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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

COCHIN, INDIA

(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)

The Marine Fisheries Information Service : Technical and Extension Series envisages dissemination of information on marine fishery resources based on research results to the planners, industry and farmers and transfer of technology from laboratory to field.

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Monitoring the harvested marine fish resources is one of the major mandate of the Central marine Fisheries Research Institute. The Institute has been monitoring the status of exploited resources since its inception in 1947. For assessment of exploited stocks, the data on catch and fishing effort are the important pre-requisites. To fulfill this requirement the Institute has developed a scientific data collection mechanism based on stratified multistage random sampling design to estimate regionwise and resource wise marine fish landings along with fishing effort. The data thus generated not only forms the input to scientific studies for fish stock assessment but also helps the fishery managers and policy makers to assess the status of fishery to evolve appropriate harvesting strategies and policy guidelines. This article is a compilation of spatial and temporal estimates of the landings of marine fishery resources harvested from the EEZ of India. The landings pertain only to those in coastal maritime states and not in the Island territories. The estimated marine fish landings in India during 2003 and 2004 are presented in Tables 1 and 2 respectively. Quarter wise major resource landings in different states are given in Table

3; while sector-wise landings are shown in Table 4. Contribution of major resource assemblages in different states (Fig.1) and catch rates of SDF and MDF trawlers are presented in Fig 2 and 3 respectively.

Salient features

- The estimated marine fish landings in India(excluding Island Territories) during 2004 was 2.54 million tonnes which was about 50000t less than that during 2003.
- Among the maritime states, Kerala accounted for 24 % of the total marine fish landings, followed by Gujarat (16 %), Tamil Nadu(15%) , Maharashtra (14%), Karnataka, Andhra Pradesh and West Bengal 8% each, Goa and Orissa 3% each during 2004. It was only 1% from Pondicherry.
- During 2003, the marine fish production was shared by Kerala(24 %), Gujarat (17%), Maharashtra(16%), Tamil Nadu(14%), 7% each by West Bengal, Andhra Pradesh and Karnataka , Goa(4%) and less than 3% by Orissa. It was less than 1% from Pondicherry..
- There was not much difference in the percentage contributions of pelagic,

demersal, crustacean and molluscan landings in the years 2003 and 2004. Pelagic group of finfishes contributed 54% each to the total marine fish production in India during 2003 and 2004. Demersal groups contributed 26 % and 24 % , Crustaceans 15 % and 17 % and Molluscs 5 % each respectively during 2004 and 2003.

- Among the commercially important groups, oil sardine constituted 15% of the total landings during 2004 , followed by Penaeid prawns (7%) , Indian mackerel (6%), threadfin breams, croakers , ribbon fishes and non-penaeid prawns (5 % each). Bombayduck and cephalopods contributed (4% each), catfish , Hilsa shad, *Stolephorus* spp , scads, silverbellies and crabs 2% each.

- Oil sardine landing was 16 % of the total marine fish production during 2003 . Penaeid prawns contributed 8 % , ribbon fishes 6 % , Bombay duck , croakers, non-penaeid prawns and cephalopods 5 % each, lesser sardines , threadfin breams, Indian mackerel 4% each , cat fish , *Stolephorus* spp , silverbellies, soles and crabs 2% each.

- Of the total landings , 68 % was from mechanized sector , 25 % from motorized and 7 % from artisanal sector during the year 2004 . The percentages were 66, 27 and 7 respectively during 2003.

- In the mechanized sector, maximum contribution was from Gujarat (20%) , followed by Maharashtra (20%) , Kerala (18%) , Tamil Nadu (12%) ,Karn- ataka(9%), West Bengal(8%) , Andhra Pradesh (5%), Goa (4%) , Orissa(1%) and Pondicherry (less than 1%).

- In the motorized sector, Kerala contributed nearly 46% of landings, followed by Tamil Nadu (19%) Gujarat (9%), West Bengal (7%), Andhra Pradesh and Karnataka (6% each) ,Orissa (3%), Pondicherry (2%), Goa (1%) and Maharashtra less than (1%).

- In both the years, artisanal sector landings were maximum in Andhra Pradesh, followed by Tamil Nadu , Kerala and Orissa.

- Trawl nets and gillnets were the most commonly used gears employed along the coast . In the south west coast (Kerala, Karnataka and Goa) seine nets such as ring seines, purse seines and *mattu bala* were used to harvest small pelagic resources. In north west region (Maharashtra and Gujarat) dolnets were the predominant gear in operation. On the north east coast, bagnets were heavily used for exploiting these resources particularly in West Bengal .

