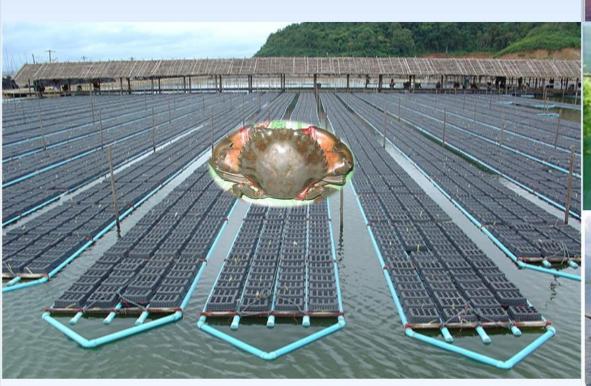
THE REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF LIVESTOCK, FISHERIES & RURAL DEVELOPMENT DEPARTMENT OF FISHE RIES









FISHERY STATISTICS 2013







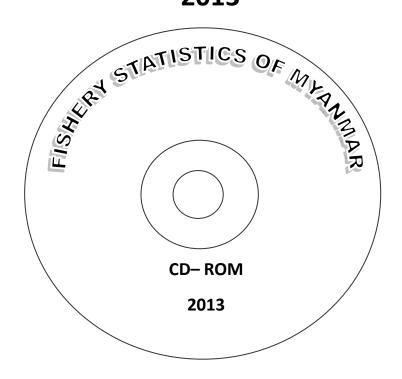
THE REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF LIVESTOCK, FISHERIES & RURAL DEVELOPMENT

FISHERY STATISTICS 2013

Department of Fisheries
Myanmar

AVAILABLE NOW

MYANMAR FISHERY STATISTICS 2013



The CDs are currently available in English only. Hence, for further information please contact the Department of Fisheries, The Republic of the Union of Myanmar, as address given below.

Department of Fisheries

 $\label{lem:ministry} \mbox{ Ministry of Livestock ,} \mbox{Fisheries \& Rural Development}$

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FOREWORD

Fishery Statistics of Myanmar for 2012-2013 fiscal year is published by the Department of Fisheries of the Ministry of Livestock, Fisheries and Rural Development. Since the fiscal year 2001-2002, the fishery statistics of Myanmar has been published with the objective of better understanding the situation and information on Myanmar fisheries. Moreover, we have added to some more facts and figures with the fishery information required from the previous 10 year up to this fiscal year, 2012-2013, for the convenience of all users. The annual reporting period used is fiscal year, from first April to the end of March next year.

Nowadays, the fishery statistics has been widely accepted as a tool in providing so as to know the current and past status of the fisheries and to draw up the short term and long term planning for fisheries including for food security and the rural development as well as for the conservation of fisheries resources.

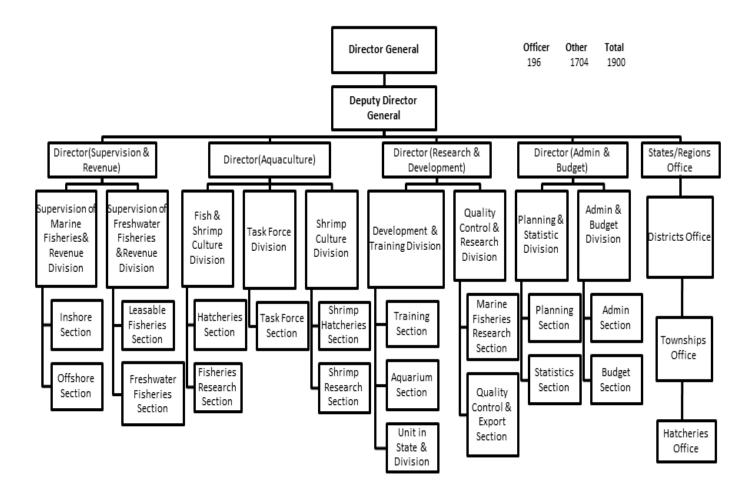
It is clear that the reliable, accurate and timely data and information are needed for the effective fishery management and planning to meet the sustainable fisheries .Furthermore, the capture fisheries and aquaculture can provide many millions of livelihood opportunities of Myanmar people with resulting improved income generation and food-fish availability to the rural communities.

On behalf of the Department of Fisheries, I would like to express my heartfelt thanks to H.E U Ohn Myint, Union Minister for the Ministry of Livestock, Fisheries and Rural Development for his valuable and kind guidance. We also thank to H.E U Khin Maung Aye and Dr. Aung Myat Oo, Deputy Minister for the Ministry of Livestock, Fisheries and Rural Development.

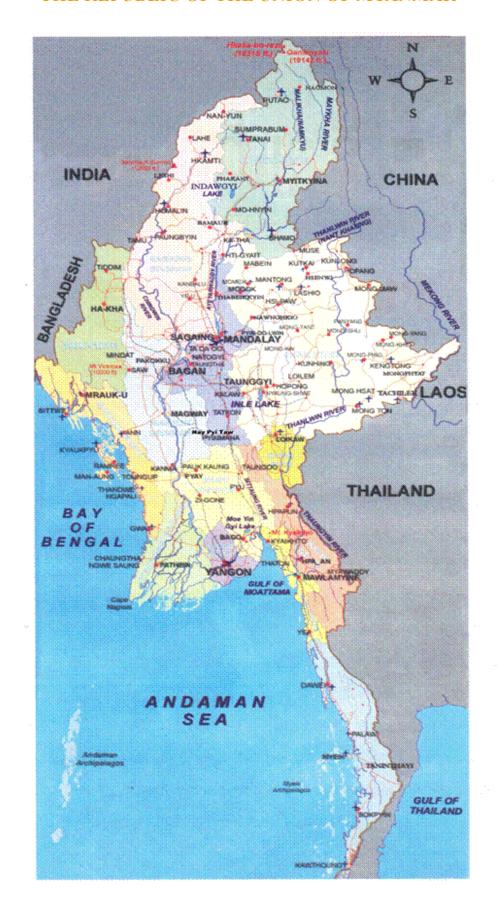
Moreover, Special thanks to U Htun Win, Deputy Director-General and all of the Directors of the Department of Fisheries as well as all my staff for their contribution and hard working as completed the success of this publication.

Khin Maung Maw
Director-General
Department of Fisheries

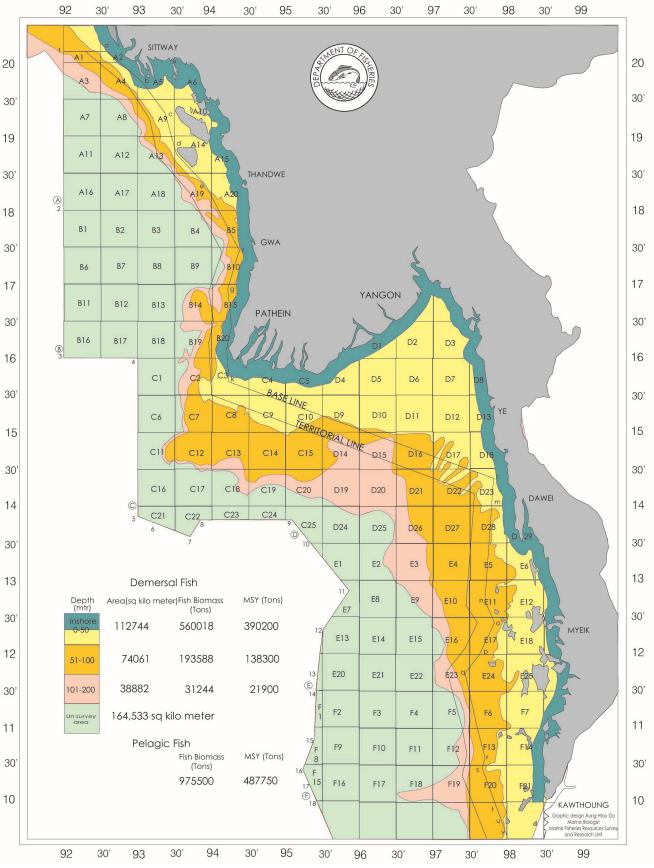
ORGANIZATIONAL STRUCTURE OF DEPARTMENT OF FISHERIES, MYANMAR



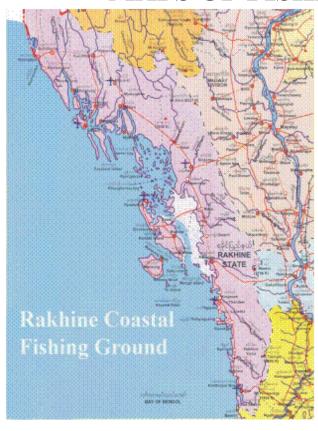
THE REPUBLIC OF THE UNION OF MYANMAR

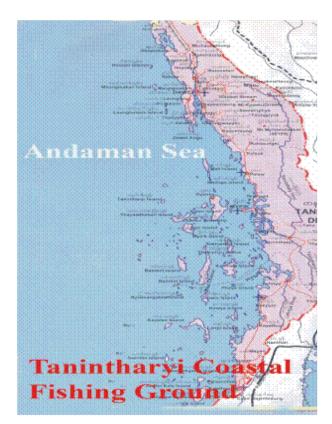


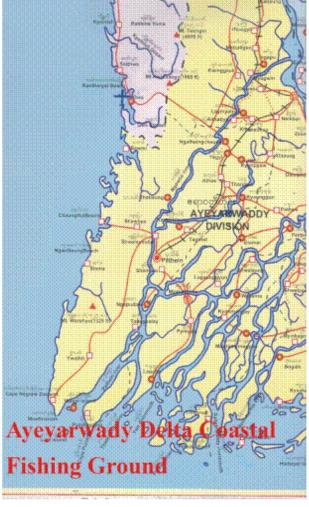
Department of Fisheries Fishing Grounds of Myanmar



MAPS OF FISHING GROUNDS







PART ONE FISHERY STATISTICS

OUR VISION

"Our vision is to ensure a sufficiency of fish supplies not only for the present entire national people but also for future generations by conserving of the fisheries resources with sustainable fisheries at all times."



OUR MISSION

(1) Conservation and rehabilitation of fisheries resources;

(2)Promotion of fisheries researches and surveys;

(3) Collection and compilation of fishery statistics and information;

(4)Extension services;

(5) Supervision of fishery sectors;

(6)Sustainability of fishery resources;

PER CAPITA FISH SUPPLY BY YEARS

No.	Year	Population	Production	Non-food	Export	Per Capita
		(Million)	(Metric Ton)	on) use (Metric Ton)		Fish Supply
				(Metric Ton)		(Kg)
1.	2012-2013 (Prov:)	61	4716201	* 943240	376845	56

*In the above figure, the quantities of fish of non-food use is estimated in which it is included for using amount of animal feeds, processing waste from raw material to finished products, and for fish meal etc.,.

FISHERY PRODUCTION (2003-2004) - (2012-2013)

Thousand Metric Ton

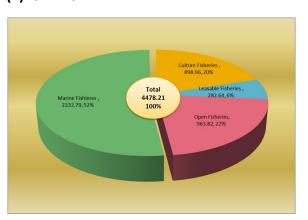
No.	Year	Total	Aquaculture Fisheries	Leasable Fisheries	Open Fisheries	Marine Fisheries
1	2003-2004	1986.96	400.36	122.28	331.98	1132.34
2	2004-2005	2217.47	485.22	136.79	366.75	1228.71
3	2005-2006	2581.78	574.99	152.69	478.43	1375.67
4	2006-2007	2859.86	616.35	170.10	548.09	1525.32
5	2007-2008	3193.92	687.67	191.05	625.44	1689.76
6	2008-2009	3542.19	775.25	209.72	689.71	1867.51
7	2009-2010	3921.97	858.76	237.46	764.97	2060.78
8	2010-2011	4163.46	830.48	250.04	913.12	2169.82
9	2011-2012	4478.21	898.96	282.64	963.82	2332.79
10	2012-2013(Prov:)	4716.20	929.36	290.00	1012.97	2483.87

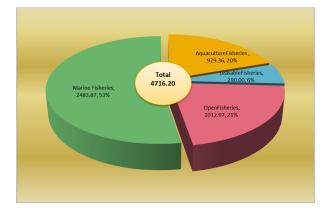
FISHERIES PRODUCTION

(2)2012-2013

Unit-Thousand Metric Ton

(1)2011-2012







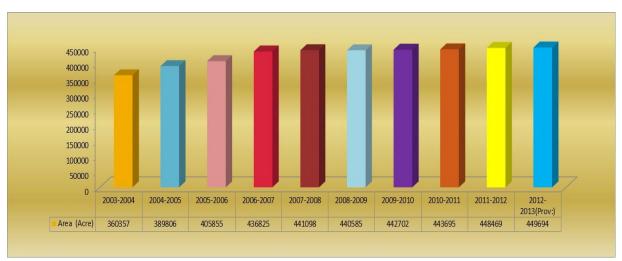
AQUACULTURE FISHERIES

TOTAL AQUACULTURE PONDS AND PRODUCTION

No.	Year	Area of Aquaculture Ponds (Acre)	Production of Aquaculture Ponds (Thousand Metric Ton)
1	2002 2004	· · ·	
1.	2003-2004	360357	400.36
2.	2004-2005	389806	485.22
3.	2005-2006	405855	574.99
4.	2006-2007	436825	616.35
5.	2007-2008	441098	687.67
6.	2008-2009	440585	775.25
7.	2009-2010	442702	858.76
8.	2010-2011	443695	830.48
9.	2011-2012	448469	898.96
10.	2012-2013(Prov:)	449694	929.36

AQUACULTURE PONDS (2003-2004)-(2012-2013)

Unit: Acre



4

TOTAL AREA OF AQUACULTURE PONDS

Unit - Acre

		Area	
Year	Fish Pond	Shrimp Pond	Total
2003-2004	155509	204848	360357
2004-2005	182452	207354	389806
2005-2006	197150	208705	405855
2006-2007	212234	224591	436825
2007-2008	215373	225725	441098
2008-2009	215930	224655	440585
2009-2010	217835	224867	442702
2010-2011	218746	224949	443695
2011-2012	220171	228298	448469
2012-2013(Prov:)	221396	228297	449694

AQUACULTURE POND BY STATES AND REGIONS

Unit-Acre

	2	2003-2004			2004-2005			2005-2006			
State/ Division	Fish Pond	Shrimp Pond	Total	Fish Pond	Shrimp Pond	Total	Fish Pond	Shrimp Pond	Total		
Kachin	736	-	736	859	-	859	868	-	868		
Kayah	132	-	132	132	-	132	332	-	332		
Kayin	274	80	354	276	80	356	326	80	406		
Chin	86	-	86	86	-	86	86	-	86		
Sagaing	4220	-	4220	4433	-	4433	4490	-	4490		
Taninthayi	138	97	235	232	723	955	342	777	1119		
Bago	17176	184	17360	19849	12	19861	24192	12	24204		
Magway	416	-	416	421	-	421	421	-	421		
Mandalay	6146	-	6146	6191	-	6191	6334	-	6334		
Mon	479	919	1398	582	912	1494	819	873	1692		
Rakhine	-	155533	155533	-	155533	155533	-	155533	155533		
Yangon	48183	9697	57880	51500	9820	61320	58586	10136	68722		
Shan	1816	-	1816	1844	-	1844	2986	-	2986		
Ayeyarwady	75707	38338	114045	96047	40274	136321	97368	41294	138662		
Total	155509	204848	360357	182452	207354	389806	197150	208705	405855		

AQUACULTURE POND BY STATES AND REGIONS

Unit-Acre

State/	2	2006-2007	,		2007-2008			2008-2009			
Division	Fish Pond	Shrimp Pond	Total	Fish Pond	Shrimp Pond	Total	Fish Pond	Shrimp Pond	Total		
Kachin	1154	-	1154	1222	-	1222	1408	-	1408		
Kayah	360	-	360	400	-	400	510	-	510		
Kayin	396	80	476	396	80	476	399	80	479		
Chin	100	-	100	101	-	101	101	-	101		
Sagaing	4435	-	4435	4569	-	4569	4569	-	4569		
Taninthayi	351	791	1142	329	791	1120	341	821	1162		
Bago	25570	12	25582	26354	12	26366	26276	12	26288		
Magway	417	-	417	419	-	419	419	-	419		
Mandalay	6224	-	6224	6205	-	6205	6411	-	6411		
Mon	842	1125	1967	848	1125	1973	884	1125	2009		
Rakhine	-	155533	155533	-	155533	155533	-	155533	155533		
Yangon	58527	10195	68722	59870	11329	71199	59835	10229	70064		
Shan	2305	-	2305	3107	-	3107	3268	-	3268		
Ayeyarwady	111553	56855	168408	111553	56855	168408	111509	56855	168364		
Total	212234	224591	436825	215373	225725	441098	215930	224655	440585		

AQUACULTURE POND BY STATES AND REGIONS

Unit-Acre

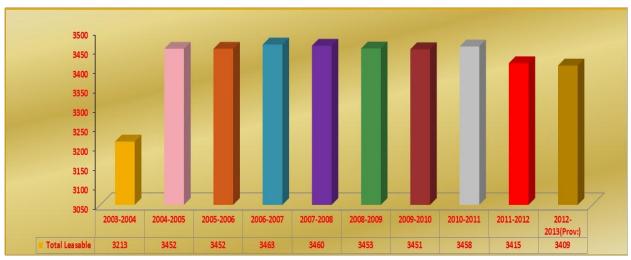
_	2	2009-2010)	2010-2011			2011-2012			2012-2013		
State/	Fish	Shrimp		Fish	Shrimp		Fish	Shrimp		Fish	Shrimp	
Division	Pond	Pond	Total	Pond	Pond	Total	Pond	Pond	Total	Pond	Pond	Total
Kachin	1492	-	1492	1938	-	1938	1910	ı	1910	1990		1990
Kayah	400	-	480	638	-	638	673	-	638	748		748
Kayin	629	80	629	400	80	480	400	80	480	464	80	544
Chin	101	-	101	108	-	108	107	-	107	296		296
Sagaing	4794	-	4794	5159	-	5159	5465	-	5465	5809		5809
Taninthayi	351	821	1172	351	821	1172	922	4141	5063	922	4141	5063
Bago	25888	12	25900	25748	12	25760	26003	40	26043	26009	40	26049
Magway	426	-	426	430	-	430	425	-	425	425		425
Mandalay	6783	-	6783	6898	-	6898	7154	-	7154	7416		7416
Mon	894	1125	2019	920	1125	2045	969	1125	2094	969	1125	2094
Rakhine	-	155533	155533		155533	155533	-	155533	155533	20	155533	155553
Yangon	59870	10229	70099	59870	10229	70099	59864	10229	70093	59864	10229	70093
Shan	3298	-	3298	3377	-	3377	3387	-	3387	3408	-	3408
Ayeyarwady	112909	57067	169976	112909	57149	170058	112892	57149	170041	112892	57149	170041
Nay Pyi Taw	-	-	-	-	-	-	-	-	-	162	-	162
Total	217835	224867	442702	218746	224949	443695	220171	228297	448468	221395	228297	449692



THE PRODUCTION OF LEASABLE FISHERIES AND OPEN FISHERIES

No.	Year	Total amount of Leasable Fisheries (Number)	Production of Leasable Fisheries (Thousand Metric Ton)	Production of Open Fisheries (Thousand Metric Ton)	Total Production of Inland Fisheries (Thousand Metric Ton)
1	2003-2004	3213	122.28	331.98	454.26
2	2004-2005	3452	136.79	366.75	503.54
3	2005-2006	3452	152.69	478.43	631.12
4	2006-2007	3463	170.10	548.09	718.19
5	2007-2008	3460	191.01	625.04	816.05
6	2008-2009	3453	209.72	689.71	899.43
7	2009-2010	3451	237.46	764.97	1002.43
8	2010-2011	3458	250.04	913.12	1163.16
9	2011-2012	3415	282.64	963.82	1246.46
10	2012-2013 (Prov:)	3409	290.00	1012.97	1302.97

