bhandara	0.5	50.4	0.6	0.7	51.6	52.1
Bid	0.0	92.9	78.8	2.0	173.7	173.7
Buldana	0.3	56.1	1.7	3.0	60.7	61.0
Chandrapur	0.4	16.3	0.2	1.9	18.3	18.8
Dhule	0.0	36.6	10.2	0.2	46.9	46.9
Gadchiroli	0.0	5.4	0.1	0.1	5.5	5.5
Gondiya	0.4	13.0	0.1	0.4	13.5	13.8
Hingoli	0.0	9.1	3.6	0.0	12.7	12.7
Jalgaon	1.0	57.4	9.2	0.2	66.8	67.8
Jalna	0.0	24.6	10.1	0.5	35.2	35.2
Kolhapur	1.2	71.2	55.7	0.6	127.5	128.8
Latur	0.0	19.2	5.7	1.3	26.2	26.2
Mumbai	0.9	0.2	0.0	0.1	0.3	1.2
Nagpur	0.2	85.9	0.9	1.2	88.0	88.1
Nanded	0.0	10.7	5.8	0.3	16.9	16.9
Nandurbar	0.0	11.9	1.7	0.7	14.3	14.3
Nashik	1.7	120.7	53.8	0.9	175.4	177.1
Osmanabad	0.0	70.4	44.5	4.6	119.5	119.5
Parbhani	0.0	5.0	3.2	0.0	8.2	8.2
Pune	1.4	129.1	284.1	2.0	415.2	416.6
Raigad	0.1	6.7	0.3	0.7	7.6	7.7
Ratnagiri	0.4	14.3	0.1	0.3	14.7	15.1
Sangli	0.1	35.0	63.2	0.1	98.3	98.5
Satara	0.5	53.2	104.7	0.1	158.0	158.5
Sindhudurg	0.0	9.7	0.1	0.1	9.9	9.9
Solapur	0.0	81.5	195.1	0.7	277.3	277.3
Thane	1.3	4.4	0.4	4.3	9.1	10.4
Wardha	3.1	45.0	4.1	3.4	52.4	55.6
Washim	0.2	6.9	0.3	0.1	7.2	7.5
Yavatmal	0.0	19.8	0.6	0.4	20.8	20.9

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

NOTE: Mumbai and Mumbai Suburban districts data are merged.



## II.5. Breed-wise Population

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

Districts	Buffalo Breed Population ('000)							
	Jaffarabadi	Marathwadi	Murrah	Nagpuri	Pandharpuri	Surti	Non-descript	Total Buffalo
<b>MAHARASHTRA</b>	<b>246.0</b>	<b>181.7</b>	<b>606.5</b>	<b>127.1</b>	<b>260.6</b>	<b>109.7</b>	<b>4,530.9</b>	<b>6,072.6</b>
Ahmadnagar	15.7	1.9	67.9	3.2	7.7	7.8	137.1	241.2
Akola	0.4	0.2	17.2	4.5	0.1	0.7	40.0	63.1
Amaravati	0.1	0.1	12.0	7.0	0.1	0.3	104.4	124.1
Aurangabad	15.0	3.6	14.2	1.3	0.7	1.1	62.8	98.5
Bhandara	0.0	0.0	15.4	4.7	0.0	0.7	74.9	95.8
Bid	4.0	24.6	24.7	8.3	8.9	4.7	182.9	258.1
Buldana	2.4	0.3	14.3	8.8	0.4	2.4	124.7	153.4
Chandrapur	0.0	0.4	3.9	3.0	0.0	0.5	79.3	87.1
Dhule	26.6	0.1	7.3	0.3	0.1	4.2	65.0	103.6
Gadchiroli	0.0	0.0	0.3	1.1	0.0	0.6	115.0	118.9
Gondiya	0.0	0.0	1.7	1.5	0.0	0.1	95.6	99.4
Hingoli	1.5	3.0	3.5	0.3	0.0	1.2	72.6	82.2
Jalgaon	45.2	0.1	20.2	0.6	0.1	5.2	229.7	301.1
Jalna	3.6	2.1	3.3	0.3	0.2	0.7	75.7	85.9
Kolhapur	1.4	0.2	44.6	0.3	18.6	10.8	564.9	642.4
Latur	0.6	83.6	8.9	7.1	5.1	2.2	149.5	257.1
Mumbai	5.9	1.6	8.4	0.0	0.0	4.6	2.4	23.0
Nagpur	0.0	0.0	25.3	23.1	0.1	0.8	50.7	100.0
Nanded	1.3	13.9	2.9	0.7	0.3	0.2	229.2	249.0
Nandurbar	9.5	0.1	8.3	0.1	0.2	3.2	73.7	95.0
Nashik	45.6	0.6	31.1	0.5	0.3	6.4	157.4	242.0
Osmanabad	0.8	31.8	8.6	2.4	9.6	0.5	116.0	169.7
Parbhani	5.4	10.5	5.4	2.4	2.0	0.8	112.6	139.3
Pune	15.0	1.9	112.2	4.0	14.3	8.2	143.2	299.7
Raigad	1.3	0.1	14.2	0.3	1.3	2.8	55.1	75.4
Ratnagiri	1.1	0.1	2.3	0.2	0.2	0.7	45.2	49.7
Sangli	1.6	0.0	42.9	7.5	26.1	13.5	423.4	518.8
Satara	1.9	0.0	26.5	1.6	10.3	5.4	301.1	347.2
Sindhudurg	0.1	0.0	0.5	0.0	0.4	2.3	76.7	80.0
Solapur	2.5	0.5	15.5	3.6	152.8	0.7	232.1	407.8
Thane	36.9	0.2	27.3	0.3	0.4	15.8	111.8	192.7
Wardha	0.0	0.1	3.4	18.4	0.0	0.2	41.2	63.4
Washim	0.4	0.1	5.5	3.4	0.4	0.0	67.3	77.2
Yavatmal	0.0	0.1	6.8	6.3	0.0	0.2	117.6	131.1

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

NOTE: Mumbai and Mumbai Suburban districts data are merged.





## PART III : CATTLE AND BUFFALO BREEDS

The Government of Maharashtra has identified Deoni, Dangi, Khillar, Gaolao and Red Kandhari as indigenous breeds of cattle. Deoni name has been derived from Deoni taluka of Latur district in Maharashtra. Likewise, Red Kandhari originates from Kandhar taluka in Nanded district.

In order to protect and propagate these breeds, the state has introduced three pronged strategy : i) introduce selected bulls in villages for natural service; ii) supply of frozen semen of proven/true-to-type indigenous breed for carrying out Artificial Insemination; and iii) involve Breeder's Association in conservation of indigenous breeds. It has also introduced system of herd registration, milk competition etc to identify high-milk yielders of indigenous breed to facilitate buy-back of pedigreed male-calves for getting quality breeding bulls.

In case of buffalo, it has developed agro-climatic specific breeding strategy and germplasm for genetic improvement. Buffaloes of descript breeds like Pandharpuri, Marathwadi, Nagpuri etc are bred only with semen of bulls of respective breed, whereas non-descript buffaloes are bred with germplasm of identified breeds.





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

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

Breeds	Breeding Tract	Utility	Distribution
Deoni	Bidar district of Karnataka and Latur, Nanded, Osmanabad and Parbhani districts of Maharashtra	Draught and Milk	Mainly in the Latur districts. Also found in Bid, Osmanabad, Aurangabad and Parbhani districts. This breed is named after Deoni taluka of Latur district.
Khillar	Bagalkot, Belgaum, Bijapur, Dharwad and Gulbarga districts of Karnataka and Kolhapur, Osmanabad, Pune, Sangli, Satara and Solapur districts of Maharashtra	Draught	Mainly distributed in Solapur, Pune, Satara, Ahmadnagar, Sangli, Bid, Nashik, Osmanabad, Kolhapur districts. Four types of Khillari are prevalent in different parts. Atpadi Mahal in Southern Maharashtra, Mhaswad in Solapur and Satara area, Thillari in Satpura range of hills and Nakali in adjoining area of this region
Red Kandhari	Ahmadnagar, Bid, Latur, Nanded and Parbhani districts of Maharashtra	Draught	Mainly distributed across Nanded, Latur, Parbhani and Bid districts of Maharashtra.
Dangi	Ahmadnagar, Nasik and Thane districts of Maharashtra and The Dangs district of Gujarat	Draught and Milk	Mainly found in Ahmadnagar, Thane, Nasik districts.
Gaolao	Balaghat, Chindwara, Seoni districts of Madhya Pradesh, Durg and Rajnandgaon districts of Chattisgarh and Nagpur and Wardha districts of Maharashtra	Draught and Milk	Mainly distributed in Wardha district. Also found in Ahmadnagar, Dhule, Nasik, Bid, Osmanabad and Latur districts

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR and AE Nivsarkar et al., (2000), Animal Genetic Resources of India, Cattle and Buffalo, ICAR publication and Livestock census, 2007, Department of Animal Husbandry, Dairying and Fisheries.

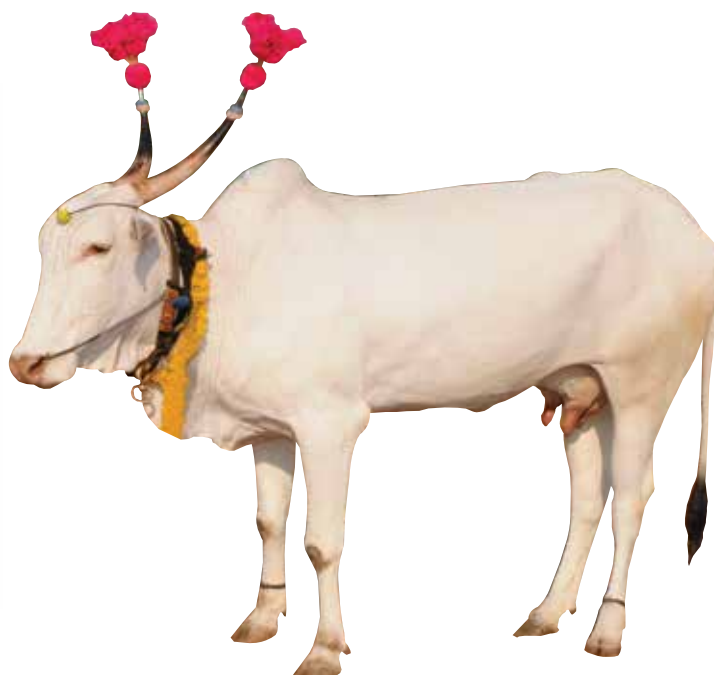




### Distribution of Indigenous Cattle Breeds



**Deoni**  
Major Distribution  
Minor Distribution



**Khillar**  
Major Distribution  
Minor Distribution



### Distribution of Indigenous Cattle Breeds



**Dangri**

Major Distribution



**Gaolao**

Major Distribution

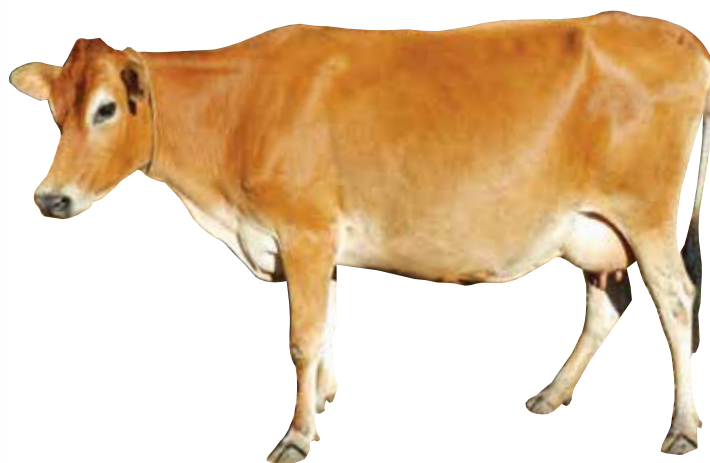


**Red Kandhari**  
Major Distribution

### Distribution of Holstein Friesian and Jersey Crossbred



**Holstein Friesian Crossbred**  
Major Distribution  
Minor Distribution



**Jersey Crossbred**  
 ■ Major Distribution  
 ■ Minor Distribution

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

**TABLE III.1.2: Distribution of Buffalo Breed of Maharashtra**

Breeds	Breeding Tract	Utility	Distribution
Pandharpuri	Kolhapur, Sangli and Solapur districts of Maharashtra	Milk and Draught	Mainly found in Solapur districts. This breed is also found in Sangli, Kolhapur, Pune, Satara, Osmanabad, Bid and Ahmadnagar districts.
Nagpuri	Akola, Amravati, Nagpur, Wardha and Yavatmal districts of Maharashtra	Milk and Draught	Mainly distributed across Nagpur, Wardha, Buldana, Bid, Sangli, Latur, Amravati, Yavatmal districts. Also scattered distribution reported in Bhandara, Akola, Pune, Solapur, Washim districts. This breed is native of Vidarbha region of Maharashtra
Marathwadi	Bid, Jalna, Latur, Nanded and Parbhani districts of Maharashtra	Milk and Draught	Mainly distributed in Latur, Osmanabad, Bid, Nanded and Parbhani districts.

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR and AE Nivsarkar et al., (2000), Animal Genetic Resources of India, Cattle and Buffalo, ICAR publication and Livestock census, 2007, Department of Animal Husbandry, Dairying and Fisheries.



### Distribution of Buffalo Breeds



**Pandharpuri**  
 Major Distribution  
 Minor Distribution



**Nagpuri**  
 Major Distribution  
 Minor Distribution





**Marathwadi**  
 Major Distribution  
 Minor Distribution

### III.2. Performance of Breeds

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

Parameters	Cattle				
	Deoni	Khillar	Red Kandhari	Dangi	Gaolao
Breed Population ('000)	73.1	967.2	176.6	90.2	36.3
Colour	Usually Spotted black and white	Khillar of Deccan plateau – are greyish-white. The Tapti Khillar are white with carrot nose and carrot hooves	The colour is uniform deep dark red, but variations from a dull red to almost brown are also found.	Distinct white coat colour with red or black spots distributed unevenly over the body	Blackish white in males and white in female
Average Adult Body Weight (Kg)	Male: 590 Female: 340	Male: 271 Female: 219	Male: 430 Female: 340	Male: 317 Female: 228	Male: 430 Female: 340
Lactation Yield (Kg)	868 (638-1,229)	451 (240-515)	598	430 (175-800)	604 (470-725)
Lactation Length (days)	299	228 (190-275)	260	269	240
Calving Interval (days)	441 (390-510)	498 (450-630)	438	570 (510-630)	424 (390-540)
Age at First Calving (days)	1,371 (1,260-1,440)	1,272 (1,110-1,800)	1,200	1,590 (1,380-1,680)	1,642 (1,560-1,830)
Average Milk Fat (%)	4.3	4.2	4.6	4.3	4.3

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR and AE Nivsarkar et al., (2000), Animal Genetic Resources of India, Cattle and Buffalo, ICAR publication and Livestock census, 2007, Department of Animal Husbandry, Dairying and Fisheries, Govt. of India.



## III.2. Performance of Breeds

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

Parameters	Buffalo		
	Pandharpuri	Nagpuri	Marathwadi
Breed Population ('000)	260.6	127.1	181.7
Colour	Usually black but varies from light to deep black.	Black coloured animals with white patches on face, legs and tail tips.	Greyish black to jet black. Some animals have white markings on forehead and lower parts of the limbs.
Average Adult Body Weight (Kg)	Female: 416	Male: 396 Female: 349	
Lactation Yield (Kg)	1,790	1,039 (760-1,500)	1,118
Lactation Length (days)	330 (296-346)	286 (263-297)	300
Calving Interval (days)	408	420 (330-720)	501
Age at First Calving (days)	1,314	1,710 (1,500-1,800)	1,569
Average Milk Fat (%)	8.0	8.3	8.8

SOURCE: Animal Genetic Resources of India (AGRI-IS), National Bureau of Animal Genetic Resources, ICAR and AE Nivsarkar et al., (2000), Animal Genetic Resources of India, Cattle and Buffalo, ICAR publication and Livestock census, 2007, Department of Animal Husbandry, Dairying and Fisheries, Govt. of India.





## PART IV : MILK PRODUCTION

This part highlights year-wise and district-wise trends in in-milk population, yield, milk production, availability and utilisation of milk.

During last two decades, total bovine milk production in Maharashtra has doubled from 39 lakh tonnes (LMT) to 88 lakh tonnes in 2013-14 and the contribution of local cows, cross-bred cows and buffaloes was about 15 per cent, 42 per cent, 43 per cent respectively. It has increased despite the fact that the state has maximum rainfed area amongst major milk producing states. It is partly due to increase in number of in-milk animals across all categories and also due to gradual shift from local cows to crossbred cows.

Region wise, western Maharashtra - particularly Pune division - accounted for about 40 per cent of the total milk production of the state followed by Nashik division which accounted for about 25 per cent. Similarly, the milk production density was highest in Pune division followed by Nashik division.

The state government has also put in place the policies that encourage descript local cattle breeds such as Deoni, Dangi, Khillar, Gaolao, Red Kandhari and buffalo breeds like Pandharpuri, Marathwadi and Nagpuri.





## 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)
1986-87	3,577	1.769	2,310
1987-88	3,602	1.898	2,495
1988-89	3,628	1.989	2,634
1989-90	3,878	2.183	3,090
1990-91	4,203	2.310	3,544
1991-92	4,263	2.417	3,761
1992-93	4,273	2.504	3,906
1993-94	4,287	2.587	4,048
1994-95	4,297	2.932	4,598
1995-96	4,312	3.030	4,769
1996-97	4,317	3.107	4,896
1997-98	4,330	3.135	4,955
1998-99	4,466	3.282	5,350
1999-00	5,048	2.949	5,434
2000-01	4,564	3.345	5,573
2001-02	5,113	3.111	5,805
2002-03	5,194	3.142	5,957
2003-04	5,286	3.150	6,076
2004-05	5,128	3.359	6,288
2005-06	5,283	3.365	6,488
2006-07	5,384	3.408	6,697
2007-08	5,461	3.484	6,944
2008-09	5,518	3.563	7,178
2009-10	5,598	3.620	7,396
2010-11	5,669	3.756	7,771
2011-12	5,744	3.900	8,176
2012-13	5,804	3.980	8,431
2013-14	5,849	4.140	8,839

SOURCE: Integrated Sample Survey Reports (1986-87 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.



## IV.1. Production Performance: Animal Population

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

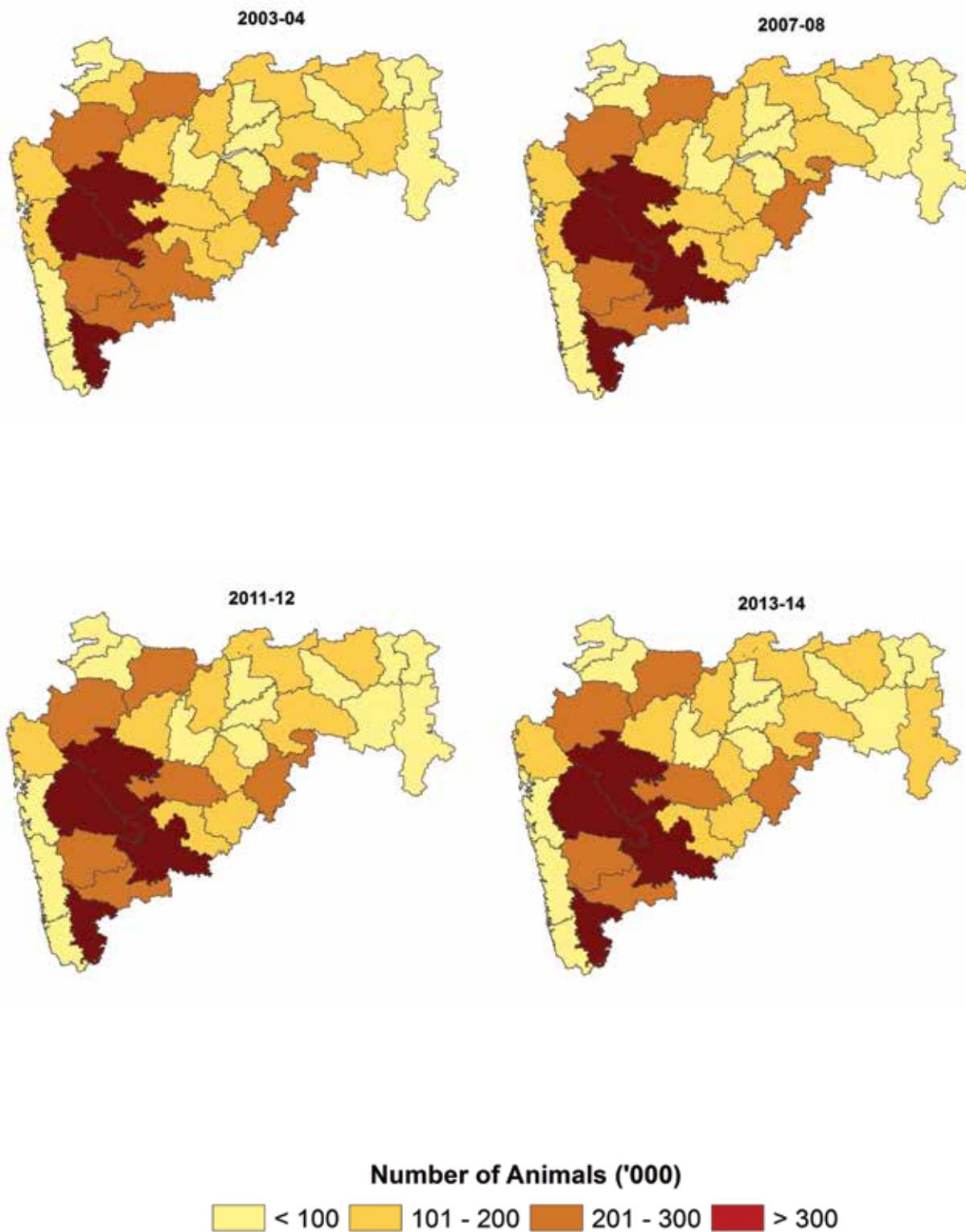
Districts	In-milk Bovine Population ('000)							
	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>5,286</b>	<b>5,461</b>	<b>5,518</b>	<b>5,598</b>	<b>5,669</b>	<b>5,744</b>	<b>5,804</b>	<b>5,849</b>
Ahmadnagar	361	485	493	498	549	565	575	592
Akola	80	73	74	75	76	76	76	77
Amaravati	139	121	122	123	135	135	138	137
Aurangabad	131	128	128	130	139	141	144	145
Bid	173	191	195	201	225	228	230	233
Bhandara	72	65	66	68	69	70	70	71
Buldana	124	132	133	135	149	150	152	154
Chandrapur	109	91	95	95	95	95	95	96
Dhule	102	90	91	92	98	99	100	100
Gadchiroli	78	86	89	88	99	100	101	102
Gondiya	78	75	77	76	76	76	77	77
Hingoli	86	77	74	80	81	81	81	81
Jalgaon	246	223	226	227	213	215	217	217
Jalna	92	85	85	86	95	95	96	97
Kolhapur	395	427	429	431	437	442	446	445
Latur	154	148	151	157	157	157	160	158
Mumbai (Brihan)	74	76	73	73	12	12	12	11
Nagpur	119	114	116	117	127	128	130	132
Nanded	225	239	231	248	219	219	221	221
Nandurbar	81	92	93	93	83	83	84	84
Nashik	270	241	243	245	261	265	268	271
Osmanabad	131	152	153	157	155	157	160	161
Parbhani	106	122	118	125	117	117	117	118
Pune	336	393	400	405	407	418	424	432
Raigarh	108	105	109	106	77	77	78	77
Ratnagiri	91	79	82	83	77	77	77	79
Sangli	250	235	237	236	295	298	300	300
Satara	256	281	284	284	259	264	266	268
Sindhudurg	49	49	50	51	46	46	47	47
Solapur	280	327	333	342	367	373	378	383
Thane	175	172	176	175	160	160	162	161
Wardha	85	73	76	75	77	78	79	80
Washim	81	76	77	78	79	80	80	81
Yavatmal	153	139	142	143	158	159	161	162

SOURCE: Integrated Sample Survey Reports (2003-04 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai and Mumbai suburban districts.



### 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	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>2,215</b>	<b>1,853</b>	<b>2,258</b>	<b>1,928</b>	<b>1,943</b>	<b>1,971</b>	<b>1,977</b>	<b>1,980</b>	<b>1,998</b>	<b>2,021</b>
Ahmadnagar	117	120	126	112	114	110	106	106	107	108
Akola	87	79	49	44	44	45	43	43	43	44
Amaravati	79	70	87	71	71	72	77	77	78	78
Aurangabad	63	61	68	57	57	58	58	58	59	60
Bid	83	62	78	61	63	67	68	68	68	69
Bhandara	94	62	33	25	26	26	25	25	25	25
Buldana	75	60	70	66	67	68	70	70	71	72
Chandrapur	79	52	75	57	60	59	64	64	64	65
Dhule	84	73	47	38	38	38	39	39	40	40
Gadchiroli	65	33	65	68	70	69	82	83	84	85
Gondiya			50	48	49	48	45	45	46	46
Hingoli			55	45	41	47	44	44	44	45
Jalgaon	93	95	97	66	67	66	82	82	83	84
Jalna	59	47	57	49	49	50	51	51	51	52
Kolhapur	32	18	24	26	27	26	16	16	16	17
Latur	63	51	59	51	53	57	53	53	54	54
Mumbai (Brihan)	4	4	2	2	2	2	1	1	1	0
Nagpur	87	51	73	62	64	63	65	65	66	67
Nanded	113	103	124	118	106	123	118	118	119	120
Nandurbar			51	51	52	51	48	48	49	49
Nashik	114	132	149	109	110	109	118	119	120	121
Osmanabad	55	44	50	45	44	47	44	44	45	45
Parbhani	113	106	62	54	49	56	62	62	62	63
Pune	92	77	80	65	66	64	62	63	63	64
Raigarh	77	71	69	64	67	64	46	46	47	47
Ratnagiri	62	38	61	52	54	53	54	54	54	55
Sangli	39	32	40	40	42	40	36	36	36	37
Satara	61	47	56	40	42	39	35	35	35	36
Sindhudurg	29	22	25	22	23	23	21	21	22	22
Solapur	86	78	99	84	86	92	90	90	91	91
Thane	68	57	70	59	61	58	58	58	59	59
Wardha	48	38	53	41	43	42	43	43	44	44
Washim			50	45	46	46	46	47	47	47
Yavatmal	97	70	104	91	92	93	107	108	108	110

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

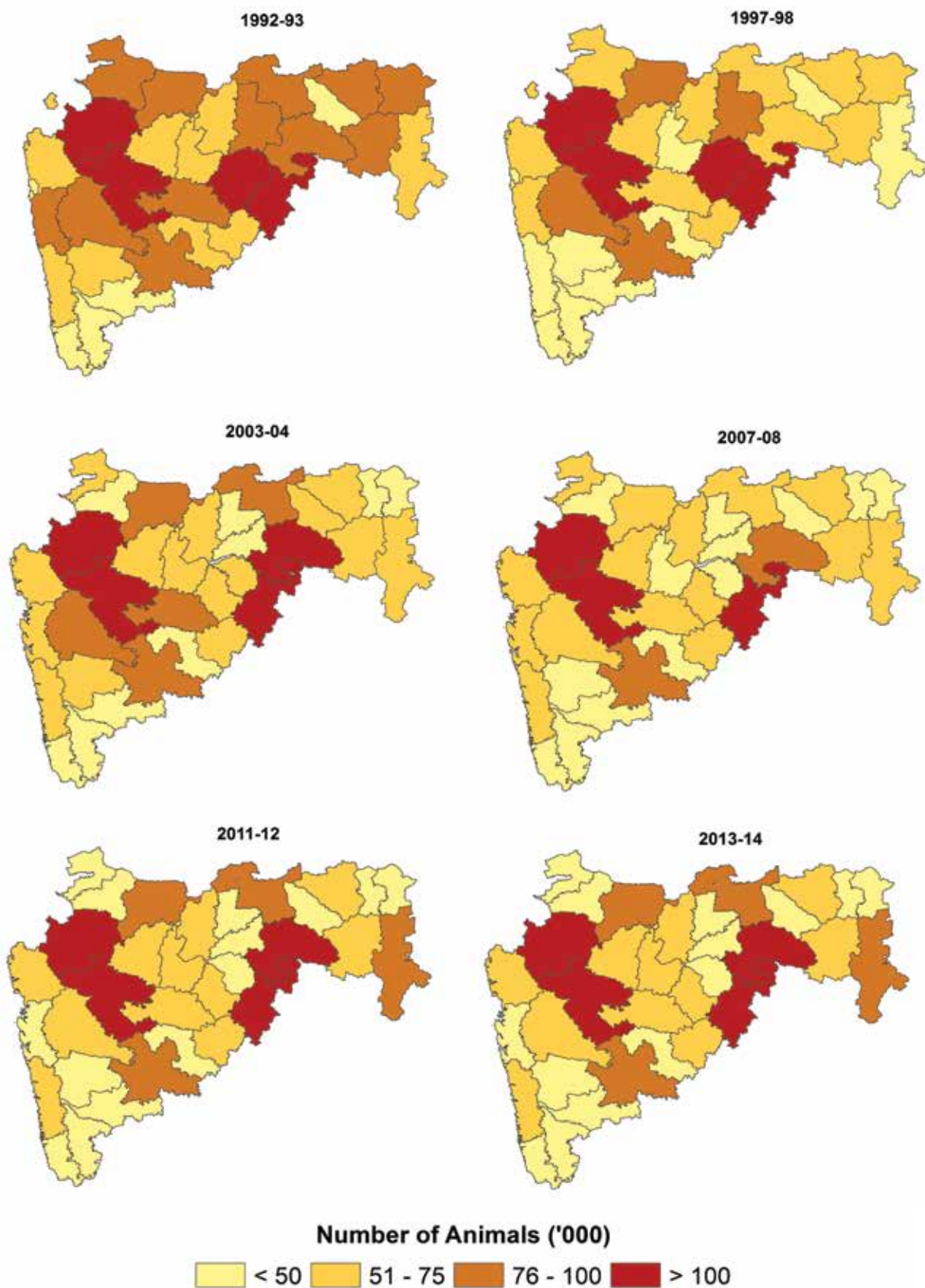
NOTE: Estimated from milk production and productivity data for the year 1992-93 and 1997-98.

Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.