Table 1: Estimated marine fishing landing in India (Excluding island territories) during 2003 (in tonnes)

Name of fish	WB	OR	AP	TN	PON	KER	KAR	GOA	MH	GUJ	TOTAL
Sharks	2101	970	1921	3425	58	3363	648	428	7126	9237	29277
Skates	63	1	161	414	0	261	26	0	615	1002	2543
Rays	589	632	6571	12533	274	1232	149	628	1051	1364	25023
Eels	710	1269	1717	790	0	155	79	54	2356	3102	10232
Catfishes	8968	6334	3432	2647	95	261	209	236	10143	21144	53469
Wolf herring	1911	645	2104	2545	31	704	138	255	1825	4363	14521
Oil sardine	5	309	5679	42143	5779	264372	37210	43159	5296	0	403952
Other sardines	633	4124	13536	55889	1161	15706	3850	751	3300	252	99202
Hilsa shad	30322	1443	5921	0	0	0	24	134	47	6	37897
Other shads	0	10	1569	754	2	207	20	35	403	1643	4643
Coilia	6051	855	199	306	0	1	32	0	13525	16980	37949
Setipinna	3519	1553	266	33	0	0	0	0	0	0	5371
Stolephorus	104	567	4247	8025	171	24643	2593	23	153	0	40526
Thryssa	780	904	4161	6577	112	5094	2512	1758	1786	3019	26703
Other clupeids	5086	3638	6561	7669	248	3514	1648	2038	2938	4729	38069
BOMBAYDUCK	42101	497	701	0	0	0	0	0	29539	57553	130391
LIZARD FISHES	357	269	2014	4221	39	10609	3678	410	2192	6074	29863
HALF BEAKS & FULL BEAKS	0	33	304	1964	0	2217	311	37	296	64	5226
FLYING FISHES	0	0	42	4705	79	2	0	0	12	9	4849
Rock cods	0	37	63	3897	8	4346	1489	784	5331	935	16890
Snappers	0	37	310	3049	327	978	9	0	931	359	6000
Pig-face breams	0	3	0	9884	19	103	7	0	6	515	10537
Threadfin breams	1549	403	2699	5000	159	20773	21930	1713	28449	22250	104925
Other perches	1877	866	4242	12499	431	8015	3550	1635	1634	3015	37764
GOATFISHES	682	1085	4780	4626	48	1	0	2	868	367	12459
THREADFINS	610	197	655	312	6	194	0	0	1606	6234	9814
CROAKERS	16306	9179	9277	8502	148	9034	2099	1139	28429	38284	122397
RIBBON FISHES	7148	6860	15565	5218	51	15107	10605	1154	30871	55419	147998
Horse Mackerel	1690	1557	1684	472	3	5092	3524	4023	8171	4711	30927
Scads	538	384	3747	3256	16	15028	2339	258	1439	1488	28493
Leather-jackets	372	1099	660	2645	17	589	151	57	2525	2430	10545
Other carangids	221	1684	6552	17077	430	16714	3168	2752	7112	1862	57572
SILVERBELLIES	840	804	4036	26914	249	5223	4742	3268	459	599	47134
BIG-JAWED JUMPER	50	219	372	84	0	599	514	168	576	540	3122
Black pomfret	1419	2418	3665	677	3	283	968	1511	3333	1358	15635
Silver pomfret	4840	2053	2652	1397	2	195	139	124	3659	6436	21497
Chinese pomfret	636	403	204	93	0	1	41	0	106	504	1988
Indian mackerel	4246	2444	22572	10399	1718	35026	17400	8268	8894	913	111880

Other mackerels	0	0	0	5	0	0	0	0	0	0	5
<i>S. commersoni</i>	0	1006	2529	7136	94	8511	4064	1089	6241	3027	33697
<i>S. guttatus</i>	1518	1265	3324	208	35	43	367	1	4568	3756	15085
Acanthocybium spp.	0	0	3	7	0	14	0	0	0	0	24
<i>E. affinis</i>	20	136	618	2498	181	10277	1204	468	2915	524	18841
Auxis. spp	96	3	62	784	31	9515	153	1484	203	66	12397
<i>K. pelamis</i>	0	0	234	438	13	629	0	0	126	5	1445
<i>T. tonggol</i>	0	0	470	301	28	1024	15	9	507	1008	3362
Other tunnies	0	16	446	1753	8	1880	97	1962	1915	559	8636
BILL FISHES	6	25	852	646	49	1660	20	0	641	357	4256
BARRACUDAS	0	34	1292	5065	46	4413	1031	198	1334	656	14069
MULLETS	196	313	1005	790	15	30	121	20	24	1600	4114
UNICORN COD	0	0	0	0	0	0	0	0	772	128	900
Halibut	0	0	263	496	13	95	0	0	212	89	1168
Flounders	0	0	41	5	0	2	2	0	0	0	50
Soles	753	475	1869	1718	241	21595	10505	2982	3030	1423	44591
Penaeid prawns	12705	5641	17911	15711	84	42862	12040	3039	73170	31617	214780
Non-penaeid prawns	20792	1490	4445	1940	0	10472	32	0	54074	43984	137229
Lobsters	21	0	13	202	0	386	55	1	385	182	1245
Crabs	2586	1337	5113	15455	137	5604	2059	556	1653	7476	41976
Stomatopods	0	358	900	1415	0	4720	12650	6882	9009	1407	37341
Cephalopods	1626	397	2003	13163	1753	27277	12761	362	31684	26255	117281
MISCELLANEOUS	7000	576	3773	14786	556	2642	1097	35	5629	41226	77320
TOTAL	193643	68857	192007	355163	14968	623293	184075	95890	415094	444105	2587095