NUMBER OF LEASABLE FISHERIES IN MYANMAR (2003-2004) -(2012-2013)





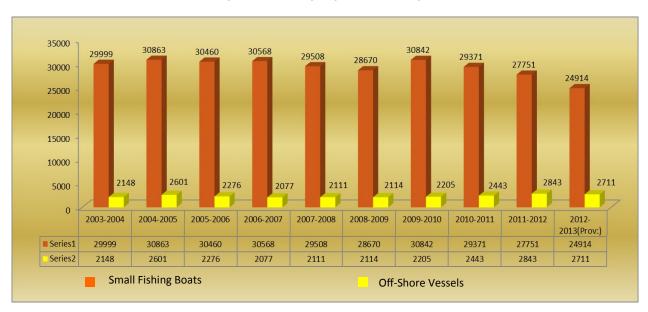
MARINE FISHERIES

FISHING VESSELS

Unit - Number

		Small F	ishing Boat	Off-shore	Vessels	
No.	Year	Powered Boat	Non-Powered Boat	National	Foreign	Total
1	2003-2004	13664	16335	2121	27	32147
2	2004-2005	14176	16687	2150	451	33464
3	2005-2006	14099	16361	2022	254	32736
4	2006-2007	14284	16284	1871	206	32645
5	2007-2008	14289	15219	1863	248	31619
6	2008-2009	14025	14645	1758	356	30784
7	2009-2010	13788	17054	1814	391	33047
8	2010-2011	13823	15548	2047	396	29767
9	2011-2012	12288	15463	2598 245		30594
10	2012-2013(Prov:)	12157	12757	2572	139	27625

SMALL FISHING BOATS AND OFF-SHORE VESSELS (2003-2004) - (2012-2013)



TYPE OF FISHING GEAR IN STATE AND REGIONS

Unit-Number

No.	Year	State and Division	Trawl	Purse Seine	Drift net	Long line	Stick-held falling net	Trap	Total
1	2003-2004	Head office	359	47	92	21	-	1	520
		Rakhine	24	-	-	-	-	-	24
		Taninthayi	312	22	1	24	8	33	400
		Ayeyarwady	-	-	737	-	-	-	737
		Mon	-	-	246	-	-	-	246
		Yangon	144	9	39	2	-	-	194
	Total		839	78	1115	47	8	34	2121
2	2004-2005	Head office	408	58	145	32	-	1	644
		Rakhine	25	-	-	-	-	-	25
		Taninthayi	371	26	13	28	9	39	486
		Ayeyarwady	-	-	679	-	-	-	679
		Mon	1	-	226	-	-	-	227
		Yangon	79	5	5	-	-	-	89
	Total		884	89	1068	60	9	40	2150
3	2005-2006	Head office	452	69	367	17	-	15	920
		Rakhine	9	-	-	-	-	3	12
		Taninthayi	337	37	7	23	29	30	463
		Ayeyarwady	-	-	421	-	-	-	421
		Mon	-	-	206	-	-	-	206
		Yangon	-	-	-	-	-	-	-
	Total		798	106	1001	40	29	48	2022
4	2006-2007	Head office	391	68	137	-	1	81	678
		Rakhine	2	-	-	-	-	6	8
		Taninthayi	334	54	-	2	22	75	487
		Ayeyarwady	-	-	526	-	-	-	526
		Mon	-	-	172	-	-	-	172
		Yangon		-	-	-	-	-	-
	Total		336	54	698	2	22	81	1193
6	2007-2008	Head office	389	81	145	-	-	46	661
		Rakhine	5	-	-	-	-	4	9
		Taninthayi	376	71	1	1	19	101	569
		Ayeyarwady	-	-	464	-	-	-	464
		Mon	-	-	160	-	-	1	160
		Yangon	-	-	-	=	-	-	-
	Total			152	770	1	19	151	1863

TYPE OF FISHING GEAR IN STATE AND REGIONS

Unit-Number

No.	Year	State and Division	Trawl	Purse Seine	Drift net	Long line	Stick-held falling net	Trap	Total
6	2008-2009	Head office	387	72	142	-	-	39	640
		Rakhine	ı	-	ı	-	-	I	-
		Taninthayi	416	87	2	2	21	62	590
		Ayeyarwady	-	-	373	-	-	ı	373
		Mon	ı	=	155	-	-	ı	155
		Yangon	1	-	1	-	-	ı	-
	Total		803	159	672	2	21	101	1758
7	2009-2010	Head office	413	63	150	3	-	41	670
		Rakhine	-	-	-	-	-	-	-
		Taninthayi	480	100	2	-	35	66	683
		Ayeyarwady	2	-	327	-	-	5	334
		Mon	-	-	127	-	-	-	127
		Yangon	-	-	-	-	-	-	-
	Total		895	163	606	3	35	112	1814
8	2010-2011	Head office	463	80	159	6	-	30	738
		Rakhine	5	-	-	-	-	-	5
		Taninthayi	498	88	-	-	35	58	679
		Ayeyarwady	-	-	492	1	-	4	493
		Mon	-	-	128	-	-	-	128
		Yangon	-	-	-	-	-	30	30
	Total		966	168	779	7	35	122	2077
9	2011-2012	Head office	549	86	167	6	-	29	837
		Rakhine	9	-	-	-	-	1	10
		Taninthayi	542	187	-	15	302	60	1106
		Ayeyarwady	ı	-	503	2	-	3	508
		Mon	-	-	137	-	-	-	137
		Yangon	-	-	-	-	-	-	-
	Total		1100	273	809	23	302	93	2598
10	2012-2013	Head office	551	74	181	3	-	25	834
		Rakhine	7	3	-	-	-	1	11
		Taninthayi	558	201		30	349	57	1195
		Ayeyarwady	1	-	383	2	-	1	387
		Mon	-	-	143	-		-	143
		Yangon	1	-	1	-	-	-	2
	Total		1118	278	708	35	349	84	2572



FISHERY EXPORTS

Unit -

Quantity - Metric Ton

Value - US \$/Euro/Kyats in Million

NI-	Vaar	_	Fis	sh	Prav	wns	Oth	ers	Total		
No.	Year		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
	US	\$	57915.65	62.85	14930.30	79.71	8870.55	24.38	81716.50	166.94	
1	2003-2004 E	uro	8237.53	5.57	3584.20	12.84	843.82	1.57	12665.55	19.98	
	Куа	ats	58462.46	51826.60	4468.88	16355.75	48149.78	46301.64	111081.12	114483.99	
	US	\$	77162.91	79.86	18335.93	92.05	8036.14	17.82	103534.98	189.73	
2	2004-2005 E	uro	3092.18	1.95	1104.30	5.47	347.61	0.83	4544.09	8.25	
	Куа	ats	79145.50	71685.28	4222.58	13125.94	64333.03	47017.61	147701.11	131828.83	
	US	\$	125107.81	131.79	18941.05	89.05	45842.42	50.55	189891.28	271.39	
3	2005-2006 E	uro	2207.68	1.48	2047.82	8.94	269.68	0.48	4525.18	10.90	
	Куа	ats	45740.21	46888.31	2358.77	5436.21	28554.81	22656.69	76653.79	74981.21	
4	2006-2007 U	S \$	235858.25	240.20	25369.89	120.89	82198.47	107.07	343426.61	468.16	
5	2007-2007 U	S \$	245473.15	315.46	21061.30	109.74	85117.60	135.82	351652.05	561.02	
6	2008-2009 U	S \$	234060.74	273.27	18382.10	88.85	72267.70	121.11	324710.54	483.23	
7	2009-2010 U	S \$	277823.74	309.857	17439.31	56.329	79829.384	130.404	375092.43	496.59	
8	2010-2011 U	S \$	273043.74	342.441	19142.91	68.661	81706.06	144.413	373892.71	555.515	
9.	2011-2012 U	S\$	283688.76	396.276	17995.03	86.187	85297.53	171.387	386981.32	653.85	
10.	2012-2013 U	S\$	266464.97	378.053	17267.93	89.285	93112.786	185.502	376845.689	652.840	

TOP TEN SPECIES OF EXPORTED FISH AND FISHERIES PRODUCT OF MYANMAR

No.	Species (C	ommon Name)	MT(Ordinary)	US\$(Million)
1.	Rohu	-	70979.262	87.562
2.	Live Eel	6	10933.867	48.091
3.	Tiger	100	4044.759	38.584
4.	Live Crab		12090.747	34.583
5.	Hilsa		12324.893	33.932
6.	White Pomfret		5870.100	32.133
7.	Pink		9461.545	29.522
8.	Ribbon Fish		12716.171	25.018
9.	Dried Prawn		2564.159	16.288
10.	White	Aug.	3023.750	15.538

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2003-2004) (IN US \$)

Quantity - Metric Ton
Value - US \$

						value	- UJ 7		
NO	COUNTRY	FIS	Н	PRAV	VNS	OTH	ERS	ТОТ	AL
110	COONTIN	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	JAPAN	1605.75	1645821	4508.80	31069039	290.27	853533	6404.82	33568393
2	MALAYSIA	13074.11	11086040	1339.00	3553692	2436.67	4319533	16849.78	18959265
3	SINGAPORE	7065.32	7982444	1502.32	7150819	1301.60	2598483	9869.24	17731746
4	CHINA	7683.82	9491906	1053.54	2887252	1068.24	3567603	9805.60	15946761
5	HONGKONG (PRC)	2153.76	2839344	734.17	2955430	1102.23	6839449	3990.16	12634223
6	UNITED STATES	647.70	806310	1160.15	7971647	-	-	1807.85	8777957
7	THAILAND	1106.02	2200885	943.29	4793346	1340.41	1411517	3389.72	8405748
8	VIET NAM	4213.90	5363701	263.12	2136293	31.26	450693	4508.28	7950687
9	UNITED KINGDOM	3968.84	4623471	361.14	2055026	-	-	4329.98	6678497
10	UAE	5052.36	4657804	125.62	689616	5.21	23352	5183.19	5370772
11	AUSTRALIA	1056.19	2431208	625.74	2687749	-	-	1681.93	5118957
12	KOREA	852.87	791211	183.96	842169	164.66	1850665	1201.49	3484045
13	CANADA	191.42	303682	434.52	2578832	19.27	520659	645.21	3403173
14	BANGLADESH	1834.64	1309102	148.51	1292434	787.00	588813	2770.15	3190349
15	SWITZERLAND	2568.91	2414827	58.11	512254	7.00	35000	2634.02	2962081
16	GREECE	26.70	31359	383.82	1912208	-	-	410.52	1943567
	INDIA	297.02	264283	89.99	778237	241.61	766183	628.62	1808703
18	BULGARIA	200.43	135480	420.07	1374093	5.64	27436	626.14	1537009
	SYRIAN ARAB REPUBLIC	870.38	981819	71.04	469610	22.26	11592	963.68	1463021
20	INDONESIA	72.00	97432	29.83	633149	44.53	488774	146.36	1219355
21	BELGIUM	82.78	96848	425.19	1104149	-	-	507.97	1200997
22	KYRGYZSTAN	1155.51	1112057	7.85	20340	-	-	1163.36	1132397
23	DENMARK	285.21	470731	8.19	34440	1.79	24284	295.19	529455
24	BRUNEI DARUSSALAM	571.49	496005	3.41	15808	-	-	574.90	511813
25	SRILANKA	306.11	301465	-	-	-	-	306.11	301465
26	PARKISTAN	250.92	237055	-	-	-	-	250.92	237055
27	SPAIN	252.32	222301	-	-	-	-	252.32	222301
28	IRAN	197.85	166175	-	-	-	-	197.85	166175
29	GERMANY	98.93	111365	11.40	28100	-	-	110.33	139465
30	TURKEY	-	-	27.14	86330	-	-	27.14	86330
31	LAOS	-	-	9.96	69796	-	-	9.96	69796
32	RUSSIAN FEDERATION	52.27	47333	-	-	-	-	52.27	47333
33	IRAQ	36.00	47128	-	-	-	-	36.00	47128
34	ITALY	47.81	45324	-	-	-	-	47.81	45324
35	NETHERLAND	13.96	14820	0.05	403	-	-	14.01	15223
36	PHILIPPINES	12.00	14400	-	-	-	-	12.00	14400
37	FINLAND	10.35	12157	-	-	-	-	10.35	12157
38	CUBA	-	-	0.11	9800	-	-	0.11	9800
39	HUNGARY	-	-	-	-	0.90	3600	0.90	3600
40	AUSTRIA	-	-	0.26	631	-	-	0.26	631
	TOTAL	57915.65	62853293		79712692	8870.55	24381169		

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2003-2004) (IN EURO)

Quantity - Metric Ton

							/alue	- Euro	
NO	COUNTRY -	FISH		PRAW		OTHE		TOT	
		QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	JAPAN	822.11	606004	1234.57	6460132	3.56	7652	2060.24	7073788
2	HONGKONG (PRC)	1388.38	652257	301.08	1197053	199.68	859192	1889.14	2708502
3	CHINA	1465.81	1148086	303.44	746413	79.01	273967	1848.26	2168466
4	SINGAPORE	724.51	545086	234.74	853756	137.22	61119	1096.47	1459961
5	UAE	1249.82	942614	45.96	68757	-	-	1295.78	1011371
6	MALAYSIA	655.87	485792	159.30	244680	139.05	130418	954.22	860890
7	VIET NAM	-	-	215.99	743686	14.58	17496	230.57	761182
8	THAILAND	73.55	59221	228.14	563979	82.19	19615	383.88	642815
9	SWITZERLAND	583.82	385453	34.77	107061	-	-	618.59	492514
10	GREECE	-	-	121.67	424210	-	-	121.67	424210
11	BELGIUM	9.74	9218	194.58	380123	-	-	204.32	389341
12	CANADA	63.21	19376	109.15	270424	-	-	172.36	289800
13	KOREA	63.60	35181	96.81	230037	13.18	23442	173.59	288660
14	INDIA	50.00	46800	34.23	55149	146.00	138888	230.23	240837
15	UNITED KINGDOM	209.34	147822	47.65	89546	-	-	256.99	237368
16	INDONESIA	26.00	17030	72.40	151132	-	-	98.40	168162
17	AUSTRALIA	81.00	34023	62.36	122103	-	-	143.36	156126
18	SPAIN	138.76	112393	-	-	1.22	2126	139.98	114519
19	KYRGYZSTAN	187.63	57669	10.87	13036	28.13	33750	226.63	104455
20	BULGARIA	26.41	8568	46.38	77561	-	-	72.79	86129
21	ITALY	117.17	69392	-	-	-	-	117.17	69392
22	BANGLADESH	87.98	64491	-	-	-	-	87.98	64491
23	TURKEY	71.53	18209	30.11	44724	-	-	101.64	62933
24	SYRIAN ARAB RE- PUBLIC	68.23	50819	_	_	_	_	68.23	50819
25	DENMARK	25.78	23614	_	_	_	_	25.78	23614
26	IRAN	27.20	16755	_	_	_	_	27.20	16755
27	HUNGARY	5.06	4621	_	_	_	_	5.06	4621
28	PHILIPPINES	12.00	4400	_	_	_	_	12.00	4400
29	CUBA	3.02	2174	_	_	_	_	3.02	2174
23	TOTAL	8237.53	5567068	3584.20	12843562	843.82	1567665	12665.55	19978295

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2003-2004) (IN KYAT)

Quantity - Metric To n

Value - Kyat

NO	COUNTRY -	FISH		PR	PRAWNS		HERS	TC	TAL
NO		QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	47568.84	39355340162	3876.77	12682783730	34147.38 41148234452		85592.99	93186358344
2	THAILAND	10893.62	12471255000	591.91	3672970962	14002.60	5153408474	25488.13	21297634436
	TOTAL	58462.46	51826595162	4468.68	16355754692	48149.98	46301642926	111081.12	114483992780

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2004-2005) ($\underline{\text{IN US \$}}$)

Quantity - Metric Ton

Value - US\$

					<u> </u>		- US	JS \$	
NO	COUNTRY -	FIS	Н	PRA	VNS	OTH	ERS	TOT	AL
INU	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	JAPAN	2844.81	2975759	6917.24	42014206	212.31	212672	9974.36	45202637
2	SINGAPORE	11065.39	12636698	1196.10	5068300	836.36	1645170	13097.85	19350168
3	CHINA	5762.35	8299134	869.99	2557816	1508.32	7020261	8140.66	17877211
4	UAE	13203.74	13488461	774.19	3159436	10.90	28035	13988.83	16675932
5	MALAYSIA	5250.75	6839264	1825.20	4920202	1436.79	3041111	8512.74	14800577
6	HONGKONG (PRC)	1179.69	1930258	1643.30	7001910	1209.03	2876001	4032.02	11808169
7	BANGLADESH	15281.78	9394291	197.53	1285042	1257.03	350615	16736.34	11029948
8	UNITED KINGDOM	5775.66	8097243	164.35	701867	0.23	563	5940.24	8799673
9	THAILAND	6286.47	3748741	898.21	2712826	329.87	391248	7514.55	6852815
10	AUSTRALIA	1098.16	2644698	555.13	2548003	20.95	27277	1674.24	5219978
11	INDONESIA	111.53	95964	593.21	4253205	308.95	302078	1013.69	4651247
12	KOREA	880.29	1277765	377.78	1837000	314.52	996989	1572.59	4111754
13	CANADA	346.96	604809	502.79	2915901	2.02	10185	851.77	3530895
14	VIET NAM	576.86	407080	443.95	2718424	125.87	119038	1146.68	3244542
15	INDIA	498.96	516871	349.60	1612633	382.67	633982	1231.23	2763486
16	BELGIUM	253.87	288206	229.32	2166822	-	-	483.19	2455028
17	BULGARIA	412.11	365612	207.38	1631637	-	-	619.49	1997249
18	SWITZERLAND	1762.75	1733748	28.01	126800	9.75	48730	1800.51	1909278
19	KYRGYZSTAN	1565.27	1515795	1.42	12848	-	-	1566.69	1528643
20	GREECE	-	-	315.44	1494078	-	-	315.44	1494078
	SYRIAN ARAB REPUBLIC	181.97	192563	148.27	715916	25.34	38426	355.58	946905
22	PARKISTAN	886.44	809132	0.01	44	9.38	10800	895.83	819976
23	SWEDEN	654.83	622669	-	-	3.03	8165	657.86	630834
24	BRUNEI DARUSSALAM	272.02	295656	15.12	96763	-	-	287.14	392419
25	UNITED STATES	120.10	139423	15.12	137457	-	-	135.22	276880
26	IRAN	228.66	227966	-	-	-	-	228.66	227966
27	SPAIN	174.79	166816	14.04	16534	19.74	39480	208.57	222830
28	MAXICO	145.38	161497	7.60	18240	-	-	152.98	179737
29	PORTUGAL	-	-	14.55	156284	-	-	14.55	156284
	SRILANKA	50.23	44632	10.80	59973	-	-	61.03	104605
	GERMANY	17.80	17460	10.39	66968	13.08	15025	41.27	99453
32	PHILIPPINES	59.50	93100	-	-	-	-	59.50	93100
33	DENMARK	71.38	65429	-	-	-	-	71.38	65429
34	HUNGARY	39.56	52964	-	-	-	-	39.56	52964
35	RUSSIAN FEDERATION	52.00	46400	-	-	-	-	52.00	46400
36	POLAND	-	-	9.88	44915	-	-	9.88	44915
37	NETHERLAND	24.77	37590	-	-	-	-	24.77	37590
38	AUSTRIA	26.08	25706	-	-	-	-	26.08	25706
39	ITALY	-	-	0.01	17	-	-	0.01	17
	TOTAL	77460.04	70050400	10225 02	02052067	000644	47045054	102524.00	400707040

