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Statistical Analysis of Fish Production in India

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ABSTRACT: India is a major producer of fish through aquaculture and ranks second in the world after China. In FY 2013-14 India is the second largest producer of fish in the world contributing to 5.68% of global fish production. It is not only a source of livelihood for over 14 million people; but also needed for socio economic development of country, it has contributed Rs. 30213 Cr. The vast resources of both inland and marine are indicative of the immense growth potential of sector, Country has lone coastline of about 8118 km and an exclusive economic zone of 2.02 million sq. Km. (Handbook on Fisheries Statistics, 2014). So it is important to do statistical analysis of country to understand actual growth rate comparison to previous years.

KEY WORDS: Inland Fishing, Marine Fishing, Grown rate, Comparative Analysis etc.

I. INTRODUCTION

The country has a long coastline of 8118 km and equally large areas under estuaries, backwaters, lagoons etc., conducive for developing capture as well as culture fisheries. With the declaration of the Exclusive Economic Zone (EEZ) in 1977, an area of 2.02 million sq km, (comprising of 0.86 million sq. km on the west coast, 0.56 million sq.km on the east coast and 0.60 sq.km around the Andaman & Nicobar Islands) has come under our jurisdiction with absolute right of exploring, exploiting and natural utilization of living resources falling within it. The inland fishery resources include 1.96 lakh kms stretch of rivers and canals, 29.07 lakh hectare reservoirs, 24.40 lakh hectare ponds and tanks, 7.98 lakh hectare of beels, derelict water bodies and 12.40 lakh hectare brackish water areas (Handbook on Fisheries Statistics, 2014).

Fishery Science and Agriculture is the sunshine sector of Indian Economy which provide livelihood to the economically backward population. Moreover, Fishery Science has immense scope and potential to earn foreign currency. It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food besides being a source of foreign exchange earner.

II. METHODS AND DATA

1. Data Sources: For this study secondary data were used. Relevant secondary data were collected from FAO database, MPEDA publication and various research bulletins.
2. Data Type: Secondary Data Collected from various annual reports, research papers and conferences published time by time by Department of Animal Husbandry Dairying & Fisheries (DADF).
3. Data Analysis: Statistical methods are used for data Analysis, where different graphs (Line Graph, Bar Graph & Column Graph) are used to explain actual statistical tables in simple form.

III. RESULTS

1. In Inland Fish Production Andhra Pradesh is showing aggressive growth pattern from 2006 till 2014 amongst all states. In first 3 years though West Bengal was the top producing state; but now it holds second position and shows a steady growth. Other top producing states are Gujrat, Kerela, Tamilnadu, Maharashtra, Karnataka indicating flat growth (Figure 1).

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2. Marine fish production was lower than inland fish production till 1995. In 2000 Marine and Inland fish production was almost equal. And then marine production crosses inland fish production from 2005 till date showing accelerated growth. Tough fish production is increasing in both Inland and marine resources, but hike is more in marine production; instead inland fish production loses its tempo from 2005 till date. (Figure 2).

3. If we consider fish production in last 3 years (2011 to 2013) the growth in marine production is flat; Inland fish production is also not very much inspiring. (Figure 3)

4. Graphs:

Figure 1: As per data shows top state wise Inland Fish Production.