WB- West Bengal, OR- Orissa, AP - Andhra Pradesh, TN - Tamilnadu, PON - Pondicherry, KER - Kerala, MH - Maharashtra, GUG - Gujarat

Table 2 : Estimated marine fish landing in India (Excluding island territories)
during 2004 (in tonnes)

Name of fish	WB	OR	AP	TN	PON	KER	KAR	GOA	MH	GUJ	TOTAL
Sharks	2000	1063	2250	9822	78	2533	760	443	6189	10077	35215
Skates	107	0	162	768	0	353	56	0	773	1159	3378
Rays	264	355	3759	10834	138	758	94	910	1274	1604	19990
Eels	471	778	2046	338	0	108	113	9	2413	1722	7998
Catfishes	7786	4718	4321	3793	177	172	548	449	9110	21063	52137
Wolf herring	2765	513	1600	2673	100	755	173	274	1443	4034	14330
Oil sardine	0	91	2605	54948	6879	224706	46011	42465	3743	0	381448
Other sardines	1052	6079	24134	29400	2081	17731	2627	1232	2555	174	87065
Hiisa shad	58191	1869	2732	12	0	0	6	1	55	59	62925
Other shads	0	92	1772	564	0	6	14	137	378	1325	4288

Coilia	3645	468	319	394	3	0	0	8	16770	11848	33455
Setipinna	2860	1816	306	73	0	0	0	0	0	0	5055
Stolephorus	21	2091	6212	8669	42	28292	2316	70	60	0	47773
Thrissina	0	0	0	0	0	0	0	72	3	0	75
Thryssa	1904	303	3398	4113	178	5847	3779	934	1478	3315	25249
Other clupeids	6031	3290	8073	6795	272	2479	1080	914	3531	4029	36494
BOMBAYDUCK	40669	608	2986	28	0	0	0	0	28135	40528	112954
LIZARD FISHES	344	715	2651	4561	134	13373	2715	483	2789	8146	35911
HALF BEAKS&FULL BEAKS	0	1	378	1714	5	648	188	9	267	161	3371
FLYING FISHES	0	0	0	2392	95	0	0	0	0	79	2566
Rock cods	0	17	102	3337	69	5785	2222	738	3791	2152	18213
Snappers	23	75	615	4155	125	750	6	0	768	457	6974
Pig-face breams	0	0	0	10111	50	141	1	0	50	911	11264
Threadfin breams	665	696	3150	4728	306	46466	19812	1035	25994	16047	118899
Other perches	883	658	5002	9876	256	9763	2845	3006	1971	3643	37903
GOATFISHES	1805	1571	4668	5885	426	179	0	0	927	834	16295
THREADFINS	1012	250	891	486	30	118	0	0	2293	3747	8827
CROAKERS	12296	12069	10142	7859	164	5759	2427	879	29662	38929	120186
RIBBON FISHES	6037	7718	9995	3941	73	12863	6422	2528	28518	52907	131002
Horse Mackerel	1255	1457	1645	480	5	3782	7315	1259	3626	4894	25718
Scads	0	610	4284	3107	22	19963	4839	3919	1584	3365	41693
Leather-jackets	538	1256	620	2963	7	339	165	59	1973	3600	11520
Other carangids	523	1396	5327	19765	377	13445	3888	1828	5365	2505	54419
SILVERBELLIES	432	1567	3368	32789	568	4185	3406	1432	3195	475	51417
BIG-JAWED JUMPER	36	328	206	245	0	447	678	214	898	228	3280
Black pomfret	2463	3214	3449	817	7	1102	1788	168	2466	2020	17494
Silver pomfret	3921	1980	3030	1698	0	135	99	113	3417	5212	19605
Chinese pomfret	690	341	346	106	0	11	0	0	231	299	2024
Indian mackerel	1438	1649	20209	20058	2660	54011	25858	3358	9632	2901	141774
<i>S. commersoni</i>	0	962	4685	6671	219	8569	5080	629	3930	2001	32746
<i>S. guttatus</i>	1270	629	3644	113	13	207	701	0	2446	5522	14545
<i>S. lineolatus</i>	0	0	0	1	0	0	0	0	0	2	3
<i>Acanthocybium</i> spp.	0	0	0	19	0	8	0	168	0	0	195
<i>E. affinis</i>	56	100	1087	3787	76	7680	1332	221	2174	1042	17555
<i>Auxis</i> spp	5	0	24	500	9	3936	522	1151	0	485	6632
<i>K. pelamis</i>	0	558	124	464	204	333	3	0	319	118	2123
<i>T. tonggol</i>	0	0	2217	667	28	371	1	1	582	1915	5782
Other tunnies	0	9	453	1408	46	2179	3	5	541	1275	5919
BILL FISHES	0	56	4107	1068	34	628	12	25	409	311	6650
BARRACUDAS	0	43	973	4546	43	4782	1099	207	843	1091	13627