TOTAL 77162.91 79859400 18335.93 92052067 8036.14 17815851 103534.98 189727318

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2004-2005) (IN EURO)

Quantity - Metric Ton

Value - Euro FISH **PRAWNS OTHERS** TOTAL NO COUNTRY QTY **VALUE** QTY **VALUE** QTY **VALUE** QTY VALUE JAPAN 1 411.56 2261456 411.56 2261456 HONGKONG 2 (PRC) 1654.11 1156642 59.90 225748 1714.01 1382390 **KOREA** 3 21.16 10652 257.22 1112615 8.28 18332 286.66 1141599 **CHINA** 4 415.08 227373 97.21 449347 52.67 246222 564.96 922942 5 **THAILAND** 417.52 240136 28.02 124122 186.25 631.79 500935 136677 **HUNGARY** 6 94.02 396579 94.02 396579 **AUSTRALIA** 7 87.74 365955 87.74 365955 GREECE 8 42.55 197814 42.55 197814 **VIET NAM** 9 54.27 182540 54.27 182540 **CANADA** 10 15.22 151309 2.37 15895 167204 17.59 **BELGIUM** 11 17.19 147330 17.19 147330 **SINGAPORE** 12 66.46 46758 10.36 86961 0.88 1768 77.70 135487 **BULGARIA** 13 15.12 134742 15.12 134742 **MALAYSIA** 76901 14 148.60 3.14 13235 151.74 90136 UAE 15 192.30 84265 192.30 84265 **SWEDEN** 16 90.37 60091 90.37 60091 **SWITZERLAND** 17 37.00 23595 7.94 34784 44.94 58379 KYRGYZSTAN 18 35.23 17777 35.23 17777 **BANGLADESH** 19 14.35 5392 14.35 5392 **TOTAL** 3092.18 1949582 1104.30 5474723 347.61 828708 4544.09 8253013

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2004-2005) (IN KYAT)

Quantity - Metric Ton

						,	√alue	- Kyat	t
	COLUNTRY -	FISH		PRAV	PRAWNS		OTHERS		TAL
NO	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	54072.34	52868.42	3851.63	10836.28	48706.05	37362.57	106630.02	101067.27
2	THAILAND	25033.14	18793	370.95	2290	15622.78	9653	41026.87	30736
3	INDIA	40.02	23.78	-	-	4.20	1.68	44.22	25.46
	TOTAL	79145.50	71685.28	4222.58	13125.94	64333.03	47017.61	147701.11	131828.83

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2005-2006) (IN US \$)

Quantity -Metric Ton Value - US \$

		Value - US \$							
NO	COLINTRY	FIS	SH	PRAV	WNS	OTH	IERS	TOT	AL
NO	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	46229.90	44796480	3577.90	10033957	32351.18	31420952	82158.98	86251389
2	JAPAN	435.30	677249	6088.02	37178818	3280.80	2826115	9804.12	40682182
3	UAE	16266.40	16894855	1482.12	3734376	10.57	25478	17759.09	20654709
4	MALAYSIA	6516.40	9668974	932.64	3853959	3491.38	6773157	10940.42	20296090
5	SAUDI	15129.74	16839744	23.88	102798	29.79	61206	15183.41	17003748
6	SINGAPORE	5730.22	7756408	1142.19	6938627	886.85	1537062	7759.26	16232097
	HONGKONG								
7	(PRC)	696.51	994818	2041.72		2660.75	5117616	5398.98	14729280
8	BANGLADESH	16180.51	12204450	285.43	1761930	1652.68	587445	18118.62	14553825
	UNITED KING-								
9	DOM	5400.80	7728474	78.63	505439	72.31	142326	5551.74	8376239
_	THAILAND	3106.05	2894314		1780361		731162	4437.69	5405837
	VIET NAM	724.97	568130	689.61		294.92	375296	1709.50	4532089
	AUSTRALIA	896.23	2460822	345.24	1659292	83.53	147155	1325.00	4267269
	KUWAIT	3534.38	3460889	37.72	70501	103.02	53858	3675.12	3585248
	BELGIUM	255.54	332513	247.12	2138732	0.60	2800	503.26	2474045
	CANADA	321.69	539814	249.40	1342081	1.66	5752	572.75	1887647
16	GERMANY	-	-	288.92	1862705	-	-	288.92	1862705
	BRUNEI								
	DARUSSALAM	51.20	76300	176.08	1625143	-	-	227.28	1701443
	KOREA	196.25	310017	146.17	744970	194.28	498547	536.70	1553534
	JORDAN	1485.51	1302916	-	-	-	-	1485.51	1302916
	INDIA	200.87	402244	224.11	603975	-	-	424.98	1006219
	INDONESIA	15.70	31766	69.39	548440	54.60	88900	139.69	669106
	PARKISTAN	686.76	661267	0.05	440	0.59	1384	687.40	663091
	QATAR	335.05	356309	1.60	6556	0.43	785	337.08	363650
	BEHRAIN	321.83	345676	1.17	3026	-	-	323.00	348702
	MAXICO	295.40	331335	-	-	-	-	295.40	331335
	SWEDEN	40.02	63885	31.10	184518	-	-	71.12	248403
	GREECE	-	-	13.45			-	13.45	158665
	SRILANKA	-	-	-				81.07	97290
	SOUTH AFRICA	25.67	51697	0.11	717			26.38	53823
	ITALY	-	-	-	-	16.25		16.25	41125
	PHILIPPINES	26.30	35630	-	-	-	-	26.30	35630
	COLUMBO	-	<u>-</u>	-	-	9.20		9.20	11040
	SWITZERLAND	2.61	3780	-	<u>-</u>	0.61		3.22	5400
	PORTUGAL	-	-	0.37	851			0.37	851
35	EGYPT	-	-	-	-	0.02		0.02	100
	TOTAL	125107.81	131790756	18941.05	89046386	45842.42	50549580	189891.28	271386722

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2005-2006) (IN EURO)

Quantity - Metric Ton

Value - Euro

NO	COLINITRY	FIS	SH	PRA	WNS	ОТН	ERS	TO	ΓAL
NO	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	JAPAN	-	-	875.85	4542403	-	-	875.85	4542403
2	HONGKONG (PRC)	1315.58	779109	216.88	815213	44.10	152646	1576.56	1746968
3	KOREA	-	-	370.01	1261925	-	-	370.01	1261925
4	SINGAPORE	379.89	317342	129.34	550561	-	-	509.23	867903
5	AUSTRALIA	27.20	21659	114.48	541157	-	-	141.68	562816
6	CHINA	221.39	159736	67.59	179223	43.61	98828	332.59	437787
7	THAILAND	99.28	63314	91.66	265335	43.31	57310	234.25	385959
8	VIET NAM	-	-	73.73	234282	-	8932	73.73	243214
9	MALAYSIA	49.05	44696	-	-	138.66	166088	187.71	210784
10	BELGIUM	-	-	18.41	149858	-	-	18.41	149858
11	GERMANY	-	-	35.63	139643	-	-	35.63	139643
12	SWEDEN	-	-	20.74	124404	-	-	20.74	124404
13	KUWAIT	27.23	19544	16.38	71388	-	-	43.61	90932
14	UAE	73.66	66512	5.78	21114	-	-	79.44	87626
15	INDIA	-	-	11.34	45360	-	-	11.34	45360
16	JORDAN	14.00	5197	-	-	-	-	14.00	5197
17	BEHRAIN	0.40	370	-	-	-	-	0.40	370
	TOTAL	2207.68	1477479	2047.82	8941866	269.68	483804	4525.18	10903149

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2005-2006) (IN KYAT)

Quantity - Metric Ton

						Value	- Kyat	
NO COUNTRY	FIS	FISH		PRAWNS		ERS	TOT	AL
	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1 CHINA	8682.59	9770.69	1736.65	1727.93	8766.13	7579.53	19185.37	19078.15
2 THAILAND	37024.13	37103.51	622.12	3708.29	19723.64	15066.19	57369.89	55877.99
3 INDIA	33.49	14.11	-	-	65.04	10.96	98.53	25.07

TOTAL 45740.21 46888.31 2358.77 5436.22 28554.81 22656.68 76653.79 74981.21

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2006-2007) (IN US \$)

Quantity - Metric Ton Value - US \$

						value	- US Ş		
NO	COLINTRY	COUNTRY FISH		PRAV	VNS	ОТНІ	ERS	TOTA	٩L
NO	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	45180.13	59.676	5826.48	17.100	39190.47	53.886	90197.08	130.662
2	THAILAND	93741.55	74.047	2865.74	13.004	25157.70	22.829	121764.99	109.880
3	JAPAN	220.22	0.386	7867.50	45.516	4123.78	4.545	12211.50	50.447
4	SINGAPORE	14987.67	16.402	1681.23	11.362	1693.18	2.670	18362.08	30.434
5	BANGLADESH	21981.61	19.203	413.19	2.559	1274.52	0.598	23669.32	22.360
6	MALAYSIA	4208.89	6.988	815.04	4.001	5264.58	10.114	10288.51	21.103
7	SAUDI	17897.36	19.773	43.26	0.143	90.09	0.213	18030.71	20.129
8	UAE	12231.10	12.913	1724.81	4.571	37.81	0.044	13993.72	17.528
9	KUWAIT	14975.11	14.392	3.52	0.029	2.68	0.006	14981.31	14.427
10	HONGKONG (PRC)	170.97	0.347	1650.79	7.638	2543.54	5.982	4365.30	13.967
11	UNITED KINGDOM	5543.08	7.854	140.85	0.971	92.84	0.266	5776.77	9.091
12	AUSTRALIA	1070.52	3.309	671.64	3.748	75.53	0.146	1817.69	7.203
13	VIET NAM	225.56	0.275	332.36	1.933	1007.75	0.889	1565.67	3.097
14	KOREA	133.92	0.217	477.39	2.171	216.35	0.539	827.66	2.927
15	INDONESIA	65.58	0.104	-	-	1124.90	2.192	1190.48	2.296
16	BELGIUM	492.82	0.561	192.13	1.327	0.38	0.001	685.33	1.889
17	CANADA	344.20	0.538	158.37	1.102	0.62	0.001	503.19	1.641
18	NETHERLAND	-	-	129.12	1.129	-	-	129.12	1.129
19	GERMANY	51.00	0.062	149.11	0.966	-	-	200.11	1.028
20	JORDAN	748.70	0.983	-	-	-	-	748.70	0.983
21	BRUNEI DARUSSALAM	-	-	112.86	0.949	-	-	112.86	0.949
22	PARKISTAN	676.02	0.633	-	-	-	-	676.02	0.633
23	PHILIPPINES	50.50	0.604	-	-	-	-	50.50	0.604
24	INDIA	174.16	0.209	33.06	0.124	300.00	0.151	507.22	0.484
25	BAHRAIN	301.75	0.293	1.68	0.002	0.19	-	303.62	0.295
26	QATAR	259.24	0.267	2.01	0.003	0.85	0.001	262.10	0.271
27	SWEDEN	18.70	0.021	31.29	0.226	0.05	-	50.04	0.247
28	PORTUGAL	-	-	19.50	0.195	-	-	19.50	0.195
29	MAURITIUS	-	-	26.96	0.119	-	-	26.96	0.119
30	SWITZERLAND	41.72	0.055	-	-	0.66	0.001	42.38	0.056
31	EGYPT	26.00	0.043	-	-	-	-	26.00	0.043
32	MEXICO	23.00	0.021	-	-	-	-	23.00	0.021
33	DOMINICA	17.17	0.021	-	-	-	-	17.17	0.021
	TOTAL	235858.25	240.197	25369.89	120.888	82198.47	105.074	343426.61	466.159

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2007-2008) (IN US \$)

Quantity - Metric Ton Value - US \$

							value	- U3 Ş	
NO	COLINITOV	FISH		PRAW	/NS	OTHE	RS	TOTA	۸L
INO	COUNTRY -	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	40468.00	71.664	3864.69	13.665	40647.82	63.395	84980.51	148.724
2	MALAYSIA	59081.47	48.628	1576.95	8.139	20177.51	30.193	80835.93	86.960
3	SINGAPORE	26437.35	46.326	2638.23	16.716	3019.42	7.321	32095.00	70.363
4	THAILAND	36646.36	33.866	802.98	4.024	11371.49	18.095	48820.83	55.985
5	JAPAN	103.99	0.256	7366.75	39.403	3053.22	2.426	10523.96	42.085
6	SAUDI	18519.66	34.271	46.30	0.312	232.12	0.563	18798.08	35.146
7	KUWAIT	27742.95	29.924	0.46	0.001	151.91	0.101	27895.32	30.026
8	BANGLADESH	18134.39	20.390	973.65	6.059	1121.68	0.554	20229.72	27.003
9	UAE	8730.05	11.290	725.05	2.579	12.60	0.033	9467.70	13.902
10	HONGKONG (PRC)	298.45	0.722	1386.72	7.410	1456.24	4.532	3141.41	12.664
11	UNITED KINGDOM	6081.22	11.393	13.95	0.068	124.91	0.901	6220.08	12.362
12	INDONESIA	39.65	0.063	-	-	1400.00	4.670	1439.65	4.733
13	AUSTRALIA	612.77	2.065	306.06	1.832	115.69	0.323	1034.52	4.220
14	VIET NAM	65.09	0.200	374.27	2.665	1141.42	1.214	1580.78	4.079
15	KOREA	120.96	0.258	377.01	1.989	462.32	1.059	960.29	3.306
16	BRUNEI DARUSSALAM	584.06	0.962	115.45	1.339	-	-	699.51	2.301
17	CANADA	288.93	0.832	204.46	1.376	1.08	0.005	494.47	2.213
18	INDIA	249.99	0.414	22.68	0.128	620.05	0.409	892.72	0.951
19	PARKISTAN	477.87	0.730	-	-	-	-	477.87	0.730
20	BELGIUM	67.45	0.175	61.19	0.534	-	-	128.64	0.709
21	MORITIUS	-	-	78.34	0.420	-	-	78.34	0.420
22	SWEDEN	42.18	0.072	33.09	0.257	0.33	0.001	75.60	0.330
23	GERMANY	-	-	49.20	0.371	-	-	49.20	0.371
24	QATAR	230.34	0.332	1.30	0.002	-	-	231.64	0.334
25	BEHRAIN	183.45	0.253	0.25		-	-	183.70	0.253
26	SWITZERLAND	18.49	0.032	15.85	0.181	1.50	0.004	35.84	0.217
27	JORDAN	159.10	0.203	-	-	-	-	159.10	0.203
28	RUSSIAN FEDERATION	-	-	14.65	0.152	-	-	14.65	0.152
29	NETHERLAND	-	-	11.77	0.122	-	-	11.77	0.122
30	MEXICO	43.77	0.057	-	-	-	-	43.77	0.057
31	ITALY	25.62	0.053	-	-	-	-	25.62	0.053
32	ISRAEL	19.54	0.032	-	-	6.29	0.017	25.83	0.049

245473.15 315.463 21061.30 109.744 85117.60 135.816 351652.05 561.023

TOTAL

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2008-2009) (IN US \$)

Quantity - Metric Ton
Value - US \$

						value	- 055		
NO	COUNTRY	FISH	1	PRAW	'NS	ОТНЕ	RS	ТОТ	٩L
	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	SINGAPORE	46048.65	76.474	6089.29	33.830	4615.67	8.740	56753.61	119.044
2	CHINA	21705.15	38.578	1999.86	6.787	35216.25	60.788	58921.26	106.153
3	THAILAND	81643.39	62.623	713.44	2.949	7132.68	11.406	89489.51	76.978
4	MALAYSIA	4227.02	8.173	1452.41	5.231	17324.93	27.856	23004.36	41.260
5	KUWAIT	34419.36	31.834	1.54	0.003	2.75	0.007	34423.65	31.844
6	JAPAN	60.83	0.118	4360.77	20.882	2092.46	2.400	6514.06	23.400
7	SAUDI	17403.76	20.429	22.04	0.055	276.62	0.860	17702.42	21.344
8	BANGLADESH	12363.75	11.036	1117.13	7.036	1214.10	0.614	14694.98	18.686
9	U.A.E	10101.99	12.070	482.56	1.647	25.73	0.065	10610.28	13.782
10	U.K	5029.96	10.058	28.25	0.243	134.43	0.373	5192.64	10.674
11	HONGKONG (PRC)	6.62	0.025	836.83	4.086	438.60	1.350	1282.05	5.461
12	VIET NAM	194.26	0.379	358.93	1.394	1639.88	2.197	2193.07	3.970
13	INDONESIA	-	-	63.24	0.489	1560.35	3.240	1623.59	3.729
14	KOREA	35.27	0.057	467.12	1.529	415.59	0.687	917.98	2.273
15	AUSTRALIA	183.29	0.648	83.68	0.414	83.88	0.377	350.85	1.439
16	BRUNEI DARUSSALAM	-	-	67.83	0.722	-	-	67.83	0.722
17	BELGIUM	16.38	0.021	100.70	0.596	-	-	117.08	0.617
18	MEXICO	63.32	0.092	54.87	0.496	-	-	118.19	0.588
19	QATAR	225.52	0.242	9.60	0.048	1.86	0.004	236.98	0.294
20	SWEDEN	-	-	32.69	0.232	-	-	32.69	0.232
21	GERMANY	-	-	13.22	0.137	7.15	0.048	20.37	0.185
22	JORDAN	200.20	0.184	-	-	-	-	200.20	0.184
23	INDIA	33.77	0.091	-	-	70.77	0.067	104.54	0.158
24	RUSSIAN FEDERATION	52.00	0.053	15.28	0.035	14.00	0.031	81.28	0.119
25	FRANCE	11.69	0.048	-	-	-	-	11.69	0.048
26	BAHRAIN	26.00	0.025	-	-	-	-	26.00	0.025
27	NETHERLAND	8.56	0.009	10.82	0.012	-	-	19.38	0.021
	TOTAL	234060.74	273.267	18382.10	88.853	72267.70	121.110	324710.54	483.230

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2009-2010) ($\underline{\text{IN US $}}$)