### 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**

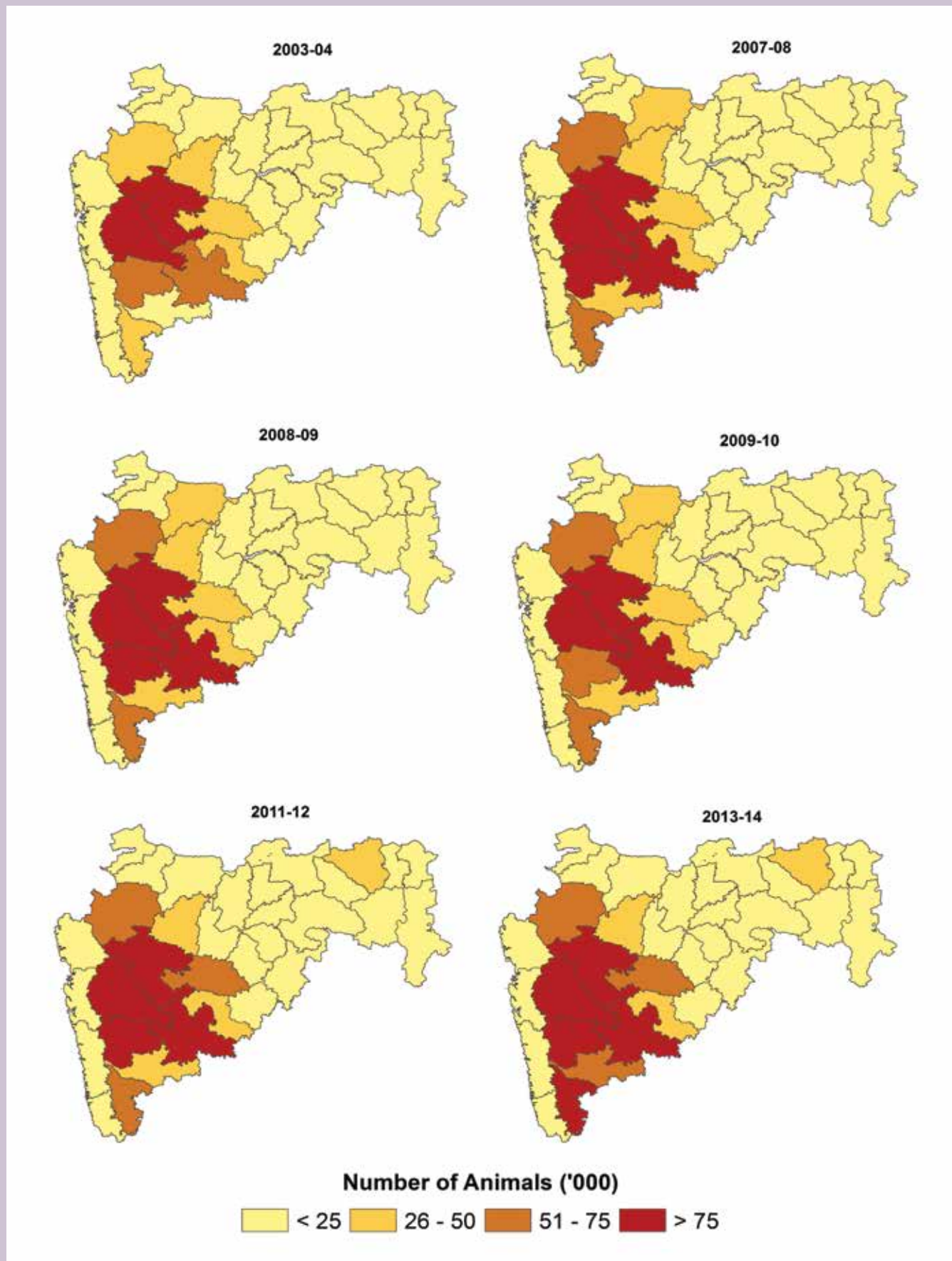
Districts	In-milk Crossbred Cattle Population ('000)							
	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>791</b>	<b>1,169</b>	<b>1,180</b>	<b>1,215</b>	<b>1,270</b>	<b>1,328</b>	<b>1,358</b>	<b>1,421</b>
Ahmadnagar	176	306	309	318	351	367	375	392
Akola	4	5	5	5	5	5	5	5
Amaravati	7	9	9	9	10	10	11	12
Aurangabad	29	39	39	40	39	41	42	43
Bid	33	48	48	50	64	67	68	72
Bhandara	10	13	13	14	15	16	16	17
Buldana	10	14	14	15	17	18	18	20
Chandrapur	3	5	5	5	5	5	5	6
Dhule	16	14	15	15	18	19	19	20
Gadchiroli	1	1	1	1	1	1	1	1
Gondiya	3	4	4	4	4	4	4	5
Hingoli	3	5	5	5	4	4	4	4
Jalgaon	22	28	29	30	22	23	24	25
Jalna	8	9	9	9	10	10	11	11
Kolhapur	38	68	69	71	71	74	76	80
Latur	11	12	12	13	9	9	10	10
Mumbai (Brihan)	1	2	2	2	0	0	0	0
Nagpur	16	24	24	25	27	28	29	30
Nanded	10	9	10	10	6	6	6	7
Nandurbar	5	6	6	6	4	4	4	5
Nashik	42	52	52	54	58	61	62	65
Osmanabad	26	45	45	46	44	46	47	49
Parbhani	3	4	4	4	3	3	3	3
Pune	140	198	199	205	199	208	213	223
Raigarh	2	3	3	3	3	3	3	3
Ratnagiri	8	7	8	9	5	5	5	6
Sangli	20	26	26	27	47	49	50	52
Satara	56	82	83	85	78	82	83	87
Sindhudurg	2	3	3	3	3	3	3	3
Solapur	63	102	103	106	120	125	128	135
Thane	2	4	4	4	4	4	4	4
Wardha	12	14	14	14	15	16	16	17
Washim	3	2	2	2	2	2	2	3
Yavatmal	6	6	6	6	7	7	8	8

SOURCE : Integrated Sample Survey Reports (2003-04 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.



### 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	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>1,630</b>	<b>1,887</b>	<b>2,237</b>	<b>2,364</b>	<b>2,396</b>	<b>2,412</b>	<b>2,422</b>	<b>2,434</b>	<b>2,448</b>	<b>2,407</b>
Ahmadnagar	39	48	59	67	70	70	92	92	93	92
Akola	40	45	27	24	25	25	28	28	28	28
Amaravati	33	38	45	41	42	42	48	48	49	47
Aurangabad	24	35	34	32	32	32	42	42	43	42
Bid	46	49	62	82	84	84	93	93	94	92
Bhandara	38	45	29	27	27	28	29	29	29	29
Buldana	35	40	44	52	52	52	62	62	63	62
Chandrapur	23	29	31	29	30	31	26	26	26	25
Dhule	43	45	39	38	38	39	41	41	41	40
Gadchiroli	9	9	12	17	18	18	16	16	16	16
Gondiya			25	23	24	24	27	27	27	26
Hingoli			28	27	28	28	33	33	33	32
Jalgaon	101	111	127	129	130	131	109	110	110	108
Jalna	17	23	27	27	27	27	34	34	34	34
Kolhapur	218	277	333	333	333	334	350	352	354	348
Latur	53	64	84	85	86	87	95	95	96	94
Mumbai (Brihan)	88	88	71	72	69	69	11	11	11	11
Nagpur	28	31	30	28	28	29	35	35	35	35
Nanded	71	81	91	112	115	115	95	95	96	94
Nandurbar			25	35	35	36	31	31	31	30
Nashik	51	61	79	80	81	82	85	85	86	85
Osmanabad	38	46	55	62	64	64	67	67	68	67
Parbhani	47	52	41	64	65	65	52	52	52	52
Pune	85	100	116	130	135	136	146	147	148	145
Raigarh	36	45	37	38	39	39	28	28	28	27
Ratnagiri	21	19	22	20	20	21	18	18	18	18
Sangli	121	159	190	169	169	169	212	213	214	211
Satara	114	125	144	159	159	160	146	147	148	145
Sindhudurg	23	24	22	24	24	25	22	22	22	22
Solapur	71	93	118	141	144	144	157	158	159	157
Thane	75	51	103	109	111	113	98	98	99	98
Wardha	13	18	20	18	19	19	19	19	19	19
Washim			28	29	29	30	31	31	31	31
Yavatmal	34	36	43	42	44	44	44	44	45	44

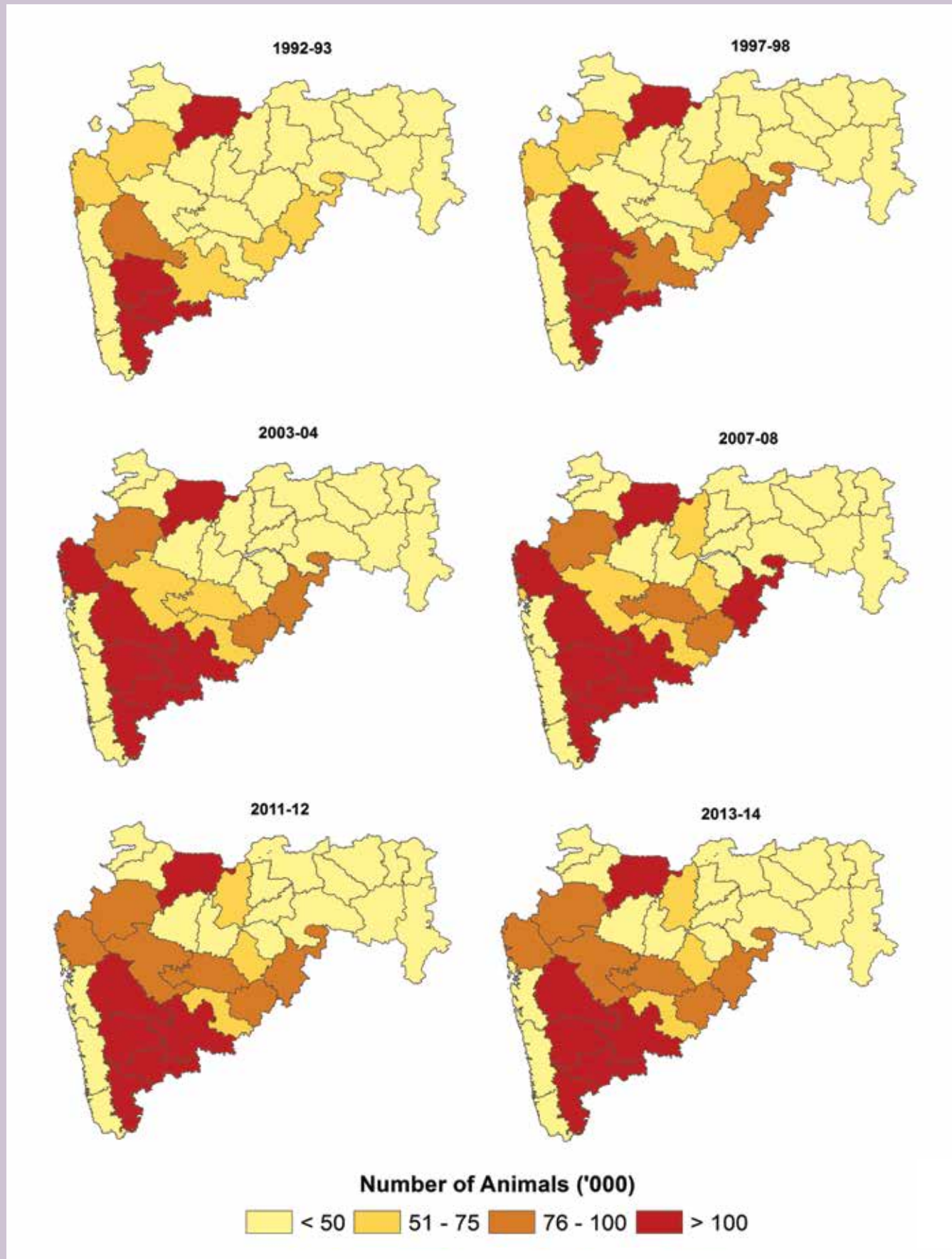
SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Estimated from milk production and productivity data for the year 1992-93 and 1997-98.

Brihan Mumbai is treated as one district instead of Mumbai and Mumbai suburban districts.



### District-wise In-milk Buffalo Population





## IV.2. Production Performance: Milk Yield

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

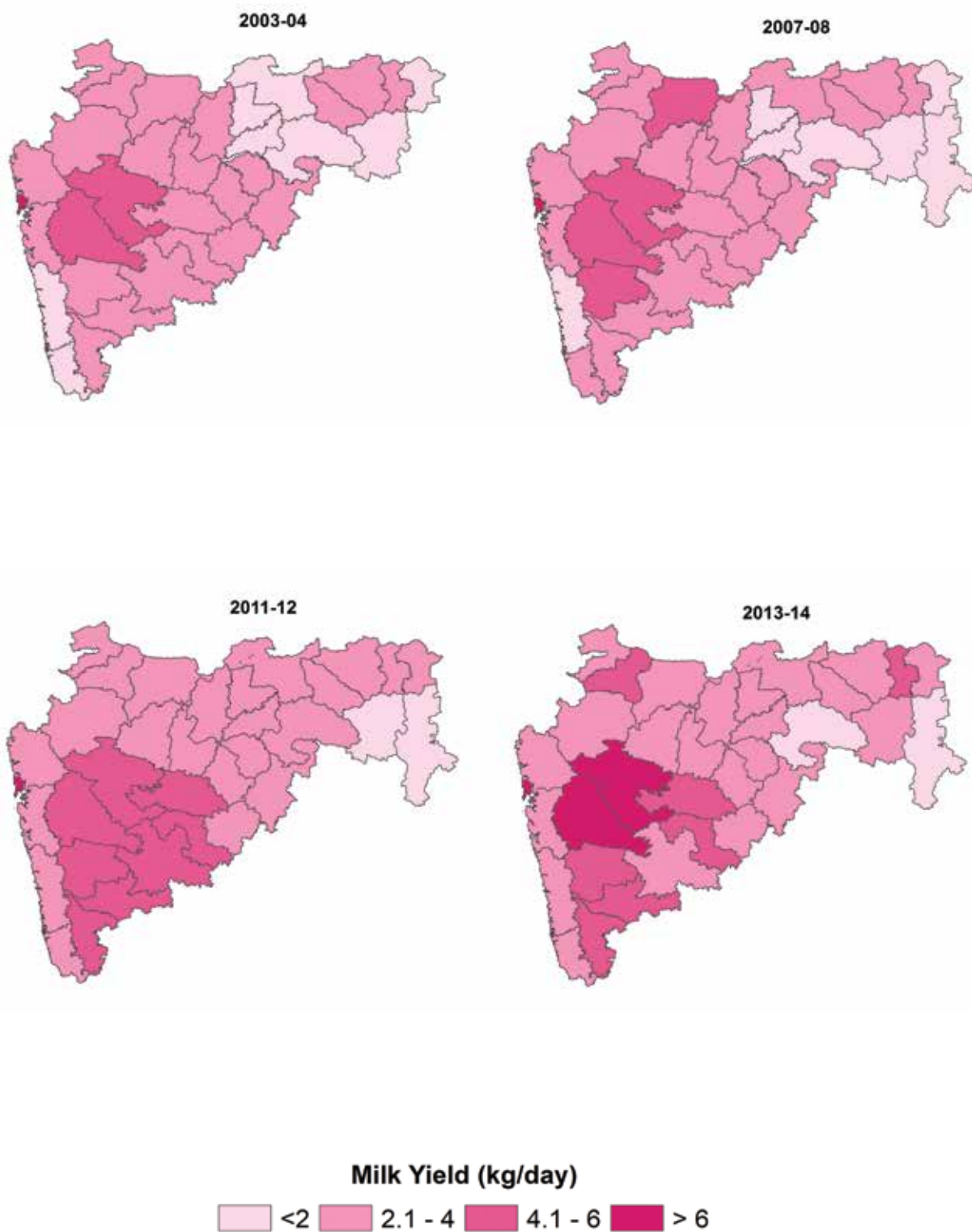
Districts	Bovine Milk Yield (kg/day)							
	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>3.149</b>	<b>3.484</b>	<b>3.564</b>	<b>3.620</b>	<b>3.756</b>	<b>3.900</b>	<b>3.980</b>	<b>4.140</b>
Ahmadnagar	4.585	5.073	5.104	5.248	5.301	5.533	5.586	6.706
Akola	1.935	1.997	2.036	2.027	2.329	2.426	2.502	2.900
Amaravati	1.934	2.051	2.048	2.051	2.336	2.435	2.474	2.540
Aurangabad	3.097	3.502	3.538	3.591	3.593	3.752	3.790	3.325
Bid	3.033	3.447	3.535	3.559	4.010	4.179	4.273	4.659
Bhandara	2.633	3.056	3.080	3.110	3.518	3.652	3.738	4.094
Buldana	2.536	2.756	2.738	2.790	2.999	3.112	3.161	3.012
Chandrapur	1.357	1.599	1.612	1.650	1.753	1.826	1.906	2.306
Dhule	3.825	3.924	3.959	3.982	3.696	3.838	3.921	4.110
Gadchiroli	0.980	1.109	1.130	1.152	1.303	1.340	1.356	1.058
Gondiya	1.897	1.998	2.007	2.167	2.477	2.574	2.647	2.537
Hingoli	2.131	2.377	2.418	2.483	2.645	2.750	2.899	2.026
Jalgaon	3.820	4.167	4.186	4.228	3.483	3.599	3.688	3.377
Jalna	2.460	2.649	2.717	2.778	2.818	2.944	3.008	3.392
Kolhapur	3.709	3.906	4.242	4.286	4.766	4.907	5.023	4.110
Latur	2.715	2.829	2.925	2.928	3.317	3.439	3.497	3.005
Mumbai (Brihan)	6.524	6.536	6.463	6.542	7.100	7.511	7.534	7.696
Nagpur	2.337	2.692	2.728	2.840	3.156	3.309	3.340	3.198
Nanded	2.238	2.397	2.431	2.487	2.621	2.716	2.786	3.529
Nandurbar	3.261	3.440	3.453	3.503	3.043	3.162	3.235	3.395
Nashik	3.623	3.971	3.996	4.032	3.744	3.884	3.942	3.712
Osmanabad	3.175	3.634	3.744	3.780	4.058	4.230	4.276	5.296
Parbhani	2.132	2.446	2.473	2.545	2.627	2.726	2.796	3.536
Pune	4.664	4.968	4.997	5.101	5.009	5.196	5.277	6.913
Raigarh	2.314	2.492	2.463	2.546	2.565	2.669	2.729	2.263
Ratnagiri	1.849	1.873	1.928	1.967	2.348	2.452	2.540	2.015
Sangli	3.484	3.570	3.863	3.939	4.558	4.703	4.820	4.732
Satara	3.860	4.158	4.413	4.494	4.818	4.975	5.099	5.671
Sindhudurg	1.935	2.119	2.137	2.176	2.758	2.871	2.868	2.646
Solapur	3.317	3.747	3.828	3.852	4.258	4.432	4.501	3.597
Thane	2.904	3.213	3.219	3.308	2.938	3.003	3.095	3.014
Wardha	2.337	2.612	2.596	2.765	2.996	3.119	3.170	3.151
Washim	1.833	1.871	1.914	1.907	2.181	2.229	2.288	2.899
Yavatmal	1.737	1.809	1.833	1.835	2.046	2.116	2.149	1.879

SOURCE: Integrated Sample Survey Reports (2003-04 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai and Mumbai suburban districts.



### 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	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>1.233</b>	<b>1.502</b>	<b>1.460</b>	<b>1.465</b>	<b>1.503</b>	<b>1.605</b>	<b>1.704</b>	<b>1.762</b>	<b>1.800</b>	<b>1.756</b>
Ahmadnagar	1.529	1.722	1.757	1.685	1.733	2.176	1.981	2.049	2.080	3.055
Akola	0.807	0.784	0.911	0.930	0.955	0.909	1.249	1.292	1.317	1.409
Amaravati	0.807	0.784	0.911	0.930	0.952	0.914	1.249	1.292	1.317	1.165
Aurangabad	1.394	1.618	1.549	1.689	1.779	1.808	1.516	1.568	1.603	1.372
Bid	1.515	1.779	1.515	1.573	1.673	1.798	1.747	1.807	1.852	2.078
Bhandara	0.745	0.817	0.961	0.907	0.963	1.118	1.408	1.457	1.476	2.589
Buldana	1.394	1.618	1.549	1.689	1.774	1.807	1.516	1.568	1.603	1.406
Chandrapur	0.443	0.515	0.655	0.660	0.695	0.683	0.877	0.907	0.927	1.151
Dhule	1.464	2.088	2.290	2.251	2.244	2.285	2.280	2.358	2.415	2.879
Gadchiroli	0.443	0.515	0.655	0.660	0.700	0.686	0.877	0.907	0.927	0.516
Gondiya			0.961	0.907	0.973	1.153	1.408	1.457	1.476	1.476
Hingoli			1.446	1.604	1.598	1.735	1.972	2.039	2.106	0.879
Jalgaon	1.464	2.088	2.290	2.251	2.245	2.320	2.280	2.358	2.415	1.576
Jalna	1.394	1.618	1.549	1.689	1.790	1.814	1.516	1.568	1.603	2.139
Kolhapur	1.554	1.980	1.964	1.846	1.922	2.060	2.159	2.233	2.279	2.199
Latur	1.515	1.779	1.515	1.573	1.669	1.773	1.747	1.807	1.852	1.475
Mumbai (Brihan)	6.195	4.505	2.858	3.005	3.547	3.415	1.923	1.989	1.900	2.113
Nagpur	0.745	0.817	0.961	0.907	0.968	1.141	1.408	1.457	1.476	1.355
Nanded	1.545	1.603	1.446	1.604	1.607	1.723	1.972	2.039	2.106	1.590
Nandurbar			2.290	2.251	2.241	2.326	2.280	2.358	2.415	2.579
Nashik	1.464	2.088	2.290	2.251	2.249	2.310	2.280	2.358	2.415	1.576
Osmanabad	1.515	1.779	1.515	1.573	1.663	1.779	1.747	1.807	1.852	2.297
Parbhani	1.545	1.603	1.446	1.604	1.594	1.735	1.972	2.039	2.106	2.420
Pune	1.529	1.722	1.757	1.685	1.739	2.172	1.981	2.049	2.080	2.717
Raigarh	1.114	1.347	1.322	1.334	1.308	1.297	1.765	1.826	1.855	1.402
Ratnagiri	1.028	1.157	0.952	0.991	1.067	1.117	1.725	1.784	1.809	1.302
Sangli	1.554	1.980	1.964	1.846	1.922	2.083	2.159	2.233	2.279	2.600
Satara	1.554	1.980	1.964	1.846	1.896	2.108	2.159	2.233	2.279	2.809
Sindhudurg	1.028	1.157	0.952	0.991	1.072	1.101	1.725	1.784	1.809	1.350
Solapur	1.515	1.779	1.515	1.573	1.674	1.788	1.747	1.807	1.852	2.800
Thane	1.114	1.347	1.322	1.334	1.321	1.316	1.765	1.826	1.855	1.820
Wardha	0.745	0.817	0.961	0.907	0.953	1.133	1.408	1.457	1.476	1.044
Washim			0.911	0.930	0.943	0.918	1.249	1.292	1.317	1.552
Yavatmal	0.807	0.784	0.911	0.930	0.948	0.913	1.249	1.292	1.317	0.879

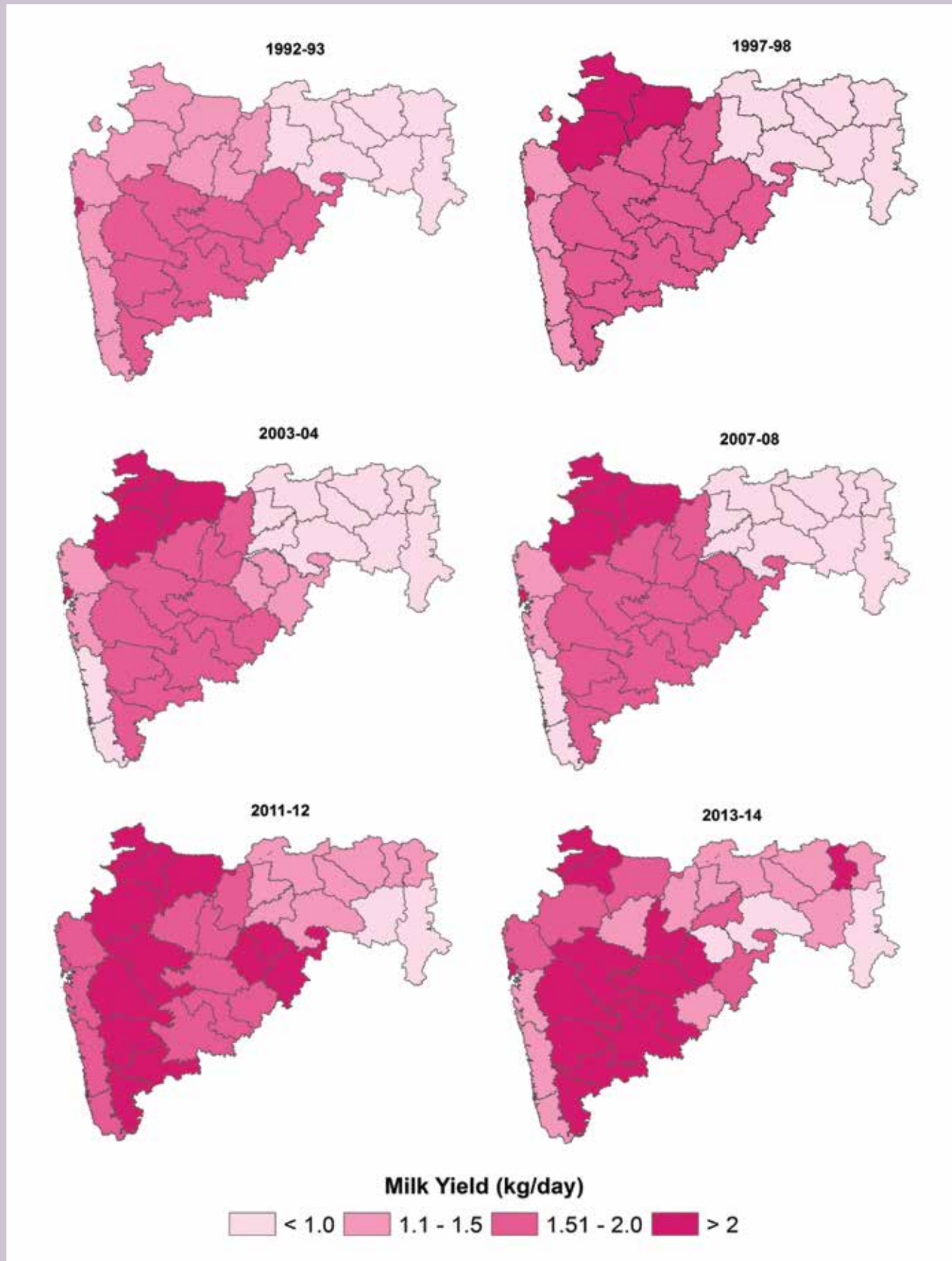
SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.





### 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)							
	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>6.771</b>	<b>6.476</b>	<b>6.541</b>	<b>6.509</b>	<b>6.618</b>	<b>6.866</b>	<b>6.890</b>	<b>7.174</b>
Ahmadnagar	6.758	6.476	6.533	6.505	6.618	6.866	6.892	8.130
Akola	6.697	6.477	6.615	6.779	6.618	7.179	6.951	5.108
Amaravati	7.240	6.475	6.306	6.461	6.618	7.179	6.887	5.929
Aurangabad	6.778	6.476	6.568	6.562	6.618	6.829	6.892	5.028
Bid	6.694	6.475	6.573	6.466	6.618	6.858	6.895	7.195
Bhandara	6.409	6.476	6.464	6.151	6.618	6.731	6.908	5.875
Buldana	7.088	6.476	6.378	6.100	6.618	6.781	6.883	5.875
Chandrapur	6.925	6.477	6.824	6.992	6.618	7.179	6.951	5.651
Dhule	6.759	6.476	6.358	6.515	6.618	6.802	6.908	6.855
Gadchiroli	4.033	6.466	6.595	6.756	6.619	7.181	6.700	4.332
Gondiya	6.981	6.473	6.074	6.224	6.618	7.179	6.855	4.977
Hingoli	7.537	6.477	6.698	6.864	6.618	7.179	6.855	4.500
Jalgaon	6.836	6.476	6.430	6.369	6.618	6.867	6.898	6.786
Jalna	6.772	6.475	6.886	7.056	6.618	7.179	6.887	5.907
Kolhapur	6.843	6.476	6.533	6.506	6.618	6.888	6.948	5.684
Latur	6.937	6.475	6.498	6.147	6.618	7.179	6.908	7.980
Mumbai (Brihan)	7.937	6.479	5.786	5.929	6.618			8.842
Nagpur	6.958	6.476	6.545	6.438	6.618	6.923	6.884	5.990
Nanded	6.555	6.475	6.227	6.381	6.618	7.179	6.908	7.975
Nandurbar	6.850	6.475	6.558	6.720	6.618	7.179	6.699	6.735
Nashik	6.770	6.475	6.598	6.511	6.618	6.826	6.893	7.176
Osmanabad	6.713	6.475	6.598	6.614	6.618	6.867	6.884	6.976
Parbhani	7.023	6.473	6.708	6.873	6.618	7.179	6.908	8.179
Pune	6.762	6.478	6.553	6.518	6.618	6.869	6.891	9.330
Raigarh	6.967	6.475	7.033	7.206	6.618	7.179	6.908	6.750
Ratnagiri	6.607	6.477	6.161	5.612	6.618	7.179	6.951	5.684
Sangli	6.746	6.475	6.491	6.405	6.618	6.886	6.872	5.287
Satara	6.758	6.476	6.554	6.558	6.618	6.829	6.892	7.767
Sindhudurg	7.484	6.475	6.318	6.474	6.618	7.179	6.908	4.905
Solapur	6.746	6.476	6.522	6.494	6.618	6.891	6.891	4.190
Thane	8.030	6.473	7.321	7.501	6.618	7.179	6.855	6.740
Wardha	6.903	6.476	6.555	6.717	6.618	6.731	6.908	7.185
Washim	5.705	6.479	7.604	7.792	6.618	7.179	7.017	6.340
Yavatmal	6.220	6.475	7.051	7.225	6.618	7.180	6.878	6.340

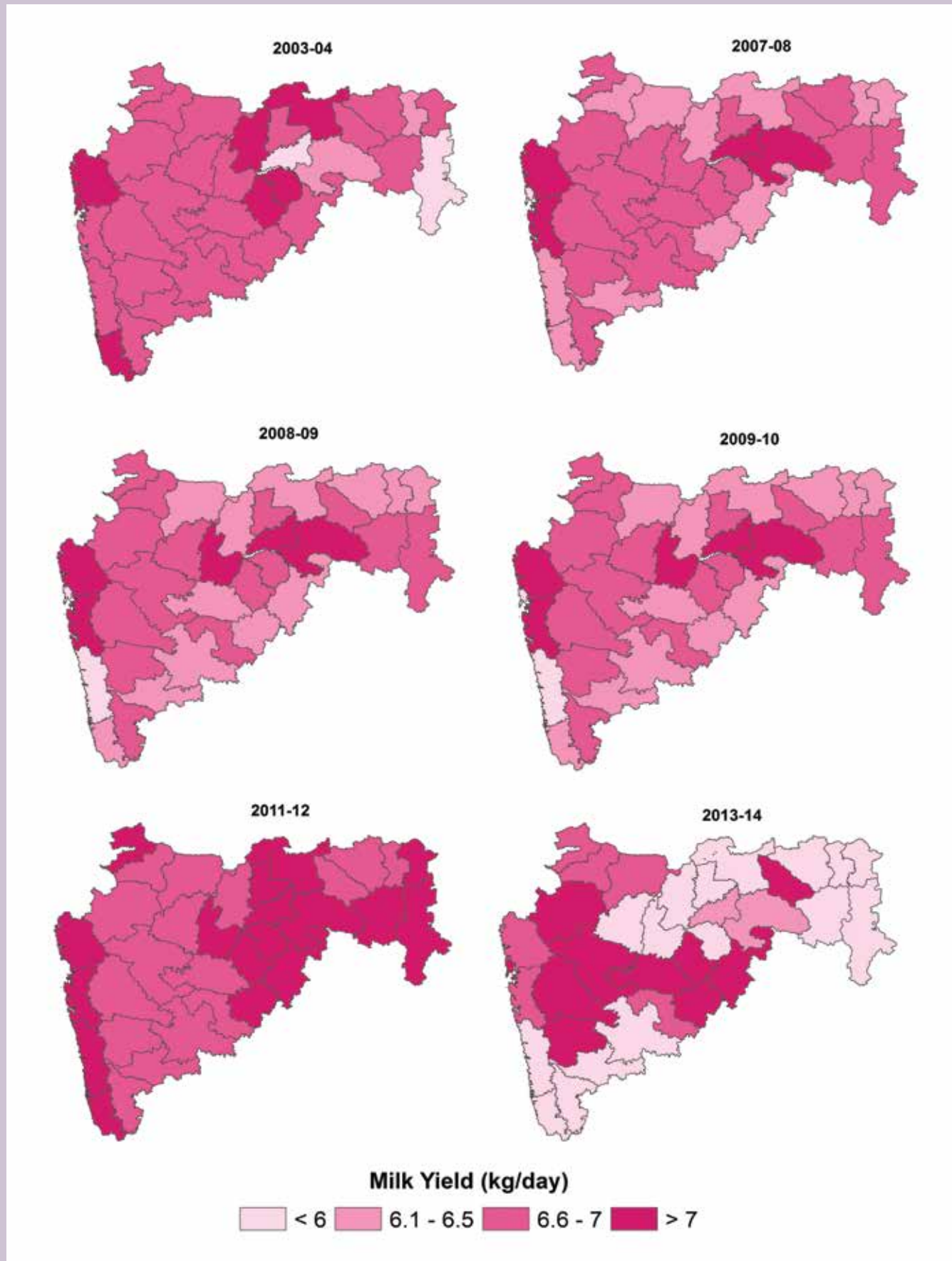
SOURCE : Estimated from Integrated Sample Survey Reports (2003-04 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Crossbred cattle milk yield is estimated for all years except 2013-14.

Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district



### District-wise Crossbred Cattle Milk Yield





## IV.2. Production Performance: Milk Yield

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

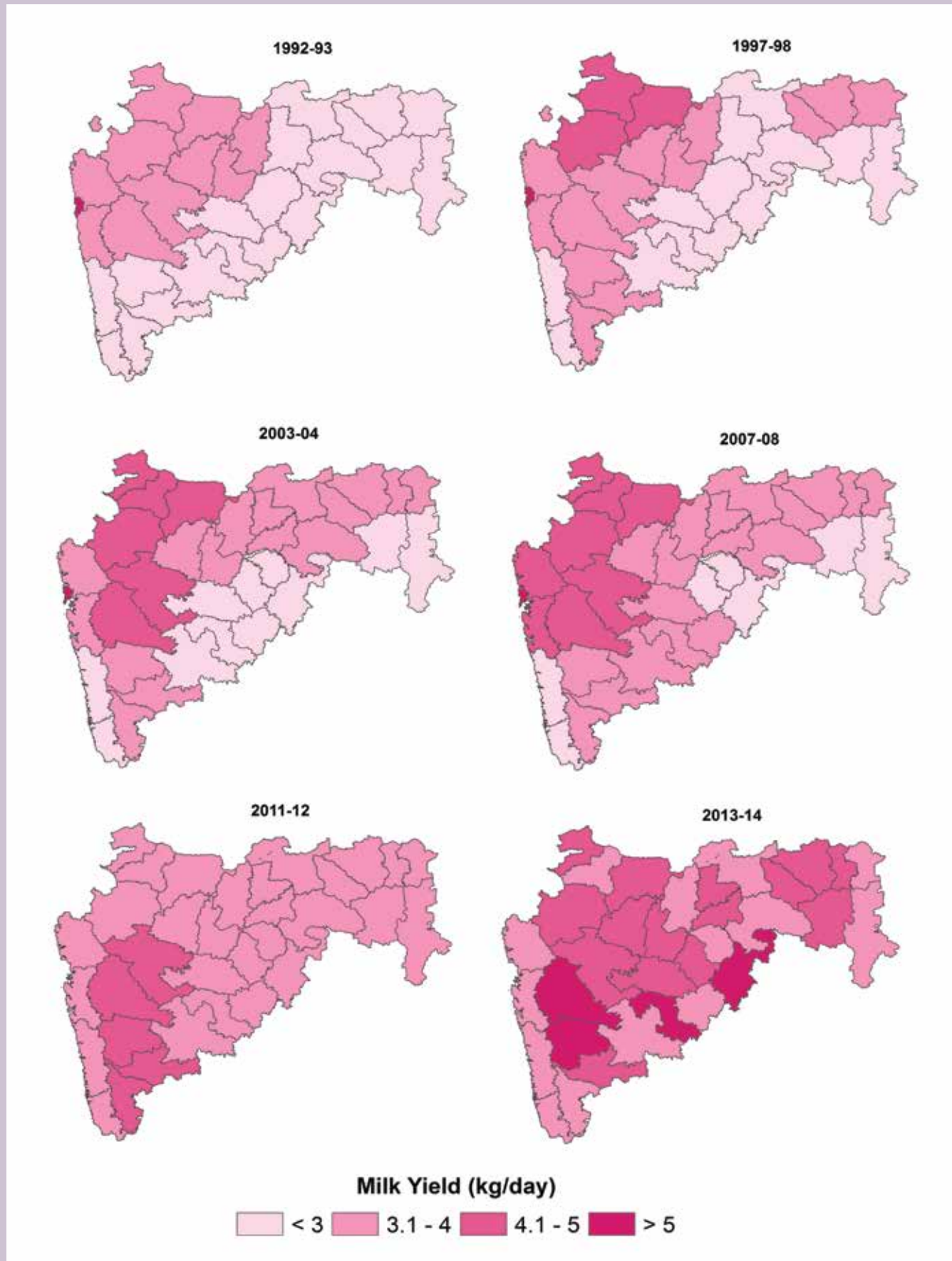
Districts	Buffalo Milk Yield (kg/day)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>3.142</b>	<b>3.589</b>	<b>3.560</b>	<b>3.638</b>	<b>3.767</b>	<b>3.811</b>	<b>3.930</b>	<b>4.010</b>	<b>4.143</b>	<b>4.351</b>
Ahmadnagar	3.518	3.800	4.147	4.307	4.284	4.365	4.101	4.195	4.336	4.980
Akola	2.607	2.950	3.078	3.008	3.022	3.094	3.233	3.300	3.405	4.850
Amaravati	2.607	2.950	3.078	3.008	2.990	3.060	3.190	3.256	3.405	3.980
Aurangabad	3.084	3.233	3.085	3.093	2.982	3.104	3.665	3.723	3.850	4.397
Bid	2.881	2.948	2.991	3.055	3.192	3.232	3.885	3.957	4.093	4.591
Bhandara	2.796	3.135	3.200	3.454	3.486	3.439	3.713	3.824	3.903	4.307
Buldana	3.084	3.233	3.085	3.093	2.995	3.117	3.665	3.754	3.850	3.990
Chandrapur	2.209	2.628	2.529	2.605	2.578	2.627	3.045	3.048	3.195	4.545
Dhule	3.669	4.242	4.448	4.641	4.732	4.660	3.784	3.821	3.984	3.905
Gadchiroli	2.209	2.628	2.529	2.605	2.493	2.624	3.045	3.203	3.195	3.592
Gondiya			3.200	3.454	3.432	3.510	3.644	3.718	3.903	3.947
Hingoli			2.855	2.892	2.858	2.959	3.185	3.137	3.367	3.362
Jalgaon	3.669	4.242	4.448	4.641	4.686	4.700	3.761	3.838	3.984	4.010
Jalna	3.084	3.233	3.085	3.093	3.013	3.134	3.665	3.736	3.850	4.510
Kolhapur	2.745	3.607	3.482	3.530	3.956	3.987	4.507	4.600	4.746	3.840
Latur	2.881	2.948	2.991	3.055	3.199	3.202	3.885	3.951	4.093	3.313
Mumbai (Brihan)	6.416	6.639	6.571	6.618	6.566	6.650	7.569	7.724	7.965	7.553
Nagpur	2.796	3.135	3.200	3.454	3.479	3.437	3.713	3.813	3.903	4.291
Nanded	2.816	2.912	2.855	2.892	2.862	2.963	3.185	3.247	3.367	5.665
Nandurbar			4.448	4.641	4.718	4.637	3.784	3.817	3.984	4.190
Nashik	3.669	4.242	4.448	4.641	4.698	4.691	3.784	3.881	3.984	4.147
Osmanabad	2.881	2.948	2.991	3.055	3.168	3.209	3.885	3.966	4.093	6.124
Parbhani	2.816	2.912	2.855	2.892	2.873	2.974	3.185	3.265	3.367	4.657
Pune	3.518	3.800	4.147	4.307	4.295	4.344	4.101	4.179	4.336	5.079
Raigarh	3.079	3.887	3.876	4.109	4.106	4.236	3.475	3.502	3.677	3.226
Ratnagiri	2.258	2.584	2.577	2.562	2.565	2.561	3.137	3.144	3.285	3.170
Sangli	2.745	3.607	3.462	3.530	3.941	3.985	4.507	4.605	4.746	4.960
Satara	2.745	3.607	3.462	3.530	3.959	3.978	4.507	4.586	4.746	5.117
Sindhudurg	2.258	2.584	2.577	2.562	2.637	2.653	3.137	3.249	3.285	3.560
Solapur	2.881	2.948	2.991	3.055	3.187	3.227	3.885	3.977	4.093	3.553
Thane	3.079	3.887	3.876	4.109	4.114	4.180	3.475	3.558	3.677	3.574
Wardha	2.796	3.135	3.200	3.454	3.388	3.466	3.713	3.789	3.903	4.300
Washim			3.078	3.008	3.064	3.031	3.233	3.336	3.405	4.623
Yavatmal	2.607	2.950	3.078	3.008	2.979	3.049	3.233	3.319	3.405	3.632

SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district



### District-wise Buffalo Milk Yield





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

**TABLE IV.3.1: Year and District-wise Total Milk Production (Bovine & Goat)**

Districts	Total Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>4,102.2</b>	<b>5,192.7</b>	<b>6,377.1</b>	<b>7,209.7</b>	<b>7,454.9</b>	<b>7,678.2</b>	<b>8,044.1</b>	<b>8,469.0</b>	<b>8,734.4</b>	<b>9,089</b>
Ahmadnagar	341.3	467.9	633.1	926.2	947.9	983.9	1,096.1	1,177.4	1,209.9	1,480.7
Akola	74.8	86.3	60.0	56.8	59.2	59.5	68.2	71.2	73.5	84.9
Amaravati	68.2	78.9	103.4	96.2	97.7	98.4	120.8	128.7	131.1	132.4
Aurangabad	97.3	144.3	160.6	173.8	175.5	181.0	191.7	203.2	209.7	184.3
Bid	130.5	145.0	207.2	253.1	264.3	274.6	341.6	361.0	372.4	407.7
Bhandara	79.9	96.1	71.9	75.0	77.0	79.9	92.6	97.6	100.0	109.6
Buldana	103.3	113.6	124.6	141.2	141.2	146.2	171.2	176.7	184.5	176.9
Chandrapur	36.4	43.8	58.4	56.8	60.1	61.2	64.6	67.5	70.4	84.1
Dhule	133.6	171.0	151.1	137.4	140.6	142.7	140.5	147.6	152.4	156.7
Gadchiroli	19.7	17.1	30.9	37.8	40.0	40.1	50.8	52.9	54.1	42.9
Gondiya			57.3	57.0	59.0	62.6	72.9	76.0	79.1	75
Hingoli			71.6	70.4	69.5	76.5	82.2	85.6	90.0	63.6
Jalgaon	232.0	301.7	358.1	351.7	358.6	363.7	283.2	295.5	305.7	277.5
Jalna	61.6	73.9	90.9	88.6	90.8	94.0	103.2	108.0	111.6	125.3
Kolhapur	292.5	461.7	542.7	615.7	671.1	681.4	765.8	797.5	823.9	672.7
Latur	114.0	128.6	158.8	158.2	166.5	173.3	194.0	201.2	208.6	176.9
Mumbai (Brihan)	213.8	221.5	176.3	181.4	172.4	174.4	31.2	33.0	33.2	31
Nagpur	75.8	84.4	106.4	115.9	120.0	125.7	153.2	161.9	166.1	160.1
Nanded	153.0	177.2	193.2	217.4	214.2	234.0	218.5	226.8	234.9	292.9
Nandurbar			103.5	123.0	125.1	126.9	99.9	104.0	107.8	111.3
Nashik	176.3	278.8	376.9	366.3	372.4	378.7	374.1	394.4	405.0	383.6
Osmanabad	109.3	136.0	162.1	209.0	216.5	224.3	235.3	248.5	256.0	316.2
Parbhani	128.1	135.3	88.4	113.6	111.8	121.2	117.4	121.8	125.2	157.1
Pune	344.9	465.0	589.9	729.0	746.7	771.5	765.9	816.2	841.0	1,110.4
Raigarh	78.3	106.0	94.5	98.3	100.9	101.4	74.4	77.3	80.1	65.6
Ratnagiri	55.2	50.1	63.3	55.1	58.9	60.9	66.6	69.5	72.1	58.7
Sangli	241.1	314.6	331.8	318.2	346.0	351.8	500.9	522.2	539.0	526.8
Satara	265.4	340.6	377.1	442.0	472.5	481.8	465.5	490.1	506.2	564.1
Sindhudurg	36.1	38.4	35.8	38.8	39.8	41.4	46.8	48.7	49.8	45.8
Solapur	203.7	267.2	370.8	474.9	493.1	510.2	596.9	631.9	650.6	527.8
Thane	121.5	113.7	190.6	206.6	212.0	216.4	176.4	180.5	188.3	181.6
Wardha	40.8	57.2	75.5	71.9	74.8	78.3	88.1	93.0	95.8	95.6
Washim			57.5	54.9	57.1	57.5	66.6	69.1	70.9	89.1
Yavatmal	73.6	70.8	103.4	98.1	102.4	102.7	126.7	132.1	135.9	119.2

SOURCE: Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.





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

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

Districts	Bovine Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>3,906.0</b>	<b>4,954.8</b>	<b>6,076.3</b>	<b>6,944.4</b>	<b>7,177.7</b>	<b>7,396.3</b>	<b>7,771.1</b>	<b>8,176.1</b>	<b>8,430.7</b>	<b>8,838.6</b>
Ahmadnagar	323.3	445.3	604.2	898.0	918.4	954.0	1,062.2	1,141.0	1,172.3	1,449
Akola	70.4	80.6	56.5	53.2	55.0	55.5	64.6	67.3	69.4	81.5
Amaravati	64.5	74.5	98.0	90.6	91.2	92.2	115.0	120.0	124.6	127
Aurangabad	89.4	133.5	148.2	163.6	165.3	170.3	182.3	193.1	199.2	176
Bid	120.1	133.2	191.5	240.3	251.5	261.1	329.4	347.9	358.8	396.2
Bhandara	76.4	91.8	69.2	72.6	74.2	77.2	88.6	93.3	95.6	106.1
Buldana	96.9	106.7	114.8	132.8	132.8	137.4	163.1	170.4	175.5	169.3
Chandrapur	33.6	40.0	54.0	53.1	55.9	57.2	60.8	63.4	66.1	80.8
Dhule	124.2	160.2	142.4	128.9	131.6	133.7	132.2	138.7	143.2	150
Gadchiroli	17.6	15.0	27.8	34.8	36.7	37.0	47.1	48.9	50.0	39.4
Gondiya			54.1	54.7	56.3	60.0	68.7	71.5	74.4	71.3
Hingoli			66.9	66.8	65.4	72.5	78.2	81.3	85.6	59.9
Jalgaon	220.8	288.3	343.0	339.2	345.3	350.4	270.9	282.3	292.0	267.5
Jalna	56.5	67.5	82.7	82.1	84.3	87.2	97.7	102.1	105.4	120.1
Kolhapur	286.4	455.2	534.8	608.8	664.3	674.2	760.2	791.5	817.7	667.5
Latur	108.9	123.3	152.6	152.8	161.2	167.7	190.1	197.0	204.3	173.3
Mumbai (Brihan)	213.6	221.1	176.2	181.3	172.2	174.3	31.1	32.9	33.1	30.9
Nagpur	72.2	80.3	101.5	112.0	115.5	121.4	146.4	154.6	158.5	154.1
Nanded	146.7	169.4	183.8	209.1	205.0	225.0	209.5	217.1	224.8	284.7
Nandurbar			96.5	115.5	117.2	118.9	92.2	95.8	99.2	104.1
Nashik	164.1	263.1	357.0	349.3	354.4	360.6	356.7	375.7	385.6	367.2
Osmanabad	102.8	127.8	151.8	201.6	209.1	216.5	229.7	242.5	249.7	311.2
Parbhani	121.0	127.3	82.5	108.9	106.5	116.1	112.3	116.3	119.4	152.3
Pune	332.1	450.9	572.0	712.6	729.5	754.1	744.1	792.8	816.8	1090
Raigarh	76.4	102.6	91.3	95.5	98.0	98.5	72.2	74.9	77.7	63.6
Ratnagiri	54.2	48.9	61.4	53.9	57.8	59.7	66.0	68.9	71.5	58.1
Sangli	232.6	304.0	318.0	306.2	334.2	339.3	490.9	511.5	527.8	518.2
Satara	255.5	327.6	360.7	426.6	457.4	465.8	455.5	479.4	495.0	554.7
Sindhudurg	34.9	37.2	34.6	37.9	39.0	40.5	46.3	48.2	49.2	45.4
Solapur	184.5	242.0	339.1	447.1	465.3	481.0	570.3	603.4	621.0	502.8
Thane	118.7	110.5	185.5	201.7	206.8	211.2	171.6	175.4	183.0	177.1
Wardha	38.8	54.7	72.6	69.6	72.0	75.7	84.2	88.8	91.5	92
Washim			54.3	52.0	53.8	54.3	62.9	65.2	66.8	85.7
Yavatmal	68.6	66.3	97.1	91.8	95.1	95.8	118.1	122.9	126.3	111.1

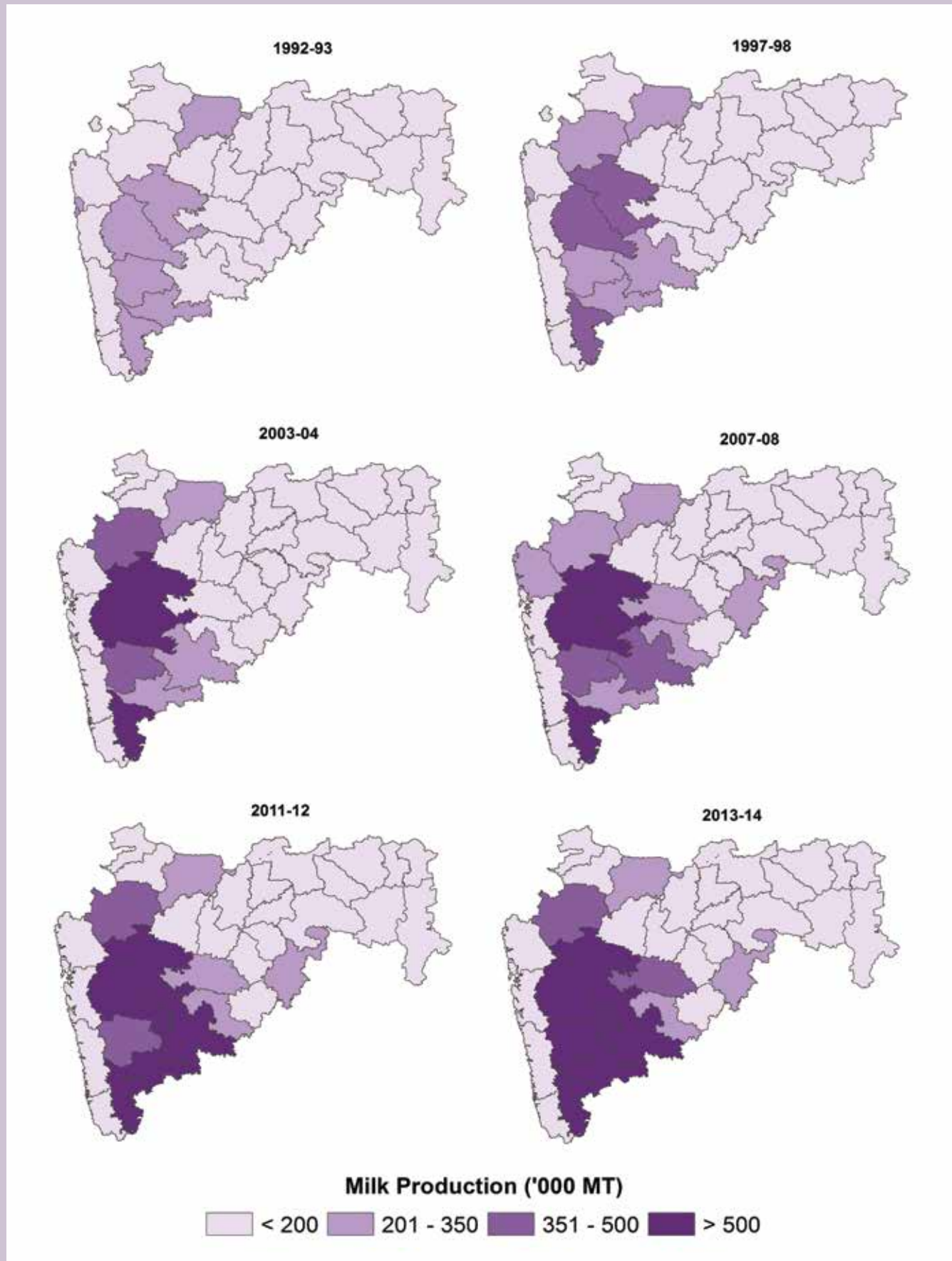
SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.





### District-wise Bovine Milk Production





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

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

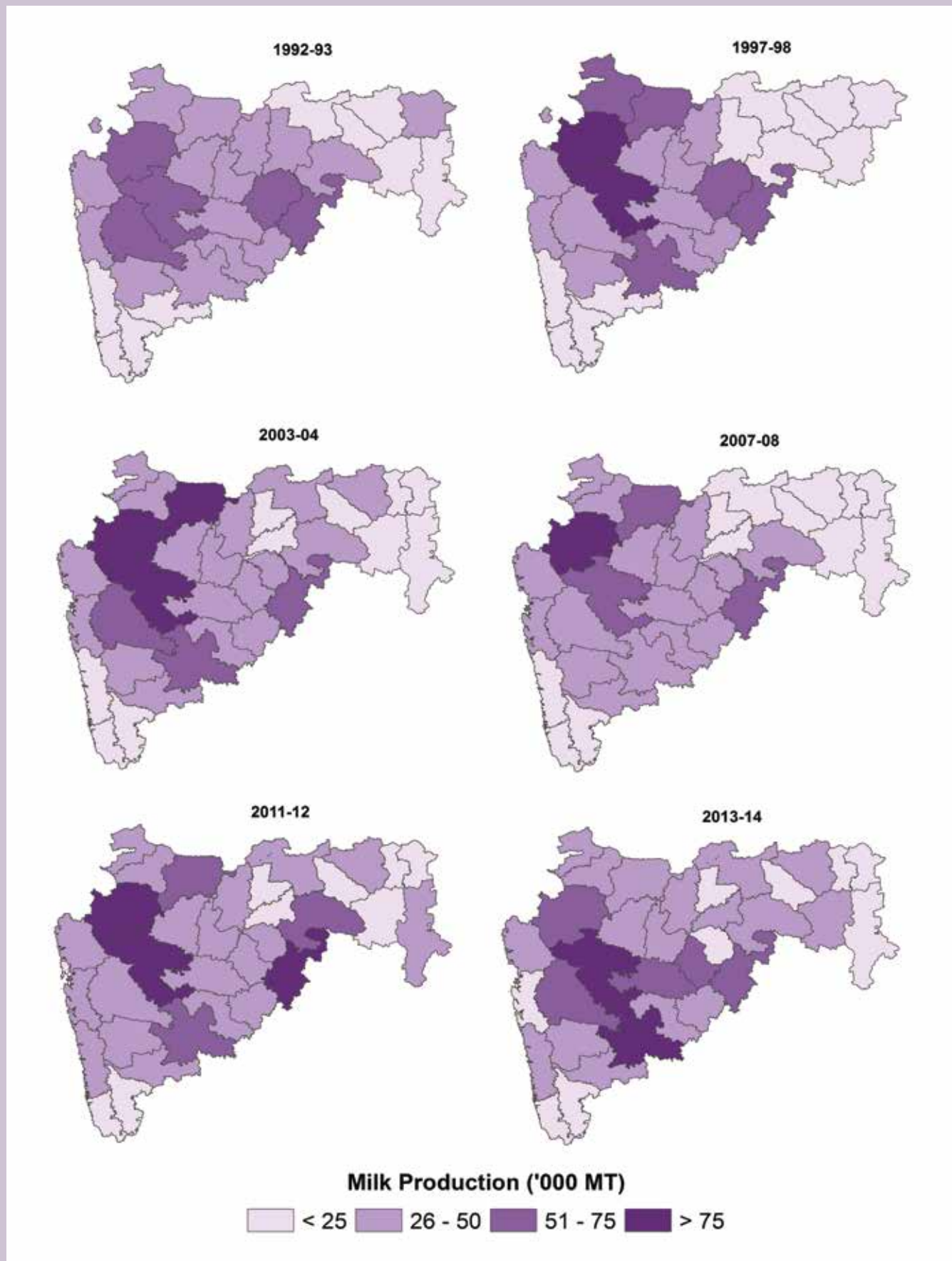
Districts	Indigenous Cattle Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>996.5</b>	<b>1,016.1</b>	<b>1,206.5</b>	<b>1,033.8</b>	<b>1,066.2</b>	<b>1,154.4</b>	<b>1,229.4</b>	<b>1,277.1</b>	<b>1,312.9</b>	<b>1,295.1</b>
Ahmadnagar	65.5	75.7	80.8	69.1	72.1	87.4	76.3	79.3	81.1	120.5
Akola	25.5	22.6	16.3	15.0	15.3	14.9	19.5	20.2	20.7	22.4
Amaravati	23.2	20.0	29.0	24.2	24.7	24.0	35.0	36.3	37.3	33.3
Aurangabad	32.1	35.9	38.6	35.2	37.0	38.3	32.2	33.4	34.5	29.8
Bid	46.0	40.4	43.1	35.1	38.5	44.0	43.1	44.8	46.0	52.3
Bhandara	25.4	18.5	11.5	8.3	9.1	10.6	12.7	13.2	13.5	24.0
Buldana	38.1	35.2	39.4	40.8	43.4	44.9	38.7	40.3	41.5	36.9
Chandrapur	12.7	9.7	18.1	13.8	15.2	14.7	20.4	21.1	21.8	27.4
Dhule	45.1	55.4	38.9	31.3	31.1	31.7	32.7	33.9	34.9	42.1
Gadchiroli	10.4	6.1	15.6	16.4	17.9	17.3	26.4	27.4	28.3	15.9
Gondiya			17.6	15.9	17.4	20.2	23.1	24.0	24.6	24.8
Hingoli			29.3	26.4	23.9	29.8	31.5	32.7	34.0	14.4
Jalgaon	49.7	72.3	81.3	54.4	54.9	55.9	68.1	70.8	72.9	48.1
Jalna	30.1	27.9	32.5	30.3	32.0	33.1	28.1	29.2	30.1	40.6
Kolhapur	17.9	13.2	17.2	17.6	18.9	19.6	12.8	13.3	13.6	13.4
Latur	34.9	32.8	32.8	29.4	32.3	36.9	34.1	35.4	36.4	29.3
Mumbai (Brihan)	7.9	7.2	2.4	2.2	2.6	2.5	0.7	0.7	0.7	0.3
Nagpur	23.6	15.2	25.7	20.6	22.6	26.2	33.4	34.7	35.5	32.9
Nanded	63.7	60.4	65.4	69.3	62.2	77.4	84.7	88.0	91.2	69.8
Nandurbar			42.9	42.0	42.5	43.3	40.2	41.8	43.0	46.5
Nashik	60.6	100.7	125.1	89.8	90.3	91.9	98.6	102.4	105.3	69.6
Osmanabad	30.1	28.5	28.0	25.9	26.7	30.5	28.3	29.4	30.2	37.9
Parbhani	63.7	61.7	32.6	31.7	28.5	35.5	44.3	46.0	47.7	55.6
Pune	51.4	48.6	51.7	40.1	41.9	50.7	45.2	46.9	48.0	63.5
Raigarh	31.2	35.0	33.3	31.2	32.0	30.3	29.8	31.0	31.7	24.2
Ratnagiri	23.1	15.9	21.3	18.9	21.0	21.6	33.7	35.0	35.9	26.1
Sangli	22.4	23.4	28.4	27.0	29.5	30.4	28.1	29.2	30.0	34.8
Satara	34.3	34.0	40.2	27.0	29.1	30.0	27.6	28.7	29.5	36.9
Sindhudurg	10.9	9.4	8.6	8.0	9.0	9.2	13.5	14.0	14.3	10.8
Solapur	47.6	50.8	54.8	48.4	52.6	60.0	57.1	59.3	61.1	93.2
Thane	27.7	28.1	33.8	28.8	29.4	27.9	37.2	38.6	39.6	39.1
Wardha	13.0	11.3	18.6	13.6	15.0	17.4	22.2	23.0	23.5	16.8
Washim			16.7	15.3	15.8	15.4	21.1	21.9	22.4	26.8
Yavatmal	28.6	20.1	34.8	31.0	31.8	31.0	48.9	50.8	52.1	35.1

SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.