MULLETS	153	358	2376	525	68	98	57	15	35	2401	6086
UNICORN COD	0	0	0	0	0	0	0	0	714	94	808
Halibut	0	0	205	228	12	8	0	0	468	126	1047
Flounders	0	0	45	2	5	67	3	0	0	0	122
Soles	295	569	1316	1574	120	16274	5882	4370	3395	1238	35033
Penaeid prawns	7480	9769	17128	14912	315	30577	9122	1896	56768	23674	171641
Non-penaeid prawns	14658	1416	1777	2871	0	8624	25	2	42177	44681	116231
Lobsters	52	0	38	226	5	264	2	0	599	185	1371
Crabs	1715	1315	6877	13332	384	5506	1555	378	1572	8266	40900
Stomatopods	0	87	787	1054	0	5617	12457	3643	7050	1376	32071
Cephalopods	1181	975	2198	15464	710	41684	11852	1466	14728	22484	112742
MISCELLANEOUS	4906	646	4534	49024	798	2422	857	24	4635	36246	104092
TOTAL	193898	79194	201348	392753	18416	616839	192816	83147	350712	408982	2538105
WB - West Bengal, OR - Orissa, AP - Andhra Pradesh, TN - Tamilnadu, PON - Pondicherry, KER - Kerala, MH - Maharashtra, GUG - Gujarat											

Table 3: Quarterwise estimated landings (in tonnes) of major resource groups in different States during 2003 and 2004

WEST BENGAL		2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL	
Hilsa shad	881	1799	24844	2798	30322	472	3961	50801	2957	58191	
Bombay duck	12952	971	8979	19199	42101	15117	687	3805	21060	40669	
Non-penaeid prawns	9785	4	122	10881	20792	5966	3	176	8513	14658	
Croakers	5462	480	3836	6528	16306	2864	361	1577	7494	12296	
Penaeid prawns	4591	354	2710	5050	12705	2697	125	1055	3603	7480	
Catfishes	2983	516	3106	2363	8968	2635	585	2543	2023	7786	
Pomfrets	1681	631	2458	2125	6895	1497	402	1861	3314	7074	
Ribbon fishes	3263	197	1229	2459	7148	2395	58	941	2643	6037	
Coilia	2847	91	867	2246	6051	1829	40	369	1407	3645	
Others	14131	2064	12469	13691	42355	8412	1255	10426	15969	36062	
TOTAL	58576	7107	60620	67340	193643	43884	7477	73554	68983	193898	
ORISSA		2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL	
Croakers	2388	579	2239	3973	9179	4148	808	2676	4437	12069	
Penaeid prawns	1027	490	1538	2586	5641	1762	581	2805	4621	9769	
Ribbon fishes	944	656	1106	4154	6860	2270	221	1597	3630	7718	

Catfishes	1296	411	2413	2214	6334	1163	501	1319	1735	4718
Pomfrets	398	286	1620	2570	4874	1227	321	1096	2891	5535
Other sardines	1365	138	150	2471	4124	1130	136	96	4717	6079
Carangids	648	563	1265	2248	4724	1931	448	688	1652	4719
Setipinna	372	56	389	736	1553	246	216	317	1037	1816
Hilsa shad	80	140	832	391	1443	231	97	791	750	1869
Others	6813	2112	5949	9251	24125	7917	2788	4009	10188	24902
TOTAL	15331	5431	17501	30594	68857	22025	6117	15394	35658	79194
ANDHRA PRADESH	2003					2004				
Name of fish/group	IQR	2QR	3QR	4QR	TOTAL	IQR	2QR	3QR	4QR	TOTAL
Indian mackerel	8153	4936	4225	5258	22572	4791	5522	4780	5116	20209
Other sardines	3369	1225	3551	5391	13536	6971	5743	2804	8616	24134
Penaeid prawns	4142	2281	6694	4794	17911	5481	1968	5634	4045	17128
Ribbon fishes	3631	259	5487	6188	15565	2913	300	2904	3878	9995
Carangids	4153	2180	3011	3299	12643	4926	1498	2767	2685	11876
Croakers	2904	921	2473	2979	9277	2614	1163	3489	2876	10142
Other clupeids	1993	625	1227	2674	6519	3119	911	2118	1925	8073
Seer fishes	1380	840	1923	1713	5856	1414	1196	3851	1868	8329
Crabs	728	434	1607	2344	5113	2016	635	2557	1669	6877
Others	20301	13378	28915	20421	83015	23920	11045	25656	23964	84585
Total	50754	27079	59113	55061	192007	58165	29981	56560	56642	201348
TAMIL NADU	2003					2004				
Name of fish/group	IQR	2QR	3QR	4QR	TOTAL	IQR	2QR	3QR	4QR	TOTAL
Oil sardine	3766	20172	15511	2694	42143	10407	32872	7808	3861	54948
Other sardines	24583	8245	7924	15137	55889	10161	6019	5023	8197	29400
Perches	10421	7702	9648	6558	34329	9448	7109	9935	5715	32207
Silverbellies	6470	4526	7045	8873	26914	8755	5518	12203	6313	32789
Carangids	6574	5046	6264	5566	23450	8296	3449	9394	5176	26315
Penaeid prawns	4055	3295	4624	3737	15711	4160	3340	4192	3220	14912
Indian mackerel	1491	2402	1805	4701	10399	2800	4321	7199	5738	20058
Crabs	2862	2897	3903	5793	15455	3054	5072	3092	2114	13332
Cephalopods	1914	1874	6489	2886	13163	1839	2022	9830	1773	15464
Others	36650	27469	25153	28438	117710	41672	24540	49482	37634	153328
TOTAL	98786	83628	88366	84383	355163	100592	94262	118158	79741	392753
IQR = Jan- Mar IIQR = Apr- Jun IIIQR = Jul - Sept IV QR = Oct- Dec										