Quantity - Metric Ton

Value - US\$

						value	- 02.5		
NO	COLINTRY	FISH		PRAWI	NS	OTHE	RS	TOTAI	<u> </u>
NO	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	CHINA	15055.763	30.254	1894.965	4.946	39040.605	69.876	55991.333	105.076
2	THAILAND	108511.603	84.816	970.069	2.751	13335.913	11.662	122817.585	99.229
3	SINGAPORE	38970.058	73.421	4429.010	14.493	3025.494	8.343	46424.562	96.257
4	KUWAIT	58731.236	52.942	15.826	0.020	0.860	0.002	58747.922	52.964
5	MALAYSIA	3717.892	6.211	2232.750	6.439	15400.454	23.477	21351.096	36.127
6	SAUDI	20123.837	22.470	5.435	0.011	297.359	0.791	20426.631	23.272
7	JAPAN	144.012	0.185	4451.966	14.671	1619.559	2.052	6215.537	16.908
8	U.A.E	12492.105	14.346	980.753	2.353	44.352	0.085	13517.210	16.784
9	BANGLADESH	11634.476	10.583	891.442	4.578	1467.426	1.096	13993.344	16.257
10	U.K	6000.391	11.023	146.198	1.122	139.086	0.282	6285.675	12.427
11	INDONESIA	-	-	9.000	0.076	2515.126	6.171	2524.126	6.247
12	HONGKONG (PRC)	48.537	0.147	887.738	3.112	251.191	1.161	1187.466	4.420
13	VIET NAM	97.220	0.212	336.043	0.943	1791.395	3.032	2224.658	4.187
14	AUSTRALIA	361.295	0.848	22.400	0.075	304.943	1.567	688.638	2.490
15	KOREA	99.098	0.183	70.251	0.278	470.094	0.660	639.443	1.121
16	BAHRAIN	565.861	0.684	0.203	0.001	1.559	0.005	567.623	0.690
17	QUATAR	491.643	0.622	3.848	0.005	6.758	0.012	502.249	0.639
18	JORDAN	454.607	0.449	-	-	-	-	454.607	0.449
19	INDIA	184.893	0.292	-	-	108.810	0.096	293.703	0.388
20	NETHERLAND	32.875	0.044	26.928	0.181	8.400	0.034	68.203	0.259
21	SWEDEN	36.627	0.048	17.392	0.055	-	-	54.019	0.103
22	BELGIUM	-	-	20.880	0.096	-	-	20.880	0.096
23	FRANCE	-	-	12.280	0.062	-	-	12.280	0.062
24	GERMANY	-	-	11.544	0.054	-	-	11.544	0.054
25	SOUTH AFRICA	15.708	0.027	2.391	0.007	-	-	18.099	0.034
26	PERKISTAN	27.000	0.027	-	-	-	-	27.000	0.027
27	CANMERRO	27.000	0.023	-	-	-	-	27.000	0.023
	TOTAL	277823.737	309.857	17439.312	56.329	79829.384	130.404	375092.433	496.590

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2010-2011) ($\underline{\text{IN US \S}}$)

Quantity - Metric Ton

Value - US\$

		FISH		PRAW	/NS	ОТН	ERS	TOTA	
NO	COUNTRY	QTY	VALUE	QTY	VALUE			QTY	VALUE
1	CHINA	31965.020	78.186	5453.100	18.568	40496.148	82.950	77914.268	179.704
2	THAILAND	118997.163	91.524	2633.957	9.433	13003.189	9.638	134634.309	110.595
3	SINGAPORE	18867.479	41.481	2290.962	7.860	4254.894	10.037	25413.335	59.378
4	KUWAIT	50639.928	56.675	1.890	0.003	2.000	0.005	50643.818	56.683
5	MALAYSIA	4365.321	9.531	601.324	1.803	15703.282	28.085	20669.927	39.419
6	SAUDI	19237.123	24.045	25.213	0.054	211.924	0.574	19474.260	24.673
7	JAPAN	7.103	0.068	5255.547	19.338	1934.499	2.476	7197.149	21.882
8	U.A.E	11486.150	15.634	727.034	1.969	79.309	0.186	12292.493	17.789
9	BANGLADESH	8653.347	8.701	750.141	4.115	1969.464	1.350	11372.952	14.166
10	U.K	6396.855	12.765	15.352	0.156	76.227	0.164	6488.434	13.085
11	HONGKONG (PRC)	53.922	0.165	945.280	3.738	178.755	0.802	1177.957	4.705
12	VIET NAM	5.233	0.019	302.685	0.938	1345.834	2.666	1653.752	3.623
13	INDONESIA	-	-	11.340	0.016	1479.029	3.536	1490.369	3.552
14	AUSTRALIA	345.086	0.830	-	-	243.621	1.158	588.707	1.988
15	KOREA	138.392	0.273	35.230	0.182	572.612	0.615	746.234	1.070
16	BAHRAIN	486.134	0.623	0.915	0.001	0.560	0.001	487.609	0.625
17	QUATAR	459.460	0.590	1.204	0.001	0.910	0.004	461.574	0.595
18	JORDAN	351.216	0.431	-	-	-	-	351.216	0.431
19	ITALY	248.138	0.420	-	-	-	-	248.138	0.420
20	BELGIUM	-	-	61.407	0.318	-	-	61.407	0.318
21	INDIA	73.020	0.090	-	-	142.437	0.142	215.457	0.232
22	SOUTH AFRICA	56.302	0.136	5.047	0.012	1.336	0.004	62.685	0.152
23	SWEDEN	64.043	0.074	11.131	0.065	-	-	75.174	0.139
24	PERKISTAN	103.835	0.115	-	-	-	-	103.835	0.115
25	FRANCE	-	-	14.146	0.091	-	-	14.146	0.091
26	BUREIN	30.524	0.051	-	-	-	-	30.524	0.051
27	NETHERLAND	12.951	0.014	-	-	10.031	0.020	22.982	0.034
	TOTAL	273043.745	342.441	19142.905	68.661	81706.061	144.413	373892.711	555.515

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2011-2012) (IN US\$)

Quantity - Metric Ton Value - US\$ in million FISH PRAWN **OTHER TOTAL COUNTRY** No. QTY VALUE QTY VALUE QTY VALUE QTY VALUE 1 CHINA 43186.478 125.910 5430.558 24.047 44158.609 108.802 92775.645 258.759 2 THAILAND 10.877 136278.599 124.457 121751.779 105.342 1674.967 8.238 12851.853 3 MALAYSIA 5578.830 1758.879 6.461 15988.195 33.307 23325.904 53.623 13.855 4 KUWAIT 45449.555 51.074 9.794 0.019 0.062 45496.480 51.155 37.131 5 SINGAPORE 9538.352 1686.515 4657.022 7.878 15881.889 34.522 19.785 6.859 6 JAPAN 34.612 0.093 5028.298 27.638 1776.505 2.630 6839.415 30.361 7 SAUDI 20377.182 27.574 35.026 0.061 359.488 0.975 20771.696 28.610 8 BANGLADESH 12614.208 1080.428 6.088 3.127 17296.858 23.124 13.909 3602.222 9 U.A.E 15463.178 1.573 70.840 0.157 16045.360 21.320 19.590 511.342 10 U.K 6275.849 13.845 6163.152 13.449 29.549 0.118 83.148 0.278 11 VIET NAM 364.419 2.354 570.752 1.067 935.171 3.421 12 AUSTRALIA 610.873 1.566 4.309 0.013 260.731 0.994 875.913 2.573 HONGKONG (PRC) 12.587 0.069 248.661 1.820 28.181 0.217 289.429 2.106 14 KOREA 893.623 57.937 0.545 741.554 0.854 94.132 0.118 1.517 15 BAHRAIN 974.074 1.375 1.770 0.006 978.614 0.003 2.770 1.384 16 QUATAR 914.355 1.209 20.031 0.040 16.010 0.040 950.396 1.289 17 ITALY 421.501 0.668 421.501 0.668 18 SWEDEN 123.200 0.151 22.464 0.145 145.664 0.296 19 INDIA 103.583 54.800 0.064 158.383 0.230 0.166 20 INDONESIA 17.085 0.143 35.376 0.047 52.461 0.190 21 SOUTH AFRICA 105.231 0.180 2.196 0.004 2.290 0.004 109.717 0.188 ²² NETHERLAND 107.000 0.126 107.000 0.126 23 PERKISTAN 53.900 0.055 53.900 0.055 24 PHILLIPINE 10.800 0.018 0.018 10.800 25 CRYPUS 10.955 0.012 10.955 0.012 26 ISREAL 0.056 0.001 0.056 0.001 27 EGYPT 0.046 0.046 0.000

17995.028 86.187 85297.533 171.387 386981.324 653.850

TOTAL

283688.763 396.276

IMPORT BY FISHERY PRODUCT TRADING COUNTRIES (2012-2013) (IN US\$)

Quantity - Metric Ton
Value - US\$ in million

						/alue	- US\$ in mi	llion	
No	COLINTRY	FISH		PRAWI	N	ОТНІ	ER	TOTA	L
No.	COUNTRY	QTY	VALUE	QTY	VALUE	QTY	VALUE	QTY	VALUE
1	China	37038.104	97.646	6073.713	25.984	47668.917	120.619	90780.734	244.249
2	Thailand	1215233.591	112.166	1513.392	8.44	14594.682	12.559	137631.665	133.165
3	Singapore	16276.679	32.991	1030.369	5.176	9277.429	11.581	26584.477	49.748
4	Kuwait	34499.334	49.116	8.842	0.017	7.750	0.020	34515.926	49.153
5	Malaysia	2896.768	6.509	1879.035	8.827	14512.536	30.342	19288.339	45.678
6	Japan	80.602	0.138	5168.261	31.986	1646.34	2.847	6895.203	34.971
7	Saudi	21386.151	30.819	15.043	0.035	337.641	0.952	21738.835	31.806
8	UAE	14587.366	17.788	431.116	1.248	124.114	0.388	15142.596	19.424
9	UK	6201.942	13.996	48.033	0.139	91.314	0.426	6341.289	14.561
10	Bangladesh	5825.649	6.838	604.211	3.277	3099.531	1.863	9529.391	11.978
11	Vietnam	130.332	0.419	213.565	2.535	687.873	1.434	1031.770	4.388
12	Australia	558.644	1.582	7.148	0.042	386.45	1.413	952.242	3.037
13	Bahrain	1577.075	2.045	2.768	0.005	3.010	0.008	1582.853	2.058
14	Italy	1021.009	1.536	0.06	0.001	9.975	0.027	1031.044	1.564
15	Canada	699.518	1.493	1.241	0.003	3.131	0.014	703.890	1.510
16	Hongkong	4.469	0.026	169.224	1.073	6.650	0.046	180.343	1.145
17	Qutar	809.063	0.965	7.563	0.010	2.880	0.008	819.506	0.983
18	USA	377.116	0.676	42.399	0.110	24.188	0.082	443.703	0.868
19	Korea	86.054	0.110	26.739	0.211	424.102	0.463	536.895	0.784
20	India	106.75	0.223	-	-	153.612	0.220	260.362	0.443
21	Pakistan	379.509	0.388	-	-	-	-	379.509	0.388
22	Indonesia	-	-	9.212	0.130	40.904	0.171	50.116	0.301
23	South Africa	120.319	0.204	5.736	0.019	5.897	0.014	131.952	0.237
24	Sweeden	104.301	0.143	-	-	-	-	104.301	0.143
25	Netherland	74.405	0.107	-	-	-	-	74.405	0.107
26	Jordan	52.1	0.064	-	-	3.860	0.005	55.960	0.069
27	Greece	24.333	0.033	-	-	-	-	24.333	0.033
28	Cyprus	23.79	0.032	-	-	-	-	23.790	0.032
29	Phillipine	-	-	10.26	0.017	-	-	10.260	0.017
		266464.973	378.053	17267.93	89.286	93112.786	185.502	376845.689	652.840

TOP TEN COUNTRIES IMPORTED FISHERY PRODUCTS FROM MYANMAR (2003-2004 TO 2004-2005)

Quantity - Metric Ton Value - US \$ Million Quantity - Metric Ton

Value - US \$ Million

NI.	2003-2004							
No.	Countries		Quantity	Value				
		US\$	9805.60	15.95				
1	China	EURO	1848.26	2.17				
		KYAT	85592.99	93.19				
		US\$	6404.82	33.57				
2	Japan	EURO	2060.24	7.07				
		KYAT	-	-				
		US\$	3389.72	8.41				
3	Thailand	EURO	383.88	0.64				
		KYAT	25488.13	21.30				
		US\$	16849.78	18.96				
4	Malaysia	EURO	954.22	0.86				
		KYAT	-	-				
		US\$	9869.24	17.73				
5	Singapore	EURO	1096.47	1.46				
		KYAT	-	-				
		US\$	3990.16	12.63				
6	Hongkong	EURO	1889.14	2.71				
		KYAT	-					
		US\$	1807.85	8.78				
7	United States	EURO	-	-				
		KYAT	-	-				
		US\$	4508.28	7.95				
8	Vietnam	EURO	230.57	0.76				
		KYAT	-	-				
	United King	US\$	4329.98	6.68				
9	United King- dom	EURO	230.57	0.24				
		KYAT	-	-				
		US\$	5183.19	5.37				
10	Australia	EURO	1295.78	1.01				
		KYAT	-	-				

	I			S \$ Million
No.		200	4-2005	
	Countries		Quantity	Value
		US\$	8140.66	17.877
1	China	EURO	564.96	0.923
		KYAT	106630.02	101.067
		US\$	9974.36	45.203
2	Japan	EURO	411.56	2.261
		KYAT	-	-
		US\$	7514.55	6.853
3	Thailand	EURO	631.79	0.501
		KYAT	41026.87	30.736
		US\$	13097.85	19.350
4	Singapore	EURO	-	-
		KYAT	-	-
		US\$	13988.83	16.676
5	UAE	EURO	-	-
		KYAT	-	-
		US\$	8512.74	14.800
6	Malaysia	EURO	-	-
		KYAT	-	-
	l la a alva a a	US\$	4032.02	11.808
7	Hongkong (P R C)	EURO	1714.01	1.382
	(1 10 0)	KYAT	-	-
		US\$	16736.34	11.030
8	Bangladesh	EURO	-	-
		KYAT	-	-
	l locked of	US\$	5940.02	8.800
9	United Kingdom	EURO	-	-
	KIIIguUIII	KYAT	-	-
		US\$	1674.24	5.220
10	Australia	EURO	87.74	0.366
		KYAT	-	-

TOP TEN COUNTRIES IMPORTED FISHERY PRODUCTS FROM MYANMAR (2005-2006 TO 2006-2007)

Quantity - Metric Ton

Quantity - Metric Ton

- US \$ Million Value

- US \$ Million Value

	Countries	2005-	2006		No.		2006-20	C
No.	Countries		Quantity	Value		Countries	Quantity	
		US\$	82158.98	86.251				
1	China	EURO	332.59	0.438	1	China	90197.08	
		KYAT	19185.37	19.078				
		US\$	4437.69	5.406				
2	Thailand	EURO	234.25	0.386	2	Thailand	121764.99	
		KYAT	57369.89	55.878				
		US\$	9804.12	40.682				
3	Japan	EURO	875.85	4.542	3	Japan	12211.50	
		KYAT	-	-				
		US\$	17759.09	20.655				
4	UAE	EURO	79.44	0.088	4	Singapore	18362.08	
		KYAT	-	-				L
		US\$	10940.42	20.296				
5	Malaysia	EURO	187.71	0.211	5	Bangladesh	23669.32	
		KYAT	-	-				L
		US\$	15183.41	17.004				
6	Saudi	EURO	-	-	6	Malaysia	10288.51	
		KYAT	-	-				
		US\$	7759.26	16.232				
7	Singapore	EURO	509.23	0.868	7	Saudi	18030.71	
		KYAT	-	-				
	Honglesse	US\$	5398.98	14.729				
8	Hongkong (PRC)	EURO	1576.56	1.747	8	UAE	13993.72	
	(r NC)	KYAT	-	-				L
		US\$	18118.62	14.554				
9	Bangladesh	EURO	-	-	9	Kuwait	14981.31	
		KYAT	-	-				L
	l lnitod	US\$	5551.74	8.376		Hongleses		
10	United Kingdom	EURO	-	-	10	Hongkong (PRC)	4365.30	
	Baoiii	KYAT	-	-		(1.1.5)		

No.	2006-2007							
	Countries	Quantity	Value					
1	China	90197.08	130.662					
2	Thailand	121764.99	109.880					
3	Japan	12211.50	50.440					
4	Singapore	18362.08	30.434					
5	Bangladesh	23669.32	22.360					
6	Malaysia	10288.51	21.103					
7	Saudi	18030.71	20.129					
8	UAE	13993.72	17.528					
9	Kuwait	14981.31	14.427					
10	Hongkong (PRC)	4365.30	13.967					

TOP TEN COUNTRIES IMPORTED FISHERY PRODUCTS FROM MYANMAR (2007-2008 TO 2008-2009)

Quantity - Metric Ton Value - US \$ Million Quantity - Metric Ton Value - US \$ Million

NI.	2007-2008			Na	2008-2009		
No.	Countries	Quantity	Value	No.	Countries	Quantity	Value
1	China	84980.51	148.724	1	Singapore	56753.61	119.044
2	Malaysia	80835.93	86.960	2	China	58921.26	106.153
3	Singapore	32095.00	70.363	3	Thailand	89489.51	76.978
4	Thailand	48820.83	55.985	4	Malaysia	23004.36	41.260
5	Japan	10523.96	42.085	5	Kuwait	34423.65	31.844
6	Saudi	18798.08	35.146	6	Japan	6514.06	23.400
7	Kuwait	27895.32	30.026	7	Saudi	17702.42	21.344
8	Bangladesh	20229.72	27.003	8	Bangladesh	14694.98	18.686
9	UAE	9467.70	13.902	9	UAE	10610.28	13.782
10	Hongkong(PCR)	3141.41	12.664	10	United Kingdom	5192.64	10.674

TOP TEN COUNTRIES IMPORTED FISHERY PRODUCTS

FROM MYANMAR (2009-2010 TO 2010-2011)

Quantity - Metric Ton Value - US \$ Million

Quantity - Metric Ton

Value - US \$ Million

No.	2009-2010						
NO.	Countries	Quantity	Value				
1	China	55991.33	105.076				
2	Thailand	122817.59	99.229				
3	Singapore	46424.56	96.257				
4	Kuwait	58747.92	52.964				
5	Malaysia	21351.10	36.127				
6	Saudi	20426.63	23.272				
7	Japan	6215.54	16.908				
8	UAE	13517.21	16.784				
9	Bangladesh	13993.34	16.257				
10	United Kingdom	6285.68	12.427				

No.	2010-2011						
INO.	Countries	Quantity	Value				
1	China	77914.27	179.704				
2	Thailand	134634.31	110.595				
3	Singapore	25413.33	59.378				
4	Kuwait	50643.82	56.683				
5	Malaysia	20669.93	39.419				
6	Saudi	19474.26	24.673				
7	Japan	7197.15	21.882				
8	UAE	12292.49	17.789				
9	Bangladesh	11372.95	14.166				
10	United Kingdom	6488.43	13.085				

TOP TEN COUNTRIES IMPORTED FISHERY PRODUCTS FROM MYANMAR (2011-2012 TO 2012-2013)

Quantity - Metric Ton

Value - US \$ Million Value - US \$ Million

Quantity - Metric Ton

	2011-2012					2012-2013			
No.	Countries	Quantity	Value		No.	Countries	Quantity	Value	
1	China	92775.645	258.759		1	China	90780.734	244.249	
2	Thailand	136278.599	124.457		2	Thailand	137631.665	133.165	
3	Malaysia	23325.904	53.623		3	Singapore	26584.477	49.748	
4	Kuwait	45496.48	51.155		4	Kuwait	34515.926	49.153	
5	Singapore	15881.889	34.522		5	Malaysia	19288.339	45.678	
6	Japan	6839.415	30.361	•	6	Japan	6895.203	34.971	
7	Saudi	20771.696	28.610		7	Saudi	21738.835	31.806	
8	Bangladesh	17296.858	23.124	•	8	UAE	15142.596	19.424	
9	UAE	16045.36	21.320		9	U.K	6341.289	14.561	
10	U.K	6275.849	13.845		10	Bangladesh	9529.391	11.978	