### District-wise Indigenous Cattle Milk Production





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

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

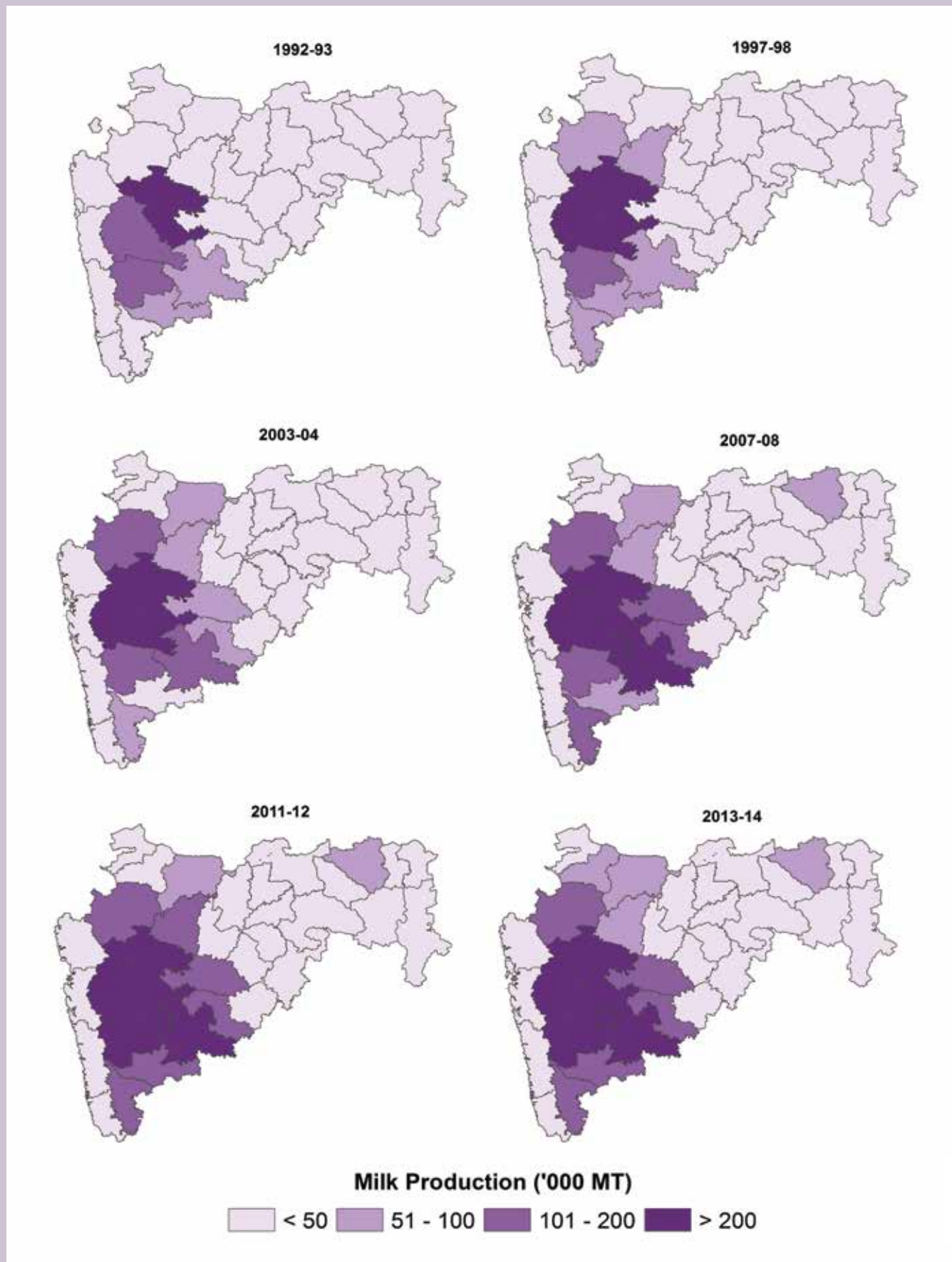
Districts	Crossbred Cattle Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>1,040.3</b>	<b>1,467.1</b>	<b>1,954.9</b>	<b>2,763.2</b>	<b>2,817.2</b>	<b>2,886.8</b>	<b>3,067.9</b>	<b>3,328.0</b>	<b>3,415.7</b>	<b>3,721.1</b>
Ahmadnagar	208.3	302.8	434.1	723.3	736.9	755.1	847.9	919.8	944.0	1,161.8
Akola	6.9	9.9	9.8	11.8	12.1	12.4	12.1	13.1	13.4	9.7
Amaravati	10.0	13.9	18.5	21.3	20.7	21.2	24.2	26.2	26.9	25.1
Aurangabad	30.5	55.9	71.7	92.2	93.5	95.8	94.2	102.2	104.9	79.3
Bid	25.4	40.2	80.6	113.5	115.2	118.0	154.6	167.7	172.1	189.1
Bhandara	12.0	21.7	23.4	30.7	30.7	31.4	36.2	39.3	40.3	36.2
Buldana	19.7	24.1	25.9	33.1	32.6	33.4	41.1	44.5	45.7	42.0
Chandrapur	2.2	3.0	7.6	11.8	12.5	12.8	12.1	13.1	13.4	11.6
Dhule	22.2	34.6	39.5	33.1	34.8	35.7	43.5	47.2	48.4	50.5
Gadchiroli	0.2	0.4	1.5	2.4	2.4	2.5	2.4	2.6	2.7	2.1
Gondiya			7.6	9.5	8.9	9.1	9.7	10.5	10.8	8.5
Hingoli			8.3	11.8	12.2	12.5	9.7	10.5	10.8	6.7
Jalgaon	35.9	44.2	54.9	66.2	68.1	69.7	53.1	57.7	59.2	61.9
Jalna	6.9	12.1	19.8	21.3	22.6	23.2	24.2	26.2	26.9	23.7
Kolhapur	49.6	77.3	94.9	160.7	164.5	168.6	171.5	186.1	191.0	165.8
Latur	18.2	22.0	27.9	28.4	28.5	29.2	21.7	23.6	24.2	30.0
Mumbai (Brihan)	0.7	1.6	2.9	4.7	4.2	4.3	0.0	0.0	0.0	0.6
Nagpur	20.0	30.2	40.6	56.7	57.3	58.7	65.2	70.8	72.6	66.2
Nanded	10.5	23.4	23.9	21.3	22.7	23.3	14.5	15.7	16.1	20.4
Nandurbar			12.5	14.2	14.4	14.7	9.7	10.5	10.8	11.1
Nashik	35.6	67.6	103.8	122.9	125.2	128.3	140.1	152.0	156.0	169.2
Osmanabad	33.3	49.9	63.7	106.4	108.4	111.1	106.3	115.3	118.3	124.0
Parbhani	9.3	10.8	7.7	9.5	9.8	10.0	7.2	7.9	8.1	8.7
Pune	171.7	263.1	345.5	468.2	476.0	487.7	480.7	521.5	535.2	757.7
Raigarh	5.3	4.3	5.1	7.1	7.7	7.9	7.2	7.9	8.1	7.1
Ratnagiri	14.3	15.5	19.3	16.6	18.0	18.4	12.1	13.1	13.4	11.8
Sangli	89.2	71.8	49.2	61.5	61.6	63.1	113.5	123.2	126.4	100.9
Satara	107.3	129.4	138.1	193.8	198.6	203.5	188.4	204.4	209.8	247.2
Sindhudurg	5.4	4.9	5.5	7.1	6.9	7.1	7.2	7.9	8.1	5.9
Solapur	62.8	91.2	155.1	241.1	245.2	251.3	289.9	314.4	322.7	206.2
Thane	7.2	9.9	5.9	9.5	10.7	11.0	9.7	10.5	10.8	10.8
Wardha	12.4	23.2	30.2	33.1	33.5	34.3	36.2	39.3	40.3	45.4
Washim			6.2	4.7	5.6	5.7	4.8	5.2	5.4	6.3
Yavatmal	7.8	7.9	13.6	14.2	15.4	15.8	16.9	18.3	18.8	17.6

SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.



### District-wise Crossbred Cattle Milk Production





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

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

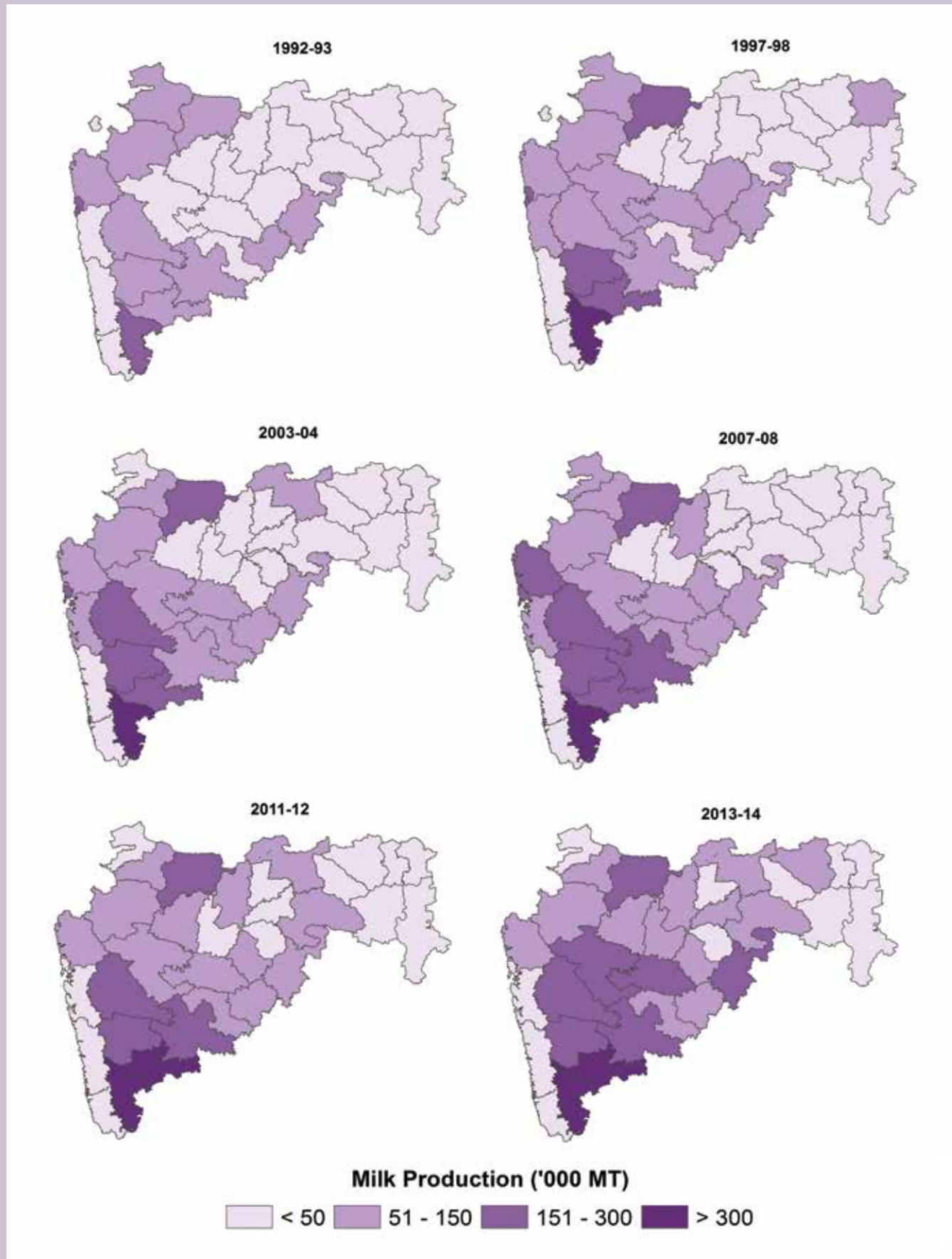
Districts	Buffalo Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>1,869.1</b>	<b>2,471.7</b>	<b>2,914.9</b>	<b>3,147.4</b>	<b>3,294.5</b>	<b>3,355.1</b>	<b>3,473.7</b>	<b>3,571.0</b>	<b>3,702.1</b>	<b>3,822.4</b>
Ahmadnagar	49.6	66.9	89.2	105.7	109.4	111.5	138.0	141.9	147.2	166.7
Akola	38.0	48.1	30.4	26.4	27.6	28.2	33.0	34.0	35.3	49.4
Amaravati	31.3	40.6	50.6	45.1	45.8	46.9	55.9	57.5	60.4	68.6
Aurangabad	26.8	41.7	37.8	36.2	34.8	36.3	55.9	57.5	59.8	66.9
Bid	48.7	52.6	67.8	91.7	97.9	99.1	131.6	135.3	140.6	154.8
Bhandara	39.0	51.6	34.3	33.5	34.4	35.2	39.7	40.8	41.7	45.9
Buldana	39.2	47.4	49.5	58.9	56.9	59.2	83.3	85.6	88.2	90.4
Chandrapur	18.7	27.3	28.3	27.5	28.2	29.7	28.3	29.1	30.9	41.8
Dhule	57.0	70.2	64.0	64.5	65.6	66.3	56.0	57.6	59.8	57.4
Gadchiroli	7.0	8.5	10.8	16.0	16.4	17.2	18.3	18.9	19.0	21.4
Gondiya			28.8	29.3	30.1	30.8	35.9	36.9	39.0	38.0
Hingoli			29.3	28.6	29.2	30.2	37.0	38.1	40.9	38.8
Jalgaon	135.1	171.8	206.8	218.6	222.3	224.7	149.6	153.9	160.0	157.5
Jalna	19.6	27.5	30.3	30.6	29.7	30.9	45.4	46.7	48.4	55.8
Kolhapur	218.9	364.7	422.7	430.5	480.8	486.0	575.9	592.2	613.1	488.3
Latur	55.8	68.6	91.9	95.0	100.4	101.7	134.3	138.1	143.6	114.0
Mumbai (Brihan)	205.0	212.2	170.9	174.4	165.4	167.5	30.4	32.2	32.3	30.0
Nagpur	28.7	34.9	35.2	34.7	35.6	36.4	47.7	49.1	50.4	55.0
Nanded	72.5	85.5	94.5	118.5	120.1	124.4	110.3	113.4	117.4	194.5
Nandurbar			41.0	59.3	60.3	60.9	42.3	43.5	45.4	46.5
Nashik	67.9	94.8	128.1	136.6	138.9	140.4	118.0	121.3	124.3	128.4
Osmanabad	39.4	49.4	60.1	69.3	74.0	75.0	95.0	97.7	101.2	149.3
Parbhani	48.0	54.8	42.2	67.7	68.2	70.6	60.7	62.5	63.6	88.0
Pune	109.0	139.1	174.8	204.3	211.6	215.6	218.2	224.4	233.5	268.8
Raigarh	39.9	63.2	52.8	57.2	58.3	60.3	35.1	36.1	37.9	32.3
Ratnagiri	16.9	17.6	20.8	18.5	18.7	19.6	20.2	20.8	22.1	20.2
Sangli	121.1	208.9	240.3	217.7	243.1	245.8	349.2	359.1	371.4	382.5
Satara	114.0	164.2	182.4	205.7	229.8	232.3	239.5	246.3	255.8	270.6
Sindhudurg	18.6	23.0	20.5	22.8	23.1	24.2	25.6	26.3	26.8	28.7
Solapur	74.1	100.0	129.1	157.7	167.5	169.6	223.4	229.7	237.2	203.4
Thane	83.8	72.5	145.8	163.4	166.7	172.4	124.7	126.3	132.6	127.2
Wardha	13.3	20.2	23.7	22.9	23.5	24.0	25.8	26.5	27.6	29.8
Washim			31.3	31.9	32.4	33.2	37.0	38.0	39.0	52.6
Yavatmal	32.1	38.3	48.6	46.6	47.8	49.0	52.2	53.7	55.4	58.4

SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.



### District-wise Buffalo Milk Production





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

**TABLE IV.3.6: Year and District-wise Goat Milk Production**

Districts	Goat Milk Production ('000 MT)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>196.2</b>	<b>237.9</b>	<b>300.8</b>	<b>265.3</b>	<b>277.2</b>	<b>281.9</b>	<b>273.0</b>	<b>292.9</b>	<b>303.7</b>	<b>250.4</b>
Ahmadnagar	18.0	22.6	28.9	28.2	29.5	29.9	33.9	36.4	37.6	31.7
Akola	4.4	5.7	3.5	3.6	4.2	4.0	3.6	3.9	4.1	3.4
Amaravati	3.7	4.4	5.4	5.6	6.5	6.2	5.8	8.7	6.5	5.4
Aurangabad	7.9	10.8	12.4	10.2	10.2	10.7	9.4	10.1	10.5	8.3
Bid	10.4	11.8	15.7	12.8	12.8	13.5	12.2	13.1	13.6	11.5
Bhandara	3.5	4.3	2.7	2.4	2.8	2.7	4.0	4.3	4.4	3.5
Buldana	6.4	6.9	9.8	8.4	8.4	8.8	8.1	6.3	9.0	7.6
Chandrapur	2.8	3.8	4.4	3.7	4.2	4.0	3.8	4.1	4.3	3.3
Dhule	9.4	10.8	8.7	8.5	9.0	9.0	8.3	8.9	9.2	6.7
Gadchiroli	2.1	2.1	3.1	3.0	3.3	3.1	3.7	4.0	4.1	3.5
Gondiya	0.0	0.0	3.2	2.3	2.7	2.6	4.2	4.5	4.7	3.8
Hingoli	0.0	0.0	4.7	3.6	4.1	4.0	4.0	4.3	4.4	3.7
Jalgaon	11.2	13.4	15.1	12.5	13.3	13.3	12.3	13.2	13.7	10.0
Jalna	5.1	6.4	8.2	6.5	6.5	6.8	5.5	5.9	6.2	5.2
Kolhapur	6.1	6.5	7.9	6.9	6.8	7.2	5.6	6.0	6.2	5.2
Latur	5.1	5.3	6.2	5.4	5.3	5.6	3.9	4.2	4.3	3.6
Mumbai (Brihan)	0.2	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Nagpur	3.6	4.1	4.9	3.9	4.5	4.3	6.8	7.3	7.6	6.0
Nanded	6.3	7.8	9.4	8.3	9.2	9.0	9.0	9.7	10.1	8.2
Nandurbar	0.0	0.0	7.0	7.5	7.9	8.0	7.7	8.2	8.6	7.2
Nashik	12.2	15.7	19.9	17.0	18.0	18.1	17.4	18.7	19.4	16.4
Osmanabad	6.5	8.2	10.3	7.4	7.4	7.8	5.6	6.0	6.3	5.0
Parbhani	7.1	8.0	5.9	4.7	5.3	5.1	5.1	5.5	5.8	4.8
Pune	12.8	14.1	17.9	16.4	17.2	17.4	21.8	23.4	24.2	20.4
Raigarh	1.9	3.4	3.2	2.8	2.9	2.9	2.2	2.4	2.4	2.0
Ratnagiri	1.0	1.2	1.9	1.2	1.1	1.2	0.6	0.6	0.6	0.6
Sangli	8.5	10.6	13.8	12.0	11.8	12.5	10.0	10.7	11.2	8.6
Satara	9.9	13.0	16.4	15.4	15.1	16.0	10.0	10.7	11.2	9.4
Sindhudurg	1.2	1.2	1.2	0.9	0.8	0.9	0.5	0.5	0.6	0.4
Solapur	19.2	25.2	31.7	27.8	27.8	29.2	26.6	28.5	29.6	25.0
Thane	2.8	3.2	5.1	4.9	5.2	5.2	4.8	5.1	5.3	4.5
Wardha	2.0	2.5	2.9	2.3	2.8	2.6	3.9	4.2	4.3	3.6
Washim	0.0	0.0	3.2	2.9	3.3	3.2	3.7	3.9	4.1	3.4
Yavatmal	5.0	4.5	6.3	6.3	7.3	6.9	8.6	9.2	9.6	8.1

SOURCE : Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.

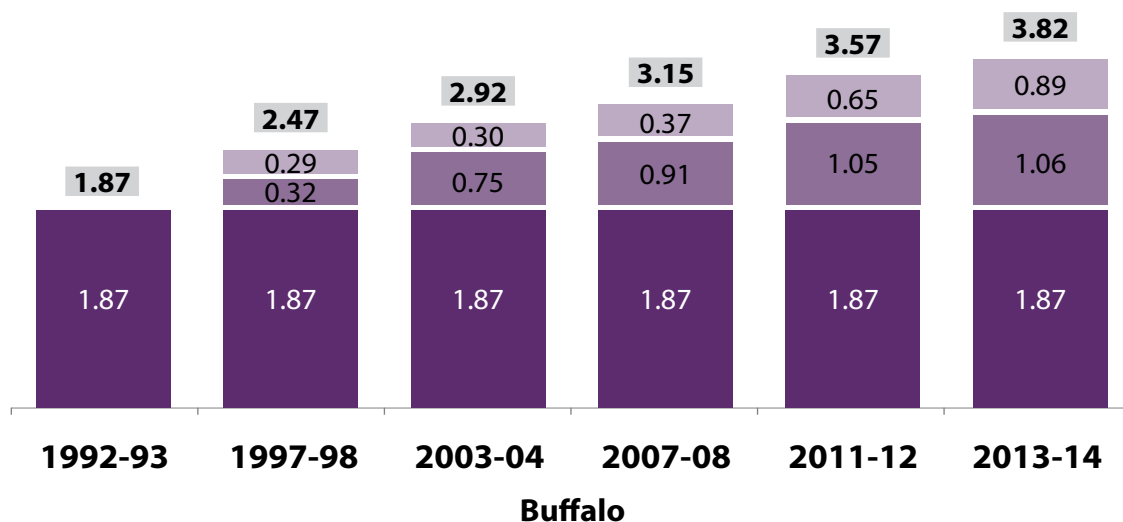
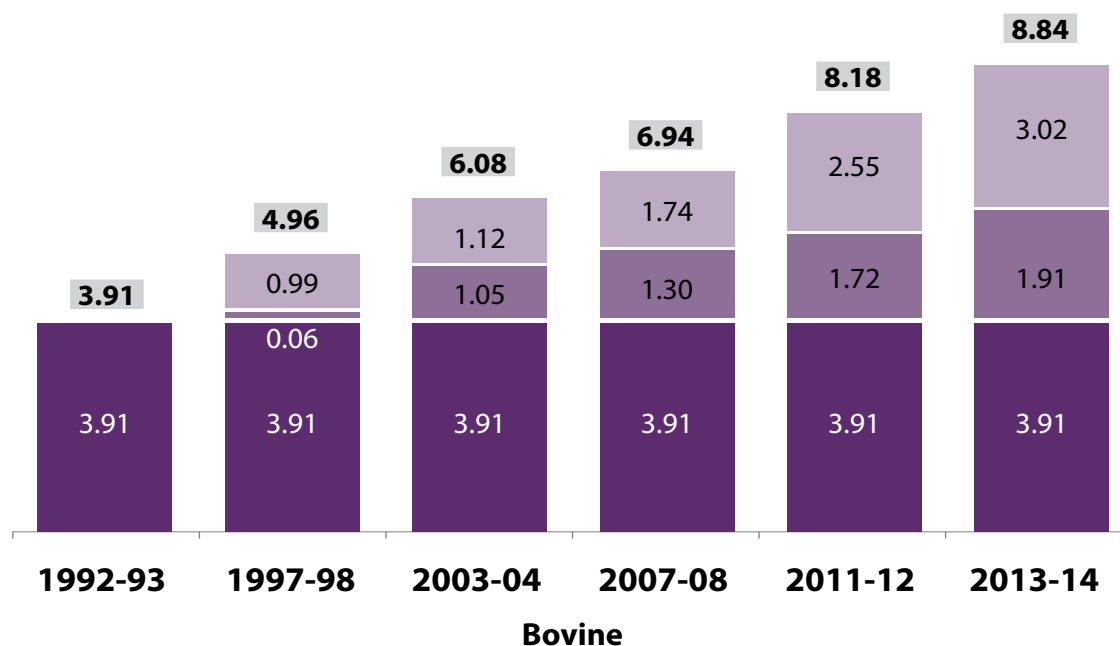






## Maharashtra's Milk Production (MMT)

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



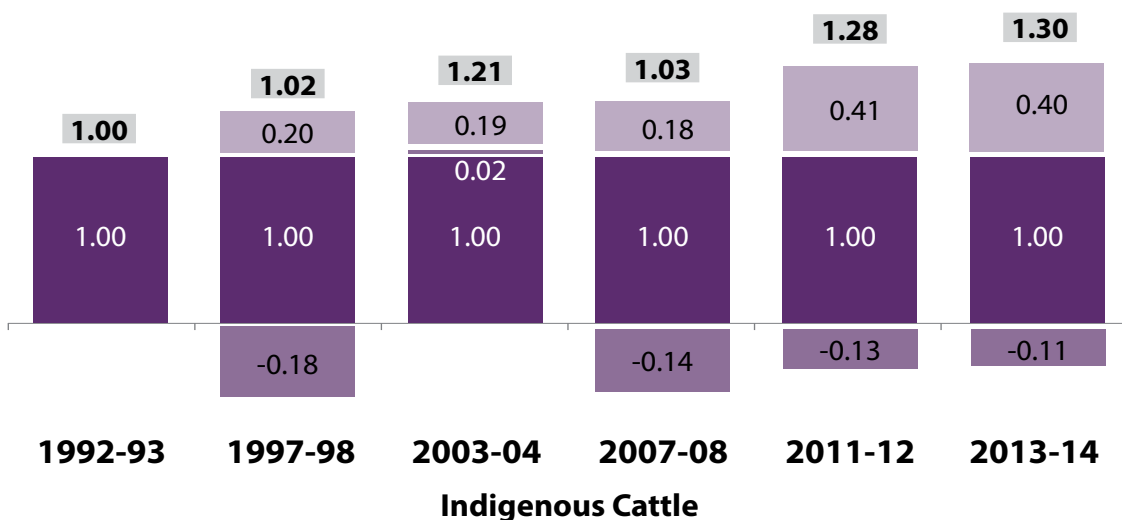
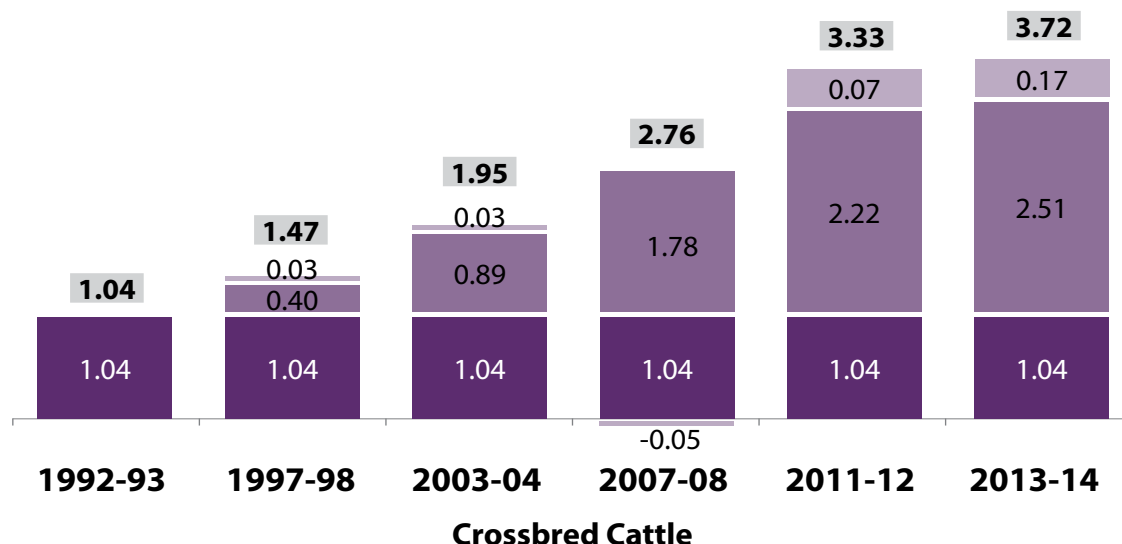
- Milk production in base year - 1992-1993 - MMT.
- Total milk production.
- Increase in milk production due to change in numbers of in milk animals - MMT.
- Increase in milk production due to change in average yield - kg/in-milk animal per day - MMT.





## Maharashtra'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.
- Increase in milk production due to change in numbers of in milk animals - MMT.
- Increase in milk production due to change in average yield - kg/in-milk animal per day - MMT.