Table 3: Quarterwise marine fish landing (in tonnes) and major groups in different States during 2003 and 2004

PONDICHERRY						2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL					
Oil sardine	135	524	310	4810	5779	99	265	1614	4901	6879					
Indian mackerel	103	38	1397	180	1718	227	32	2145	256	2660					
Other sardines	340	185	180	456	1161	1194	96	361	430	2081					
Cephalopods	17	18	1712	6	1753	35	16	655	4	710					
Perches	346	411	123	64	944	354	126	294	32	806					
Carangids	259	93	48	66	466	178	40	147	46	411					
Silver bellies	75	32	115	27	249	112	58	387	11	568					
Crabs	8	13	9	107	137	167	43	90	84	384					
Rays	50	15	202	7	274	47	15	69	7	138					
Others	653	354	968	512	2487	918	689	1744	428	3779					
TOTAL	1986	1683	5064	6235	14968	3331	1380	7506	6199	18416					
KERALA						2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL					
Oil sardine	65600	48055	50488	100229	264372	44808	25467	62011	92420	224706					
PERCHES	10226	9901	9684	4404	34215	16050	19454	23754	3647	62905					
Indian mackerel	4211	6824	11616	12375	35026	4836	3490	23727	21958	54011					
Carangids	7971	11012	7283	11157	37423	9071	13019	10920	4519	37529					
Penaeid prawns	13471	11639	12457	5295	42862	11900	9769	6075	2833	30577					
Cephalopods	3835	5918	8517	9007	27277	8192	7049	19025	7418	41684					
White baits	4001	9080	2300	9262	24643	1198	15174	6287	5633	28292					
Soles	8128	3133	1584	8750	21595	6376	3336	3033	3529	16274					
Other sardines	1232	1187	208	13079	15706	14046	1101	553	2031	17731					
Others	31947	29003	25727	33497	120174	32705	20589	24585	25251	103130					
TOTAL	150622	135752	129864	207055	623293	149182	118448	179970	169239	616839					
KARNATAKA						2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL					
Oil sardine	10155	5052	5408	16595	37210	7780	4692	10320	23219	46011					
Indian mackerel	1371	3447	3933	8649	17400	862	1307	9764	13925	25858					
Perches	8922	5791	9528	2744	26985	4682	4003	14265	1936	24886					

Carangids	1611	1253	3049	3269	9182	1600	2630	2780	9197	16207
Stomatopods	6850	3011	2	2787	12650	7868	2503	0	2086	12457
Cephalopods	3053	4335	3418	1955	12761	2592	3123	2654	3483	11852
Penaeid prawns	4015	2149	4068	1808	12040	2716	1428	3699	1279	9122
Ribbon fishes	1214	942	106	8343	10605	428	1148	523	4323	6422
Soles	2515	1019	3913	3058	10505	2730	592	971	1589	5882
Others	11299	6427	9045	7966	34737	8562	4991	8021	12545	34119
TOTAL	51005	33426	42470	57174	184075	39820	26417	52997	73582	192816
GOA	2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL
Oil sardine	19791	4408	3381	15579	43159	19275	11853	5998	5339	42465
Carangids	812	451	2305	3522	7090	1293	609	2175	2988	7065
Indian mackerel	109	433	5096	2630	8268	409	53	811	2085	3358
Stomatopods	5685	927	0	270	6882	3060	299	0	284	3643
Perches	274	1483	30	2345	4132	1085	408	1497	1789	4779
Soles	1552	166	32	1232	2982	3222	207	236	705	4370
Penaeid prawns	1967	237	547	288	3039	850	330	376	340	1896
Silver bellies	255	103	1484	1426	3268	635	156	16	625	1432
Ribbon fishes	148	76	67	863	1154	411	143	237	1737	2528
Others	2512	1122	4796	7486	15916	3328	896	3363	4024	11611
TOTAL	33105	9406	17738	35641	95890	33568	14954	14709	19916	83147
MAHARASHTRA	2003					2004				
Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR	TOTAL
Penaeid prawns	14024	14502	26265	18363	73154	13469	9490	17440	16369	56768
Non-penaeid prawns	7771	24027	4395	17881	54074	7591	16274	5540	12772	42177
PERCHES	7047	12328	4235	12741	36351	8379	11507	2178	10510	32574
Ribbon fishes	10931	3592	4755	11593	30871	5942	2053	3764	16759	28518
Croakers	5235	4648	6836	11710	28429	9536	4149	4501	11476	29662
Bombay duck	4980	7174	5171	12214	29539	6525	3819	6960	10831	28135
Cephalopods	10736	10865	2585	7498	31684	6850	3001	718	4159	14728
Carangids	3928	1958	4175	9186	19247	2702	1515	2033	6298	12548
Coilia	3716	3530	2107	4172	13525	5100	3183	3303	5184	16770
Others	25347	19514	21530	31829	98220	22860	11347	12761	41864	88832
TOTAL	93715	102138	82054	137187	415094	88954	66338	59198	136222	350712