FISH SUPPLY IN YANGON

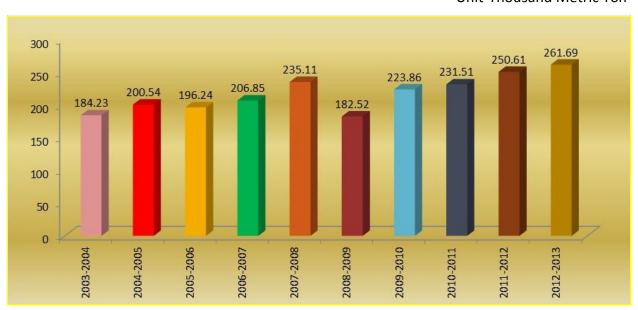
FISH SUPPLY IN YANGON

Unit - Thousand Metric Ton

NI -	Year	Production				
No.		Fresh Water	Marine	Total		
1	2003-2004	80.61	103.62	184.23		
2	2004-2005	77.53	123.01	200.54		
3	2005-2006	84.05	112.19	196.24		
4	2006-2007	102.90	103.95	206.85		
5	2007-2008	91.28	143.83	235.11		
6	2008-2009	78.83	103.69	182.52		
7	2009-2010	91.39	132.47	223.86		
8	2010-2011	93.07	138.44	231.51		
9	2011-2012	97.67	152.94	250.61		
10	2012-2013	94.68	167.01	261.69		

FISH SUPPLY IN YANGON (2003-2004) -(2012-2013)

Unit-Thousand Metric Ton





FISH SEED PRODUCTION AND HATCHERIES

SEED PRODUCTION BY FISH HATCHERIES UNDER DOF

Unit: Million

No.	Myanmar Name	Common Name	Scientific Name	2003-04	2004-05	2005-06	2006-07	2007-08
1.	Nga Myit Chin	Rohu	Labeo rohita	449.400	433.610	478.640	529.739	541.700
2.	Shwe Wa Nga Gyin	Common Carp	Cyprinus carpio	58.430	57.760	70.485	52.628	68.500
3.	Myetsar Nga Gyin	Grass Carp	Ctenopharyngodon idella	3.720	5.950	6.181	8.034	6.300
4.	Nga Khaung Pwa	Catla	Catla catla	4.880	5.450	4.676	4.638	6.100
5.	Yaung Sone Nga Gyin	Colour Carp	Carrasius spp:	-	-	-	-	-
6.	Tilapia	Tilapia	Tilapia spp:	15.490	12.020	13.972	13.727	13.400
7.	Ngwe Yaung Nga Gyin	Silver Carp	Hypophthalmichtys molitrix	3.120	3.120	2.813	3.134	3.000
8.	Khaung Gyi Nga Gyin	Big Head	Aristichthys nobilis	1.850	1.950	2.413	2.639	2.100
9.	Nga Khu	Cat Fish	Clarias batrachus	0.410	1.040	0.601	1.803	-
10.	Nga Dan	Stripped Catfish	Pangasius sutchi	7.410	15.640	11.267	17.052	11.700
11.	Nga Phan Ma	Rohtee	Rohtee alfrediana	0.850	0.030	0.200	0.350	-
12.	Nga Gyin Phyu	Mrigal	Cirrhina mrigala	6.150	6.850	4.825	3.817	3.400
13.	Pa Cu (Ye Cho Nga Mote)	Fresh water pomfret	Pirictus spp:	0.590	2.570	6.054	15.302	9.300
14.	Nga Khone Ma	Tarpian	Barbodes goniono- tus	13.460	40.750	43.401	37.095	75.200
15.	Nga Net Pyar	Black carp	Labeo calabasu	0.010	0.040	-	-	-
16.	Nga Thyine	Minor Carp	Leabo Fdolizkae	-	-	-	-	-
17.	Be Lar	Snakeskin gou- rami	Trichogester pectoralis	-	-	-	-	-
18.	Vietnam Nga Dan	Stripped Catfish	Pangasius bacourti	-	-	-	-	-
19.	Nga Kye	Sconpion catfish	Heteropneustcs fossilis	-	-	-	-	-
20.	Nga Phane	Nga Phane	Cyprinus intha	-	-	-	-	-
21.	Sultan	Sultan Fish	Teptobanbus hoevenii	-	-	-	-	-

SEED PRODUCTION BY FISH HATCHERIES UNDER DOF

						O1	iic iviiiio	' '
No.	Myanmar Name	Common Name	Scientific Name	2008-09	2009-10	2010-11	2011-12	2012-13
1.	Nga Myit Chin	Rohu	Labeo rohita	517.800	527.260	460.179	535.409	549.20
2.	Shwe Wa Nga Gyin	Common Carp	Cyprinus carpio	47.500	77.370	83.882	49.223	45.58
3.	Myetsar Nga Gyin	Grass Carp	Ctenopharyngodon idella	5.900	4.170	8.397	3.833	13.40
4.	Nga Khaung Pwa	Catla	Catla catla	5.000	5.190	11.733	6.547	9.64
5.	Tilapia	Tilapia	Tilapia spp:	12.200	20.060	18.363	17.883	13.06
6.	Ngwe Yaung Nga Gyin	Silver Carp	Hypophthalmichtys molitrix	3.200	3.380	5.629	6.894	5.25
7.	Khaung Gyi Nga Gyin	Big Head	Aristichthys nobilis	2.300	2.190	3.8	3.539	2.30
8.	Nga Khu	Cat Fish	Clarias batrachus	-	-	-	0.05	-
9.	Nga Dan	Stripped Catfish	Pangasius sutchi	10.000	4.660	9.384	5.660	8.98
10.	Nga Gyin Phyu	Mrigal	Cirrhina mrigala	1.800	2.850	6.652	4.554	6.09
11.	Pa Cu (Ye Cho Nga Mote)	Fresh water pomfret	Pirictus spp:	10.800	3.290	6.733	3.690	7.63
12.	Nga Khone Ma	Tarpian	Barbodes goniono- tus	66.500	86.230	181.439	112.761	127.86
13.	Nga Net Pyar	Black carp	Labeo calabasu	-	0.05	-	-	-
14.	Nga Thyine	Minor Carp	Leabo Fdolizkae	-	0.06	-	-	-
15.	Be Lar	Snakeskin gou- rami	Trichogester pectoralis	-	-	0.06	0.02	-
16.	Vietnam Nga Dan	Stripped Catfish	Pangasius bacourti	-	-	0.002	-	-
17.	Nga Kye	Sconpion catfish	Heteropneustcs fossilis	-	-	-	0.30	0.25
18.	Nga Phane	Nga Phane	Cyprinus intha	-	-	-	0.003	0.22
19.	Sultan	Sultan Fish	Teptobanbus hoevenii	-	-	-	0.004	-
20.	Nga Ohn Tone	Nandina	Labeo nandina	-	-	-	-	0.06
21.	Nga Dane	Kuria Labeo	Labeo gonius	-	-	-	-	0.10
	Total			708.312	736.760	796.253	750.370	789.62

FISH HATCHERIES UNDER DOF (2007-2008)

			Unit - Million
No.	Fish Hatcheries	Location	Production
	Yangon Region		178.990
1	Hlaw Kar	Mingalardone Township, Yangon.	90.350
2	Twante	Twante	52.130
3	Laydaukkan	Thingankyun Township	36.510
	Bago Region		80.620
4	Bago (Kali)	Bago Township	44.180
5	Thanappin	Thanappin	15.620
6	Oakpho	Oakpho	20.820
	Mandalay Region		303.100
7	Pathein Gyi		82.630
8	Myit Thar	Kueme Township	76.630
9	Natyekan	A-ma-ya-pu-ya Township	59.140
10	Pyinmanar	Pyin-ma-nar	56.300
11	Matayar	Ma-ta-yar	28.400
	Ayeyarwady Region		120.810
12	Pathein	Pathein	18.850
13	Talotehla	Ta-lote-hla, Ma-u-bin Township	27.380
14	Hinthada	Hin-tha-da	14.740
15	Pantanaw	Pan-ta-naw	34.560
16	Aung-hate		25.280
	Magway Region		4.850
17	Taungdwingyi	Magway	4.030
18	Pwint Phyu		0.820
	Kachin State		7.720
19	Waing maw	Kachin State	3.740
20	Bamaw	Bamaw	3.980
	Sagaing Region		31.410
21	Shwe Bo	Shwe Bo Township	8.320
22	Yay Oo	Yay Oo Township	21.070
23	Kalay		2.020
	Mon State		9.300
24	Thahtone	Thahtone Township	9.300
	Shan State		3.590
25	Lashio	Lashio Township	0.320
26	Nyaung Shwe	Nyaung Shwe Township	3.270
	Kayin State		0.310
27	Pha aan	Pha-aan Township	0.310

PRAWN HATCHERIES UNDER DOF (2007-2008)

			-
No.	Fish Hatcheries	Location	Production
1	A-lae-tan-kyaw	Mowndaw Township	0.25
2	Kyauk-phyu	Kyauk-phyu Township	1.21
3	Thaketa	Yangon	-
4	Wa-maw (Long-lone)	Dawei	1.20
5	Lone-thar(TZ)	Tan-twe	3.52
6	Ye-chan-pyin	Sittwe	-
7	Thazin (Pale Nadi)	Pathein	14.30
8	Chaung Tha (Sein Ngwe Mya)	Pathein	21.00
9	Soe Mae Kyi (Sit Aye Paing)	Sittwe	-
10	Lone-thar (W.B)	Tan-twe	6.60

FISH HATCHERIES UNDER DOF (2008-2009)

			Offic - Willion
No.	Fish Hatcheries	Location	Production
	Yangon Region		216.947
1	Hlaw Kar	Mingalardone Township, Yangon.	90.556
2	Twante	Twante	87.150
3	Laydaukkan	Thingankyun Township	39.241
	Bago Region		61.970
4	Bago (Kali)	Bago Township	36.216
5	Thanappin	Thanappin	13.512
6	Oakpho	Oakpho	12.242
	Mandalay Region		297.513
7	Pathein Gyi		82.283
8	Myit Thar	Kueme Township	80.974
9	Natyekan	A-ma-ya-pu-ya Township	59.028
10	Pyinmanar	Pyin-ma-nar	57.031
11	Matayar	Ma-ta-yar	18.197
	Ayeyarwady Region		66.842
12	Pathein	Pathein	6.199
13	Talotehla	Ta-lote-hla, Ma-u-bin Township	16.843
14	Hinthada	Hin-tha-da	5.955
15	Pantanaw	Pan-ta-naw	21.882
16	Aung-hate		15.963
	Magway Region		5.155
17	Taung dwin gyi	Magway	3.500
18	Pwint Phyu		1.655
	Kachin State		7.061
19	Waing-maw	Kachin State	3.874
20	Bamaw	Bamaw	3.187
	Sagaing Region		13.933
21	Shwe Bo	Shwe Bo Township	3.869
22	Yay Oo	Yay Oo Township	7.761
23	Kalay		2.303
	Mon State		6.661
24	Thahtone	Thahtone Township	6.661
	Shan State		6.244
25	Lashio	Lashio Township	-
26	Nyaung Shwe	Nyaung Shwe Township	6.244
	Kayin State		0.633
27	Pha aan	Pha-aan Township	0.633

PRAWN HATCHERIES UNDER DOF (2008-2009)

No.	Fish Hatcheries	Location	Production
1	A-lae-tan-kyaw	Mowndaw Township	-
2	Kyauk-phyu	Kyauk-phyu Township	0.8
3	Thaketa	Yangon	-
4	Wa-maw (Long-lone)	Dawei	0.85
5	Lone-thar(TZ)	Tan-twe	2.09
6	Ye-chan-pyin	Sittwe	0.65
7	Thazin (Pale Nadi)	Pathein	28.00
8	Chaung Tha (Sein Ngwe Mya)	Pathein	8.70
9	Soe Mae Kyi (Sit Aye Paing)	Sittwe	2.00
10	Lone-thar (W.B)	Tan-twe	2.50

FISH HATCHERIES UNDER DOF (2009-2010)

			Unit - Million
No.	Fish Hatcheries	Location	Production
	Yangon Region		163.100
1	Hlaw Kar	Mingalardone Township, Yangon.	91.400
2	Twante	Twante	31.400
3	Laydaukkan	Thingankyun Township	40.300
	Bago Region		91.200
4	Bago (Kali)	Bago Township	43.100
5	Thanappin	Thanappin	27.100
6	Oakpho	Oakpho	21.000
	Mandalay Region		313.600
7	Pathein Gyi		84.300
8	Myit Thar	Kueme Township	79.600
9	Natyekan	A-ma-ya-pu-ya Township	59.500
10	Pyinmnar	Pyinmanar	69.200
11	Matayar	Matayar	21.000
	Ayeyarwady Region		115.300
12	Pathein	Pathein	26.300
13	Talotehla	Talotehla, Maubin Township	26.900
14	Hinthada	Hinthada	10.100
15	Pantanaw	Pantanaw	30.000
16	Aung-hate		22.000
	Magway Region		7.300
17	Taungdwingyi	Magway	4.900
18	Pwint Phyu		2.400
	Kachin State		9.700
19	Waing maw	Kachin State	6.200
20	Bamaw	Bamaw	3.500
	Sagaing Region		29.100
21	Shwe Bo	Shwe Bo Township	7.600
22	Yay Oo	Yay Oo Township	17.700
23	Kalay		3.800
	Mon State		3.500
24	Thahtone	Thahtone Township	3.500
	Shan State		3.200
25	Lashio	Lashio Township	-
26	Nyaung Shwe	Nyaung Shwe Township	3.200
	Kayin State		0.700
27	Pha aan	Pha-aan Township	0.700

FISH HATCHERIES UNDER DOF (2010-2011)

			Offic - Willion
No.	Fish Hatcheries	Location	Production
	Yangon Region		186.800
1	Hlaw Kar	Mingalardone Township, Yangon.	101.800
2	Twante	Twante	44.500
3	Laydaukkan	Thingankyun Township	40.500
	Bago Region		68.200
4	Bago (Kali)	Bago Township	40.100
5	Thanappin	Thanappin	15.400
6	Oakpho	Oakpho	12.700
	Mandalay Region		373.500
7	Pathein Gyi		97.900
8	Myit Thar	Kueme Township	111.000
9	Natyekan	Amayapuya Township	58.900
10	Pyinmanar	Pyinmanar	78.700
11	Matayar	Matayar	27.000
	Ayeyarwady Region		101.800
12	Pathein	Pathein	20.900
13	Talotehla	Talotehla, Maubin Township	10.800
14	Hinthada	Hinthada	9.600
15	Pantanaw	Pantanaw	35.300
16	Aung hate		25.200
	Magway Region		8.600
17	Taungdwingyi	Magway	5.500
18	Pwint Phyu	Pwint Phyu	3.100
	Kachin State		19.000
19	Waing-maw	Kachin State	9.200
20	Bamaw	Bamaw	9.800
	Sagaing Region		26.600
21	Shwe Bo	Shwe Bo Township	10.600
22	Yay Oo	Yay Oo Township	10.300
23	Kalay	Kalay Township	5.700
	Mon State		5.100
24	Thahtone	Thahtone Township	5.100
	Shan State		3.100
25	Lashio	Lashio Township	-
26	Nyaung Shwe	Nyaung Shwe Township	3.100
	Kayin State		3.500
27	Pha aan	Pha aan Township	3.500

FISH HATCHERIES UNDER DOF (2011-2012)

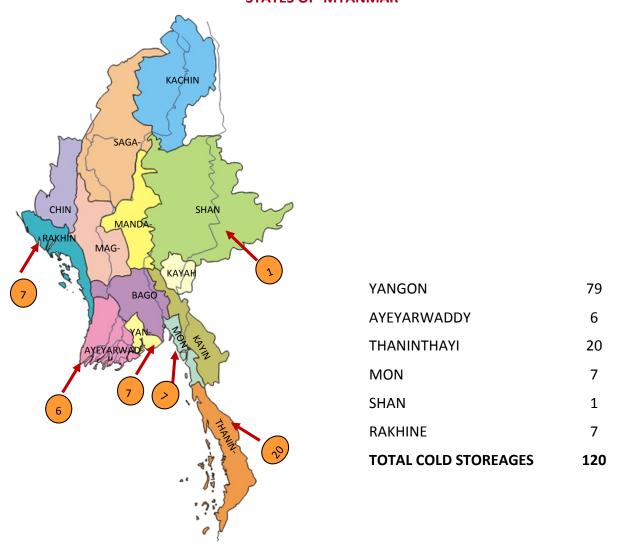
			OTIL - WIIIIOII
No.	Fish Hatcheries	Location	Production
	Yangon Region		180.268
1	Hlaw Kar	Mingalardone Township, Yangon.	81.844
2	Twante	Twante	47.555
3	Laydaukkan	Thingankyun Township	50.869
	Bago Region		69.665
4	Bago (Kali)	Bago Township	39.964
5	Thanappin	Thanappin	15.156
6	Oakpho	Oakpho	14.545
	Mandalay Region		314.509
7	Pathein Gyi		82.420
8	Myit Thar	Kueme Township	77.225
9	Natyekan	Amayapuya Township	37.111
10	Pyinmanar	Pyinmanar	100.070
11	Matayar	Matayar	17.683
	Ayeyarwady Region		128.953
12	Pathein	Pathein	25.896
13	Talotehla	Talotehla, Maubin Township	15.252
14	Hinthada	Hinthada	13.010
15	Pantanaw	Pantanaw	47.436
16	Aung hate		27.359
	Magway Region		7.532
17	Taungdwingyi	Magway	4.582
18	Pwint Phyu		2.950
	Kachin State		13.630
19	Waing-maw	Kachin State	8.089
20	Bamaw	Bamaw	5.521
	Sagaing Region		23.987
21	Shwe Bo	Shwe Bo Township	5.353
22	Yay Oo	Yay Oo Township	11.814
23	Kalay		6.820
	Mon State		6.713
24	Thahtone	Thahtone Township	6.713
	Shan State		2.914
25	Lashio	Lashio Township	2.914
26	Nyaung Shwe	Nyaung Shwe Township	-
	Kayin State		2.917
27	Pha aan	Pha aan Township	2.197

FISH HATCHERIES UNDER DOF (2012-2013)

			Office TVIIIIIOTT
No.	Fish Hatcheries	Location	Production
	Yangon Region		177.925
1	Hlaw Kar	Mingalardone Township, Yangon.	80.445
2	Twante	Twante	37.638
3	Laydaukkan	Thingankyun Township	59.842
	Bago Region		74.165
4	Bago (Kali)	Bago Township	40.343
5	Thanappin	Thanappin	17.098
6	Oakpho	Oakpho	16.724
	Mandalay Region		290.901
7	Pathein Gyi		87.519
8	Myit Thar	Kueme Township	99.661
9	Natyekan	Amayapuya Township	78.626
10	Matayar	Matayar	25.095
	Nay Pyi Taw Council		56.296
11	Pyinmanar	Pyinmanar	56.296
	Ayeyarwady Region		127.650
12	Pathein	Pathein	20.702
13	Talotehla	Talotehla, Maubin Township	15.981
14	Hinthada	Hinthada	11.918
15	Pantanaw	Pantanaw	54.355
16	Aung hate		24.694
	Magway Region		10.657
17	Taungdwingyi	Magway	5.279
18	Pwint Phyu		5.378
	Kachin State		16.736
19	Waing-maw	Kachin State	9.866
20	Bamaw	Bamaw	6.870
	Sagaing Region		21.375
21	Shwe Bo	Shwe Bo Township	6.452
22	Yay Oo	Yay Oo Township	10.293
23	Htee chaint		4.630
	Mon State		7.101
24	Thahtone	Thahtone Township	7.101
	Shan State		4.818
25	Nyaung Shwe	Nyaung Shwe Township	4.818
	Kayin State		1.999
26	Pha aan	Pha aan Township	1.999

PROCESSING PLANTS, ICE PLANTS AND COLD STORAGE

MAP OF THE SITUATION COLD STOREAGES & ROCESSING PLANTS IN REGIONS AND STATES OF MYANMAR



ICE PLANTS
(BY REGIONAL AND STATE)

NO.	REGIONAL AND STATE	NUMBER OF PLANTS	CAPACITY OF ICE PLANT (METRIC TON PER DAY)
1	YANGON	106	2364.06
2	TANINTHAYI	48	2535.6
3	RAKHINE	39	456
4	AYEYARWADY	70	869
5	MON	29	528
6	MANDALAY	7	30
7	SHAN	2	3.20
	TOTAL	301	6785.8

PART TWO MYANMAR FISHERIES IN BRIEF

National Policy on Fishery Sector

- (1) To promote all-round development in the fisheries sector;
- (2) To increase fish production for domestic consumption and share the surplus with neighbouring country;
- (3) To encourage the expansion of marine and freshwater aquaculture;
- (4) To upgrade the socio-economic status of fishery communities.