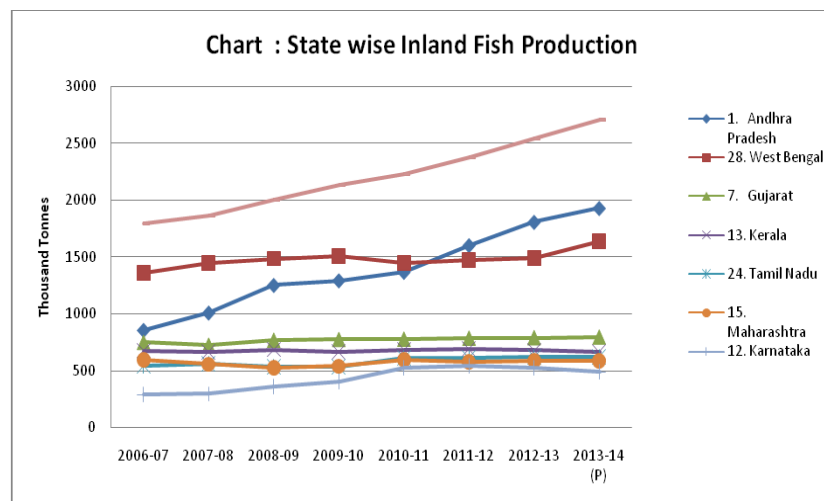
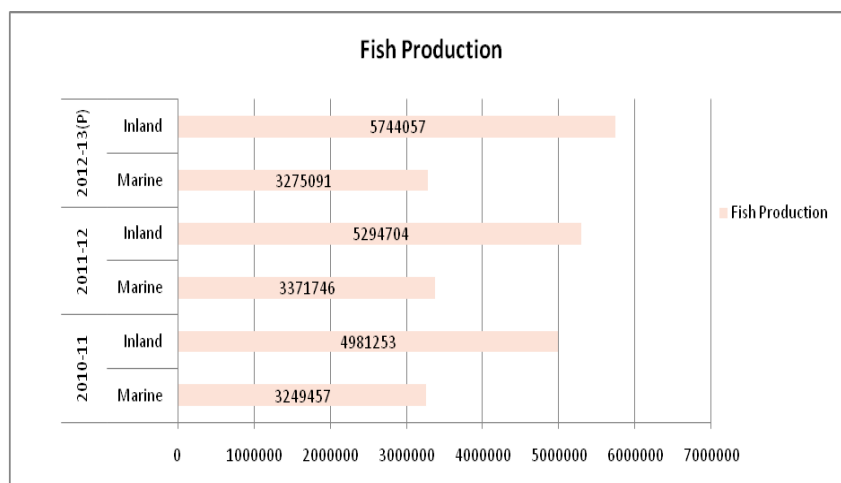


Figure 2: As per above table no.2 analysis of fish

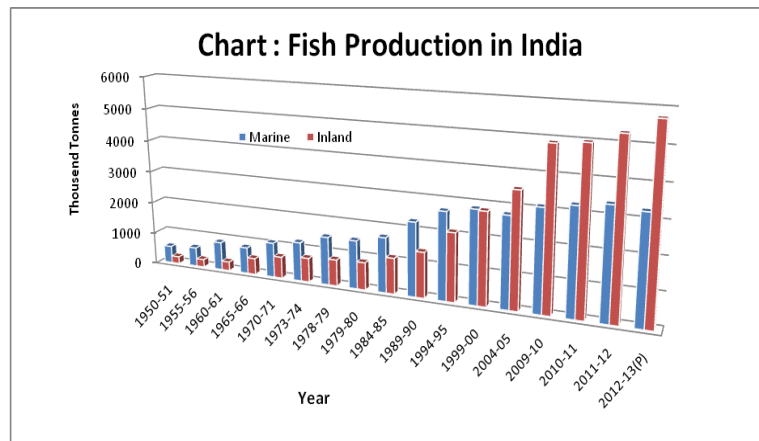


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Figure 3: As per above table no.2 analysis of fish



IV. DISCUSSION

Though last 3 years growth is not inspiring , but inland fish production can be increased by optimizing the use of resources. The total fish production during 2013-14(P) is at 9.58 million metric tonnes with a contribution of 6.14 million metric tonnes from the inland sector and 3.44 million metric tonnes from the marine sector respectively. The overall growth in fish production in 2013-14 has been 5.9%, which has been mainly due to 7.3% growth in inland fish production. The growth in marine fish production has been 3.7% (Handbook on Fisheries Statistics, 2014).

V. CONCLUSION

India as a whole has diverse ecological and climatic conditions, case studies on various fish production systems help in identifying suitable culture practices for selected environmental conditions (Mandal et al., 2007). Although it is blessed with favourable geographic and climatic conditions needed for developing fishery, but yet modern methods of enterprise development are necessary. By undertaking a systematic empirical process on the dynamics of fisheries development, limitations can be overcome and growth can be enhanced. Assam or North East India also can play a major role in fish production through the introduction of modern technology.

VI. ACKNOWLEDGEMENTS

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REFERENCES

1. Handbook on Fisheries Statistics 2014. August 2014. Dept of Animal Husbandry, Dairying & Fisheries, MINISTRY OF AGRICULTURE, Govt of India, New Delhi
2. Mandall S., Mahapatra B. K., Tripathi A. K., Verma M.R., Datta K.K., Ngachan S.V. 2007. Agribusiness Opportunities of Ornamental Fisheries in North-Eastern Region of India, Agricultural Economics Research Review, 20 (Conference Issue): 471-488 Govt. of India, Annual Report 2009-10.