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

**TABLE IV.3.7: Year and District-wise Total Milk Production Density**

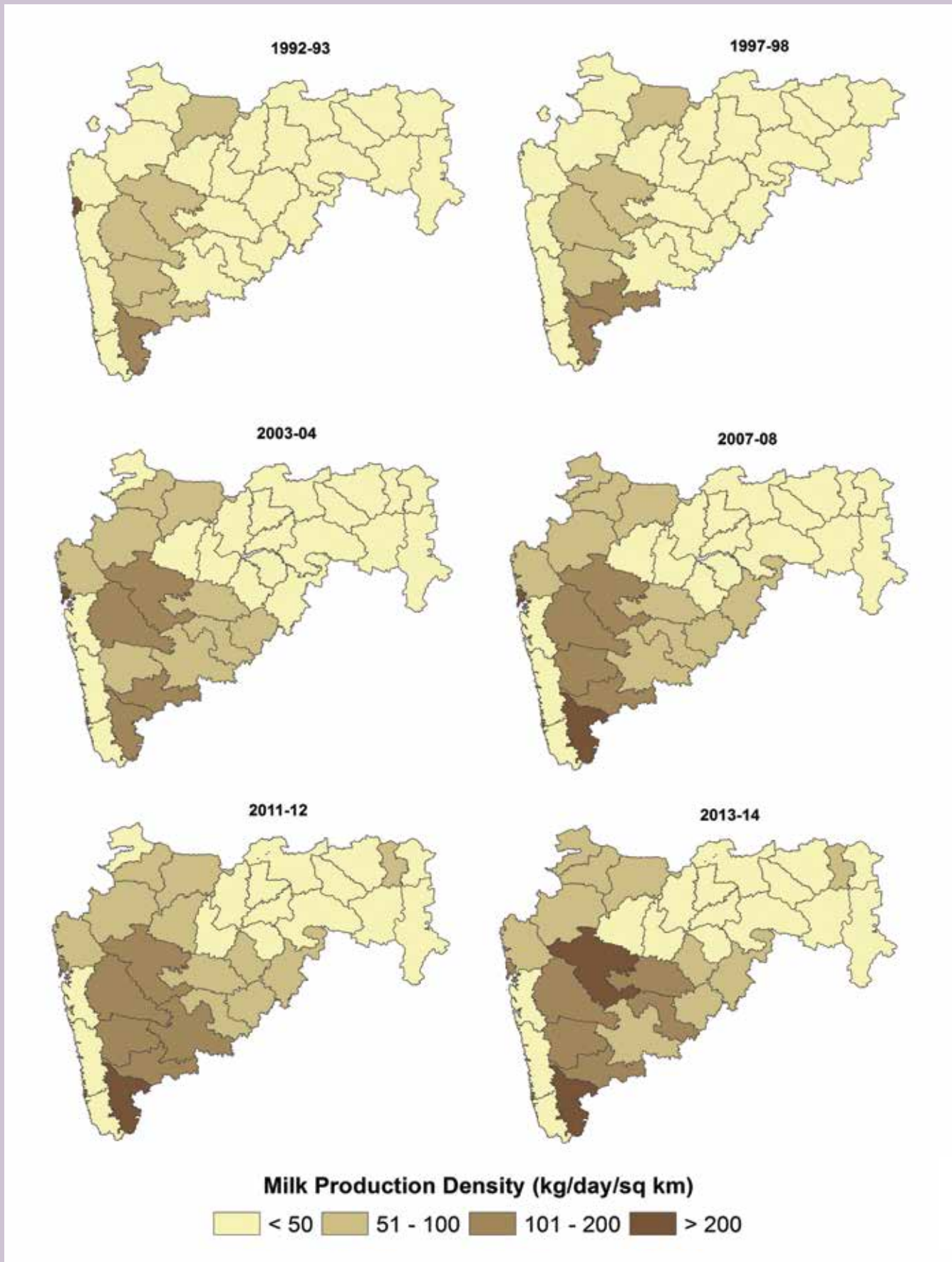
Districts	Milk Production Density (Kg/day/sq km)									
	1992-93	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>37</b>	<b>46</b>	<b>57</b>	<b>64</b>	<b>66</b>	<b>68</b>	<b>72</b>	<b>75</b>	<b>78</b>	<b>81</b>
Ahmadnagar	55	75	102	149	152	158	176	189	194	238
Akola	19	22	29	27	29	29	33	34	35	41
Amaravati	15	18	23	22	22	22	27	29	29	30
Aurangabad	26	39	44	47	48	49	52	55	57	50
Bid	33	37	53	65	68	70	88	92	95	104
Bhandara	23	28	48	50	52	54	62	65	67	73
Buldana	29	32	35	40	40	41	49	50	52	50
Chandrapur	9	11	14	14	14	15	15	16	17	20
Dhule	28	36	58	52	54	54	53	56	58	60
Gadchiroli	4	3	6	7	8	8	10	10	10	8
Gondiya			30	30	31	33	38	40	41	39
Hingoli			41	40	39	43	47	49	51	36
Jalgaon	54	70	83	82	83	85	66	69	71	65
Jalna	22	26	32	31	32	33	37	38	40	44
Kolhapur	104	165	193	219	239	243	273	284	294	240
Latur	44	49	61	61	64	66	74	77	80	68
Mumbai (Brihan)	972	1,006	801	824	783	793	142	150	151	141
Nagpur	21	23	29	32	33	35	42	45	46	44
Nanded	40	46	50	57	56	61	57	59	61	76
Nandurbar			48	57	58	58	46	48	50	51
Nashik	31	49	66	65	66	67	66	70	71	68
Osmanabad	40	49	59	76	78	81	85	90	93	114
Parbhani	32	34	39	50	49	53	52	54	55	69
Pune	60	81	103	128	131	135	134	143	147	194
Raigarh	30	41	36	38	39	39	28	30	31	25
Ratnagiri	18	17	21	18	20	20	22	23	24	20
Sangli	77	101	106	102	111	112	160	167	172	168
Satara	69	89	99	116	124	126	122	128	132	147
Sindhudurg	19	20	19	20	21	22	25	26	26	24
Solapur	37	49	68	87	91	94	110	116	120	97
Thane	35	33	55	59	61	62	51	52	54	52
Wardha	18	25	33	31	32	34	38	40	42	42
Washim			32	31	32	32	37	39	40	50
Yavatmal	15	14	21	20	21	21	26	27	27	24

SOURCE : Estimated from Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE: Brihan Mumbai is treated as one district instead of Mumbai city and Mumbai suburban district.



### 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	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>140</b>	<b>160</b>	<b>175</b>	<b>187</b>	<b>190</b>	<b>193</b>	<b>199</b>	<b>206</b>	<b>210</b>	<b>215</b>
Ahmadnagar	272	339	415	583	590	606	668	710	722	874
Akola	91	96	143	108	106	101	109	107	104	114
Amaravati	84	89	107	95	96	95	116	122	123	123
Aurangabad	117	151	144	142	140	141	146	151	152	130
Bid	193	197	254	288	296	302	368	382	388	417
Bhandara	103	117	172	175	179	184	213	223	227	248
Buldana	148	149	149	159	156	160	184	187	192	182
Chandrapur	55	62	76	73	76	77	81	84	87	104
Dhule	142	166	234	198	198	198	191	197	200	202
Gadchiroli	67	53	86	100	105	105	131	135	137	107
Gondiya			128	123	126	132	153	157	162	152
Hingoli			192	176	170	184	195	199	206	143
Jalgaon	196	238	259	241	242	242	186	192	196	175
Jalna	122	134	149	134	135	137	147	151	153	169
Kolhapur	264	384	415	453	489	491	547	564	577	467
Latur	182	185	202	189	195	200	220	224	229	191
Mumbai (Brihan)	58	55	40	41	38	39	7	7	7	7
Nagpur	62	62	70	72	74	76	91	95	96	92
Nanded	176	184	179	189	183	197	181	185	189	232
Nandurbar			207	224	223	221	170	173	175	177
Nashik	122	170	199	178	178	177	171	177	178	165
Osmanabad	231	268	295	362	370	379	393	410	417	509
Parbhani	163	159	156	184	177	189	179	182	183	225
Pune	166	196	212	236	235	236	229	237	238	306
Raigarh	115	142	113	110	111	109	79	80	82	66
Ratnagiri	97	84	103	92	98	102	113	118	123	101
Sangli	295	355	346	320	345	348	491	507	519	503
Satara	293	352	364	415	440	446	428	447	458	507
Sindhudurg	118	124	114	124	128	133	151	157	161	148
Solapur	170	204	258	315	324	331	383	401	408	328
Thane	61	46	60	58	58	57	45	45	45	42
Wardha	103	135	166	155	161	168	188	198	202	200
Washim			103	111	119	124	148	158	167	217
Yavatmal	95	84	112	102	105	104	127	130	133	115

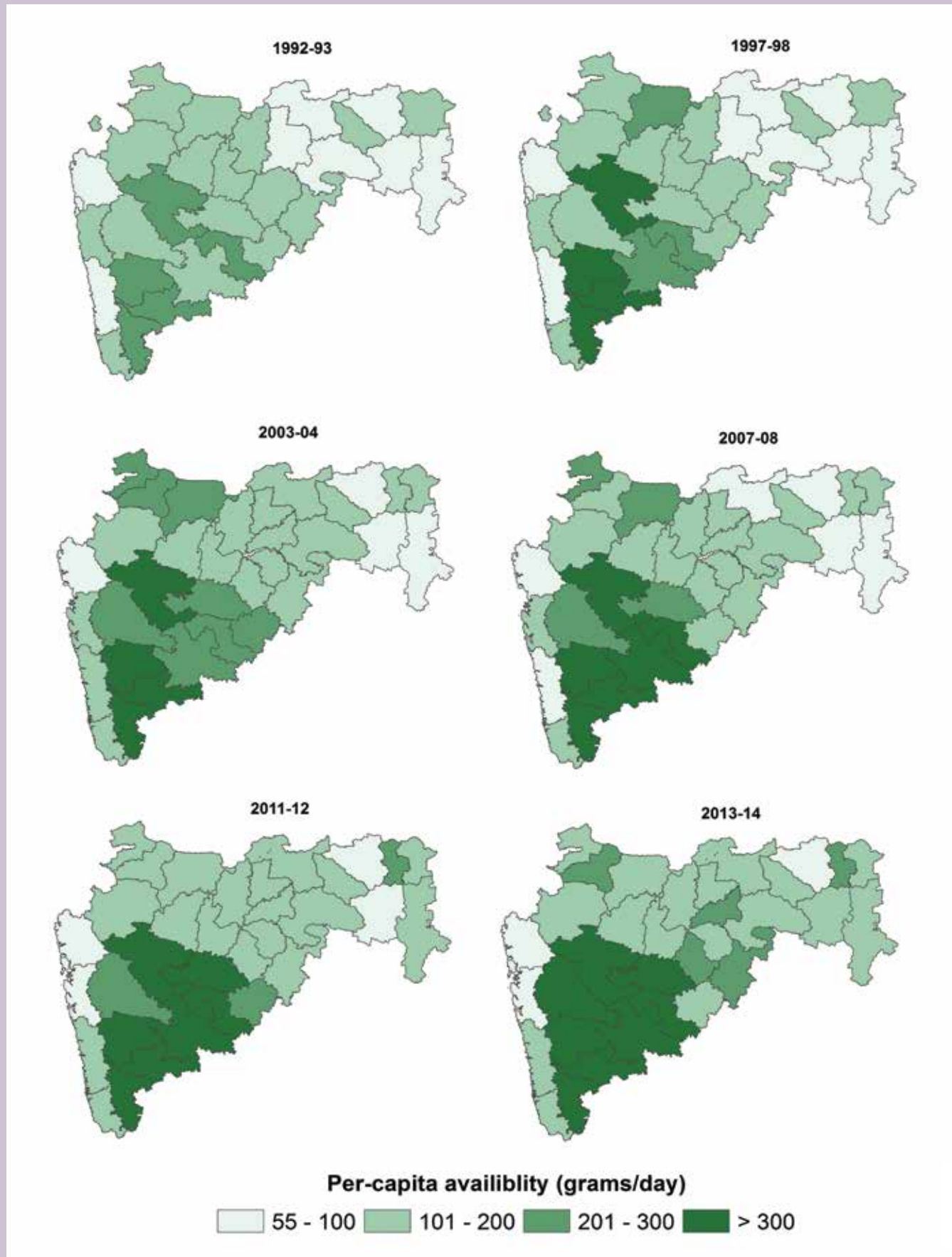
SOURCE : Estimated from Integrated Sample Survey Reports (1992-93 to 2013-14), Department of Animal Husbandry, Govt. of Maharashtra.

NOTE : Brihan Mumbai is treated as one district instead of Mumbai and Mumbai suburban districts.





### District-wise Per Capita Milk Availability





## IV.5. Production Performance: Milk Utilisation

**TABLE IV.5.1: Milk Utilisation Pattern in Households (2000-01 to 2012-13)**

(In Percent)

Category	Parameters	2000-01	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>Cattle</b>	Consumed as fluid milk	34.3	33.9	32.6	35.4	35.7	34.9	27.1	28.7
	Sold as fluid milk	63.6	63.7	64.1	60.7	61.8	62.5	65.8	67.9
	Converted into Milk products	2.0	2.3	3.2	3.8	2.5	2.6	6.7	3.4
<b>Buffalo</b>	Consumed as fluid milk	23.9	22.4	18.9	21.3	29.8	23.5	22.6	15.1
	Sold as fluid milk	69.8	70.3	73.3	73.1	66.9	69.9	68.4	80.8
	Converted into Milk products	6.3	7.3	7.8	5.6	3.4	6.6	9.0	3.9

SOURCE : Integrated Sample Survey Reports (2000-01 to 2012-13), Department of Animal Husbandry, Govt. of Maharashtra.





## PART V : VETERINARY INFRASTRUCTURE AND SERVICE DELIVERY SYSTEM

In Maharashtra, the Government managed network includes Institute of Veterinary Biological Products (Pune), six Regional Disease Diagnostic Laboratories, laboratories of frozen sperms, District Artificial Insemination Centres, mobile & static Polyclinics, Veterinary dispensaries and Primary veterinary aid centres. In order to further strengthen the veterinary services, a University "Maharashtra Animal & Fishery Science University (MAFSU)" has been carved out of the four Agricultural Universities in the state by transferring five Veterinary Colleges, one PG veterinary institute and Dairy Technology College.

The State Governments efforts are supported by Maharashtra Livestock Development Board (MLDP) which implements bovine breeding project and encourage livestock insurance. In addition, milk cooperatives, BAIF, JK Trust are also active in Maharashtra providing AI facilities to dairy farmers.

During 2012-13, 28,552 bovines were vaccinated under centrally sponsored FMD control programme. Likewise, 3921 bovines have been vaccinated for Haemorrhagic Septicaemia, 408 for Black Quarter using NADRS inputs and about 16,060 animals were treated.





## V.1. Veterinary Infrastructure

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

Districts	Number of Veterinary Institutes								
	1994-95	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>2,973</b>	<b>3,303</b>	<b>4,019</b>	<b>4,710</b>	<b>4,733</b>	<b>4,733</b>	<b>4,856</b>	<b>4,861</b>	<b>4,861</b>
Ahmadnagar	194	212	232	231	231	231	232	232	232
Akola	104	104	75	74	74	74	75	75	75
Amravati	99	100	108	168	168	168	168	168	168
Aurangabad	70	74	87	120	120	120	122	122	122
Bid	101	113	140	161	161	161	161	161	161
Bhandara	91	95	55	86	86	86	86	86	86
Buldana	106	108	132	119	119	119	119	119	119
Chandrapur	119	128	154	159	159	159	161	161	161
Dhule	98	115	74	113	113	113	114	114	114
Gadchiroli	93	96	142	147	147	147	155	155	155
Gondiya			62	92	96	96	102	107	107
Hingoli			67	66	68	68	68	68	68
Jalgaon	122	142	154	175	183	183	188	188	188
Jalna	52	59	60	99	99	99	104	104	104
Kolhapur	91	115	142	178	178	178	178	178	178
Latur	93	102	129	129	129	129	129	129	129
Mumbai	9	9	9	0	0	0	0	0	0
Nagpur	77	92	108	181	181	181	181	181	181
Nanded	141	151	180	183	183	183	184	184	184
Nandurbar			89	103	103	103	104	104	104
Nashik	158	172	235	249	249	249	258	258	258
Osmanabad	80	91	98	99	99	99	101	101	101
Parbhani	110	115	81	83	84	84	86	86	86
Pune	138	169	183	278	285	285	324	324	324
Raigarh	85	85	104	112	112	112	114	114	114
Ratnagiri	59	65	75	154	154	154	156	156	156
Sangli	81	97	110	153	153	153	153	153	153
Satara	107	134	172	193	193	193	193	193	193
Sindhudurg	43	66	78	102	102	102	102	102	102
Solapur	142	157	173	178	178	178	209	209	209
Thane	105	107	154	157	157	157	160	160	160
Wardha	55	76	92	110	110	110	110	110	110
Washim			66	57	57	57	57	57	57
Yavatmal	150	154	199	201	202	202	202	202	202

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



## V.1. Veterinary Infrastructure

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

Districts	Number of AI Centres								
	1994-95	1997-98	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>3,996</b>	<b>4,249</b>	<b>4,691</b>	<b>4,710</b>	<b>4,733</b>	<b>4,733</b>	<b>4,856</b>	<b>4,861</b>	<b>4,861</b>
Ahmadnagar	214	215	233	231	231	231	232	232	232
Akola	136	137	75	74	74	74	75	75	75
Amravati	159	164	171	168	168	168	168	168	168
Aurangabad	110	112	120	120	120	120	122	122	122
Bid	137	128	155	161	161	161	161	161	161
Bhandara	157	160	80	86	86	86	86	86	86
Buldana	119	120	130	119	119	119	119	119	119
Chandrapur	129	145	151	159	159	159	161	161	161
Dhule	155	162	120	113	113	113	114	114	114
Gadchiroli	90	91	136	147	147	147	155	155	155
Gondiya			87	92	96	96	102	107	107
Hingoli			68	66	68	68	68	68	68
Jalgaon	156	155	178	175	183	183	188	188	188
Jalna	90	90	98	99	99	99	104	104	104
Kolhapur	140	165	175	178	178	178	178	178	178
Latur	116	125	131	129	129	129	129	129	129
Mumbai	4	4	4	0	0	0	0	0	0
Nagpur	170	177	185	181	181	181	181	181	181
Nanded	145	155	181	183	183	183	184	184	184
Nandurbar			103	103	103	103	104	104	104
Nashik	203	217	252	249	249	249	258	258	258
Osmanabad	86	90	98	99	99	99	101	101	101
Parbhani	140	146	81	83	84	84	86	86	86
Pune	223	264	276	278	285	285	324	324	324
Raigarh	91	101	120	112	112	112	114	114	114
Ratnagiri	145	146	154	154	154	154	156	156	156
Sangli	134	152	154	153	153	153	153	153	153
Satara	148	172	188	193	193	193	193	193	193
Sindhudurg	70	75	92	102	102	102	102	102	102
Solapur	152	156	173	178	178	178	209	209	209
Thane	125	128	154	157	157	157	160	160	160
Wardha	80	107	110	110	110	110	110	110	110
Washim			66	57	57	57	57	57	57
Yavatmal	172	190	192	201	202	202	202	202	202

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



## V.1. Veterinary Infrastructure

**TABLE V.1.3: Union-wise AI Centres – Cooperatives**

Unions	Number of AI Centres										
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>852</b>	<b>918</b>	<b>990</b>	<b>1,064</b>	<b>1,116</b>	<b>1,250</b>	<b>1,185</b>	<b>1,127</b>	<b>1,032</b>	<b>768</b>	<b>828</b>
Akluj	23	23	23	23	20	20	20	23	20	20	21
Amrutsagar	17	17	18	18	19	19	19	17	0	0	13
Ashti	0	0	0	0	0	0	0	0	0	0	0
Aurangabad	30	28	2	25	25	25	5	3	3	3	33
Baramati	0	0	0	0	30	34	31	32	26	27	29
Beed	0	0	0	0	0	0	0	0	0	0	0
Bhandara	0	0	0	0	0	0	0	0	0	0	0
Bhoom	0	0	0	0	0	0	0	0	0	0	0
Gondia	0	0	0	0	0	0	0	0	0	0	0
Indapur	4	4	3	3	3	3	3	3	3	3	0
Jalgaon	55	71	72	0	0	0	0	0	0	54	57
Kolhapur	265	260	292	293	310	293	312	312	325	347	364
Kopargon	17	17	17	16	16	17	17	17	17	19	18
Koyna	24	33	64	129	117	202	37	49	25	16	20
Latur	0	0	0	0	0	0	0	0	0	0	0
Nagpur	0	0	0	0	0	0	0	0	0	0	0
Nasik	19	18	18	16	0	0	0	0	0	0	0
Osmanabad	21	21	15	15	0	0	7	7	7	0	0
Pune	50	53	54	55	56	53	52	33	33	5	22
Srirampur	0	0	0	0	0	36	109	0	0	0	0
Sangamner	34	40	48	54	54	52	55	51	45	42	45
Sangli	0	0	0	0	0	0	0	45	0	0	0
Satara	13	12	15	6	0	0	0	0	0	0	0
Solapur	154	176	208	266	296	326	350	372	377	90	69
Sriwarna	108	126	116	118	144	139	135	128	118	107	105
Walva	18	19	25	27	26	31	33	35	33	35	32
Wardha	0	0	0	0	0	0	0	0	0	0	0

SOURCE: NDDB.



## V.1. Veterinary Infrastructure

**TABLE V.1.4: District-wise AI Centres - BAIF and JK Trust**

Districts	Number of AI Centres									
	BAIF								JK Trust	
	2000-01	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2010-11	2011-12
<b>MAHARASHTRA</b>	<b>45</b>	<b>95</b>	<b>116</b>	<b>124</b>	<b>186</b>	<b>193</b>	<b>285</b>	<b>280</b>	<b>832</b>	<b>1,021</b>
Ahmadnagar	28	28	29	30	44	45	59	54		
Akola					10	10	10	10	17	43
Amravati		3	10	10	17	17	17	17	23	47
Aurangabad									23	44
Bid							20	20	61	61
Bhandara									34	36
Buldana					9	9	9	9	24	59
Chandrapur			1	1	1	1	1	1	38	28
Dhule			1	1			5	0	31	31
Gadchiroli						1	1	1	26	16
Gondiya									23	24
Hingoli			15	15	15	15	15	12	26	26
Jalgaon		15	15	15	10	10	10	10	105	112
Jalna									12	31
Kolhapur	1	1	1	1	1	1	1	1		
Latur									85	97
Mumbai										
Nagpur									46	48
Nanded									69	76
Nandurbar		12	9	14	2	2	2	2	17	13
Nashik		15	16	16	10	10	25	25		
Osmanabad									62	67
Parbhani							20	20	33	41
Pune	4	8	2	2	21	23	34	33		
Raigarh										
Ratnagiri										
Sangli		1	1	1	1	1	1	2		
Satara	9	8	8	8	15	18	21	29		
Sindhudurg										
Solapur										
Thane	3	4		2						
Wardha			8	8	10	10	15	15	24	26
Washim							10	10	9	9
Yavatmal							10	10	10	10

SOURCE: Bhartiya Agro Industries Foundation (BAIF) and J.K. Trust Gram Vikas Yojana.





## 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)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>1,150</b>	<b>1,092</b>	<b>1,134</b>	<b>1,157</b>	<b>1,212</b>	<b>1,288</b>	<b>1,328</b>	<b>1,330</b>	<b>1,501</b>
Ahmednagar	98	92	142	142	161	165	175	175	205
Akola	14	14	13	20	21	22	24	19	14
Amravati	24	24	24	31	32	32	37	34	30
Aurangabad	65	60	55	55	54	54	58	59	64
Bid	51	42	48	48	49	46	44	38	40
Bhandara	21	19	19	20	22	24	26	30	35
Buldana	21	21	21	22	24	26	28	23	24
Chandrapur	13	12	12	12	11	12	12	12	15
Dhule	12	10	12	12	13	14	17	18	25
Gadchiroli	7	7	7	7	7	6	5	6	9
Gondiya	10	10	9	9	10	10	10	11	14
Hingoli	10	8	8	7	7	7	7	6	8
Jalgaon	16	16	22	25	26	28	27	26	38
Jalna	19	18	16	17	18	18	19	19	21
Kolhapur	61	59	63	53	42	59	56	52	57
Latur	30	29	32	36	43	46	45	43	48
Mumbai	0	0	0	0	0	0	0	0	0
Nagpur	39	58	35	35	35	36	36	38	43
Nanded	22	20	20	20	22	23	25	25	28
Nandurbar	5	4	5	6	7	7	8	7	9
Nashik	58	47	57	54	61	69	72	91	97
Osmanabad	35	35	36	37	41	47	50	48	53
Parbhani	12	12	13	14	14	14	14	14	17
Pune	173	156	138	130	133	137	145	153	192
Raigarh	6	6	7	7	8	7	7	8	10
Ratnagiri	12	11	10	9	9	10	11	11	13
Sangli	63	61	67	68	77	89	97	91	91
Satara	109	107	101	97	100	110	105	106	109
Sindhudurg	6	7	7	7	7	7	7	8	9
Solapur	84	75	84	96	100	105	105	105	129
Thane	6	7	6	7	8	8	9	10	12
Wardha	20	18	17	23	23	24	25	22	19
Washim	7	6	6	9	7	8	10	7	6
Yavatmal	19	21	21	23	22	19	15	16	18

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



## 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)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>523</b>	<b>532</b>	<b>541</b>	<b>533</b>	<b>570</b>	<b>602</b>	<b>606</b>	<b>610</b>	<b>683</b>
Ahmadnagar	8	9	12	12	14	16	18	20	25
Akola	11	10	9	14	15	15	18	14	10
Amravati	10	10	9	11	11	11	13	12	10
Aurangabad	8	8	8	9	8	9	9	8	9
Bid	11	11	13	12	13	14	14	15	18
Bhandara	3	4	3	3	3	4	4	4	5
Buldana	16	20	14	15	16	16	17	14	16
Chandrapur	7	7	7	7	6	6	5	6	6
Dhule	4	3	4	4	4	4	5	6	8
Gadchiroli	3	4	4	4	3	2	2	3	4
Gondiya	3	4	4	3	3	3	3	3	3
Hingoli	6	5	5	5	4	4	4	4	5
Jalgaon	7	7	11	11	14	15	15	15	20
Jalna	7	7	7	6	6	6	6	7	7
Kolhapur	86	98	100	84	97	101	93	96	98
Latur	22	23	25	27	30	31	33	33	39
Mumbai	0	0	0	0	0	0	0	0	0
Nagpur	6	5	4	4	4	4	4	4	4
Nanded	15	12	13	13	14	15	16	15	18
Nandurbar	3	2	3	4	4	5	5	4	6
Nashik	9	6	8	8	10	11	11	14	16
Osmanabad	12	12	12	13	15	18	18	19	22
Parbhani	9	8	8	7	8	7	7	8	9
Pune	29	22	24	24	26	28	31	34	45
Raigarh	6	6	6	6	7	7	8	8	9
Ratnagiri	5	5	4	4	4	4	4	4	5
Sangli	112	102	101	96	105	110	102	99	108
Satara	46	59	61	60	64	69	68	69	74
Sindhudurg	4	5	5	5	5	5	5	6	7
Solapur	27	27	29	28	30	33	36	39	47
Thane	6	7	6	7	7	8	9	10	12
Wardha	3	3	3	3	3	3	3	2	2
Washim	7	7	6	7	7	9	10	7	6
Yavatmal	13	15	14	15	13	10	8	8	10

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



## 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)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>1,674</b>	<b>1,624</b>	<b>1,674</b>	<b>1,690</b>	<b>1,781</b>	<b>1,890</b>	<b>1,934</b>	<b>1,940</b>	<b>2,184</b>
Ahmednagar	105	101	154	154	175	181	192	194	230
Akola	25	24	21	34	36	37	43	34	23
Amravati	34	34	33	42	43	43	50	46	40
Aurangabad	73	68	63	64	62	63	66	67	73
Bid	63	53	60	60	62	60	58	53	59
Bhandara	24	23	22	23	24	27	30	34	39
Buldana	37	41	35	37	40	42	45	37	40
Chandrapur	19	19	19	18	18	18	17	18	22
Dhule	16	13	16	16	17	19	22	24	32
Gadchiroli	10	11	11	10	10	8	7	9	13
Gondiya	13	14	13	13	13	13	13	14	17
Hingoli	16	13	13	12	11	12	11	9	14
Jalgaon	23	23	32	36	40	43	42	41	58
Jalna	26	25	23	23	24	24	25	26	28
Kolhapur	147	157	163	137	139	161	149	149	155
Latur	52	52	57	64	74	77	78	76	87
Mumbai	0	0	0	0	0	0	0	0	0
Nagpur	44	63	39	39	39	39	40	42	46
Nanded	37	32	33	33	35	38	41	40	46
Nandurbar	8	6	9	10	11	11	13	12	15
Nashik	67	53	65	63	71	81	83	105	112
Osmanabad	48	47	48	50	56	65	68	66	75
Parbhani	20	20	21	21	22	21	22	22	26
Pune	202	178	162	154	158	165	175	187	237
Raigarh	12	12	13	13	14	13	15	15	18
Ratnagiri	18	16	15	13	13	14	15	15	18
Sangli	175	163	167	164	182	199	199	190	199
Satara	155	166	161	157	164	179	173	176	184
Sindhudurg	10	12	12	12	12	12	12	14	17
Solapur	111	102	113	125	129	137	141	144	176
Thane	12	14	12	15	15	17	18	20	24
Wardha	23	21	20	26	26	27	27	24	22
Washim	14	7	12	16	14	16	20	15	12
Yavatmal	32	15	35	38	35	29	23	24	28

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



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

**TABLE V.2.4: Union wise AI Performed by Cooperatives-Cattle**

Unions	Number of AI Performed ('000)										
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>352.9</b>	<b>395.2</b>	<b>338.2</b>	<b>433.5</b>	<b>416.4</b>	<b>435.5</b>	<b>515.7</b>	<b>442.3</b>	<b>427.3</b>	<b>364.3</b>	<b>384.8</b>
Akluj	41.4	42.0	44.9	40.7	41.1	44.7	39.4	35.0	30.6	29.7	25.7
Amratsagar	4.6	6.7	8.6	21.7	8.2	8.6	8.7	9.2			4.8
Ashti											
Aurangabad	8.1	19.7	11.3	11.1	10.1	10.9	12.1	16.9	17.7	17.3	7.0
Baramati					40.1	29.8	25.4	7.6	16.8	20.4	25.1
Beed											
Bhandara											
Bhoom											
Gondia											
Indapur	11.1	10.3	9.4	10.8	7.1	6.0	5.9	5.9	5.9	4.8	2.0
Jalgaon	18.4	23.4	24.1	20.1	0.0	0.0	0.0	0.0	0.0	6.0	32.1
Kolhapur	66.3	71.6	38.3	38.8	48.9	55.7	56.8	64.0	71.5	83.1	86.8
Kopargon	32.4	28.6	25.5	46.0	48.5	55.9	58.8	63.2	67.0	40.8	39.9
Koyna	7.0	9.8	7.6	8.1	7.6	7.9	10.3	4.4	7.5	9.3	9.3
Latur											
Nagpur											
Nasik	9.0	9.9	8.7	9.2							
Osmanabad	4.4	4.1	0.2	0.9			0.4				
Pune	20.5	17.5	25.0	36.2	28.7	18.0	0.5	14.6	5.9	2.5	9.2
Srirampur						9.5	77.9	19.1	0.0	0.0	0.0
Sangamner	42.4	41.6	46.8	51.9	56.2	55.0	15.1	66.6	63.2	61.1	70.8
Sangli								0.1			
Satara	3.7	4.2	4.9	4.3	1.1		67.2				
Solapur	44.5	52.2	57.1	76.2	66.8	81.5		71.8	81.1	29.3	22.4
Sriwarna	29.0	42.4	14.5	42.8	40.6	38.9	117.8	48.0	43.8	45.3	34.6
Walva	10.1	11.4	11.4	15.0	11.3	13.0	19.4	15.8	16.5	14.8	15.2
Wardha											

SOURCE: NDDB.