The National Management Policies of Ministry of Livestock ,Fisheries & Rural Development

- (1) To boost distribution of quality fish and animal strains;
- (2) To strive for all-round development of fish and meat production sector;
- (3) To exceed the fish and meat for the domestic consumption and to export the surplus for earning foreign exchange;
- (4) To make arrangements to increase investments in the fishery and livestock sector;
- (5) To further development prawn breeding;
- (6) To protect and conserve the fishery resources both in freshwater fisheries and marine fisheries;
- (7) To boost freshwater fish production to meet local demand and to strive with might and main for development of fishery resources;
- (8) To improve the socio-economic standard of farmers raising and production livestock, fish and prawn under the leadership of the government;

RELEASE OF FISH FINGERLINGS



Releasing fish fingerlings to enhance and restore fishery resources has been practiced in Myanmar.

PADDY CUM FISH CULTURE



Department of fisheries has initiated and encouraged the paddy cum fish farming in Myanmar.

IMPLEMENTATION OF GENETIC IMPROVEMENT

Department of Fisheries has initiated the implementation of genetic improvement in rohu (*labeo rohita*)



PUBLIC AWARENESS OF THE CONSERVATION OF FISHERIES RESOURCES



The departmental personnel of DoF discussed with the local people in Kyaukmyaung, Sagaing Region for the public awareness of the conservation of Ayeyarwady dolphin in the Ayeyarwady river.

Fisheries in Myanmar

Fisheries in Myanmar's Economy

- 1. The fishery sector is considered as the most important one after the agriculture sector to fulfill the protein requirement of the people of Myanmar and to provide the food security as well as to get the opportunity for the employment to a large number of fishery communities and rural dwellers. Moreover, fish is second only to rice in the Myanmar diet.
- 2. Myanmar is endowed with rich natural resources both in freshwater and marine fisheries. Nowadays, the increasing pressures from industrial and urban development and increased demand for fish and fishery products owing to population growth as well as global climate change can cause for damage to degradation of ecosystems including fisheries resources.

State of Fisheries

- 3. In 2012-2013 fiscal year, the total production of fish was 4.72 million metric tons in Myanmar. In this period, the production of freshwater fish was 2.24 million metric tons (47 % of the total fish production) and the production of marine fish was 2.48 million metric tons (53% of the total production of fish in Myanmar).
- 4. The exported amount of fish and fishery product was (0.377) million metric tons and the value of which was (652.84) million in US\$ in 2012-2013. It was exported to (29) different countries. The exported amount was (8 %) of the total production of fish in Myanmar in this period, 2012-2013.
- 5. The people of Myanmar like fish and fishery products which are essential of daily meals of them, no wonder, fish sauce and fish and shrimp paste are the favorite dishes of Myanmar. Fish constitutes a major source for animal protein in the diet of Myanmar people. According to the statistics of 2012-2013, the Republic of the Union of Myanmar has a population (61) million and the per capita consumption of fish was (56) kg in the fiscal year 2012-2013.

Type of Fisheries in Myanmar

- 6. The type of fisheries in Myanmar is determined by nature of catch. It can be classified into freshwater fisheries and marine fisheries. Freshwater fisheries consists of (a) fish culture, (b) leasable, (c) open fisheries. Marine fisheries include (a) inshore fisheries and (b) off-shore fisheries.
- 7. In the inshore fisheries, the fishing boats operate within from shoreline to (5) nautical miles in the northern area, (10) nautical miles in the Southern area. In this area, the fishing boat which is build by traditional type with not more than 30 feet long or using less than a 12HP engine power, operates for fishing. The fishing gears for using are driftnet, gillnet and long

8. In offshore fisheries, the offshore fishing vessels operate beyond from outer limit of the inshore fishing zone to the Exclusive Economic Zone (EEZ). The fishing vessels are more than 30 feet long or using more than 12HP engine operating in offshore area. In this area, the commercial fishing gears are trawl net, purse seine, and long line.

Ministry's Policy on Fishery Sector

- 9. The national policies and principle objectives of the livestock and fisheries sector are as follows;-
 - (1) To boost distribution of quality fish and animal strains;
 - (2) To strive for all-round development of fish and meat production sector;
 - (3) To exceed the fish and meat for the domestic consumption and to export the surplus for earning foreign exchange;
 - (4) To make arrangements to increase investments in the fishery and livestock sector;
 - (5) To further development prawn breeding.
 - (6) To protect and conserve the fishery resources both in freshwater fisheries and marine fisheries.
 - (7) To boost freshwater fish production to meet local demand and to strive with might and main for development of fishery resources;
 - (8) To improve the socio-economic standard of farmers raising and production livestock, fish and prawn under the leadership of the government;

Management of Fisheries

- 10. Department of Fisheries (DOF) is responsible for the development of fishery sector of the Union of Myanmar and the responsibilities of DOF for development and management in fisheries are as follows;-
 - (1)Conservation and rehabilitation of fishery resources;
 - (2) Promotion of fisheries researches and surveys;
 - (3) Collection and compilation of fishery statistics and information;
 - (4)Extension services;
 - (5)Supervision of fishery sectors;
 - (6)Sustainability of fishery resources;

Fish Price Survey

11. Department of Fisheries is implementing the fish price survey in Yangon every year.

Main Factors Affecting in the Production of Fisheries

- 12. The conservation of fisheries resources and the maintenances of ecological system are the main factors in the development of fisheries . Ecosystem of the world should be studied on the basis of their principle habitats for a wide variety of flora and fauna. Regarding the maintenances of ecosystem in fisheries, the management of conservation in the freshwater bodies (ponds, lakes, rivers, dams) which provide good habitats for phytoplankton, zoo plankton, including aquatic plants and fishes and the conservation of marine ecosystem approach in marine water and its habitats to numerous plants, animals like zoo plankton, fishes, shrimps, oyster and so on., should also be studied as well. Moreover, the conservation of mangrove forest wetland and land-based ecosystem are substantial for development policy with a sustainable basis.
- 13. As we all know, mangrove are a source of shelters for fish. Many of coastal species spent the critical early stage of their lives in mangrove waters. So, the mangrove conservation is essential to save fisheries resources. Consequently, it ensures the sustainability of fisheries in the long term. Besides, the maintenance of ecological system is the conservation of reef and coral and declaration the marine protected areas (MPAs). It is the effective approach to improve the marine environment. The understanding of ecosystem function and its maintenance can help the development of fisheries in a sustainable manner.
- 14. The weather conditions depend on the environment. Deforestation is one of the factors for destroying the natural environment. So the forest conservation is needed by everybody. In the fishery sector, another important thing is the prevention of the fish disease which has been a difficult problem for fish-farmers. So, the sufficiency on the supply of good water quality is an essential matter.
- 15. Moreover, The public awareness for environment is very important for the sustainable fisheries and the people should be educated about the environment not to do over fishing and degrading the environment which are harming them-selves. It is, because we are being a part of the complex network of its environment.

The Role of the Private Sector in Fisheries

16. The role of the private sector of fisheries in Myanmar is operated by private entrepreneurs who can manage their business in their own ways in accordance with the rules and regulations which are laid down for them by the Government.

17. Regarding on this matter, since 1988 Myanmar made some dramatic and radical changes in social, political, and economic fronts. From that time onward, the market oriented economic system has been adopted in Myanmar. Since then, all fishery business in Myanmar was carried out by the private sector. Consequently, all state owned infrastructure of fishery sector such as, fishing vessels, ice-plants, processing plants, cold stores, fish-meal plants, canning plants etc. were sold out or leased to the private owners by the Government.

Legal Affairs

18. There are four relevant fisheries laws promulgated by the Government of Myanmar to manage the fishery industry and to protect the fishery resources more efficiently.

No.	Year enacted	Name of Fisheries Laws	
1	1989	Law relating to the fishing rights of foreign fishing vessels	
2	1989	Aquaculture Law	
3	1990	Myanmar Marine Fisheries Law	
4	1991	Freshwater Fisheries Law	

19. After enacted these four fisheries law, the Government of Myanmar promulgated the two amending laws. These are as follows:-

No.	Year enacted	Name of Amending Laws
1.	1993	Law amending the Myanmar Marine Fisheries Law
2.	1993	Law amending the law relating to the fishing rights of foreign fishing vessels

Taking Action to the Illegal Harvest

20. Department of Fisheries manages the conservation of the fishery resources. With regard to the conservation of the fisheries resources and to maintain for the long- term of the fisheries resources, DOF is managing to stop the illegal harvest for exporting such as alive river eel (not allow to export which is an under size as 3 cm diameter of its body) and alive mud crab (not allow to export which is (100) gram down weigh).

Food Security for Myanmar

21. For food sufficiency of Myanmar people including living people in rural area, the plan of implementation for food security were carried out by Department of Fisheries of Myanmar with the releasing fish fingerlings into natural resources such as lakes, dams, reservoirs, and open waters and the genetic improvement in rohu(Labeo rohita) to achieve the purpose of getting more and more growth rate of fish and the increase of fish production of per acre in order to get more income by the fishers and fish farmers. Moreover, Department of Fisheries has initiated and encouraged the paddy cum fish farming in Myanmar. Since 2009, the Department of Fisheries under the Ministry of Livestock ,Fisheries and Rural Development has been carried out the implementation of genetic improvement in Rohu(Labeo rohita) with the short-term and long-term planning. The yearly production of fish in Myanmar is mentioned as in below:-

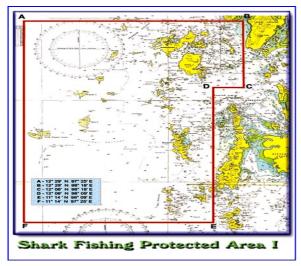
The Yearly Production of Fish in Myanmar

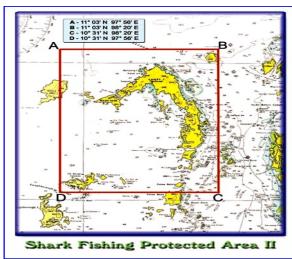
Unit: Thousand Metric Ton

Fiscal Year	Marine Fish Catch	Inland and Aquaculture	Total Fish Production
2007-2008	1689	1504	3193
2008-2009	1867	1675	3542
2009-2010	2061	1860	3921
2010-2011	2161	1978	4139
2011-2012	2333	2145	4478
2012-2013	2484	2232	4716

Marine Protected Areas (MPAs) and Marine Park and Marine Reserve

22. Conservation of fisheries resources has always been the primary concern of the Department of Fisheries, so Marine Park and Marine Reserves as well as fisheries protected area have been established under the Fisheries Law of Myanmar. Lampi island of the Thanninthayi coast has been designated as Maine Park and Marine Reserve in 1996. And then, regarding the shark resources conservation, no-body can conduct shark fishing operation in the protected areas stretching from" Rose" island to "Lampi" island; so Mergui Archipelago is famous for their shark, ray, coral reefs and other marine creatures and that is why in this area shark-watching dive tours are very popular with the tourists, who come to Myanmar from around the world.





Freshwater Fisheries (Inland Fisheries)

Inland capture fisheries provide an important source of food and livelihoods for many people in rural areas. In 2008, inland capture fisheries provided 10.2 million tonnes of fish worldwide (FAO, 2010), which was largely used for direct human consumption. Asia has overwhelmingly contributed to the world's inland capture fisheries production with a reported total produc-



tion of 6.8 million tonnes in 2008 (FAO, 2010). The actual contribution of inland capture fisheries, however, is far higher than what is reflected in the above official data. Because of the difficulties involved in collecting data from large numbers of small-scale, scattered and often unregistered fishers, official figures for fish catches tend to be vastly underestimated.

Inland fisheries resources provide not only the material basis for maintaining capture fisheries production, but also serve as a reservoir of aquatic biodiversity. However, over the past few decades inland fisheries resources have come under increasing pressure from overfishing, use of destructive fishing gear/methodologies, water engineering projects,



pollution and environment changes and have shown a clear declining trend. This has been well demonstrated by the disappearance of some traditionally important fish species and a general reduction in the catch of high valued species.

Fisheries resource enhancement and conservation measures have long been adopted in many Asian countries for sustaining capture fish production, conserving aquatic biodiversity, rescuing endangered species, improving environmental conditions and upgrading recreational fisheries by offsetting the adverse impacts of human activities on inland fisheries resources. The contribution of inland fisheries resource enhancement and conservation to sustained inland capture fisheries and conservation of aquatic biodiversity as well as to nutritional security and improved rural livelihoods has been commonly recognized.

On the other hand, external interventions to the aquatic ecosystem from fisheries resource enhancement and conservation activities may have had adverse impacts on the ecosystem and wild fish community, especially when such activities are carried out without a strong scientific basis or adequate evaluation and monitoring mechanisms. There is a general lack of comprehensive understanding as to the effectiveness and impacts of current enhancement and conservation activities in the region.

Considering above mention reason, Myanmar has been conducting the maintaining of sustainable production and conservation for fisheries habitats and indigenous species in the fresh water fisheries as follows;

- (1) Restocking the fish fry to freshwater fisheries yearly.
 - For restocking program, all leasable fisheries owner has to conduct the restocking of fish fry or juveniles in the freshwater yearly. In addition some leasable fisheries owner has privileges long term fisheries management for three to nine years and he has to conduct preserving the indigenous species. In 2011-2012, all leasable fisheries had been conducted restocking 87 millions of fish seeds.
- (2) Preserving the juveniles and immature of indigenous species to the freshwater. Long term lease owners had conducted the preserving the juveniles and immature indigenous species such as cat fish, carps to the freshwater. In 1533 leasable fisheries, it has been conducted these program in 2011-2012.
- (3) Maintaining and reconstruction of the fisheries habitat. Digging the canal for drainage, removing the trash and rubbish in the water way, and replanting the mangrove in the brackish water area were conducted in the 858 leasable fisheries in 2011-2012. For conducting this measure, leasable fisheries owner has right long term lease.
- (4) Promotion on awareness for illegal, unreported, unregulated fishing and conservation program for fishers.
 To promote the awareness of illegal, unreported, unregulated fishing, fisheries officer put up the sign board of rules and regulations of Department of Fisheries. Fisheries officers held Education talks to prevent IUU fishing in the fisheries village and conduct the conservation measure such as replanting the mangrove in cooperating with fishers.
- (5) Transferring the technology of pen culture, cage culture and induced breeding for fishers.
 Department of Fisheries has been transferring the technology of pen culture, cage culture and induced breeding for fishers in cooperating with the International organization such as JICA, FAO.

ASEAN- SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020" "Fish for the People 2020: Adaption to a Changing Environment" was held on 13-17 June 2011 in Bangkok, Thailand and one of its decisions is to undertake campaigns to promote awareness of importance of freshwater fisheries for local food security, and the importance of rehabilitation and restoring habitats for migratory freshwater fish, restocking indigenous fish species to enhance productivity and encouraging culture-based freshwater fisheries, where appropriate.

To be in line with this decision and to accelerate the culture based capture fisheries, Department of Fisheries will enhance the technical assistance and help to get loans and grants for stake holders promoting their measurement of sustainable freshwater fisheries production and conservation.

Marine Fisheries

Implementation of Catch Certification Scheme

The FAO Committee on Fisheries (COFI) approved the International Plan of Action to prevent, deter and eliminate the IUU Fishing by consensus on 2 march 2001. In doing so, The Committee urged to all member state to take the necessary steps to effectively implement the International Plan of Action.

FAO also noticed that trade with the community in fishery products steaming from IUU fishing should be prohibited. In order to make this prohibition effective and ensure that all traded fishery products imported into or exported from the Community have been harvested in compliance with international conservation and management measures and, where appropriate, other relevant rules applying to the fishing vessel concerned, a certification scheme applying to all trade in fishery products with the community shall be put in place.

Therefore, the Council of European Union established the regulations 1005/2008 and 1010/2009 a community system to prevent, deter and eliminate the IUU fishing. For this purpose, each member state shall take appropriate measures, in accordance with Community Law, to ensure the effectiveness of that system.

In accordance with the regulations of 1005/2008 and 1010/2009, the importation into the Community of Fishery products obtained from IUU fishing shall be prohibited. To ensure the effectiveness of this prohibited, fishery products shall only be imported into the Community when the accompanied by a catch certificate in Community with these regulations.

The European Commission started this program in 1-1-2010 and Myanmar included in the list of flag state notification since 31-3-2010. Therfore Myanmar initiated to issue the catch certificate in May 2010.

Department of fisheries is responsible for the development of fisheries sectors including the conservation and rehabilitation of fisheries resources, promotion of fisheries resources survey, collection of fisheries statistics and information, supervision of fisheries sectors.

Taking into account for these responsibilities, Department of fisheries has been implementing the catch certification scheme combating IUU fishing in line with EU regulations. In assisting developing countries to comply with the implementation of EU regulations on IUU fishing, EU consultant conducted mission in 2011 and evaluated the implementation scheme of Myanmar and he evaluated that overall risk for importing IUU fish from Myanmar into the EU are believed to very low and suggested to implement the VMS system for more effective MCS system.

Department of Fisheries issued 49 catch certificates in 2010-2011. In 2011-12, 42 catch certificates were issued for 8 export companies to 7 countries.

Aquaculture

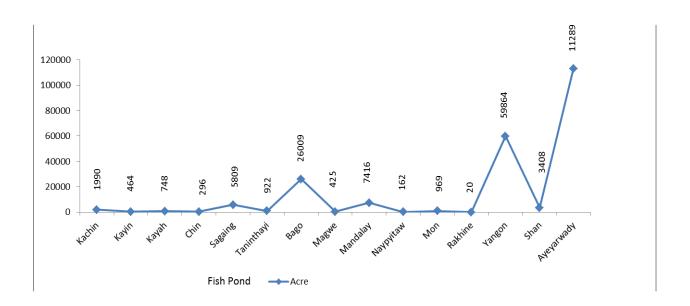
Aquaculture Division comprises of four sections such as Supervision of Fishery Stations Section, Development of Fish/Shrimp Seed Production Section, Aquatic Animal Health and Disease Control Section and Freshwater Fish Research Section. Aquaculture Division is responsible for producing of good quality of fish and prawn/shrimp seeds from the fish farmers, to ensure replacement of fish and prawn seeds into the natural water reservoir and men-made water bodies, to conduct research on marine and freshwater aquaculture, to educate and transfer technologies of aquaculture to fish farmers and to conduct environment-friendly aquaculture methods for sustainable fisheries development.