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TABLES:

Table 1: Source: State Governments/ Union Territories, Govt Report, 2014

Table 1: State-wise Inland Fish Production ('000 tonnes) (2006–2014)								
State/Union Territory	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (P)
1. Andhra Pradesh	856.93	1,010.08	1,252.78	1293.85	1368.202	1603.17	1808.08	1930.49
2. Arunachal Pradesh	2.77	2.83	2.88	2.65	3.15	3.3	3.71	2.89
3. Assam	181.48	190.32	200.15	218.82	227.242	228.62	254.27	263.09
4. Bihar	267.04	319.1	300.65	297.4	299.91	344.47	400.14	465.99
5. Chhattisgarh	137.75	139.37	158.7	174.24	228.207	250.7	255.61	281.55
6. Goa	102.39	33.43	86.21	84.33	93.27	89.96	77.88	92.66
7. Gujarat	747.33	721.91	765.9	771.52	774.902	783.72	788.49	793.11
8. Haryana	60.08	67.24	76.29	100.46	96.195	106	111.48	116.9
9. Himachal Pradesh	6.89	7.85	7.79	7.75	7.381	8.05	8.56	8.76
10. Jammu & Kashmir	19.2	17.33	19.27	18.94	19.7	19.85	19.95	19.98
11. Jharkhand	34.27	67.89	75.8	70.5	71.886	91.68	96.6	106.56
12. Karnataka	292.46	297.69	361.85	408.05	526.579	546.44	525.57	492.06
13. Kerala	677.63	667.33	685.99	663.12	681.613	693.21	679.74	664.45
14. Madhya Pradesh	65.04	63.89	68.47	66.12	56.451	75.41	85.17	90.17
15. Maharashtra	595.94	556.45	523.1	538.35	595.249	578.79	586.37	583.87
16. Manipur	18.61	18.6	18.8	19.2	20.2	22.22	24.5	26.92
17. Meghalaya	5.49	4	3.96	4.21	4.557	4.77	5.42	5.89
18. Mizoram	3.76	3.76	2.89	3.04	2.901	2.93	5.43	5.87
19. Nagaland	5.8	5.8	6.18	6.36	6.585	6.84	7.13	7.15
20. Odisha	342.04	349.48	374.82	370.54	386.185	381.83	410.14	414.64
21. Punjab	86.7	78.73	86.21	122.86	97.04	97.62	99.13	100.3
22. Rajasthan	22.2	25.7	24.1	26.91	28.2	47.85	55.16	56.31
23. Sikkim	0.15	0.18	0.17	0.17	0.18	0.28	0.49	0.46
24. Tamil Nadu	542.28	559.36	534.17	534.17	614.809	611.49	620.4	620.51
25. Tripura	28.63	36.25	36	42.27	49.231	53.34	57.46	60.2
26. Uttar Pradesh	306.73	325.95	349.27	392.93	417.479	429.72	449.75	461.72
27. Uttarakhand	3.03	3.09	3.16	3.49	3.818	3.83	3.85	3.85
28. West Bengal	1,359.10	1,447.26	1484	1505	1443.259	1472.05	1490.02	1636.68
29. A & N Islands	28.68	28.68	32.49	33.19	33.921	35.26	36.62	39.39
30. Chandigarh	0.17	0.21	0.24	0.24	0.242	0.1	0.05	0.09
31. Dadra & Nagar Haveli	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
32. Daman & Diu	16.41	26.36	14.14	15.88	16.975	17.43	19.01	19.01
33. Delhi	0.61	0.61	0.72	0.71	0.82	0.74	0.69	0.69
34. Lakshadweep	11.75	11.04	12.59	12.37	12.372	12.37	12.37	12.37
35. Puducherry	39.66	39.01	40.3	41.94	41.949	42.4	41.07	41.17
Total	6,869.05	7,126.83	7,616.09	7851.61	8230.71	8666.49	9040.36	9425.8

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Table 2: Source: Department of Animal Husbandry Dairying & Fisheries, Agricultural Statistics At a Glance 2013