GUJARAT	2003					2004				
	Name of fish/group	1QR	2QR	3QR	4QR	TOTAL	1QR	2QR	3QR	4QR
Ribbon fishes	14526	3996	12768	24129	55419	12524	4214	13208	22961	52907
Bombay duck	8733	13060	5408	30352	57553	12210	5265	6760	16293	40528
Non-penaeid prawns	7606	7570	3562	25246	43984	13146	4596	5053	21886	44681
Croackers	13288	6711	3624	14661	38284	16155	6085	3674	13015	38929
PERCHES	4714	1807	3264	17289	27074	6445	2256	3966	10543	23210
Penaeid prawns	6168	4223	9128	12098	31617	6978	3018	4679	8999	23674
Cephalopods	7222	1947	2837	14249	26255	6276	2208	3096	10904	22484
Catfishes	5821	4098	1234	9991	21144	6144	3330	1966	9623	21063
Coilia	7324	2971	1531	5154	16980	4996	1104	1442	4306	11848
Others	38419	19099	17760	50517	125795	39927	15190	21118	53423	129658
TOTAL	113821	65482	61116	203686	444105	124801	47266	64962	171953	408982

Table 4: Estimated marine fish landing by different sectors in each state

STATES	2003				2004			
	MECH	MOT	NM	Total	MECH	MOT	NM	Total
WEST BENGAL	129251	57825	6567	193643	145263	45253	3382	193898
ORISSA	38244	19464	11149	68857	46141	21350	11703	79194
ANDHRA PRADESH	84951	53570	53486	192007	92975	37164	71209	201348
TAMIL NADU	166770	135397	52996	355163	206017	118483	68253	392753
PONDICHERRY	2738	11377	853	14968	3583	13720	1113	18416
KERALA	222652	363917	36724	623293	315068	286134	15637	616839
KARNATAKA	157191	21387	5497	184075	152131	35691	4994	192816
GOA	90407	5244	239	95890	76925	5952	270	83147
MAHARASHTRA	411716	2210	1168	415094	343745	2188	4779	350712
GUJARAT	392428	49186	2491	444105	355062	52751	1169	408982
TOTAL	1696348	719577	171170	2587095	1736910	618686	182509	2538105

MECH - MECHANISED / MOT- MOTORISED / NM- PURELY ARTISANAL (OTHER THAN MECH AND MOT)

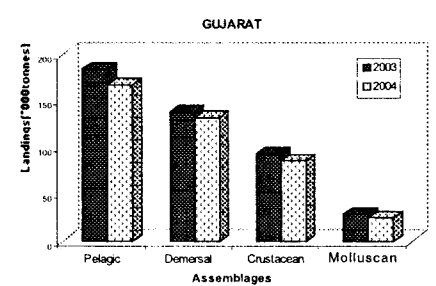
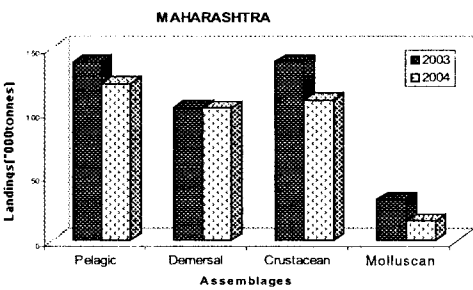
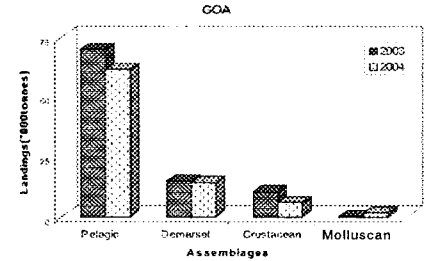
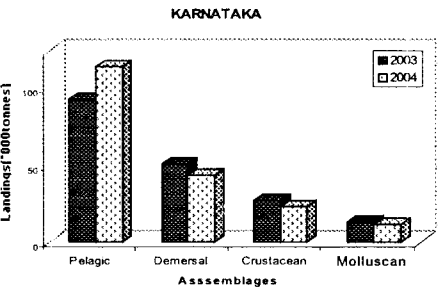
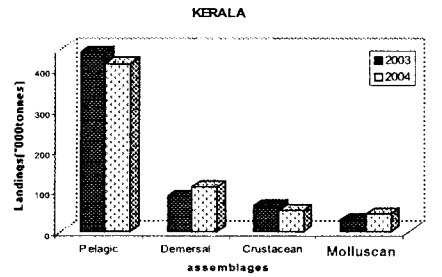
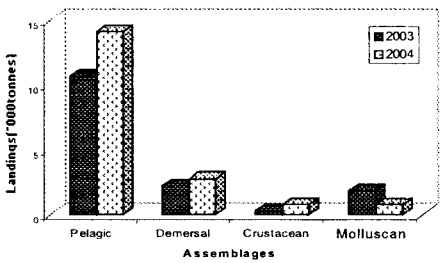
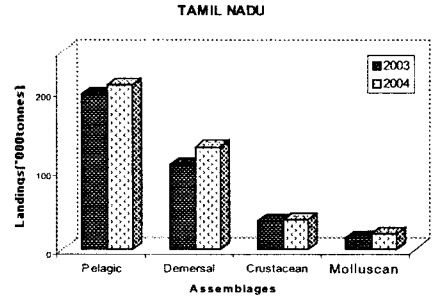
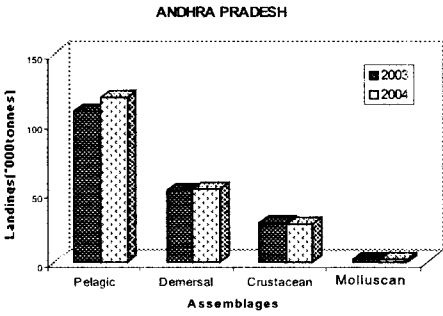
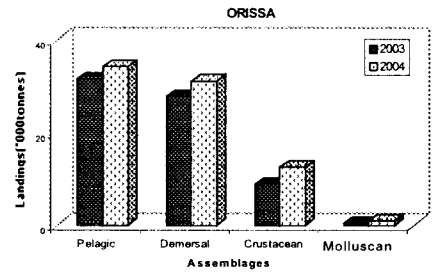
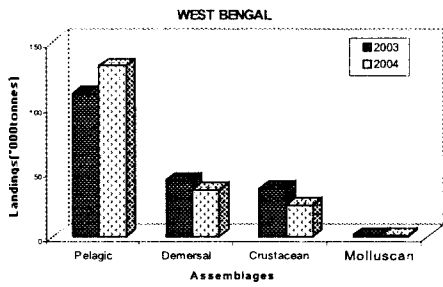