Duty and function of Aquaculture Division

- a. To ensure conservation of fisheries or aquatic resources not to be depleted,
- b. Monitoring, control and given good management and regulation on aquaculture industry,
- c. Strengthening good management for the development of environment-friendly aquaculture system and the encourage of cultured based capture fisheries to increase of fish production,
- d. Issuing the amendment of aquaculture laws, legislation and regulation as requirement in line with modernized technologies, location and duration,
- e. Supervision of expertise for the establishment of short-term and/or long-term aquaculture development programs,
- f. Data collecting, recording and analyzing on fish production and utilization of fisheries resources, and aquatic biodiversity related to aquaculture in national water body,
- g. Applying the international improved aquaculture system and ASEAN guidelines compliance with Myanmar weather and environmental conditions,
- h. Support to conduct training and capacity building of skillful technology and techniques of aquaculture systems,
- i. Seeking the improved technologies and providing extension and training for sustainable development and expanding of aquaculture industry as a whole,
- j. Implementing and managing to be able to fully imposing of revenue for aquaculture taxes,
- k. Regularly observing the aquaculture industry development as a whole and recording and reporting the extraordinary phenomenon of climate change impacts on aquaculture industry to higher authorities.

Aquaculture Development

Aquaculture areas increased from 12255 ha in 1990-1991 to 64438.8 ha in 2000-2001 and then to 180112 ha in 2010-2011 and 180614 ha in 2012-2013. Aquaculture production has also increased steady annually from 6397 MT in 1990-1991 to 128225 MT in 2000-2001 and 880833.6 MT in 2011-2012. The production from aquaculture for food increased to 915406.6 tonnes in 2012-2013, which was an increase about 4% compared to 2011-2012 production.



Freshwater Aquaculture

Currently over 20 species of freshwater fishes such as major and common carps, tilapia and cat fishes are being cultured. Rohu (Labeo rohita) withstands as the most common and commercial culture species which is native to Myanmar. The wild stock rohu usually gets sexual maturity at least 4-5 year with minimum body weight of 5-6 kilogram. Repeated induced-bred rohu may attain sexual maturity at two years and sometimes less than two kilograms of body weight. It has been recognized as an indicator of genetically degradation of broodstock and has resulted in slow growth and fainted coloration of the fish. In this regard, Department of Fisheries (DoF) in collaboration with private hatchery technicians has tried to domesticate the rohu wild stocks and utilized as new generation. Actually the collection of fry and fingerlings has not been permitted so as to conserve and enhance the natural fish stocks. This is as a measure of follow-up of the Law Relating to Aquaculture that was promulgated in 1990. However in order to develop aquaculture particularly in producing quality seed, hatchery concerned farmers are allowed to collect the fry and fingerlings prior to permission of DoF. As a result, rohu aquaculture industry becomes more developed and promising. In order to promote and distribute the quality fish seed, DoF has tried to upgrade the brood stocks through its 27 fishery stations that are conducting seed production and providing technical assistance to farmer.

The new species of cultured freshwater fishes such as *Heteropneustes fossilis* (Catfish), *Ompok bimaculatus* (Sheat fish), *Notopterus chitala* (Spotted feather back), *Cyprinus Intha* (Nga phane), *Trichogaster pectoralis* (Snake skin gouramy), *Pangasius bacourti* (Stripped catfish), *Prochilodus luneatus (Taung paw nga tha lott)*, *Leptobarbus hoevenii* (Sultan fish), were induced breeding by experimental scale.

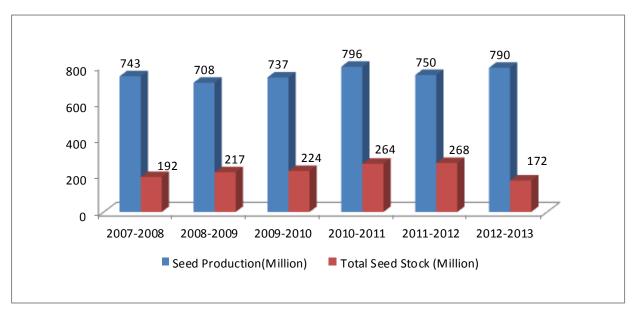
Workforce

In the field of aquaculture, a total of 30802 culturists were involved in various a quaculture systems. Due to Myanmar's aquaculture is mainly based on pond cultured system, mostly men labours are working in fish/shrimp ponds. There are 125790 number of permanent men labors working in 2012-2013 fiscal year.

Fish Fry and Fingerling Production

In 2012-2013, 27 hatcheries owned by the Department of Fisheries had managed to produce a total of 790 million freshwater fish fry and fingerling whereas 53 private hatcheries around Myanmar had produced an impressive amount of 4018 million fry and fingerling.

Accordingly the Department replenishes the natural resources by stocking the hatchery bred quality fish seeds into open waters like rivers, dams, reservoirs, lakes and impoundments. Data on production and stocking of seeds from 2007-2008 to 2012-2013 appears as a graph there under.



At the same time in order to increase fish production and supplementary income, Department also initiated the paddy cum fish farming in appropriate regions through demonstration. 18547 acres of paddy field in States and Divisions were stocked with fish seed in 2012-2013.



Freshwater prawn culture

The most common and prioritized species is commercially important giant freshwater prawn, *Macrobranchium rosembergii*. Monoculture of *M. rosembergii* was conducted on semi-intensive level and a result with low production was gained. To minimize the operational cost of prawn farming the farmers changed to prawn and fish poly culture practice where prawn is stocked as minor component totaling 4070 hectares of prawn and fish polyculture farms in the whole country. Only few areas of prawn monoculture farms are reported. Anyway the hatchery operation and culture technique become well established in government and private sector.

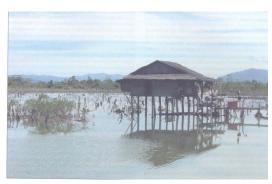
Recent year, many fish farmer's benefits from poly-culture of freshwater prawn and major carps due to high price of freshwater prawn. Many backyard hatcheries for freshwater prawn are being set up to fill up the gap of high demand freshwater prawn seeds.



Shrimp Culture

Penaeus monodon has been initiated since early 1980 practicing trap and hold method particularly in western coastal area. Natural post-larvae of Penaeus monodon were trapped into the pond during the high tide period through sluice gates. There were no inputs in terms of pond preparation, eradication of predators, water fertilization, feeding etc. However 30 to 50 kilograms of large size of shrimp were harvested. As the ponds were usually as large as 50 to 100 hectares, the shrimp production could make more than enough money for the shrimp farmers. Having no laws concerned with aquaculture, those shrimp ponds existed as illegal ponds up to 1990. In the year 2000, the Ministry of Livestock and Fisheries reinforced and encouraged many potential investors to be involved in the shrimp aquaculture development. At the same time, the Union of Myanmar formed a State Level Committee to promote a drastic development of shrimp aquaculture industry by formulating first three-year plan from 2000 to 2003 and second plan from 2003 to 2005. Since 2000, a number of semi-intensive and intensive shrimp farming emerged. Up to 2002, there found success and failure in semi-intensive and intensive shrimp culture .In the year 2002, a pilot demonstration on Mangrove Friendly Shrimp Culture was conducted as a measure of verification of semi-intensive shrimp culture technique through collaboration of Myanmar DoF and SEAFDEC-AQD. Demonstration pond with 1.4 ha and 0.72 totaling 2.12 ha could produce 11.1 metric ton of shrimp with average size of 50 pcs / kg. At the same time private shrimp farms nearby the demonstration pond suffered failure due to severe occurrence of white spot disease .The private farmer were invited and disseminated the comprehensive technology . But they were not so much interested in MFA technology. Similar demonstration was repeated in 2005 and also gained the success. A few private shrimp farms applied the MFA technology with success but later due to market and shrimp price constraints shrimp farming has been done only by a few farmers.

As of 2012-2013Myanmar has three types of shrimp farming: Semi-intensive shrimp ponds 1708.16 hectares, Extensive plus shrimp ponds 33407.97 hectares and Extensive or traditional shrimp ponds 53132.81 hectares totaling 87248.84 hectares and production from those ponds were reported at 56982.02 MT. Recently, the Department of Fisheries huge encouraged to development of fish and shrimp culture in every states and regions for self-sufficient of local consumption and export market.





Status of Shrimp Hatcheries

In the year 2000, total number of shrimp hatcheries amounted to 13 only and in 2003 altogether 26 shrimp hatcheries were fully operating with capacity of 190 million shrimp post-larvae. Hatchery system is mainly based on advanced method. The breeders are available from Bay of Bengal and Andaman Sea. It is well famous that the brood stocks from Andaman Sea are supreme in terms of quality and size .

White shrimp culture

Penaeus vannamei has the many advantageous factors for culture but it may also cause the negative impact to other shrimp aquaculture industry. DOF has been aware that vannamei may carry and outbreak the Taura Syndrome Virus (TSV). After a regional workshop in 2005 at Manila, that assessed the culture of vannamei ASEAN countries agreed to culture at reasonable documentation. At present 3-4 private farms are trying experimental culture of vannamei.

Hatchery system is mainly based on advanced method. The breeders are available from Bay of Bengal and Andaman Sea. It is well famous that the brood-stocks from Andaman Sea are supreme in terms of quality and size. Only PCR negative the Pacific white shrimp SPF *vannamei* seeds has been permitted to import for culture in domestic water.

Marine Finfish Culture

In terms of marine fin-fish farming, seabass, red snapper and grouper are the most common and commercial species in Myanmar. Stock fish or the fish seed are usually collected from the wild. But the seed production technology of seabass has been succeeding since 2004 in both DoF and private sectors. First the broodstocks were collected from the wild and later induced breed seabass are used as broodstocks. However the grow-out culture of seabass is done by only a few farmers. It is due to the fact that adequate supply of trash fish and formulated feed is inconsistent. Grouper spp. also conducting on seed produced at marine research station of DoF, Tanintharyi region by experimental scale.





Others Mariculture

Some experimental farming of oyster, clam, seaweeds are under process in Myanmar. The farming of *Eucheuma* sea weed has been started since 2003 through the collaboration of DoF, a Korean private company. The Koraen company brought in the seaweed of *Eucheuma cottonii* and domesticated as the seed stock for other private farmers. Upon the whole, DoF Myanmar is carefully assessing in the promotion of proper new stock strains to produce better quality seed. At present land area of 15 hectare has been allocated to MSC to construct a processing plant and construction is under way. The new endeavor will create employment opportunity for local people and also technology transfer to the local entrepreneurs and communities. The production of dried seaweeds are about 300 tonnes per year.





Mud crab seed production

Mud crab fattening has become the booming industry as domestic consumption and export demand are growing rapidly. Soft shell mud crab farming has become very popular as it commands high price. At the same time, supply of crab juveniles from nature is decreasing due to over exploitation, habitat deterioration caused by man impact and world climate change. Most of Asian countries are thriving hatchery seed production of mud crabs. Adequate supply of mud crab seed for soft shell mud crab farming has become urgent need and included in the future plan. However hatchery operation performs very low survival rate. Myanmar DoF has planned to expand more mud crab hatcheries at suitable areas based on success of the present hatchery operation and recommended cooperation of regional institutes and among the countries in the region by conducting more research and study should be conducted in order to get high survival rate.

Cold Water Species Aquaculture

Some cold water aquatic species are naturally existing in the northern most part of the country where temperature is very low. DoF is planning to develop a pilot scale grow-out culture and also a backyard hatchery and educate the local ethnic group. That shall come out as a measure of rural development. Currently DoF officials and farmers have been visited Vietnam and studied development aquaculture. Some private companies are interested in sturgeon fish farming. In this regard culture of sturgeon fish is included in the future plan obtaining biotechnology from Vietnam.

Ornamental fish

The ornamental fish industry is one of the main sectors to generate income through export. The production of ornamental fish was decreased by 1.5 million pieces in 2012-2013 compared to 1.425 million pieces in 2011-2012. Its value also decreased to US\$ 0.1847million from US\$ 0.184 million in the previous year.

Aquaculture for rural development

Promote aquaculture as an integrated rural development activity within multiple use of land and water resources available through inter-agency coordination in policy formulation, project planning and implementation, stakeholder consultation, extension services and technology transfer. One of the national policy is the poverty alleviation and to carry out rural development through agriculture and other sectors. Actually about 70 percent of the country people are living in country-side and remote areas. JICA incorporated and collaborated with DoF by establishing JICA unit at DoF and started its project plan in 2005. The strategic project plan is firstly conducting on-site training at appropriate areas to the villagers on small-scale aguaculture. Then secondly it implemented demonstration based on self-participatory approach. Thirdly JICA provides 70 percent of the cost for village level community farming that shared 30 percent. Profit sharing basis is to keep 50 percent for next operation, 20 percent for donation to the nearby school or village clinic and 30 percent is to share for community members. JICA project will complete and end in 2013 June. Based on evaluation of effectiveness and capacity needs, JICA is supposed to continue projects in Myanmar. At the same time one NGO that is Ecosystem Conservation and Community Development Initiative (ECCDI) affiliated with WCS is planning to conduct village level training on small-scale aquaculture and later to support village owned fish ponds particularly at Nargis hit areas. Moreover, ACIAR, KOICA also supporting and cooperation with DoF for improving research & development of Myanma's Inland & coastal fisheries.

Application of Good Aquaculture Practices (GAP)

The Department of Fisheries of Myanmar already initiated Good Aquaculture Practices as national standard in fish and shrimp farming since 2011. The Department of Fisheries established as National Task Force for implementation of GAP application in Myanmar last year and considered to follow up and practices on ASEAN's Standard on GAP for shrimp farming in compliance with the current status of shrimp farming practice in Myanmar. Myanmar learns and tries to follow the Strategies Plan on the Development and Implementation of ASEAN shrimp GAP. Support to GAP, DoF established the Directives and Regulation for prohibiting the use of chemical in aquaculture. Recently, cultured areas of about 4439.55 hectares for fish, shrimp and soft-shelled crab farming have applied to get national GAP certificates. The Department of Fisheries has issued GAP certificates on 1549.2 hectares for 7 farmers during this year.







Aquaculture support services

In 2012-2013, According to the coordinating plan among a Aquaculture Division, Regional and State of DOF and the fish hatcheries stations will support to fish farmers for providing breeders and technical advices to small-scale farmers for poverty reduction and rural development at the township level. Under supervision of aquaculture division, aquatic animal health and disease control section and Freshwater fish research section are giving on-site support services for fish farmers who want to check their ponds water/soil parameters and health condition of their cultured fish for preventing the fish disease. In addition, Aquatic animal health and disease control section also provides PCR check on shrimp diseases of shrimp seeds for shrimp farmers. In 2012-2013, Freshwater fish research section gave services of water on analysis 1665 cases and soil analyses on 68 cases. Aquatic animal health and disease control section provided support services of on-site field analyses on 46 cases, lab disease analysis on 39 cases and PCR check for disease on 11 cases.

Training programmes such as Freshwater fish seed production and genetic improvement, Basic freshwater fish/prawn culture conducted in some DoF stations and Sagaing Institute of upper Myanmar.

Fish Inspection and Quality Control Division

Activities of Inspection and Certification Section

Inspection and Certification Section, Fish Inspection and Quality Control Division has been operating the exported fish and fishery products according to the direction Department of Fisheries.

Inspection and Certification Section has carried out to improve quality wholesomeness and safety of fishery products for human consumption and minimized post harvest loss to develop and apply quality and safety management systems that ensure food safety through the implementation, validation and verification of Hazard Analysis Critical Control Points (HACCP) based system, to improve inspection practices and harmonies with international inspection systems adapt quality and safety management systems as appropriate to the fishery industries to develop and implement GMP guidelines and compliance standards.

Inspection and Certification Section is responsible monitoring, control and surveillance (MCS) activities to ensure the quality and safety of fish and fishery products by enforcing to comply with international food safety standard requirements and importing countries requirements such as EU, China, ASEAN etc. At the present Inspection and Certification Section has been formed with (2) officers and (36)staffs to confirm processing establishments which have complied or not food safety management systems.

And then , Inspection and Certification Section issued the factory license for (116) processing establishments in 2012-2013 fiscal year to monitor and control for the procedure of processing establishments as the requirements of international standard for food safety and quality assurance.

Besides, Inspection and Certification Section has already formed four inspection teams and regularly examined the implementation of food safety management system such as GMP, SSOP, HACCP in supply chain means in fishing vessel, landing site, ice plant and processing establishments according to official control manual.

Currently, Inspection and Certificate Section has got "Capacity Building to Improve Market Access for Fish and Fishery Products- TCP/MYA/3401(D)" for (18) months by FAO assistance to train the government's inspectors, Laboratory person and stakeholders. So the inspection workshop was held by FAO in (9-8-2012) at the Ministry of Livestock and Fisheries (Nay Pyi Taw) attended by (59) persons in senior officers and governments staffs under the Department of Fisheries.

As Department of Fisheries has been operating the FAO project, Ms. Suwimon expert from FAO come and discussed about requirement of food safety management systems to government inspectors from (13-1-2013) to (23-1-2013) and performed the inspection system of Inspection and Certification Section to inline with international inspection systems.

Inspection and Certification Section, Fish Inspection and Quality Control Division opened "Training on GMP/HACCP for Fish/Shrimp Processors" from (7-2-2013) to (25-2-2013) attended by (70) participants from processing establishments to comply with international standard requirements for food safety management systems such as GMP/HACCP.

Inspection and Certification Section take responsibility for the quality of exported fishery products to meet International standard requirements and no harm for consumer according to this responsibility Inspection and Certification Section has conducted relevant organizations in EU, Vietnam, China and ASEAN.

Department of Fisheries has been operating the food safety management system such as GMP/HACCP through supply chain means in fishing vessels , Landing sites, ice plants and processing establishments because of implementation for ASEAN Free Trade Area (AFTA) between ASEAN member countries in 2015.

Otherwise, according to ASEAN Economic Blue Print , Inspection and Certification Section has been implementing food safety issues related priority integrated sectors to harmonies in trading between ASEAN countries.

Currently, Department of Fisheries gets technical assistance from FAO for food safety management systems in value chain to meet International standard requirements to improve laboratory practices to inline with ICS inspection system and International inspection Systems.

Laboratory Work Activities

Continuously Maintain the Accredited Laboratory Comply with ISO 17025:2005

The Analytical Laboratory has been accepted as an accredited laboratory in the field of Fish and Fishery Products for the Microbiological Test (TPC, Coliform, *E.coli, Salmonella, Staph.aureus*) and Chemical Analysis (Nitrofuran, Chloramphenicol), accredited date is 27th June 2012.

On-site Surveillance Assessment for Accreditation

In 2013 January, the laboratory had already audited by On-site surveillance Assessment team of Accreditation Body from Bureau of Laboratory Quality Standards (BLQS), Department of Medical Sciences from Thailand, every 6th monthly according to ISO 17025 requirement.







Preventive Maintenance

The laboratory had contracted every year for Regular Preventive Maintenance (RPM) between Field AB SCIEX (Thailand) Co.,Ltd. from Thailand. The RPM contract period from 2012 December to 2013 December.

Participation the Proficiency Test (PT) Programme

The laboratory had participated the Proficiency Test(PT) every once a year for Chemical analysis (Nitrofuran metabolites and Chloramphenical) and Microbiological test (TPC, Coli form, *E.coli, Salmonella, Staph. Aureus*) in scope and PT provider form FAPAS-FERA, UK and QMAS-LGC (UK), Thailand.

Calibration Certificate for Measuring Equipment & Devices

Accredited Laboratories' measuring equipment's & devices were calibrated by Technological Promotion Association (TPA) from Thailand, at least once a year according to ISO 17025 requirement.

The Delegation visit to Laboratory

In 2012 – 2013 fiscal year during August 2012 to March 2013, the delegates such as FAO Organization, Kasei University (Japan), Agri -Food and Veterinary Authority (Singapore), Asia Development Bank (ADB), European Unions (EU), UNIDO and Physikalisch – Technische Bundesanstalt (Germany) were visited to the laboratory.