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

**TABLE V.2.5: Union-wise AI Performed by Cooperatives – Buffalo**

Unions	Number of AI Performed ('000)										
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>183.2</b>	<b>208.9</b>	<b>133.0</b>	<b>242.2</b>	<b>188.4</b>	<b>213.4</b>	<b>206.0</b>	<b>234.0</b>	<b>242.8</b>	<b>254.8</b>	<b>265.9</b>
Akluj	7.1	8.3	4.3	8.5	9.6	10.3	10.2	8.7	10.3	11.0	10.4
Amrutsagar											0.1
Ashti											
Aurangabad											
Baramati						1.4	2.5	1.4	3.0	3.1	1.6
Beed											
Bhandara											
Bhoom											
Gondia											
Indapur	0.7										
Jalgaon	9.7	12.2	13.1	13.6	0.0	0.0	0.0	0.0	0.0	3.9	14.9
Kolhapur	93.1	94.0	59.3	108.8	82.3	100.7	104.0	111.6	126.8	146.7	153.0
Kopargon	1.2	1.3	1.0	2.1	2.4	2.8	3.1	5.2	5.2	2.1	1.9
Koyna	8.4	8.9	7.8	12.5	10.4	9.6	14.7	6.3	9.5	9.7	12.7
Latur											
Nagpur											
Nasik											
Osmanabad	1.0	1.5		0.1			0.1				
Pune	0.9	1.1	1.1	3.4	2.1	1.2	0.1	2.1	0.4	0.2	1.8
Srirampur						1.2	12.5				
Sangamner	2.1	2.3	2.9	3.5	4.2	3.2	1.4	3.3	3.8	1.8	2.5
Sangli											
Satara	0.4	0.7	0.9	0.7	0.2		2.3				
Solapur	3.4	6.4	6.4	8.5	7.3	10.5	0.0	13.7	15.5	5.6	4.8
Sriwarda	42.0	56.5	20.0	59.0	52.2	54.2	28.6	64.5	51.2	54.7	44.5
Walva	13.1	15.9	16.3	21.5	17.7	18.4	26.5	17.3	17.1	15.9	17.8
Wardha											

SOURCE: NDDB.



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

**TABLE V.2.6: Union-wise AI Performed by Cooperatives – Bovine**

Unions	Number of AI Performed ('000)										
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>MAHARASHTRA</b>	<b>536.1</b>	<b>604.1</b>	<b>471.2</b>	<b>675.7</b>	<b>604.8</b>	<b>648.9</b>	<b>721.7</b>	<b>676.3</b>	<b>670.2</b>	<b>619.2</b>	<b>650.7</b>
Akluj	48.5	50.3	49.1	49.1	50.7	55.1	49.6	43.7	40.9	40.7	36.1
Amratsagar	4.6	6.7	8.6	21.7	8.2	8.6	8.7	9.2			4.8
Ashti											
Aurangabad	8.1	19.7	11.3	11.1	10.1	10.9	12.1	16.9	17.7	17.3	7.0
Baramati					40.1	31.2	27.9	9.0	19.7	23.5	26.8
Beed											
Bhandara											
Bhoom											
Gondia											
Indapur	11.8	10.3	9.4	10.8	7.1	6.0	5.9	5.9	5.9	4.8	2.0
Jalgaon	28.1	35.5	37.2	33.6						9.9	47.0
Kolhapur	159.4	165.6	97.6	147.6	131.2	156.4	160.8	175.6	198.3	229.8	239.8
Kopargon	33.7	29.9	26.5	48.1	50.8	58.7	61.9	68.3	72.2	42.9	41.8
Koyna	15.5	18.7	15.4	20.6	18.0	17.5	25.0	10.7	17.0	19.0	21.9
Latur											
Nagpur											
Nasik	9.0	9.9	8.7	9.2							
Osmanabad	5.4	5.6	0.2	1.0			0.5				
Pune	21.4	18.5	26.1	39.5	30.8	19.2	0.6	16.7	6.3	2.7	11.0
Srirampur						10.7	90.4	19.1			
Sangamner	44.5	44.0	49.7	55.4	60.4	58.2	16.5	69.9	67.0	62.9	73.4
Sangli								0.1			
Satara	4.2	4.8	5.9	5.0	1.2		69.5				
Solapur	47.8	58.6	63.4	84.6	74.1	92.0		85.5	96.6	35.0	27.2
Sriwarna	71.0	98.8	34.4	101.8	92.8	93.0	146.4	112.5	94.9	100.1	79.1
Walva	23.2	27.3	27.6	36.5	29.0	31.4	45.9	33.1	33.6	30.7	33.0
Wardha											

SOURCE: NDDB.



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

**TABLE V.2.7: District-wise AI Performed by BAIF – Cattle**

Districts	AI Performed ('000)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>71.7</b>	<b>67.2</b>	<b>64.2</b>	<b>75.8</b>	<b>93.7</b>	<b>102.8</b>	<b>118.6</b>	<b>176.8</b>	<b>234.0</b>
Ahmadnagar	50.3	45.3	42.2	46.1	57.5	64.0	62.9	74.1	88.0
Akola						1.0	2.5	3.7	5.8
Amravati	0.7	0.9	0.0	1.6	3.9	5.9	7.0	9.0	10.9
Aurangabad									
Bid								5.4	10.5
Bhandara									
Buldana						0.9	2.2	4.3	6.2
Chandrapur				0.2	0.2	0.0	0.0	0.2	0.2
Dhule								1.2	0.3
Gadchiroli								0.3	0.3
Gondiya									
Hingoli				1.3	2.6	3.8	3.4	3.7	5.5
Jalgaon	3.2	4.0	4.1	6.1	6.0	4.9	3.5	5.3	7.8
Jalna									
Kolhapur	0.4	0.4	0.5	0.6	0.7	0.6	0.7	0.5	0.5
Latur									
Mumbai									
Nagpur									
Nanded									
Nandurbar	0.2	0.5	0.8	1.4	1.4	1.6	1.5	1.0	0.9
Nashik	3.1	3.5	5.5	6.4	6.6	4.7	2.9	11.2	23.1
Osmanabad									
Parbhani								2.8	4.6
Pune	9.4	8.0	6.9	7.1	7.6	9.1	18.6	29.7	36.8
Raigarh									
Ratnagiri									
Sangli								0.9	0.7
Satara	3.9	4.1	4.2	5.1	5.8	3.5	5.1	12.6	16.0
Sindhudurg									
Solapur									
Thane	0.4	0.5							
Wardha					1.3	1.8	5.5	7.2	10.3
Washim						0.4	0.9	1.0	1.8
Yavatmal						0.6	1.7	3.0	3.6

SOURCE: Bhartiya Agro Industries Foundation (BAIF).



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

**TABLE V.2.8: District-wise AI Performed by BAIF – Buffalo**

Districts	AI Performed ('000)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>13.9</b>	<b>13.6</b>	<b>13.8</b>	<b>18.7</b>	<b>21.2</b>	<b>29.1</b>	<b>34.6</b>	<b>41.9</b>	<b>58.3</b>
Ahmadnagar	3.1	2.8	2.5	3.0	5.6	5.7	4.8	4.9	4.9
Akola						0.7	1.7	2.3	3.2
Amravati				0.3	0.5	1.0	1.2	1.7	2.2
Aurangabad									
Bid								1.7	2.4
Bhandara									
Buldana						0.8	1.5	2.3	3.2
Chandrapur								0.1	0.1
Dhule								0.4	0.1
Gadchiroli								0.1	0.1
Gondiya									
Hingoli				1.5	2.9	3.8	3.6	4.0	5.1
Jalgaon	0.4	0.4	0.3	0.7	0.7	0.5	1.9	2.1	2.9
Jalna									
Kolhapur					0.2	0.2	0.3	0.6	0.5
Latur									
Mumbai									
Nagpur									
Nanded									
Nandurbar	0.1	0.3	0.5	1.1	1.2	1.2	0.8	0.4	0.5
Nashik	0.3	0.3	0.6	0.6	0.7	0.5	3.1	4.8	6.1
Osmanabad									
Parbhani									4.0
Pune	3.3	2.8	2.8	2.9	5.1	6.4	5.5	2.0	4.8
Raigarh									
Ratnagiri									
Sangli								0.4	1.0
Satara	6.7	7.0	7.1	8.7	4.2	7.1	7.7	11.2	12.8
Sindhudurg									
Solapur									
Thane									
Wardha					0.1	0.3	0.4	0.4	0.8
Washim						0.5	1.1	1.1	2.1
Yavatmal						0.6	0.9	1.4	1.6

SOURCE: Bhartiya Agro Industries Foundation (BAIF).





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

**TABLE V.2.9: District-wise AI Performed By BAIF – Bovine**

Districts	AI Performed ('000)								
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>85.5</b>	<b>80.8</b>	<b>78.0</b>	<b>94.5</b>	<b>114.9</b>	<b>131.9</b>	<b>153.1</b>	<b>218.7</b>	<b>292.3</b>
Ahmadnagar	53.4	48.1	44.7	49.1	63.1	69.6	67.7	78.9	92.9
Akola						1.7	4.3	6.0	9.0
Amravati	0.8	0.9		1.9	4.5	6.9	8.2	10.8	13.1
Aurangabad									
Bid								7.0	12.9
Bhandara									
Buldana						1.7	3.7	6.6	9.4
Chandrapur				0.2	0.2			0.3	0.4
Dhule								1.6	0.5
Gadchiroli								0.3	0.5
Gondiya									
Hingoli				2.8	5.5	7.6	7.0	7.7	10.5
Jalgaon	3.5	4.4	4.4	6.8	6.6	5.4	5.4	7.4	10.7
Jalna									
Kolhapur	0.4	0.4	0.5	0.6	0.9	0.9	1.0	1.1	1.1
Latur									
Mumbai									
Nagpur									
Nanded									
Nandurbar	0.4	0.7	1.4	2.5	2.6	2.8	2.3	1.4	1.3
Nashik	3.4	3.8	6.1	7.0	7.3	5.1	6.1	16.0	29.1
Osmanabad									
Parbhani								2.8	8.5
Pune	12.7	10.8	9.7	10.0	12.7	15.4	24.1	31.6	41.6
Raigarh									
Ratnagiri									
Sangli								1.3	1.7
Satara	10.6	11.1	11.2	13.7	10.1	10.6	12.8	23.8	28.9
Sindhudurg									
Solapur									
Thane	0.4	0.5							
Wardha					1.4	2.2	5.9	7.7	11.1
Washim						0.9	2.1	2.1	3.8
Yavatmal						1.1	2.7	4.4	5.2

SOURCE: Bhartiya Agro Industries Foundation (BAIF).



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

**TABLE V.2.10: District-wise AI Performed by J K Trust**

Districts	No. of AI Performed ('000)					
	Cattle		Buffalo		Bovine	
	2010-11	2011-12	2010-11	2011-12	2010-11	2011-12
<b>MAHARASHTRA</b>	<b>47.2</b>	<b>198.7</b>	<b>33.7</b>	<b>107.7</b>	<b>80.9</b>	<b>306.4</b>
Ahmadnagar						
Akola	0.2	7.7	0.1	5.1	0.2	12.8
Amravati	0.1	10.3	0.0	2.7	0.1	13.0
Aurangabad	0.6	13.1	0.1	2.8	0.7	15.9
Bid	7.1	16.8	3.4	6.7	10.6	23.5
Bhandara	2.5	9.1	1.2	3.3	3.7	12.4
Buldana	0.2	9.2	0.1	5.7	0.2	14.9
Chandrapur	1.9	4.3	0.9	1.7	2.8	6.0
Dhule	1.1	2.7	0.6	1.2	1.7	3.9
Gadchiroli	0.9	1.6	0.3	0.5	1.2	2.1
Gondiya	1.9	7.2	0.9	2.3	2.8	9.5
Hingoli	1.6	4.2	1.5	3.3	3.1	7.5
Jalgaon	5.5	17.7	6.9	17.5	12.4	35.2
Jalna	0.1	4.8	0.0	1.9	0.1	6.7
Kolhapur						
Latur	9.1	22.5	8.8	19.0	17.9	41.5
Mumbai						
Nagpur	3.1	9.9	1.1	2.1	4.2	12.0
Nanded	3.3	10.5	3.3	8.2	6.6	18.7
Nandurbar	0.5	1.7	0.5	1.7	0.9	3.4
Nashik						
Osmanabad	5.4	18.6	2.9	7.9	8.3	26.5
Parbhani	0.9	4.3	0.8	2.8	1.8	7.0
Pune						
Raigarh						
Ratnagiri						
Sangli						
Satara						
Sindhudurg						
Solapur						
Thane						
Wardha	1.0	5.4	0.2	1.2	1.1	6.6
Washim	0.1	6.0	0.1	6.1	0.1	12.1
Yavatmal	0.3	11.3	0.1	3.9	0.4	15.2

SOURCE: J. K. Trust Gram Vikas Yojana.



## 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)								
	1997-98	2000-01	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>1,563</b>	<b>2,085</b>	<b>13,387</b>	<b>16,281</b>	<b>14,833</b>	<b>16,088</b>	<b>13,134</b>	<b>23,635</b>	<b>28,552</b>
Ahmadnagar	82	158	1,286	1,631	1,096	2,108	1,349	2,484	1,529
Akola	41	34	128	173	194	268	221	249	571
Amravati	60	56	357	369	414	313	373	467	745
Aurangabad	14	26	480	914	454	946	524	1,027	702
Bid	47	156	129	593	459	157	447	869	1,641
Bhandara	124	43	161	293	229	249	225	314	553
Buldana	29	30	192	417	422	227	624	1,015	622
Chandrapur	63	166	386	469	422	419	502	520	570
Dhule	76	70	246	217	366	371	92	537	729
Gadchiroli	65	97	458	421	705	187	392	624	648
Gondiya		68	250	352	380	378	364	414	701
Hingoli		26	144	160	221	260	146	337	446
Jalgaon	80	40	551	1,022	548	505	247	1,045	1,309
Jalna	31	37	331	458	400	257	399	469	825
Kolhapur	2	1	504	510	546	590	304	669	983
Latur	23	35	237	408	352	70	461	525	944
Mumbai	3	1	0	0	0	0	0	0	0
Nagpur	73	75	167	430	463	518	595	572	863
Nanded	30	61	218	930	632	480	348	718	1,464
Nandurbar		43	275	352	416	319	306	399	804
Nashik	70	76	716	824	561	688	414	1,939	1,208
Osmanabad	32	18	149	378	446	324	89	446	825
Parbhani	57	63	141	267	260	234	318	502	960
Pune	145	121	1,648	781	806	1,595	1,174	1,326	849
Raigarh	33	53	294	330	372	374	56	401	430
Ratnagiri	39	58	327	299	326	290	235	403	743
Sangli	36	21	370	482	567	496	379	548	1,517
Satara	64	65	1,139	574	588	1,174	615	1,068	528
Sindhudurg	19	17	164	167	196	184	213	230	456
Solapur	18	136	779	529	460	561	141	1,598	1,094
Thane	48	55	396	488	595	647	377	690	1,031
Wardha	36	40	156	294	302	374	302	404	595
Washim		42	128	182	147	155	194	235	369
Yavatmal	122	94	480	563	489	372	708	594	1,298

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



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

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

Districts	Haemorrhagic Septicaemia Vaccination ('000)								
	1997-98	2000-01	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>6,462</b>	<b>4,245</b>	<b>4,207</b>	<b>4,437</b>	<b>4,371</b>	<b>5,193</b>	<b>3,394</b>	<b>3,243</b>	<b>3,921</b>
Ahmadnagar	117	139	227	230	239	333	18	101	433
Akola	198	47	68	76	58	81	56	81	17
Amravati	230	158	140	136	101	208	49	116	155
Aurangabad	238	141	89	112	60	41	39	64	66
Bid	180	102	135	146	123	167	164	44	37
Bhandara	206	101	108	91	105	159	104	81	112
Buldana	175	66	119	87	63	124	42	82	53
Chandrapur	163	146	149	165	104	134	111	121	163
Dhule	445	122	104	148	90	208	27	147	181
Gadchiroli	107	217	105	135	240	119	137	156	167
Gondiya		91	106	119	83	227	57	88	128
Hingoli		75	81	62	71	90	68	80	27
Jalgaon	349	246	98	155	296	222	119	185	216
Jalna	251	113	71	106	91	90	87	107	89
Kolhapur	290	202	107	173	195	190	160	65	123
Latur	254	143	121	159	210	227	221	113	156
Mumbai	1	0	0	0	0	0	0	0	0
Nagpur	174	130	203	163	128	260	104	112	270
Nanded	271	232	170	187	168	169	340	196	130
Nandurbar		111	81	43	70	102	49	25	30
Nashik	489	262	310	222	250	301	48	75	94
Osmanabad	251	118	109	117	104	122	132	103	96
Parbhani	249	97	57	66	66	70	100	26	24
Pune	329	159	223	259	294	206	215	166	265
Raigarh	86	23	65	109	62	47	63	59	52
Ratnagiri	102	51	46	97	68	79	80	81	84
Sangli	279	213	245	206	222	294	286	146	126
Satara	346	190	142	158	144	161	118	109	71
Sindhudurg	85	41	45	56	34	67	34	54	50
Solapur	154	170	157	168	195	207	197	92	199
Thane	107	40	176	173	153	113	18	22	84
Wardha	119	66	105	104	90	107	54	102	43
Washim		45	54	52	56	55	36	56	52
Yavatmal	217	189	188	158	138	213	59	185	131

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



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

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

Districts	Black Quarter Vaccination ('000)								
	1997-98	2000-01	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>5,110</b>	<b>3,723</b>	<b>3,066</b>	<b>3,200</b>	<b>3,250</b>	<b>4,252</b>	<b>3,240</b>	<b>4,106</b>	<b>4,032</b>
Ahmadnagar	310	401	140	244	284	258	21	274	418
Akola	131	51	27	47	33	67	78	78	12
Amravati	166	134	93	126	102	168	24	156	149
Aurangabad	199	176	106	105	102	125	188	190	234
Bid	183	113	158	147	177	299	236	30	8
Bhandara	111	49	61	68	71	103	49	72	77
Buldana	102	63	103	76	101	86	59	69	55
Chandrapur	85	73	98	113	70	110	84	79	111
Dhule	329	119	70	52	73	76	19	231	197
Gadchiroli	62	87	67	100	167	104	135	121	111
Gondiya		44	71	82	55	157	33	141	106
Hingoli		83	49	57	45	97	122	102	32
Jalgaon	221	149	54	27	104	115	18	310	157
Jalna	233	188	128	126	114	159	113	76	83
Kolhapur	98	74	87	100	69	65	18	22	109
Latur	208	120	85	117	178	223	215	218	188
Mumbai		0	0	0	0	0	0	0	0
Nagpur	129	85	110	114	108	182	38	211	198
Nanded	220	215	214	178	240	269	419	358	219
Nandurbar		92	71	53	69	91	48	79	76
Nashik	509	324	263	206	222	298	45	151	97
Osmanabad	206	128	109	83	101	101	124	103	92
Parbhani	178	106	61	78	82	105	73	44	19
Pune	347	163	206	136	111	109	188	197	220
Raigarh	91	49	57	82	54	50	71	46	19
Ratnagiri	87	45	36	64	31	67	71	71	57
Sangli	214	76	54	64	41	92	240	95	70
Satara	210	132	74	76	44	77	35	108	126
Sindhudurg	13	10	3	17	26	13	3	13	16
Solapur	108	55	98	94	31	97	95	129	407
Thane	126	40	100	122	91	104	16	11	80
Wardha	81	44	77	76	71	97	44	97	46
Washim		39	34	30	29	51	70	48	53
Yavatmal	153	192	101	140	152	236	249	179	191

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



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

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

Districts	Bovine Vaccination ('000)								
	1997-98	2000-01	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>13,135</b>	<b>10,053</b>	<b>20,661</b>	<b>23,919</b>	<b>22,454</b>	<b>25,533</b>	<b>19,769</b>	<b>30,984</b>	<b>36,505</b>
Ahmadnagar	509	698	1,654	2,105	1,620	2,699	1,388	2,859	2,381
Akola	371	133	223	296	285	415	355	409	601
Amravati	456	348	591	630	617	688	445	738	1,048
Aurangabad	451	343	675	1,130	617	1,113	751	1,281	1,003
Bid	410	371	422	886	759	623	848	943	1,685
Bhandara	441	194	330	452	405	511	378	467	742
Buldana	306	159	414	580	585	436	725	1,166	730
Chandrapur	311	384	633	748	596	664	697	719	843
Dhule	849	311	419	417	529	654	138	914	1,108
Gadchiroli	234	401	630	656	1,112	410	664	901	926
Gondiya		203	428	553	517	762	455	643	935
Hingoli		184	274	279	336	447	336	519	504
Jalgaon	650	436	704	1,204	948	842	384	1,539	1,681
Jalna	516	338	530	690	604	506	598	652	997
Kolhapur	389	277	699	783	809	844	482	756	1,215
Latur	485	299	443	685	741	519	898	855	1,287
Mumbai	4	1	0	0	0	0	0	0	0
Nagpur	376	290	481	708	699	960	737	894	1,331
Nanded	521	508	602	1,296	1,040	919	1,108	1,272	1,812
Nandurbar		246	427	448	556	511	403	504	910
Nashik	1,068	662	1,289	1,253	1,033	1,286	507	2,165	1,399
Osmanabad	489	265	366	579	651	547	346	652	1,013
Parbhani	484	267	259	411	408	409	491	572	1,003
Pune	821	443	2,077	1,176	1,210	1,910	1,577	1,690	1,334
Raigarh	210	126	417	522	488	471	190	506	501
Ratnagiri	228	154	409	460	425	436	385	555	884
Sangli	529	310	669	752	830	883	904	789	1,712
Satara	619	388	1,355	808	777	1,411	768	1,285	725
Sindhudurg	117	67	212	241	256	265	251	297	522
Solapur	280	361	1,034	791	686	866	433	1,819	1,701
Thane	281	135	672	784	839	864	411	723	1,194
Wardha	237	150	338	475	463	579	400	603	684
Washim		126	216	264	232	260	300	339	474
Yavatmal	492	475	769	861	779	821	1,016	958	1,621

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.

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)									
	1994-95	1997-98	2000-01	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>12,202</b>	<b>11,790</b>	<b>9,011</b>	<b>9,437</b>	<b>10,212</b>	<b>11,419</b>	<b>11,939</b>	<b>11,933</b>	<b>12,784</b>	<b>16,060</b>
Ahmadnagar	634	626	631	614	633	813	861	926	888	1,113
Akola	568	593	181	230	206	208	245	253	274	323
Amravati	544	676	316	388	382	449	466	452	471	532
Aurangabad	509	422	301	309	345	356	374	377	389	528
Bid	477	428	327	371	346	341	343	349	376	393
Bhandara	325	345	101	138	127	145	157	170	185	249
Buldana	453	410	245	232	216	328	280	287	303	396
Chandrapur	533	463	227	300	273	406	325	346	360	382
Dhule	442	535	246	201	202	247	352	438	423	417
Gadchiroli	271	240	249	288	289	280	258	233	295	357
Gondiya			70	92	104	109	127	133	161	219
Hingoli			114	152	122	110	110	115	125	175
Jalgaon	604	477	456	395	418	526	726	722	880	785
Jalna	345	341	236	186	166	162	172	182	185	255
Kolhapur	293	284	428	371	529	680	774	643	709	725
Latur	434	426	293	283	313	340	258	365	417	572
Mumbai	16	21	13	10	0	0	0	0	0	0
Nagpur	394	379	207	252	355	365	378	405	383	461
Nanded	495	489	323	353	354	325	379	400	405	532
Nandurbar			134	195	345	295	371	247	265	340
Nashik	542	443	524	523	520	565	604	576	653	923
Osmanabad	339	401	222	221	326	303	344	288	378	409
Parbhani	449	412	178	153	173	180	191	194	220	229
Pune	657	633	630	591	602	732	615	668	791	1,092
Raigarh	206	157	133	148	147	154	153	174	176	203
Ratnagiri	216	195	153	183	163	174	185	191	166	314
Sangli	432	417	327	327	336	400	483	485	501	679
Satara	246	320	347	349	423	425	487	456	471	709
Sindhudurg	96	108	113	144	148	156	174	165	182	236
Solapur	683	587	488	543	633	813	670	624	656	1,165
Thane	157	133	99	144	192	200	229	241	300	420
Wardha	284	280	158	147	171	184	205	219	207	254
Washim			123	142	132	127	138	136	155	150
Yavatmal	560	548	417	461	523	519	506	470	437	524

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.



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

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

Districts	Total Castrated ('000)									
	1994-95	1997-98	2000-01	2003- 04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>1,038</b>	<b>997</b>	<b>777</b>	<b>794</b>	<b>748</b>	<b>785</b>	<b>815</b>	<b>807</b>	<b>850</b>	<b>880</b>
Ahmadnagar	61	66	54	46	53	58	64	67	70	80
Akola	57	53	16	15	12	11	11	11	13	14
Amravati	34	34	25	28	29	29	30	31	32	33
Aurangabad	42	38	32	27	29	30	31	31	31	31
Bid	53	45	38	35	34	33	35	34	35	35
Bhandara	37	39	11	13	11	11	12	11	11	11
Buldana	38	36	24	23	18	25	24	24	26	27
Chandrapur	51	34	29	33	28	31	31	33	32	31
Dhule	48	54	24	26	21	21	24	25	27	30
Gadchiroli	24	21	33	34	32	33	30	27	34	36
Gondiya			14	16	17	18	20	18	19	19
Hingoli			12	15	10	12	10	10	10	10
Jalgaon	53	57	45	51	41	45	44	46	52	52
Jalna	43	40	30	26	18	17	19	19	20	20
Kolhapur	17	16	15	15	15	16	19	17	16	22
Latur	37	39	28	27	21	26	28	26	30	33
Mumbai		1	1	1	0	0	0	0	0	0
Nagpur	39	34	25	26	30	30	32	31	33	32
Nanded	36	39	24	26	30	32	33	34	34	33
Nandurbar			20	22	19	20	20	20	20	23
Nashik	66	72	54	56	45	49	47	45	49	48
Osmanabad	27	30	15	17	18	19	18	17	19	19
Parbhani	40	42	13	13	15	16	16	16	18	17
Pune	44	39	37	33	28	27	29	28	32	34
Raigarh	14	12	10	14	13	13	13	15	14	15
Ratnagiri	13	10	9	11	9	9	9	10	8	10
Sangli	25	24	18	17	14	17	17	18	18	19
Satara	16	19	15	12	12	12	13	13	13	13
Sindhudurg	5	5	6	7	8	7	7	7	7	7
Solapur	37	31	26	25	32	33	36	33	37	34
Thane	13	13	10	13	15	16	19	20	22	24
Wardha	20	18	15	16	15	14	16	15	14	14
Washim			14	14	11	9	11	11	11	12
Yavatmal	47	36	38	42	46	48	46	41	43	41

SOURCE: Dept. of Animal husbandry, Govt. of Maharashtra.





## PART VI : FEED RESOURCES

Maharashtra has been struggling with droughts and water shortage for the last many years and this has resulted in shortage of both green and dry fodder. As a relief measure, the government supports dairying by organizing free fodder camps every year in rainfall deficit areas. It also arranges for the procurement of sugarcane tops from cane growers, its transportation and ultimate distributing it to the livestock owners in scarcity areas at subsidized rates. To cope up with fodder shortages, government is often forced to ban the sale of fodder outside the district where it is produced and prohibited cattle herders from the neighboring states from grazing their animals in Maharashtra.

Regionwise, dry matter availability from crop residues is considerably lower in the districts of Ahmadnagar, Pune, Kolhapur, Sangli and Satara due to higher density of dairy animals in these regions. In case of Gadchiroli, Gondia and Chandrapur, the area under forest is relatively higher reducing dry matter availability.