Fig 1. Contribution of various resource assemblages in different maritimes states during 2003 and 2004

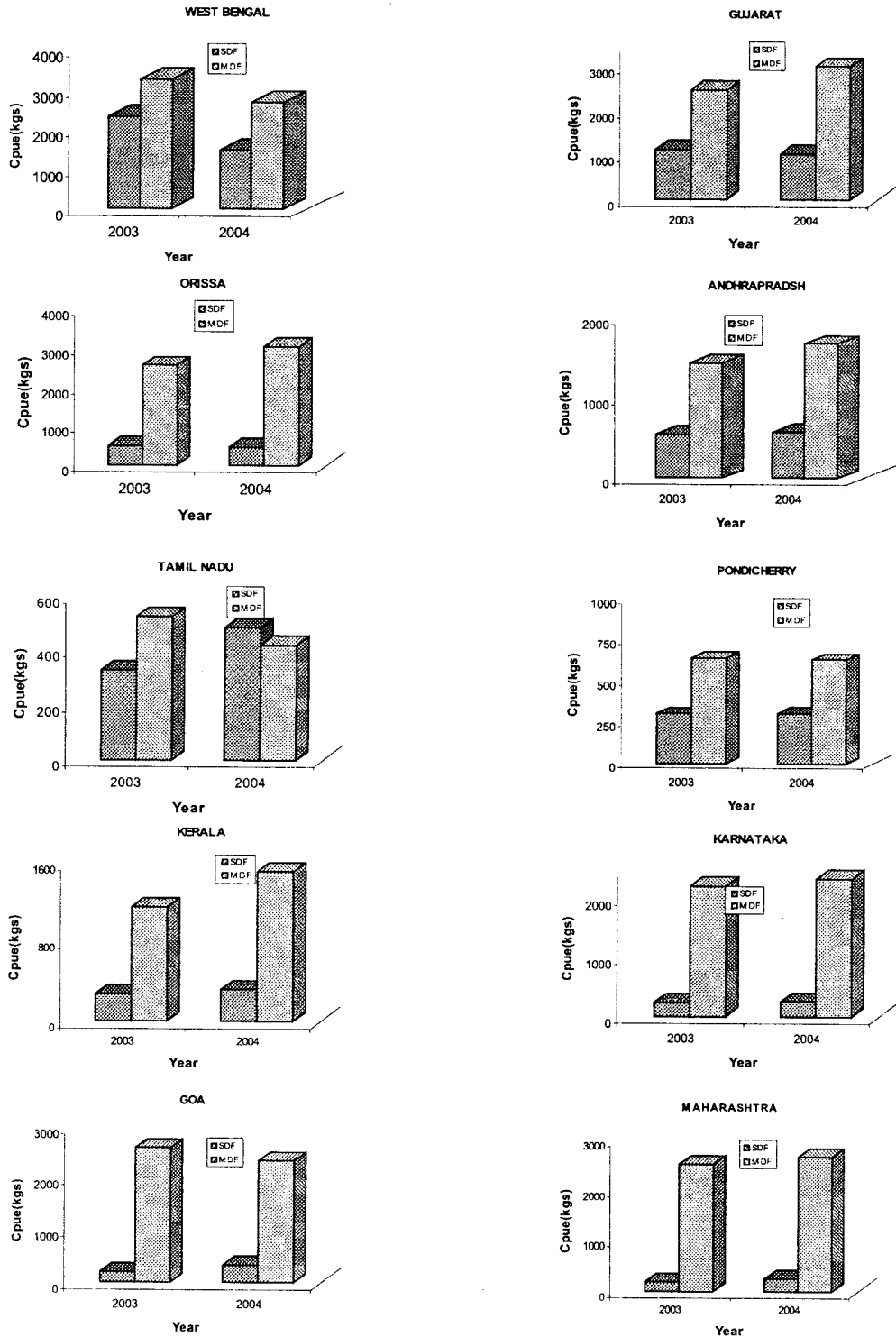


Fig 2. Catch per unit(Kg) of Single - day