Training and Technical Co-operation Programme

In 2012 June, On-site Training on Malachite Green Analysis Using by LC/MS/MS conducted by Department of Fisheries from Thailand.

In 2012 October, Mutual Training cooperated between Kantogakuin University of Japan and Department of Fisheries, Myanmar.

In 2012 October, BTSF Sustained Training Mission to Myanmar Residues Monitoring Plan Aquaculture held in laboratory especially focus on aquaculture fish and shrimp will be export to EU countries.

Action Plan for Future

On-going FAO-TCP/MYA/3401 Project for Capacity building to improve market access for fish and fishery products from March 2012 to August 2013. FAO provide and technical support for fish inspection laboratory (extension parameter for laboratory accreditation).

DoF' laboratory will participate the Japanese Trust Fund VI Project for Biotoxin Monitoring in ASEAN conducted by Marine Fisheries Research Department (MFRD), project period from 2013 to 2017.

Research and Development Division

To support the mandated vision of the Department of Fisheries in undertaking sustainable fisheries management to reach food fish security, improve fisheries livelihoods and to increase earning from fisheries exports, Research and Development Division has organized the following sections appropriately:

Organized sections at present

- Fisheries Resources Conservation Section & Research Unit
- Environment and Endangered Species Conservation Section
- ♦ International Relations and Projects Section
- Supervision of Fisheries Technologies Training Institutes

Institute of Fisheries Technologies (Gyogon, Yangon Region)

School for Fisheries Technologies (Sagaine Region)

School for Fisheries Technologies (Pyapon, Ayeyarwady Region)

Computer and Library

Fisheries Resources Conservation Section & Research Unit

Sustainable development of Fishery sector, through conservation of fishery resources, research and development, formation and development of infrastructure, creation of job opportunities in government and private sector, human resources development and capacity development based on good government.

In order to promote collaborative Hilsa fisheries management plan between sub-regional working partners such as Myanmar, Bangladesh and India, FAO/BOBLME project has granted US\$ 32500 to identify Hilsa stock structure through the measures of length weight frequency distribution of the catches in Myanmar. The Letter of Agreement (LOA/RAP/2012/36) was signed between the Department of Fisheries and FAO country representative in Myanmar in September 2012.

According to the LOA, senior/junior researchers those working on the unit of marine fisheries resource survey and research and other fishery officers from relevant sampling stations have been conducting the status of hilsa resources in Myanmar fisheries waters which is covering both inland and marine hilsa fishery. The assessment include; collection of available historic data and information, sampling length-weight frequencies of the catches; catch and effort data and measure the stock and population dynamic by using stock assessment tools and models such as FiSAT (FAO-ICLARM Stock Assessment Tool).

Work to be undertaken

Based on the Letter of Agreement and the discussions in the inception workshop held in Nay Pyi Taw on 25-26 January 2013 the works to be carried out under the LOA are as follows:

All available information on Hilsa in Myanmar is being reviewed, covering both the marine and inland resources. A comprehensive annotated reference list will be prepared. The analysis will be undertaken and reported on under the headings of Biology (species, spawning areas and seasons, migration, juvenile rearing areas and fecundity, etc), Fishing (boats, gear, landing sites, catches by boat/gear/site/season/etc), Post-harvest Fisheries (marketing channels, price structure, exports, etc) and Resource Assessment (length-frequency data, catch & effort data, gear specific catch and effort and CPUE estimates, independent survey estimates, etc). DoF researchers in each of the above topics will be engaged to undertake the analysis under the coordination of the Technical Liaison Officer Dr. Htun Thein.

A sampling programme for collection of length-frequency data from Hilsa catches is planned and being implemented. It will cover both the marine and the inland fisheries in the regions of Ayeyarwady and Yangon and in Rakhine State.

Expected Outcome

The project activities were expected to lead to:

Overall assessment of the present level of exploitation of marine fishery resources in the region, with estimates of development potential by stocks and by geographical areas.

Upgrading the technical skill of Fishery biologists to collect, interpret and report on the fishery andon biological data from the standpoint of stock assessment.

Identifying exploitation techniques, management strategies and regulatory resources for selected species of common identity to facilitate their optimum exploitation in the region and Better understanding of the sociological, economic and social variables in the exploitation of these selected fishery resources.

Environment and Endangered Species Conservation Section

I. Bay of Bengal Large Marine Eco-system Project (BOBLME)

The Bay of Bengal region is defined as comprising the Coastal watershed, islands, coral reefs, continental shelves and coastal and marine waters of the Maldives, Sri Lanka, India, Bangladesh, Myanmar, Thailand, Malaysia, and Indonesia. The water body is approximately 3.3 million km² in area, together with the drainage systems, has been identified as one of the world sixty four last marine Eco-system, (LME) sharing a distinct bathymetry, hydrolography, productively, and tropically dependent population.

The Bay of Bengal region supports numerous of coastal fisheries, it is significant socio-economic importance to the countries boarding the water body, an estimate 2 millions fishers operate in the coastal and inshore waters are directly employed in the sector. These fisheries are coastal demersal, shrimp and small pelagic fisheries, as well as offshore fisheries for tuna and similar species. One key issue in the region is over exploitation, Second key issue is habitat degradation and third key issue is land base pollution.

The main objective of the project is to maintain the sustainable fisheries management, to protect the critical habitat area, to secure the food security and poverty reduction, the bay of Bengal countries (8 countries) participating the long term regional fisheries management program, FAO of the United Nation to assist in the development of a project, funding by GEF and other donor such as (Swedish International Development Agency, Sida), Norwegian Agency for Development Cooperation, NOAD, National Oceanographic Atmospheric Agency, NOAA, World Bank. A series of workshop, meeting and training were held at the member countries, the regional coordinating Unit established the office at Phuket, Thailand.

Myanmar is one of the member countries; the competent authority for the project is Department of Fisheries, under the Ministry of Livestock and Fisheries.

The first phase of the project year (2010-2014) is now implementing on the base of the project document, the five components are:

- 1. Strategic Action Programme
- 2. Coastal/Marine Natural Resources Management and Sustainable Use
- 3. Improved understanding and Predictability of the BOBLME Environment
- 4. Maintenance of Ecosystem Health and Management of Pollution
- 5. Project Management Monitoring and Evaluation, and knowledge Management.

In 2012, (1) Indian Mackerel Fisheries Assessment Working Group Meeting (Sri-Lanka) (2) Fisheries Management Advisory Committee Meeting (Bangkok) (3) Scientific Paper writing Workshop (Thailand) (4) APFIC 4th Regional Consultative Meeting (Vietnam) (5) Scientific Presentation Workshop (Thailand) (6) Policy Direction in Fisheries, Coastal and Marine Environment, and ICM & BOBLME Countries Regional Workshop (Malaysia), (7) The Second IOTC Working Party on Neritic Tunas (Malaysia) Present time the BOBLME Project is implement by the 2012 Annual work plan.

In 2013, Integrated Coastal Zone Management (ICM) (Thailand), Code of Conduct of Responsible Fisheries (RTC-CCRF), (India)In the March 22 - 26 of 2013, according to the BOBLME Project annual Work Plan, Indian Mackerel Tissue Sampling data collection has been conducted at Kawthoung, Tanintharyi Region and Sittwe, Rakhine State.

The following major out puts achieved by the project: (1) Report on TDA Consultation (2) Presentation on Shark (3) Policy review Questionnaires (4) Status of MPAs in Myanmar (5) Assessment of the Hilsa and Indian Mackerel fisheries in Myanmar.

II. Ayeyarwady Dolphin Conservation Conducted by Department of Fisheries in Ayeyarwady River

Ayeyarwady (Irrawaddy) River is one of the biggest rivers in Southeast Asia, and it's the most dominant feature in Myanmar (Burma). This arises from Northern hill streams and through steep gorges upstream of Bhamo, and then flow the entire length of country, for approximately 2,200 km, before the reaches of Andaman Sea.

The 19th century naturalist John Anderson described Ayeyarwady (Irrawaddy) dolphin in the Ayeyarwady Rivers as morphologically distinct from *Orcaella brevirostris*.

The Department of Fisheries (DoF) protected and conserved the Ayeyarwady dolphin (especially established Ayeyarwady Dolphin Protected Area) the area between and Kyaukmyaung 72 Kilometers segment of Ayeyarwady River.



Every year the Ayeyarwady Dolphin monitoring and surveillance team which collaborate

with Wildlife Conservation Society (WCS) and the Department of Fisheries staffs conducted visual boat base survey, and the teams always identified and estimate the population and group size and threats to the dolphins between the protected area. DoF already printed poster for people awareness and a pamphlet (about Ayeyarwady Dolphin and conservation activities) to the local communities who live along the both



river side of the river. Myanmar is one of the countries for Eco-tourism who can enjoy cooperative fishing practice with Ayeyarwady dolphin and cast-net—fishermen. During the open season, at the upper reaches of the Ayeyarwady River, the cast net fisherman who conduct cooperative fishing practices cooperation with dolphin, it is one of the famous fishing practices of Myanmar. As a part of inland fisheries management for the sustainable fisheries development, Ayeyarwady dolphin conservation Team initiated and encourage the cooperative fishermen, to be practice pen culture a fish species (rohu) grow-out farming in natural water in the protected area of Ayeyarwady river segment and the Ayeyarwady Dolphin Conservation supported fingerling fish and fish pallet to those fisherman. After 3 months, some fish are released into natural water of Ayeyarwady River for the conservation of freshwater fishery resources; some are for the fishermen to get surplus income.

The Ayeyarwady dolphin conservation team conducted patrol the protected area twice a month and also conduct educational program in the Protected Area to prevent illegal fishing

techniques and fishing gears which can harm the dolphin and fishes along the river. The Conservation Team conducted the mercury contamination on fishes in Ayeyarwady River.

The Second extension MoU (Memorandum of Understanding) signing ceremony was hold at the Ministry of Livestock and Fisheries, Ministry Meeting room on the 11st September, 2012, between the Department of Fisheries and Wild Life Conservation Society (WCS) USA, for the purpose of Research and Conservation activities among the endangered aquatic animals in Myanmar.

A wide range of research and conservation activities have been implemented in the protected area under a guidance of Department of Fisheries.

International Relations and Projects Section

By the Invitation of the International, Regional Organizations and Partner Countries, DOF Staffs had participated in the meetings, workshops, seminars and trainings in other countries and the experiences and knowledge gained from those events will contribute the objectives of DOF in her continuing efforts towards achieving sustainable fisheries development for food security. The participated list of events was as follows;

No.	Organization	Training		Workshop/ Meeting/ Seminar/ Duty		Delegation/ Study Tour		Duty	
		Freq.	Person	Freq.	Person	Freq.	Person	Freq.	Person
1	SEAFDEC	2	3	18	27	-	-	1	1
2	NACA	-	-	3	4	-	-	-	-
3	FAO	-	-	2	2	-	-	-	-
4	ASEAN	1	2	-	-	-	-	-	-
5	BOBLME	-	-	4	8	-	-	-	-
6	MOFCOM	1	2	1	1	-	-	-	-
7	ILO	-	-	1	1	-	-	-	-
8	OIE	-	-	1	1	-	-	-	-
9	JICA	3	4	-	-	-	-	-	-
10	MPEA, MFF	1	1	-	-	-	-	-	-
11	UNEP/CMS	-	-	1	1	-	-	-	-
12	CP Ltd	-	-	1	1	-	-	-	-
13	Gov of Myanmar	-	-	2	2	-	-	-	-
14	Gov of China	-	-	-	-	1	2	-	-
15	Gov of Malaysia	-	-	1	1	-	-	-	-
16	Gov of Singapore	-	-	1	2	-	-	-	-
17	Gov of Korea	1	1	-	-	-	-	-	-
18	Gov of Japan	1	1	-	-	1	1	-	-
19	Gov of Thai	-	-	1	2	-	-	-	-
20	Temasek Foundation	-	-	1	1	-	-	-	-
	Total	10	14	38	54	2	3	1	1

- Within the Fiscal year, DOF has cooperated with FAO, JICA, BOBLME, WCS, ACIAR (World Fish Center) and SEAFDEC to implement the following Projects;
 - Sustainable Small Scale Fisheries and Aquaculture Livelihood in Coastal Mangrove Ecosystem (GCP/MYA/010/ITA) project, supported by FAO, from June 2009 to November 2013 in Ayeyarwady Division (US\$ 1.25 Million). (Project Manager: U Maung Maung Lwin, Assit. Director)
 - Small Scale Aquaculture Extension for Promotion of Livelihood of Rural Communities in Myanmar Project (SAEP), supported by JICA, from 2009 to 2013 in Ayeyarwady Region, Bago Region and Kayin State (JP¥30,469,000). (Project Manager: Dr. Yin Moe, Assistant Director)
 - Bay of Bengal Large Marine Ecosystem Program (BOBLME) Project, supported by World Bank, Sida, NOAA, GEF, NORAD, from 2010 on words, in coastal region of BOBLME member countries (Project Manager: U Mya Than Tun, Deputy Director)
 - Ayeyarwaddy Dolphin Research and Protected Area Management Plan supported by WCS, from 2007s onwards along the Ayeyarwady River in Mandalay and Sagaing Regions. (Project Manager: U Mya Than Tun, Deputy Director)
 - Capacity Building to improve market access for fish and fishery products (TCP/ MYA/3401D), supported by FAO, from March 2012 to August 2013, (US\$ 0.298 million), (Project Director: U Tint Wai, Assistant Director)
 - Improving research and development of Myanmar's inland and coastal fisheries", funded by ACIAR and commissioned by World Fish Center, from 3 December 2012 to 30 November 2016, in Ayeyarwady Delta and Central Dry Zone. (Project Manager: U Nyunt Win, Assistant Director)
 - Research for the Safety of Chemical and Drug Residues in Fish and Fish Products, funded by Japanese Trust Fund and cooperation with SEAFDEC from 2013 to 2017, in Tanintharyi Region, Ayeyarwady Region and Rakhine State.

Research and Development Training Supervision Section

Department of Fisheries, Research and Development Division, Fisheries Training Supervision Section has monitoring the fisheries training centers in Yangon (West Gyogone), Pyapon and Sagaing to promote the Human Resources Development through the training. In the fiscal year 2012-2013, (32) training courses have successfully conducted associated the fields of Aquaculture, Fisheries Management, Post harvest technology, Fisheries Data Management System, English Speaking and Computer and Fishing Gear: totally 1225 trainees could gain knowledge of fisheries relevant fields.

		2012- 2	2013	Remark	
No	Training Course	No of Course	No of Trainees		
1.	Aquaculture	16	427	DOF Training Center (Sagaing, Pyapon), Fishery Station (Hlawgha)	
2.	Fisheries Management	5	446	DOF Training Center (Gyogone, Sagaing, Pyapon)	
3.	Post Harvest Technology (Food Safety & Quality Control, Processing)	4	161	DOF Training Center (Gyogone, Pyapon)	
4.	National Training Course on Fisheries Data- Management System	1	19	DOF Training Center (Gyogone)	
5.	English Speaking & Computer	4	56	DOF Training Center (Gyogone, Sagaing)	
6.	Fishing Gear	2	116	DOF Training Center (Pyapon)	
	Total	32	1225		

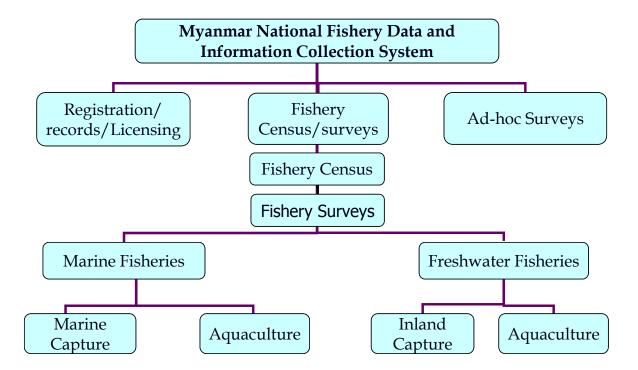
Planning and Statistical Division

Fisheries statistics are not only a key component of a fisheries information system required for policy, planning, monitoring and management of fisheries but also a vital tool for knowing about the current and past status of fisheries and its trends on the development of the sector.

In major data collection fisheries statistics in Myanmar are three main sources of statistics, such as censuses, surveys and registration and licensing. The Central Statistical Organization (CSO) is the only authoritative organization in Myanmar that has the mandate to collect, process, organize and supply data for the use of planners, policy makers and reporting for all users. The Directorate of Livestock and Fisheries under the Ministry of Livestock, Fisheries and Rural Development is conducting the data collection, compilation, analysis and dissemination for fisheries and Livestock sector. The data collection in fisheries is implemented by the Department of Fisheries (DoF).

The objectives of fishery data collection

- (1) To fulfill the requirements of information for the users in relation to fishery sector;
- (2) To access and focus fisheries resources potential and productivity;
- (3) Prediction and planning to meet the sustainable fisheries;
- (4) Making policy and decision on fishery sector;



MYANMAR FISHERIES FEDERATION

Myanmar Fisheries Federation (MFF) is one of the highest NGOs commercial organizations to encourage and promote fishery industries of Myanmar. It was created by Myanmar Fisheries Association in order to enable the fishery entrepreneurs from states and divisions to join it on 1st December 1998. Moreover, Myanmar Fisheries Federation was constituted as a member of ASEAN Fisheries Federation in 2002.



Some of the active association under MFF are Myanmar Shrimp Association, Myanmar Fish Farmers Association, Myanmar Fishery Products Processor and Exporters Association, Myanmar Aqua Fish Association, Myanmar Marine Fisheries Association, Myanmar Freshwater Capture Fisheries Association, Crab Entrepreneurs Association. Apart from this, local level Associations are formed in line with public administrative structure such as division/state, district and township level fisheries federations.

Department of Fisheries (DoF) and Myanmar Fisheries Federation (MFF) are like twins under the Ministry of Livestock ,Fisheries and Rural Development' umbrella. In order to better manage the fishery sector, DoF and MFF has teamed up to work together to achieve our common goal as stated in our regional slogan:- "Fish for the people".

Myanmar Fisheries Federation is one of the highest NGOs commercial organization to encourage and promote fishery industries of Myanmar as well as to support the fishermen and fish farmers.

In order to exchange views and to know the up-date information of the livestock and fishery sector, the regular weekly meetings are held at the conference hall in the MFF every week since June 6, 2005 for the development of Myanmar Fisheries.

Myanmar Fisheries Federation performs many supporting roles.

- (1) MFF is able to support application made by its members to Department of Fisheries to undertake fisheries and aquaculture activities.
- (2) MFF also can recommend application to the Livestock and Fisheries Bank for loan application.
- (3) MFF has a good support from the government and can negotiate directly for members' benefits.
- (4) MFF also helps with negotiation of selling and harvesting of fish; and shrimp and working collectively.

There are many members with small property. The membership fee is Kyats: 300 per year and Kyats: 5,000 for life. Any individual interested in it can contact MFF for further information at the address given below:-

Myanmar Fisheries Federation,

Bayintnaung Road, Department of Fisheries Compound,

West Gyo Gone, Insein Township, Yangon, The Republic of the Union of Myanmar.

Phone: +(95-1) 683652, +(95-1) 683657

+(95-1) 683653, +(95-1) 683658 (Ex - 105,100,200,300)

+(95-1) 683662, +(95-1) 644115

E-mail: <u>fish-fed@mff.com.mm</u>
Website: www.mff.com.mm





STATISTICS: For Better management