## 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)						
		1997	2003	2007	2008	2009	2010	2011
Ahmadnagar	Available	2,274	1,950	2,656	3,098	3,085	3,128	3,797
	Required	4,044	4,346	5,218	5,402	5,599	5,808	6,031
	Balance	-1,770	-2,397	-2,562	-2,304	-2,513	-2,680	-2,234
Akola	Available	1,580	997	1,414	791	793	1,174	1,301
	Required	1,970	927	869	859	850	842	835
	Balance	-390	71	545	-68	-57	332	466
Amravati	Available	1,449	1,557	1,827	1,290	1,297	1,757	2,068
	Required	1,716	1,549	1,556	1,563	1,571	1,582	1,596
	Balance	-267	8	270	-273	-274	175	472
Aurangabad	Available	1,409	1,861	2,522	2,826	2,827	2,579	3,075
	Required	1,758	1,553	1,668	1,695	1,725	1,760	1,800
	Balance	-349	308	855	1,131	1,102	819	1,275
Bhandara	Available	1,048	511	588	414	414	466	592
	Required	2,071	876	896	903	911	921	931
	Balance	-1,023	-364	-308	-489	-497	-454	-340
Bid	Available	1,276	1,787	1,890	1,996	1,996	1,828	2,035
	Required	2,074	2,144	2,509	2,585	2,668	2,757	2,855
	Balance	-798	-356	-620	-589	-672	-929	-820
Buldana	Available	1,199	1,614	1,777	1,637	1,635	2,021	2,420
	Required	1,640	1,625	1,808	1,845	1,886	1,931	1,981
	Balance	-441	-10	-31	-208	-252	89	438
Chandrapur	Available	1,100	1,003	1,247	971	971	802	1,116
	Required		1,538	1,439	1,424	1,411	1,401	1,392
	Balance		-535	-191	-453	-441	-599	-276
Dhule	Available	1,863	885	1,071	801	800	1,171	1,748
	Required	2,558	1,221	1,287	1,296	1,305	1,316	1,329
	Balance	-696	-336	-217	-495	-505	-146	419
Gadchiroli	Available	837	760	915	799	799	785	957
	Required	1,448	1,310	1,629	1,707	1,792	1,884	1,984
	Balance	-610	-550	-715	-909	-993	-1,098	-1,028
Gondiya	Available		531	598	471	471	557	697
	Required		1,081	1,098	1,106	1,116	1,129	1,145
	Balance		-549	-500	-634	-645	-572	-448
Hingoli	Available		959	960	740	737	843	1,074
	Required		901	901	901	902	904	906
	Balance		58	59	-161	-164	-61	168
Jalgaon	Available	2,136	2,229	2,480	1,907	1,868	2,531	3,112
	Required	2,897	2,604	2,371	2,340	2,321	2,315	2,326
	Balance	-760	-375	109	-433	-453	216	786
Jalna	Available	956	1,651	1,862	1,169	1,168	1,664	1,875
	Required	1,306	1,798	1,207	1,195	1,193	1,200	1,211
	Balance	-350	-146	655	-26	-25	464	664
Kolhapur	Available	2,161	1,916	1,645	2,428	2,437	2,016	2,307
	Required	3,412	3,544	3,577	3,586	3,597	3,611	3,627
	Balance	-1,252	-1,628	-1,931	-1,158	-1,160	-1,595	-1,321
Latur	Available	1,060	1,423	1,223	1,420	1,417	1,402	2,219
	Required	1,665	1,691	1,689	1,691	1,696	1,703	1,712
	Balance	-605	-268	-466	-271	-279	-301	507
Mumbai	Available	1	1	1	1	1	1	1
	Required			2	2	1	1	1
	Balance			-1	0	0	1	1



Districts	Available/ Required/ Balance	Dry Matter Availability, Requirement and Balance ('000 MT)						
		1997	2003	2007	2008	2009	2010	2011
Nagpur	Available	1,023	1,171	1,498	1,225	1,219	1,268	1,450
	Required	1,665	1,493	1,550	1,566	1,584	1,604	1,625
	Balance	-642	-322	-52	-342	-365	-336	-175
Nanded	Available	1,246	1,798	1,503	1,417	1,416	1,204	1,897
	Required	2,478	2,335	2,315	2,315	2,317	2,320	2,326
	Balance	-1,231	-537	-812	-899	-901	-1,116	-429
Nandurbar	Available		690	727	981	982	943	1,124
	Required		1,285	1,239	1,235	1,235	1,238	1,245
	Balance		-595	-512	-255	-253	-295	-120
Nashik	Available	1,909	2,001	2,082	2,717	2,721	2,400	3,278
	Required	3,544	3,103	3,547	3,602	3,665	3,734	3,811
	Balance	-1,635	-1,102	-1,464	-886	-944	-1,335	-534
Osmanabad	Available	829	1,325	1,386	1,678	1,676	1,642	1,848
	Required	1,431	1,530	1,564	1,574	1,588	1,606	1,627
	Balance	-602	-205	-178	104	88	36	221
Parbhani	Available	1,627	1,560	1,537	1,491	1,491	1,374	1,552
	Required	2,309	1,077	1,324	1,377	1,435	1,496	1,561
	Balance	-683	483	213	114	57	-121	-9
Pune	Available	2,246	2,056	2,255	2,925	2,925	2,605	2,988
	Required	3,536	3,187	4,049	4,184	4,326	4,477	4,636
	Balance	-1,289	-1,130	-1,794	-1,258	-1,401	-1,872	-1,649
Raigarh	Available	693	632	678	699	699	668	646
	Required	1,383	1,226	901	851	806	765	728
	Balance	-690	-594	-223	-152	-107	-97	-82
Ratnagiri	Available	504	522	598	570	570	572	595
	Required	1,430	1,144	998	986	977	969	963
	Balance	-926	-623	-400	-416	-406	-397	-368
Sangli	Available	1,648	1,380	1,483	1,808	1,813	1,822	2,427
	Required	2,423	2,667	2,811	2,842	2,879	2,924	2,975
	Balance	-775	-1,286	-1,328	-1,034	-1,067	-1,101	-549
Satara	Available	1,742	1,752	1,580	2,126	2,126	1,962	2,197
	Required	2,585	2,476	2,415	2,406	2,399	2,393	2,389
	Balance	-843	-724	-835	-280	-273	-431	-192
Sindhudurg	Available	433	390	457	412	412	401	402
	Required	755	675	618	615	614	615	616
	Balance	-321	-285	-161	-204	-203	-214	-215
Solapur	Available	1,614	1,715	2,001	3,060	3,061	2,679	3,133
	Required	2,864	3,250	3,474	3,528	3,586	3,650	3,720
	Balance	-1,250	-1,536	-1,474	-468	-525	-971	-587
Thane	Available	865	644	778	803	812	792	774
	Required	2,036	1,878	1,765	1,746	1,727	1,710	1,695
	Balance	-1,171	-1,235	-987	-943	-916	-919	-921
Wardha	Available	618	938	1,030	754	735	676	889
	Required	1,121	965	984	990	999	1,009	1,022
	Balance	-502	-27	47	-236	-263	-334	-133
Washim	Available		940	1,182	711	711	826	1,231
	Required		712	925	930	938	946	957
	Balance		227	257	-219	-227	-121	274
Yavatmal	Available		1,678	1,850	1,442	1,439	1,305	1,795
	Required	2,140	2,119	1,985	1,975	1,969	1,967	1,969
	Balance		-441	-135	-533	-530	-662	-173

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

NOTE: Information on Bhandara district also includes information for Gondiya district, Parbhani district includes Hingloli district, Dhule district includes Nandurbar district, Akola district Includes Washim district for the year 1997.





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

**TABLE VI.1.2: Availability, Requirement and Surplus/Deficit of Feed Nutrient**

Year	Dry Matter ('000 MT)		
	Availability	Requirement	Surplus/Deficit
1997	37,847	63,884	-26,037
2003	42,830	60,478	-17,648
2007	47,303	62,291	-14,989
2008	47,576	62,666	-15,090
2009	47,526	63,100	-15,574
2010	47,863	63,597	-15,733
2011	58,621	64,160	-5,539

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

## VI.2. Feed Resources - Consumption

**TABLE VI.2.1: Year-wise Feed Consumption – 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	3.196	5.476	0.390	1.519	3.379	0.014
1997-98	4.692	5.614	0.862	2.538	3.488	0.105
2003-04	4.178	5.605	0.628	2.156	3.520	0.074
2007-08	4.528	7.185	0.692	2.695	5.484	0.095
2008-09	5.024	7.541	0.900	3.263	5.541	0.609
2009-10	4.867	7.702	1.063	3.301	5.784	0.502
2010-11	5.080	7.625	0.981	3.265	5.665	0.554
2011-12	5.024	7.541	0.900	3.263	5.541	0.609
2012-13	7.718	6.022	1.730	4.695	6.048	0.676
2013-14	6.809	6.458	1.723	5.018	5.796	0.884

SOURCE: Integrated Sample Survey Reports, Department of Animal Husbandry, Govt. of Maharashtra.

**TABLE VI.2.2: 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	4.101	7.002	1.084	2.830	5.391	0.048
1997-98	5.468	5.761	1.698	2.876	3.666	0.109
2003-04	5.872	6.768	1.823	2.829	4.953	0.092
2007-08	7.767	9.570	1.603	3.905	6.680	0.070
2008-09	7.860	9.092	1.909	4.467	8.349	0.432
2009-10	7.767	9.106	2.214	4.678	6.580	0.213
2010-11	7.993	9.133	2.061	4.620	6.622	0.323
2011-12	7.860	9.092	1.909	4.467	8.349	0.432
2012-13	8.993	7.911	1.937	5.774	7.211	0.951
2013-14	8.930	9.886	2.341	5.735	7.784	1.169

SOURCE: Integrated Sample Survey Reports, Department of Animal Husbandry, Govt. of Maharashtra.



## PART VII : AGRICULTURE

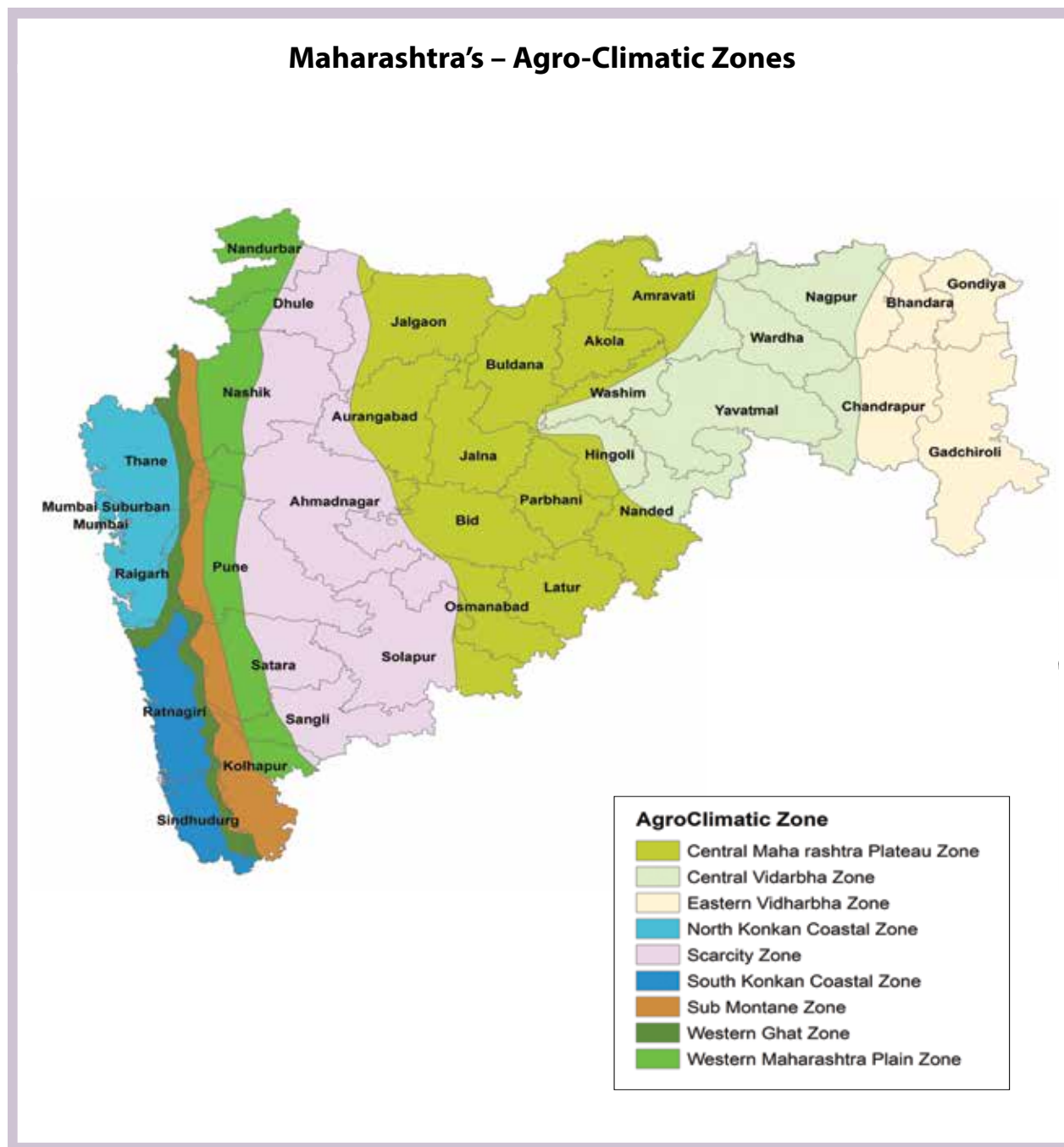
Maharashtra is divided into five geographical regions viz Konkan (west), Kandesh (north-west), Western Maharashtra (centre), Marathwada (south-east) and Vidarbha (eastern most). Rainfall is primarily concentrated on western region, whereas central and eastern Vidarbha region receive lesser to moderate rainfall from north-east monsoon. In order to reduce dependence on rainfall, irrigation facilities are being extended and to date, some 33,500 square kilometer or about 16 per cent of net cultivable area is under irrigation as against all-India average of 40 per cent. As a strategy, drip irrigation and dryland farming have been adopted. Farmers get 50-60 per cent subsidy for sprinkler and drip irrigation equipments. Large areas of the state have been brought under horticulture crops and region based crop strategies have been formulated. Consequently, Jalgaon has emerged as “banana capital” of India, Nagpur is known for orange, Nashik for grapes & onion, Ratnagiri for Alphonso mangoes, Ahmednagar for sugarcane and Kolhapur for jaggery. Water remains centre-stage of state agriculture and reforms in irrigation sector has started with the formation of Water User Association. The state was first to adopt dry-land farming and now, focus is on promotion of organic farming. Maharashtra has launched “Farmer Janata Accident Insurance Scheme (FJAIS)” covering thirteen perils to assist family members of ill-fated farmers. Road-map for future development was prepared in the form of “Comprehensive District Agriculture Plan (CPAP)” and these CPAP are now being implemented.







## VII.1. Agro-Climatic Zones



**TABLE VII.1.1: Maharashtra's Agro-climatic Zones**

South Konkan Coastal Zone/Very high Rainfall zone With laterite soils	North Konkan Coastal Zone/Very high rainfall zone with non-lateritic soils	Western Ghat Zone/Ghat Zone
Transition Zone – 1/Sub Montane Zone	Transition Zone – 2/Western Maharashtra Plain Zone	Scarcity Zone/Western Maharashtra Scarcity Zone
Assured Rainfall Zone/Central Maharashtra Plateau Zone	Moderate Rainfall Zone/Central Vidarbha	Eastern Vidarbha Zone

SOURCE: Department of Agriculture, Govt. of Maharashtra.



## VII.1. Agriculture

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

Parameters	South Kokan Coastal Zone/ Very high Rainfall zone With laterite soils	North Kokan Coastal Zone/ Very high rainfall zone with non-lateritic soils	Western Ghat Zone/Ghat Zone	Transition Zone-1/ Sub Montane Zone	Transition Zone-2/ Western Maharashtra Plain Zone
<b>Districts</b>	Mainly Ratnagiri and Sindhudurg districts	Thane and Raigarh	Hilly high lying terrains of Kolhapur, Satara, Pune, Ahmadnagar & Nashik districts & small area of Sindhudurg district.	Sloping Portions (19 tehsils) of five districts of Nashik, Pune, Satara, Sangli & Kolhapur.	Tehsils of Dhule, Ahmadnagar, Sangli & central tehsils of Nashik, Pune, Satara & Kolhapur districts.
<b>Geographical Area ('000 ha)</b>	1,320	1,659	1,878	1,029	1,791
<b>Gross Cropped Area (000ha)</b>	350	469*			886*
<b>Rainfall (mm)</b>	2,000-3,000	2,250-3,000	3,000-5,000	1,250-2,500	700-1,250
<b>Soil</b>	Laterite soil. PH 5.5-6.5 acidic, poor in phosphorous, rich in nitrogen and Potassium	Coarse & shallow. PH 5.5 to 6.5, acidic, Rich in nitrogen, poor in phosphorus & potash.	'Warkas' i.e. light laterite & reddish brown. Distinctly acidic, poor fertility low phosphorous & potash content.	Soils are reddish brown to black tending to lateritic. PH 6-7. Well supplied in nitrogen but low in phosphorous & potash	Soils greyish black, moderately alkaline, Fair in Nitrogen, Phosphorus, Potash content. Well drained & good for irrigation.
<b>Crops</b>	Paddy, Ragi, Pulses, Mango, Coconut, Arecanut, Cashewnut	Paddy, Pulses, Oilseeds, Banana and Sapota (Chikoo)	Paddy, Ragi, Jowar, Pulses, Groundnut, Sugarcane, Mango, Cashewnut	Kharif cereals, Groundnut, Sugarcane, Mango, Grapes Guava, Banana, Cashewnut	Jowar, Bajra, Groundnut, wheat, Sugarcane, Pulses.

SOURCE: Department of Agriculture, Govt. of Maharashtra, and Report of the high level committee on balanced regional development issues in Maharashtra (2013), Planning Department, Govt. of Maharashtra.

\* Net sown area



## VII.1. Agro-Climatic Zones

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

Parameters	Scarcity Zone/ Western Maharashtra Scarcity Zone	Assured Rainfall Zone/ Central Maharashtra Plateau Zone	Moderate Rainfall Zone/ Central Vidarbha	Eastern Vidarbha Zone
<b>Districts</b>	Drought prone talukas of Nasik, Dhule, Ahmadnagar, Pune, Satara, Sangli, Solapur, Aurangabad, Bid, Osmanabad districts	Comprises parts of Aurangabad, Jalna Bid, Osmanabad, Akola, Amravati, Yavatmal, Jalgaon, Dhule & Solapur districts. Major parts of Parbhani & Nanded districts and complete Latur and Buldana districts	Entire Wardha, major parts of Nagpur, Yavatmal 2 tehsils of Chandrapur & parts of Aurangabad, Jalna Parbhani & Nanded districts.	Entire Bhandara & Gadchiroli and parts of Chandrapur and Nagpur districts. Almost 50% area is under forest.
<b>Geographical Area (000ha)</b>	7,323	7,500	4,988	3,270
<b>Gross Cropped Area (000ha)</b>	5,842	6,780	3,573*	1,080
<b>Rainfall (mm)</b>	500-700	700-900	900-1,250	1,250-1,700
<b>Soil</b>	Soils have Montmorillonite clay. Poor in nitrogen, low to medium in phosphate & well supplied in potash.	Soil colour ranges from black to red.	Black soils derived from basalt rock. Medium to heavy in texture alkaline in reaction. Low lying areas are rich and fertile.	Soils derive from parent rock granite, gneisses, and schists. Brown to Red in colour. PH 6 to 7
<b>Crops</b>	Bajra, Jowar, Groundnut, Safflower, Pulses,	Jowar, Cotton, Oilseeds, Pulses,	Cotton, Jowar, Tur, Wheat, Oilseeds	Paddy, Pulses, Jowar, Oilseeds

SOURCE: Department of Agriculture, Govt. of Maharashtra, and Report of the high level committee on balanced regional development issues in Maharashtra (2013), Planning Department, Govt. of Maharashtra

\* Net sown area



## VII.2. Land Use Pattern

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

(‘000 ha)

Districts	Reporting Area		Forest Area		PPGL		Fallow land		Net Sown Area	
	2000-01	2011-12	2000-01	2011-12	2000-01	2011-12	2000-01	2011-12	2000-01	2011-12
<b>MAHARASHTRA</b>	<b>30,758.3</b>	<b>30,758.3</b>	<b>5,295.8</b>	<b>5,210.9</b>	<b>1,341.0</b>	<b>1,243.8</b>	<b>2,359.9</b>	<b>2,569.9</b>	<b>17,636.4</b>	<b>17,385.6</b>
Ahmadnagar	1,702.0	1,702.0	163.4	164.6	41.7	40.2	183.2	234.4	1,146.3	1,093.8
Akola	542.9	542.9	30.0	30.1	16.0	16.6	14.3	14.8	438.9	433.3
Amravati	1,221.7	1,221.7	310.1	309.9	53.1	33.2	27.9	47.1	751.3	751.0
Aurangabad	1,007.7	1,007.7	71.1	69.8	37.4	36	96.7	110.5	697.8	688.4
Bhandara	927.9	342.0	267.6	62.1	131.7	33.6	25.1	5.1	361.5	179.0
Bid	1,068.6	1,068.6	23.2	22.8	38.1	37	127.1	154.2	770.6	748.5
Buldana	967.1	967.1	104.5	88.8	36.8	38.8	36.6	42.8	690.5	669.4
Chandrapur	1,091.8	1,091.8	389.5	389	52.3	53.5	35.8	27.3	445.1	453.2
Dhule	733.0	733	213.4	211.5	18.8	18.8	16.4	17.5	436.8	433.2
Gadchiroli	1,491.6	1,491.6	1,100.5	1,099.6	72.9	52.8	56.5	55.6	169.9	172.8
Gondiya		585.9		207.5		94.7		16.5		182.6
Hingoli	466.1	466.1	28.3	29.2	17.8	17.9	61.2	58.1	328.0	330
Jalgaon	1,163.9	1,163.9	155.9	155.9	38.6	38.7	12.8	14.5	852.5	849.1
Jalna	772.6	772.6	5.0	4.9	26.2	24.8	94.3	114.5	591.1	573.3
Kolhapur	776.3	776.5	147.2	146.9	41.6	41.7	37.2	30.3	427.0	431.6
Latur	715.7	715.7	1.8	1.8	21.0	22.3	81.7	85.5	530.4	518.1
Mumbai	38.0	38.0	1.5	1.5	0.6	0.6	0	0	0	0
Nagpur	986.4	986.4	184.2	164.4	77.9	56	45.0	41.1	548.2	549.3
Nanded	1,033.1	1,033.1	85.5	86.3	59.5	51.5	83.1	86.6	708.7	708.6
Nandurbar	705.0	705.0	335.8	336.2	31.4	31.3	6.6	6.5	296.5	296.0
Nashik	1,563.4	1,563.4	312.9	310.9	23.9	22.6	112.0	109.8	875.0	883.3
Osmanabad	748.5	748.5	4.0	4.4	18.6	18.8	160.6	168.2	494.9	478.1
Parbhani	631.1	631.1	6.5	6.4	13.1	13.1	59.3	67.5	490.5	482.8
Pune	1,562.0	1,562.0	164.3	162.1	71.4	72.8	50.1	68.6	971.8	919.0
Raigarh	686.9	686.9	150.0	150	40.1	40.1	60.3	60.3	188.5	188.6
Ratnagiri	816.4	816.4	5.7	5.4	13.7	13.9	161.1	165.3	245.4	244.4
Sangli	861.0	861.0	45.1	43.4	17.7	15.3	90.3	100.4	595.6	585.7
Satara	1,058.2	1,058.2	142.9	142.7	78.0	79.2	67.4	93.5	575.7	539.9
Sindhudurg	504.0	504.0	33.1	33.1	2.0	2	116.7	116.6	140.3	140.3
Solapur	1,487.8	1,487.8	35.3	35.3	66.1	47.2	241.2	253.5	1,030.9	1,024.8
Thane	933.7	933.7	436.4	396.4	54.0	54	28.4	28.4	244.6	244.6
Wardha	628.9	628.9	62.1	62.1	38.8	35	85.3	85.6	365.9	364.4
Washim	513.1	513.1	34.9	35	29.8	29.9	25.9	25.7	378.3	377.8
Yavatmal	1,351.9	1,351.9	244.1	240.9	60.4	59.9	59.8	63.6	847.9	850.7

PPGL: Permanent Pasture and Grazing Land

SOURCE: : Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India and Department of Agriculture, Govt. of Maharashtra.



### 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)		
	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>9,116</b>	<b>7,564</b>	<b>7,442</b>	<b>10,243</b>	<b>10,427</b>	<b>8,882</b>	<b>3,559</b>	<b>3,297</b>	<b>3,323</b>	<b>2,128</b>	<b>2,310</b>	<b>2,360</b>
Ahmadnagar	915	736	716	694	551	293	122	79	86	73	45	27
Akola	105	59	63	223	165	107	183	187	202	104	87	168
Amravati	122	79	81	151	125	127	230	253	262	156	208	248
Aurangabad	437	349	347	630	719	394	101	80	72	72	62	22
Bhandara	186	197	196	238	334	394	30	34	40	16	22	21
Bid	535	356	363	422	323	183	115	105	106	72	65	43
Buldana	187	168	112	291	344	174	241	218	213	132	151	131
Chandrapur	200	190	191	220	234	288	86	84	97	40	48	83
Dhule	222	246	281	251	394	426	67	58	70	39	38	48
Gadchiroli	159	161	160	194	193	243	20	20	27	9	10	14
Gondiya	192	183	189	223	315	358	19	23	24	9	12	14
Hingoli	116	103	115	138	136	159	95	109	121	66	81	107
Jalgaon	279	226	230	534	576	470	170	134	136	108	117	78
Jalna	318	191	193	395	277	148	126	111	98	70	59	18
Kolhapur	179	168	172	399	403	391	25	21	17	15	15	12
Latur	224	184	184	253	232	268	208	203	209	119	161	238
Mumbai	0		0	0		0	0		0	0		0
Nagpur	134	167	156	152	241	233	122	137	136	75	112	106
Nanded	234	195	189	235	251	224	189	197	201	101	128	162
Nandurbar	135	136	144	176	282	268	79	67	68	43	52	50
Nashik	517	525	489	634	966	816	94	86	74	60	65	53
Osmanabad	411	382	373	309	313	152	222	203	205	130	144	62
Parbhani	319	270	289	291	276	256	186	164	174	90	99	99
Pune	703	389	387	563	439	386	83	61	57	48	45	34
Raigarh	147	143	144	331	319	344	14	14	14	7	8	6
Ratnagiri	102	100	92	223	253	238	8	8	5	4	4	3
Sangli	386	357	339	355	271	211	80	51	44	46	26	19
Satara	378	319	289	425	373	302	79	65	40	41	36	19
Sindhudurg	82	82	80	224	215	217	6	6	2	3	4	1
Solapur	797	566	555	492	316	208	78	53	52	45	29	20
Thane	168	169	164	323	363	381	19	20	15	12	15	7
Wardha	37	27	29	43	37	40	87	98	97	64	88	108
Washim	64	39	35	84	46	49	176	178	185	113	121	155
Yavatmal	125	102	98	127	147	135	199	168	172	146	156	185

\* Average from 2004-05 to 2008-09.

Zero denotes either nil or negligible.

SOURCE: Department of Agriculture, Govt. of Maharashtra .



### 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)		
	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13
<b>MAHARASHTRA</b>	12,675	10,861	10,765	12,371	12,737	11,242	3,733	3,702	3,691	3,445	4,519	5,160
Ahmadnagar	1,037	815	802	767	596	320	93	83	68	89	141	33
Akola	288	246	265	327	252	275	95	147	156	83	175	298
Amravati	352	332	343	307	333	375	261	304	314	254	377	477
Aurangabad	538	429	419	702	781	416	46	17	18	32	17	10
Bhandara	216	231	236	254	356	415	13	11	12	10	6	8
Bid	650	461	469	494	388	226	114	96	92	61	130	133
Buldana	428	386	325	423	495	305	196	268	284	184	379	434
Chandrapur	286	274	288	260	282	371	195	155	150	186	132	148
Dhule	289	304	351	290	432	474	52	34	34	37	38	38
Gadchiroli	179	181	187	203	203	257	10	12	9	5	9	8
Gondiya	211	206	213	232	327	372	10	10	9	2	2	2
Hingoli	211	212	236	204	217	266	177	177	177	163	223	305
Jalgaon	449	360	366	642	693	548	52	29	26	53	42	32
Jalna	444	302	291	465	336	166	65	66	65	54	93	44
Kolhapur	204	189	189	414	418	403	130	103	104	197	194	203
Latur	432	387	393	372	393	506	287	311	312	195	464	655
Mumbai	0	0	0	0	0	0	0	0	0	0	0	0
Nagpur	256	304	292	227	353	339	278	247	243	292	162	244
Nanded	423	392	390	336	379	386	196	204	205	161	248	297
Nandurbar	214	203	212	219	334	318	32	46	38	38	74	62
Nashik	611	611	563	694	1,031	869	85	108	111	84	118	122
Osmanabad	633	585	578	439	457	214	164	171	193	105	180	127
Parbhani	505	434	463	381	375	355	139	187	167	112	189	203
Pune	786	450	444	611	484	420	67	56	56	60	64	54
Raigarh	161	157	158	338	327	350	1	1	0	1	1	1
Ratnagiri	110	108	97	227	257	241	3	3	2	1	1	1
Sangli	466	408	383	401	297	230	113	91	92	149	125	120
Satara	457	384	329	466	409	321	94	97	92	120	146	137
Sindhudurg	88	88	82	227	219	218	6	5	4	9	8	7
Solapur	875	619	607	537	345	228	57	32	27	39	28	23
Thane	187	189	179	335	378	388	4	4	3	2	2	1
Wardha	124	125	126	107	125	148	228	176	180	237	155	193
Washim	240	217	220	197	167	204	209	221	203	206	292	340
Yavatmal	324	270	270	273	303	320	259	229	246	224	306	404

\* Average from 2004-05 to 2008-09.

Zero denotes either nil or negligible.

SOURCE: Department of Agriculture, Govt. of Maharashtra.



### 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)		
	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13	*2004-09	2011-12	2012-13
<b>MAHARASHTRA</b>	<b>708</b>	<b>1,022</b>	<b>938</b>	<b>55,618</b>	<b>89,456</b>	<b>75,335</b>	<b>3,033</b>	<b>4,167</b>	<b>4,187</b>	<b>4,497</b>	<b>6,820</b>	<b>6,793</b>
Ahmadnagar	76	130	116	5,506	11,879	8,236	30	112	96	52	238	88
Akola	0	0	0	18	6	0	195	169	169	276	259	324
Amravati	1	0	0	62	29	17	212	187	191	238	270	612
Aurangabad	17	20	15	1,374	1,705	631	260	379	379	433	697	378
Bhandara	1	3	3	73	232	191	0	0	0	0	0	0
Bid	40	54	51	3,235	3,488	2,817	158	329	329	197	419	341
Buldana	1	0	0	90	18	4	225	257	254	330	322	346
Chandrapur	0	0	0	0	0	0	49	100	108	74	159	270
Dhule	8	5	5	490	360	434	91	156	161	123	270	260
Gadchiroli	0	0	0	0	0	0	0	4	5	0	7	10
Gondiya	0	0	0	21	25	17	0	0	0	0	0	0
Hingoli	11	8	9	683	557	679	74	90	101	145	143	242
Jalgaon	17	11	11	1,103	820	759	412	549	559	751	1,040	853
Jalna	16	19	13	1,176	1,306	803	235	307	289	412	527	190
Kolhapur	99	146	142	8,107	12,847	13,739	0	0	0	0	0	0
Latur	37	43	46	2,363	3,113	3,051	4	5	6	4	14	18
Mumbai	0		0	0		0	0		0	0		0
Nagpur	0	1	0	14	48	22	65	102	89	91	142	177
Nanded	20	24	13	1,249	1,752	1,048	231	327	327	184	521	527
Nandurbar	12	8	11	827	779	794	42	57	79	66	81	97
Nashik	29	25	25	2,069	1,861	1,864	27	47	46	43	97	77
Osmanabad	29	55	52	2,002	3,663	2,234	4	21	26	5	38	30
Parbhani	14	17	17	1,076	1,166	1,212	196	241	274	320	413	548
Pune	70	130	138	6,552	13,158	13,888	0	0	0	0	0	0
Raigarh	0	0	0	0	0	0	0	0	0	0	0	0
Ratnagiri	0	0	0	0	0	0	0	0	0	0	0	0
Sangli	48	71	61	4,442	7,163	7,066	2	3	3	2	5	9
Satara	45	71	60	3,836	6,963	5,578	3	1	0	4	2	0
Sindhudurg	0	0	0	0	0	0	0	0	0	0	0	0
Solapur	104	173	144	8,544	15,936	9,717	1	1	1	2	2	2
Thane	0	0	0	0	0	0	0	0	0	0	0	0
Wardha	3	4	2	156	244	180	83	178	172	113	337	325
Washim	0	0	0	34	8	0	62	64	57	75	104	88
Yavatmal	7	5	4	516	331	355	373	481	468	556	714	981

\* Average from 2004-05 to 2008-09. 1 bale = 170 kg.

Zero denotes either nil or negligible.

SOURCE: Department of Agriculture, Govt. of Maharashtra.



## VII.4. Land Holding and Water Resources

**TABLE VII.4.1: Operational Holdings in Maharashtra-2010-11**

Size of Holding (ha)	Total Holdings		Average Size of Holding (ha)
	Number ('000)	Area ('000 ha)	
Marginal	6,709	3,186	0.47
Small	4,052	5,739	1.42
Semi-medium	2,159	5,765	2.67
Medium	711	3,993	5.62
Large	68	1,084	15.94
All Classes	13,699	19,767	1.44

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**

(‘000 ha)

Particulars	1997-98	2000-01	2003-04	2005-06	2007-08	2008-09	2011-12	2012-13
Net Irrigated Area	3,140	3,249	3,260	3,268	3,268	3,259	3,252	3,244
Net Sown Area	17,722	17,844	17,432	17,473	17,473	17,422	17,386	17,344
Gross Sown Area	21,384	21,619	22,190	22,556	22,655	22,454	22,011	21,874
<b>Sources (net irrigated area)</b>								
Canals	1,050	988	1,085	1,088	1,088	1,085	1,082	1,080
Tanks								
Wells and Tube Wells	2,090	2,262	2,175	2,180	2,180	2,174	2,169	2,164
Other Sources								

SOURCE: Directorate of Economics and Statistics, Ministry of Agriculture & Farmers Welfare, Govt. of India.