and Multi-day Trawlers of different Maritimes states

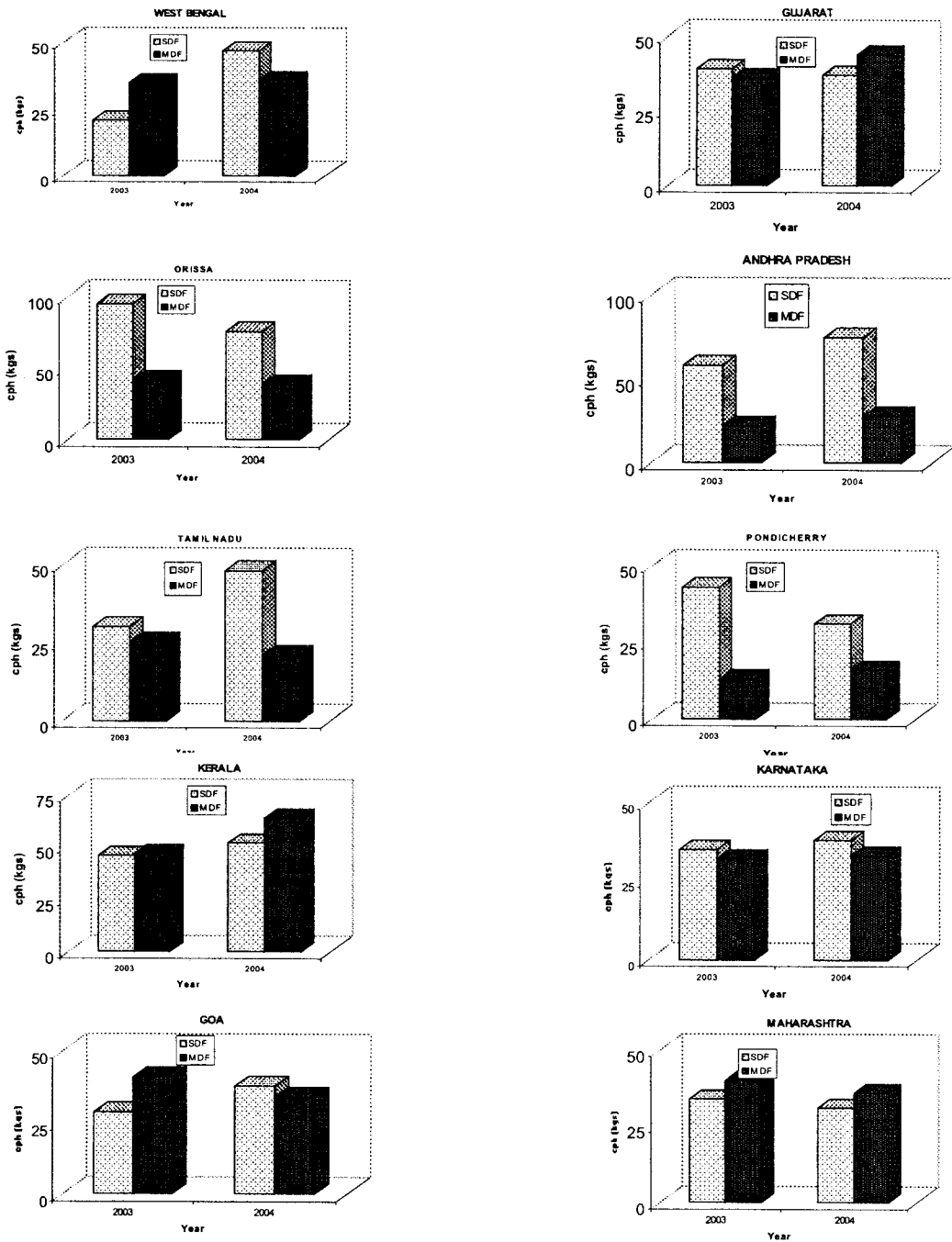


Fig 3. Catch per Hour (Kg) of Single-day and Multi-day Trawlers of different Maritime states