Year	Marine	Inland	Total	Year	Marine	Inland	Total
1950-51	534	218	752	1993-94	2649	1995	4644
1955-56	596	243	839	1994-95	2692	2097	4789
1960-61	880	280	1160	1995-96	2707	2242	4949
1965-66	824	507	1331	1996-97	2967	2381	5348
1970-71	1086	670	1756	1997-98	2950	2438	5388
1973-74	1210	748	1958	1998-99	2696	2602	5298
1978-79	1490	816	2306	1999-00	2852	2823	5675
1979-80	1492	848	2340	2000-01	2811	2845	5656
1980-81	1555	887	2442	2001-02	2830	3126	5956
1981-82	1445	999	2444	2002-03	2990	3210	6200
1982-83	1427	940	2367	2003-04	2941	3458	6399
1983-84	1519	987	2506	2004-05	2779	3526	6305
1984-85	1698	1103	2801	2005-06	2816	3756	6572
1985-86	1716	1160	2876	2006-07	3024	3845	6869
1986-87	1713	1229	2942	2007-08	2920	4207	7127
1987-88	1658	1301	2959	2008-09	2978	4638	7616
1988-89	1817	1335	3152	2009-10	3104	4894	7998
1989-90	2275	1402	3677	2010-11	3250	4981	8231
1990-91	2300	1536	3836	2011-12	3372	5294	8666
1991-92	2447	1710	4157	2012-13(P)	3275	5744	9019
1992-93	2576	1789	4365				

Table 3 : State- wise Production of Fish ((In tonnes))

Sr. No.	States/UTs	2010-11			2011-12			2012-13(P)		
		Marine	Inland	Total	Marine	Inland	Total	Marine	Inland	Total
1	Andhra Pradesh	288637	1079565	1368202	433278	1169890	1603168	414349	1393728	1808077
2	Arunachal Pradesh	0	3150	3150	0	3300	3300	0	3710	3710
3	Assam	0	227242	227242	0	228621	228621	0	254270	254270
4	Bihar	0	299910	299910	0	344470	344470	0	400140	400140
5	Goa	89962	3308	93270	86205	3751	89956	73713	4166	77879
6	Gujarat	688930	85972	774902	692488	91231	783719	6933500	92586	786086
7	Haryana	0	96195	96195	0	106000	106000	0	96704	96704
8	Himachal Pradesh	0	7381	7381	0	8045	8045	0	8561	8561

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9	J & K	0	19700	19700	0	19850	19850	0	19950	19950
10	Karnataka	340570	186009	526579	347383	199053	546436	373167	202216	575383
11	Kerala	560398	121215	681613	553177	140031	693208	484392	149098	633490
12	Madhya Pradesh	0	56451	56451	0	75405	75405	0	85165	85165
13	Maharashtra	446703	148546	595249	433684	145110	578794	433684	145110	578794
14	Manipur	0	20200	20200	0	22219	22219	0	24502	24502
15	Meghalaya	0	4557	4557	0	4768	4768	0	5417	5417
16	Mizoram	0	2901	2901	0	2928	2928	0	5430	5430
17	Nagaland	0	6585	6585	0	6840	6840	0	7130	7130
18	Odisha	133479	252706	386185	114295	267533	381828	118311	291832	410143
19	Punjab	0	97040	97040	0	97620	97620	0	99130	99130
20	Rajasthan	0	28200	28200	0	47850	47850	0	55160	55160
21	Sikkim	0	180	180	0	280	280	0	490	490
22	Tamil Nadu	404612	210197	614809	426735	184753	611488	428441	191956	620397
23	Tripura	0	49231	49231	0	53335	53335	0	57460	57460
24	Uttar Pradesh	0	417479	417479	0	429718	429718	0	449750	449750
25	West Bengal	197108	1246151	1443259	182020	1290025	1472045	152352	1337664	1490016
26	A & N Islands	33735	186	33921	35072	192	35264	36426	194	36620
27	Chandigarh	0	242	242	0	96	96	0	46	46
28	D & N Haveli	0	50	50	0	50	50	0	50	50
29	Daman & Diu	16851	124	16975	17429	0	17429	18778	234	19012
30	Delhi	0	820	820	0	740	740	0	690	690
31	Lakshadweep	12372	0	12372	12372	0	12372	12372	0	12372
32	Puducherry	36100	5849	41949	37608	4795	42403	35606	5460	41066
33	Chhattisgarh	0	228207	228207	0	250695	250695	0	255611	255611
34	Uttarakhand	0	3818	3818	0	3834	3834	0	3847	3847
35	Jharkhand	0	71886	71886	0	91676	91676	0	96600	96600
	Total	3249457	4981253	8230710	3371746	5294704	8666450	3275091	5744057	9019148

(P) Provisional

Source: Department of Animal Husbandry Dairying & Fisheries, Agricultural Statistics At a Glance 2013