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

Name of the River	Origin	Length (km)	Catchment Area (sq km)	States Falling in the Catchment Area
Narmada	Amarkantak (Madhya Pradesh)	1,312	98,796	Madhya Pradesh, Maharashtra and Gujarat
Tapi	Betul (Madhya Pradesh)	724	65,145	Madhya Pradesh, Maharashtra and Gujarat
Mahanadi	Nazri Town (Madhya Pradesh)	851	141,589	Madhya Pradesh, Maharashtra, Bihar, Chhattisgarh and Orissa
Godavari	Nasik (Maharashtra)	1,465	312,812	Maharashtra, Andhra Pradesh, Madhya Pradesh, Orissa and Pondicherry
Krishna	Mahabaleshwar (Maharashtra)	1,401	258,948	Maharashtra, Andhra Pradesh and Karnataka

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 Maharashtra**

Name of River	Village/District ( <i>origin</i> )	Length (km)	Catchment Area (sq km)
<b>West Flowing Rivers</b>			
Purna	Dhosa	142	2,431
Ambika	Dangs	142	2,715
Vaitarna	Nashik	171	3,637
Dammanganga	Nashik	143	2,357
Ulhas	Raigarh	145	3,864
Savitri	Pune	99	2,899
Sastri	Ratnagiri	64	2,174
Washishthi	Ratnagiri	48	2,239

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





## VII.5. Rainfall

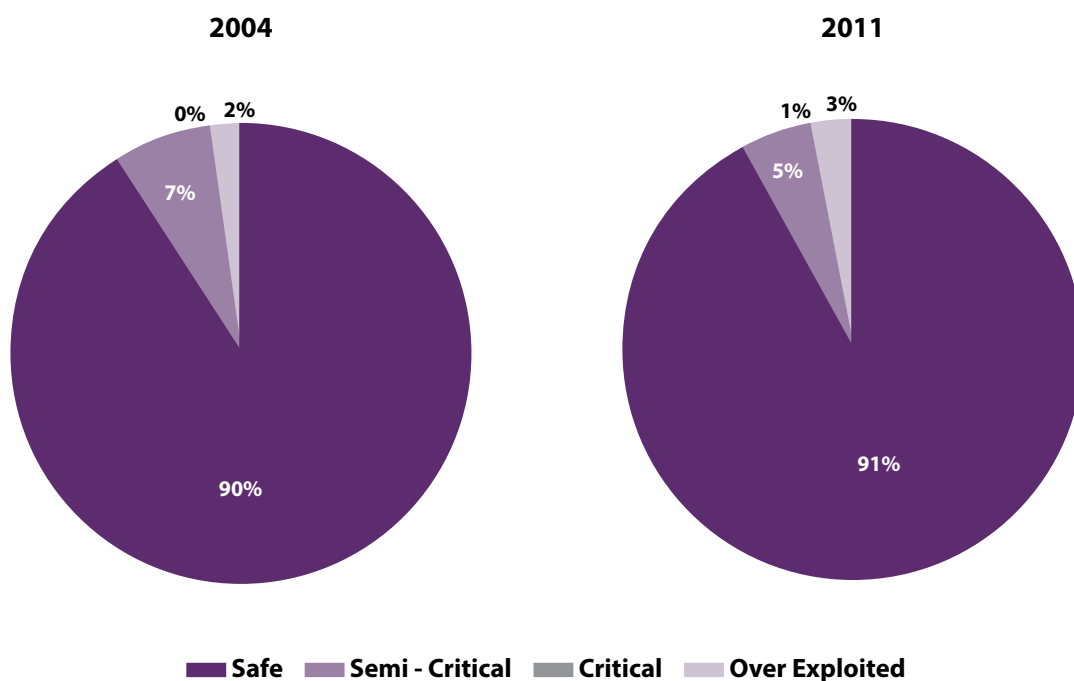
**TABLE VII.5.1: District- wise Average Annual Rainfall**

Districts	Average Annual Rainfall (mm)		
	2005 - 2009	2012	2013
<b>MAHARASHTRA</b>	<b>1,237</b>	<b>1,064</b>	<b>1,437</b>
Ahmadnagar	611	390	600
Akola	770	812	1,301
Amravati	891	1,014	1,083
Aurangabad	663	382	685
Bhandara	1,118	1,315	1,741
Bid	714	431	655
Buldana	724	622	597
Chandrapur	1,117	1,310	1,867
Dhule	679	530	404
Gadchiroli	1,391	1,556	2,227
Gondiya	1,267	1,239	1,904
Hingoli	822	712	1,163
Jalgaon	728	407	905
Jalna	664	322	806
Kolhapur	2,275	1,589	1,848
Latur	783	764	852
Nagpur	997	1,000	1,420
Nanded	801	677	1,107
Nandurbar	1,144	733	1,344
Nashik	1,306	951	
Osmanabad	705	423	710
Parbhani	810	669	935
Pune	1,201	677	1,085
Raigarh	3,232	3,071	3,793
Ratnagiri	3,763	3,720	4,357
Sangli	665	454	599
Satara	1,642	812	903
Sindhudurg	3,316	3,266	3,736
Solapur	611	450	584
Thane	2,803	2,193	3,014
Wardha	938	862	1,181
Washim	810	845	1,292
Yavatmal	834	923	1,303

SOURCE: Hydromet Division, India Meteorological Department, Govt. of India and Integrated Sample Survey Reports, Department of Animal Husbandry, Govt. of Maharashtra.

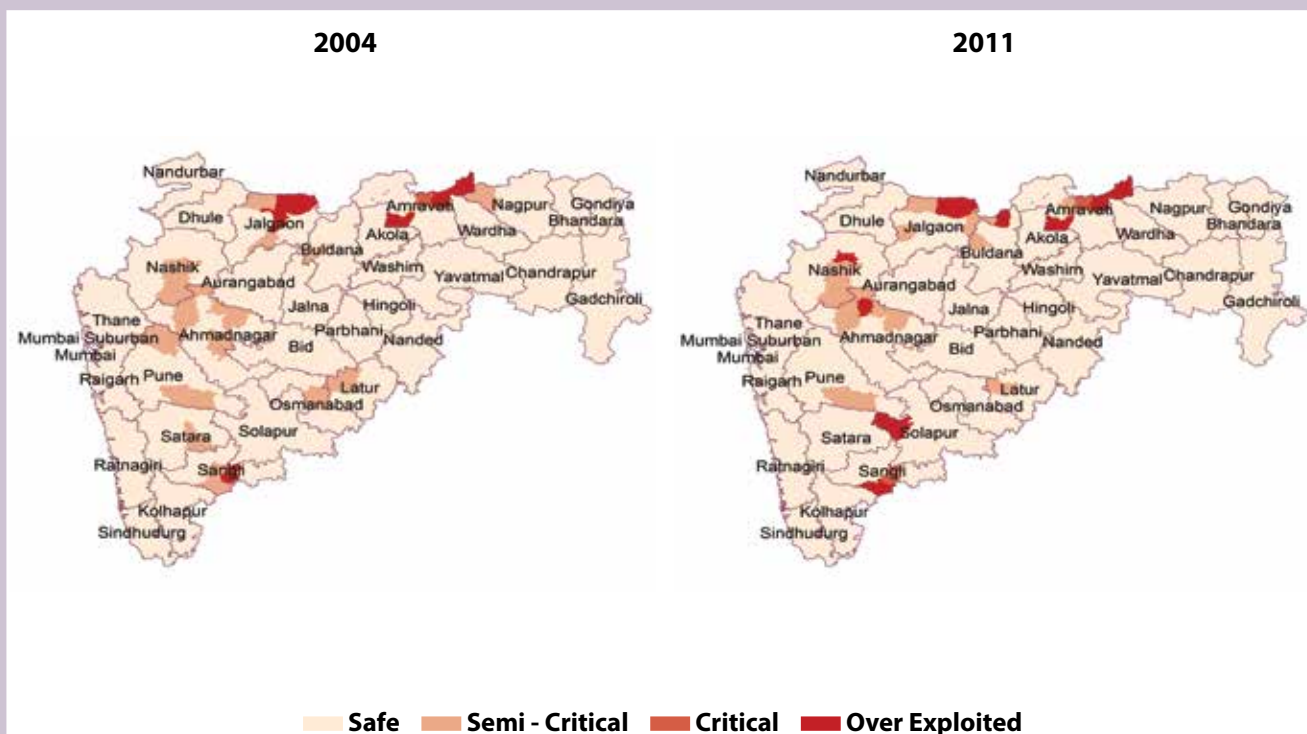


### Status of Ground Water (% of Talukas)



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 Maharashtra





## VII.6. Ground Water Status

**TABLE VII.6.1: Distribution of Talukas according to Ground Water Status**

Districts	Number of Talukas ( <i>Sub-Districts</i> ) under								
	Semi Critical			Critical			Over-exploited		
	2004	2009	2011	2004	2009	2011	2004	2009	2011
<b>MAHARASHTRA</b>	<b>23</b>	<b>19</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>9</b>	<b>10</b>
Ahmadnagar	5	5	4					1	1
Amravati		1	1	1		1	3	4	3
Buldana	1	1	1				1	1	1
Jalgaon	2	4	4				2	2	2
Latur	2	1	1						
Nagpur	2								
Nashik	3	4	3						1
Osmanabad	1								
Pune	4	2	2						
Sangli	2	1			1	1	1		1
Satara	1								
Solapur								1	1

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



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

The history of dairy development in Maharashtra can be traced as early as 1940s. At that juncture, the then Civil Supplies department controlled dairy development. In 1947, Aarey Milk Colony was established to supply clean milk to the consumers. In 1958, an independent Dairy Development Department was established which was headed by a Milk Commissioner. After 1970, substantial funds were disbursed through cooperatives for dairy development during Operation Flood Programme. The State also initiated Integrated Dairy Development Programmes in districts not covered under Operation Flood. In due course of time, Animal Husbandry Department was strengthened with independent Commissioner. Presently, dairying in Maharashtra is promoted by:

**1. Dairy Development Department, and,**

**2. Animal Husbandry Department**

**1. Dairy Development Department**

The Dairy Development Department, Mumbai helps Government of Maharashtra to fix procurement price for milk and ensures that the producers are offered the same by the State





and Cooperative dairies. It also decides the selling price of milk of the cooperatives and its own dairies. The department oversees "Aarey Milk Colony", "Cattle Breeding and Rearing Farm, Palghar", "Dairy Project, Dapchari" along with Aarey, Worli and Kurla milk schemes. The Department is implementing following Central Sector schemes:

**1.A. "Strengthening Infrastructure for Quality & Clean Milk Production" (SIQ & CMP):** This scheme strengthen infrastructure for quality and clean milk production by providing training & creating mass awareness among milk producers & also facilitating installation of bulk milk cooler facilities at milk collection centres for immediate chilling of raw milk. The scheme is implemented through District Cooperative Milk Unions and State Level Milk Federation.

**1.B. "Intensive Dairy Development Programme" (IDDP):** This scheme is implemented through State Milk Federation (Mahanand) is mainly for developing dairy infrastructure in hilly and backward areas of Nagpur, Nandurbar, Latur, Amravati, Nanded including the districts which have received less than ₹ 50 lakhs for dairy development during Operation Flood period (1970-1996).

Under 12<sup>th</sup> Five Year Plan, the three schemes of "IDDP", "SIQ & CMP" and "Assistance to Cooperatives" have been merged into "National Program for Bovine Breeding (NPBB) and in turn, "National Program for Dairy Development (NPDD)" and both these programmes have been clubbed under "National Programme For Bovine Breeding And Dairy Development" (NPBB & DD). This is done to ensure that dairying develops on a scientific and holistic manner to attain milk production.

**1.C. Rashtriya Krishi Vikas Yojana (RKVY):** Apart from other schemes, the Central Government also sponsor RKVY through 100% subsidy. Mostly RKVY fund is used for :

- Integrated Dairy Farm Park Programme in selected districts.
- Accelerated Dairy Development Programme by cooperatives.
- National Mission for Protein Supplements (NMPS) programme wherein construction of milk plant under Advance Milk Processing Infrastructure Development programme (such as Tetra Brick packaging or Tetra Fino) as well as strengthening and modernisation of Milk unions is being done.

## 2. Animal Husbandry Department

The Department of Animal Husbandry, Pune established on 20<sup>st</sup> May 1892 and will be completing 125 years in 2017. The department is engaged in core functions and activities related to animal health, disease diagnosis, and veterinary services, breed development and feed & fodder development. It has Joint Commissioners at regional level to monitor schemes and programmes, District Deputy Commissioners at district level to implement various schemes, monitor veterinary polyclinics, AI centres and other extension activities. Various Central and State sponsored schemes implemented in the state are mentioned below.



## 2.A Central Schemes implemented in Maharashtra:

**2.A1. Assistance to States for the Control of Animal Diseases (ASCAD):** The AH department is implementing ASCAD scheme since 2004-05 with 75% Central Government funding and 25% State funding. The various components covered under this scheme are as follows.

- “Immunization against other economically important diseases” such as Hemorrhagic Septicaemia & Black Quarter in cattle, Enterotoxemia & Sheep Pox in Sheep and Goat; Swine Fever in Pigs, Fowl Pox & Ranikhet Disease in poultry (Funding -75% Centre:25% State).
- “Training for Vets & Para Vets” to update their knowledge (100% centre). The trainings are arranged for Vets & Para Vets to update their knowledge by providing the information regarding the incidence of disease outbreak, diagnosis, control measures & surveillance.
- Strengthening and Modernization of Disease Diagnostic Laboratory (Funding - 75% Centre:25% State).
- “Surveillance, Monitoring and forecasting” of animal disease (Funding - 75% Centre:25% State) from routine surveillance in certain areas and study of the geographical and climatic condition of those areas to the possibility of disease outbreaks.
- “Awareness camps” for information and communication through campaigns and community participation (Funding - 75% Centre:25% State). To this end, awareness camps at the block level and at the district level are being arranged to create the awareness in the farmers and other people regarding animal diseases, diagnosis, control measures, vaccinations & policies of Government using posters, pamphlets etc.

**2.A2. “Foot and Mouth Disease – Control Programme (FMD-CP)”:** This programme is implemented since year 2003-04 with 100% assistance from Govt. of India to create the FMD free zone in 5 districts of the State viz. Pune, Satara, Ahmednagar, Aurangabad and Mumbai following guidelines of Government of India. During the year twice vaccination has been done to cattle and buffaloes. Since 11th year plan period i.e. from the year 2010-11, the programme has been extended to cover all districts of Maharashtra.

**2.A3. “National Project on Rinderpest Eradication (NPRE)”:** It is in place with 100% assistance from Govt. of India. The country has been declared free from Rinderpest by “Office International des Epizooties” (OIE). However, the surveillance programme is carried out in the State of Maharashtra which includes the surveillance in Veterinary Institutes, Village Surveillance, & stock route surveillance.

**2.A4. “Animal Disease Monitoring and Surveillance (ADMAS)”:** In order to carry out disease surveillance of various economical important disease in the state, this scheme is being implemented in the state with 100% assistance from ICAR. Through the scheme, forecasting of diseases has been carried out on the basis of occurrence of diseases in past and environmental condition,





- 2.A5. "National Control Program on Brucellosis (NCPB)":** Brucellosis is responsible for abortions in Cattle, Buffalo, Sheep and Goats leading to infertility. To control Brucellosis, a National Control Program on Brucellosis (NCPB) has started in the state. Under this scheme, all female cow calf and all female buffalo calf of 4-8 months age are being vaccinated.
- 2.A6. "National Animal Disease Reporting System (NADRS)":** This scheme started in 2010-11 and scheme includes surveillance of various animal diseases, effective disease control and reporting of diseases. Govt. of India has developed a Web portal to disseminate information about various animal diseases and their control. Every block level officer has given access to this web portal.
- 2.A7. "Quality Control laboratory"** at Goregaon, Mumbai has been assisted by APEDA for up gradation and modernization as per GLP norms and ISO standards.
- 2.A8. Fodder Farm Development Scheme:** In order to overcome the shortage of feed and fodder and to improve the nutritive value, the Government of Maharashtra is providing subsidy of ₹ 1.5 to ₹ 10 lakh for cultivation of fodder on 5 to 10 hectares of land to NGOs, SHGs, Corporations, Milk Cooperatives, Universities, private agencies, government & semi-government organisation using 100 per cent central assistance. In addition, 100 per cent central subsidy is provided for distribution of certified seed for fodder cultivation.
- 2.A9. National Dairy Plan Phase I (NDP-I):** National Dairy Development Board (NDDB) is implementing NDP-I in Maharashtra through a network of End Implementing Agencies (EIAs) with objective of : a) increasing productivity of milch animals; and b) providing farmers greater access to the organised milk processing sector. The key interventions being undertaken under NDP I are:
- o Production of high genetic merit (HGM) cattle and buffalo bulls
  - o Strengthening of "A" and "B" graded Semen Stations
  - o Setting up a pilot model for viable doorstep AI delivery services
  - o Animal Nutrition interventions for improving nutrition of milch animals
    - Ration Balancing Programme
    - Fodder Development Programme
  - o Strengthening and Expanding Milk Procurement System at Village level
- » Production of High Genetic Merit Cattle and Buffalo Bulls: Under this intervention, the focus is to make available high genetic merit cattle and buffalo bulls of different breeds to semen stations so as to produce high quality disease free semen doses for artificial insemination. It is done through Progeny Testing Programme, Pedigree Selection Programme, and Import of Bulls & Embryos.
- » Strengthening of "A" and "B" Graded Semen Stations: This component support "A" and "B" graded semen stations to expand and upgrade the facilities to produce high quality disease free semen doses for artificial insemination.



- » **Ration Balancing Programme:** The Ration Balancing Programme trains and facilitates Local Resource Person (LRP) to formulate a least cost balanced ration from locally available feed resources using the software Information Network for Animal Productivity and Health (INAPH). Balanced Ration to milch animals helps in ensuring animals milk production to utmost genetic potential. Feeding balanced ration to milk animals reduces both the cost of feeding per kg of milk and also helps in significantly reducing the methane emissions.
- » **Fodder Development Programme:** The Fodder Development programme supplements the Government of Maharashtra programme to promote certified/truthfully labeled seeds to increase fodder production. It also covers field demonstrations of mowers, silage making and biomass bunkers to popularize these technologies among farmers.
- » **Village Based Milk Procurement System:** It aims at providing rural milk producers greater access to the organised milk-processing sector and also provide support to End Implementing Agencies for establishing village-level infrastructure for milk collection, testing and cooling.

Till August 2015, 33 sub-projects of 20 End Implementing Agencies (EIAs) were approved with the total outlay of ₹ 122.30 Crore out of which ₹ 100.57 Crore would be grant assistance from NDP I and ₹ 21.73 Crore would be contributed by the (EIAs).

The approved sub-projects from the State of Maharashtra till August 2015 are:

Activity	No. of Approved Sub-Projects
Pedigree Selection Programme	1
Bull Production through Imported Embryos	1
Strengthening of Semen Stations	1
Ration Balancing Programme	5
Fodder Development Programme	7
Village Based Milk Procurement System	18
<b>Total</b>	<b>33 Sub-Projects</b>

**2.A10. Scheme under the National Livestock Mission:** Under the mission various schemes are implemented on subsidy of GOI & GOM as below:

Sr. No.	Name of the scheme	Objectives	Project cost (₹)	Subsidy (per cent)
1.	Fodder seed production, collection and distribution scheme	For the production of Fodder (jowar/maize/ bajra/berseem/lucern etc), certified seed are produced in order to distribute to the farmers.	--	75% subsidy from Central Government
2.	Fodder production from Non-forest wasteland/ rangelands/grassland/ non-arable land.	Development of Non forest wasteland/ rangelands/grassland/ non-arable land for production of legumes & grasses.	₹ 30,000/- to ₹ 1,00,000/- according to land type	75% subsidy from Central Government





3.	Incentive for hand driven chaff cutter machine	Distribution of hand driven chaff cutter machines according to the Indian standard certification	₹ 5,000/- per unit	75 %. Limited to ₹ 3,750/-																								
4.	Incentive for power driven chaff cutter machine	Distribution of power driven chaff cutter machines according to the Indian standard certification	₹ 20,000/- per unit	50%. Limited to ₹ 10,000/-																								
5.	Establishment of silage making units	Subsidy for the making of silage from the excess produce of green fodder in rainy season	₹ 50,000/- to 1,00,000/- per unit	75%. Central Share maximum ₹ 10,000/-																								
6.	Establishment of high capacity fodder block making units.	Subsidy for the establishment of fodder block making unit from crop residue by modern technique which would be useful in scarcity period.	₹ 150 lakh per unit.	50%. Central Share maximum ₹ 75 lakh																								
7.	Distribution of low capacity tractor for mountable fodder block making units/Hay Bailing Machine/Reaper/Forage Harvester	Subsidy for the establishment of fodder block making unit from crop residue by modern technique which would be useful in scarcity period.	₹ 20 lakh per unit	50%. Central Share maximum ₹ 10 lakh																								
8.	Establishment of area specific mineral mixture/ feed processing units.	Subsidy for the establishment of Area Specific Mineral Mixture/ Feed Pelleting/Feed Manufacturing Unit.	--	25%. Central Share maximum ₹ 200 lakh																								
9.	Establishment of Bypass protein/fat Making units.	Subsidy for the establishment of Bypass protein making units.	--	25%. Central Share maximum ₹ 200 lakh																								
10.	Risk Management (Livestock Insurance)	Under this scheme benefit of subsidy is to be restricted to 5 animals per beneficiary per household for dairy animals. However a beneficiary may insure more than 5 animals by paying the full premium without availing the subsidy benefit. It also cover Sheep, Goat, Pig and Rabbit.	<table border="1"> <thead> <tr> <th rowspan="2">Shares</th> <th colspan="2">Normal Area</th> <th colspan="2">LWE Affected Area</th> </tr> <tr> <th>APL</th> <th>BPL/SC/ST</th> <th>APL</th> <th>BPL/SC/ST</th> </tr> </thead> <tbody> <tr> <td>Central</td> <td>25%</td> <td>40%</td> <td>35%</td> <td>50%</td> </tr> <tr> <td>State</td> <td>25%</td> <td>30%</td> <td>25%</td> <td>30%</td> </tr> <tr> <td>Beneficiary</td> <td>50%</td> <td>30%</td> <td>40%</td> <td>20%</td> </tr> </tbody> </table>	Shares	Normal Area		LWE Affected Area		APL	BPL/SC/ST	APL	BPL/SC/ST	Central	25%	40%	35%	50%	State	25%	30%	25%	30%	Beneficiary	50%	30%	40%	20%	
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**2.A11. "Livestock Census"** is being carried out every five year in the State with 100% funding from the Government of India.

**2.A12.** In the state **"Integrated Sample Survey"** Scheme is implemented on 50 per cent funds received from the Government of India. Through this scheme the estimation of the milk, meat, wool and



eggs has been carried out every year on the basis of the samples survey in the state in three different seasons.

## 2.B. State schemes implemented in Maharashtra:

**2.B1. Kamdhenu Dattak Gram Yojana (KDY):** Maharashtra State Government sanctioned the District level scheme - Kamdhenu Dattak Gram Yojana . The aim behind this scheme is to implement various important Animal Husbandry activities pertaining to the management, feed-fodder production, disease control, health improvement and breeding of large bovines with a focused approach on mission mode in the selected village/cluster of villages in all the districts .

To this end, a fund of ₹ 1.52 lakh will be allotted for every village adopted under KDY for following activities

Sr. No.	Activity Component	Expenditure limit (in Rupees)
1	Establishment of Pashupalak Mandal and organization of exposure visit to progressive farm	7,000/-
2	Organization of De-worming camps	17,500/-
3	Supply of Mineral Mixture and vitamin supplements	40,000/-
4	Organization of Ecto-parasite eradication camp	13,000/-
5	Organization of Infertility treatment camps	22,000/-
6	Various activities under Fodder Development,	17,000/-
7	Enrichment of fodder demonstration	5,000/-
8	Publicity & Propaganda	21,000/-
9	Implementing Innovative activity/other need based related activity	5,000/-
10	Utilization of the dung, urine of animals and wasted fodder for preparation of manure	5,000/-
	<b>Total</b>	<b>152,500/-</b>





The criteria for selection of villages under this scheme requires various important attributes as given below:

- The village should be located on the existing or proposed milk collection route of Government Dairy or Co-operative Milk Union or Private Dairy
- The village or the cluster of nearby villages (involving 2-3 villages) should have a population of 300 breedable cows and buffaloes
- Priority is given to villages in jurisdiction of Veterinary Institutions and having active participation viz. livestock owners, Sarpanch, Gram-sevak and dairy co-operative society.
- The implementation of this scheme has been entrusted to the following district level monitoring committee

Chairman : District Dy. Commissioner of AH

Member : District Animal Husbandry Officer, Zilla Parishad

Member : District Dairy Development Officer

Member Secretary: Asst. Commissioner of AH District Veterinary Polyclinic

In each selected village/village cluster the scheme is implemented in the following sequential steps.

Step-I : Carrying out Latest census of large bovines,

Step-II : Organization of special Gram-sabha,

Step-III : Organization of De-worming camp,

Step-IV : Organization of Ecto-parasite eradication camp,

Step-V : Organization of Mass Vaccination camp,

Step-VI : Organization of First Infertility-treatment camp,

Step-VII : Organization of Demonstration for enriching low quality fodder and promotion of fodder production,

Step-VIII : Organization of Milk competition and calf rally,

Step-IX : Organization of Second Special Gram Sabha,

Step- X : Organization of Follow up Infertility-treatment camp,

Step-XI : Organization of Third Special Gram sabha,

Step-XII : Organization of Third Infertility treatment camp.

After completion of the above mentioned sequential steps, the milk production of all the cows and buffaloes in the village is again recorded animal-wise in prescribed format. Recently, additional components are added as given below:



- Establishment of Pashupalak Mandal and organization of exposure visit to progressive farm: At least Eleven cattle owners of village, who possess comparatively more number of cattle are selected and made members of the Pashupalak Mandal which is registered with the Charity Commissioner or with the ATMA agency under Agriculture Department at district level. The members of Pashupalak Mandal meet regularly and discuss the various measures for development of Animal Husbandry activities in the village. The members of Pashupalak Mandal actively participate in the Gram Sabhas organized under the scheme. The exposure visit to progressive dairy farm/poultry farm/goat farm is arranged with the help of members of Pashupalak Mandal.
- Publicity and Propaganda budget for expenses towards stationery, registers for the office record and official meetings of Pashupalak Mandal, preparation of Flex boards, hoardings, posters, for use in the selected village, Mandap installation, sound system for camps, hiring of audio-visual equipment, procurement of educational CDs, DVDs, photography/video recording of the various camps, Gram Sabha's, milk competition & calf rally, printing of certificates and procurement of mementos, preparation/printing and binding of booklet of success story.
- Implementing Innovative activity/other need based related activity





- Utilization of dung, urine of animals and wasted fodder for preparation of manure

**2.B2. Comprehensive Breed Improvement Programme:** It was identified that animal productivity stagnated due to unplanned artificial insemination activities, no proper data retrieval system, no cattle wise progeny history available at hospital level, no data at farmer level because of limited size of herd. In absence of data, suitability of bull for particular cow is also not evaluated and only judgment is criteria to select bull. It has been resulted in inbreeding in some cases. To overcome this problem Comprehensive Breed Improvement Programme was started. It includes features of pedigree selection, progeny testing, SLPP, health care, farmer's participation and use of ICT. It is State plan scheme with allocation of ₹ 10 Crore.

Under this programme, high yielding animals are identified through milk production competitions. Thereafter, these animals are regularly monitored on daily basis on various parameters like Daily Heat, AI, Pregnancy Diagnosis, Calf Born Milk Yield, Fat % recording through SMS. It is ensured through grant that high quality semen is used for their Artificial Insemination (AI) and required quantities of mineral mixture is fed to the pregnant animals. A grant of ₹ 5,000 is provided to the owner for better management of female calf and the purchase of elite male calf for semen production by selection @ ₹ 25,000/-.

**2.B3.** In addition to above, there are **Schemes for Scheduled Caste (Special Component Scheme) & Tribals:**

Purchase of animals	SC/ST category – 2 Cross bred cows or 2 buffalo at 75% subsidy and for Tribal it at 50%.
Insurance of animal	For the first year animals are insured at 2.25% of their purchase price.
Feed cost	₹ 150/cattle & ₹ 225/buffalo during dry period 90 kg cattle feed per animal free during last 2 months of pregnancy. Under "Special Cattle Production Programme", small & marginal ST farmers are provided 50% subsidy for cattle feed purchase and insurance; whereas landless farmers are provided 66.66% subsidy.
Training	2 day training with stipend of ₹ 100 per day.
Animal Health	Animals distributed are also vaccinated, dewormed and provided with mineral mixtures. The beneficiaries get free antibiotic medicines for animals & access to infertility camps for milch animals.

**2.B4.** The state government has established new educational institutes and strengthened **Maharashtra Animal and Fishery Sciences University (MAFSU) at Nagpur.**

**2.B5.** The State Government has formulated **State Training Policy** in the State. Accordingly the Department has recognised State Level Training Institute at Gokhale Nagar, Pune as a nodal agency to implement the State Training Policy. Under this the training programme for Veterinarians & Para-Veterinarians are organised.

**2.B6.** The State Government is implementing **three Innovative State Plan schemes for distribution of six Milch Animals** ( Cross-bred cows/Bufferaloes). There is subsidy of 50 per cent for General Category and 75 per cent for Scheduled Caste/Scheduled Tribes beneficiaries. Beneficiaries must





contribute at least 10% in general & 5% in SC/ST and rest can be availed from bank as loan. Corresponding scheme are also available for Goat Unit and Broilers.

### 3. NABARD Schemes:

It has three schemes in Maharashtra:

- **“Salvaging and Rearing of male buffalo calves”.**
- **“Dairy Entrepreneurship Development Scheme”** wherein individuals are encouraged to set up modern dairy farms, heifer calf rearing, and initial processing of milk.
- **“Utilisation of fallen animals”** for proper disposal of animals under Infectious and Contagious Diseases in Animal, Act 2009.

*Note: Major schemes towards livestock and dairy development have been focussed.*





## 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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