Ministry of Marine Affairs and Fisheries
Republic of Indonesia

Indonesia Tuna Profile

Dissemination of Indonesia Membership Status in WCPFC

The Media Hotel, 22-24 October 2013

Scope of Content

1. Tuna Fishing Ground within IFMA
2. Catch Estimation *(historical catch)*
3. Fishing Fleet Structure.
4. Catch Composition by WPP and By Gear Type
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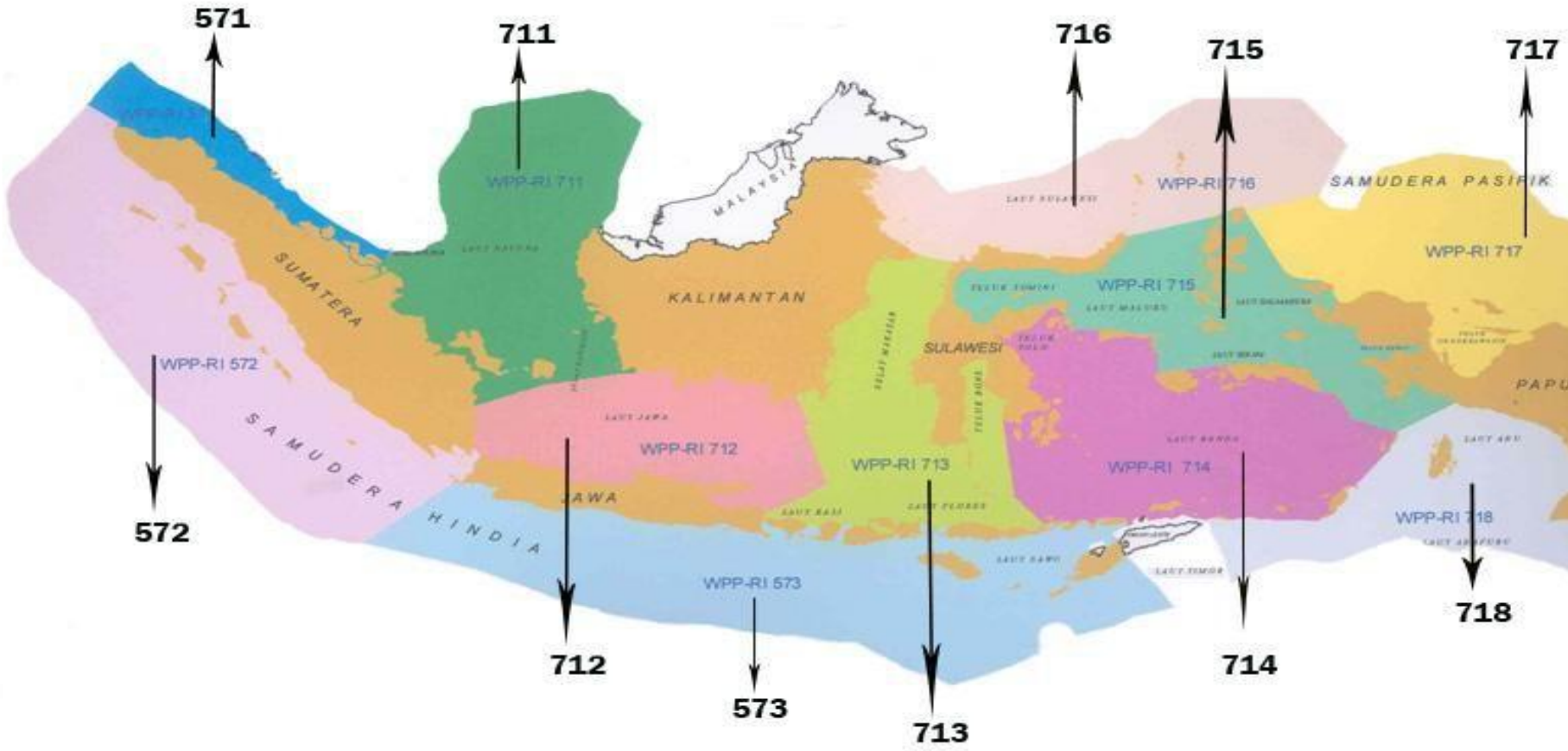
Tuna Fishing Ground Within IFMA

Tuna Fishing Ground Within IFMA



5
5 571 Perairan Sel. Malaka & L. Andaman
5 572 Perairan S. Hindia sebelah Barat sumatera & Sel.Sunda
7 573 Perairan S. Hindia seb selat Jawa s/d Selatan Nusa Tenggara, L. Sawu, L.Timor Bag. Barat
7 715 Perairan Tlk. Tomini, L. Maluku, L. Halmahera, L. Seram, & Tlk. Berau
7 716 Perairan L. Sulawesi & Sebelah Utara P. Halmahera
7 717 Perairan Tlk. Cendrawasih & S. Pasifik
7 718 Perairan L. Aru, L. Arafuru & L. Timor Bag Timur
7 711 Perairan Sel. Karimata, L. Natuna dan L. Cina Selatan
7 712 Perairan Laut jawa
7 713 Perairan Sel. Makasar, Tlk. Bone, L. Flores dan L. Bali
714 Perairan Tlk.Tolo dan L. Banda

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Catch Estimation *(historical catch)*

Catch Estimates (Historical Catch) in IOTC Area

Ton

	2005	2006	2007	2008	2009	2010	2011
Yellow Fin	57,328	30,584	28,955	24,732	32,258	38,55	34,511
Bigeye	13,337	14,247	17,033	12,616	18,177	26,859	18,350
Skipjack	48,668	50,518	47,697	46,879	65,284	84,601	56,239
Albacore	10,902	2,383	12,126	12,231	7,298	11,444	8,849
Total	130,235	97,732	105,811	96,458	123,017	122,904	117,949

Source: INDONESIA National Report to the Scientific Committee of the Ininan Ocean Tuna Commission, 2012

Cath Estimates (Historical Catch) in WCPFC Statistical Area

Ton

TOTAL TUNA CATCH -- ALL GEARS (WCPFC Statistical Area)					
Year	Estimated Tuna Catch (metric tonnes)				
	Skipjack	Yellowfin	Bigeye	Albacore	Total tuna
2000	196,297	76,465	11,548	-	284,309
2001	173,257	70,694	10,448	-	254,398
2002	173,327	76,100	10,996	-	260,422
2003	163,575	77,112	11,059	-	251,746
2004	175,314	76,073	11,229	-	262,615
2005	173,203	59,450	12,147	-	244,800
2006	217,310	51,040	14,716	-	283,065
2007	243,118	62,841	13,533	-	319,493
2008	255,918	58,352	18,002	-	332,272
2009	279,985	80,668	18,053	-	378,706
2010	273,637	64,156	13,472	-	351,264
2011	270,101	103,595	16,584	-	390,281
2012	254,413	170,444	18,460	-	443,317
AVG 2007-2009	259,674	67,287	16,529	-	343,490

Source: INDONESIA National Report Part I to WCPFC, 2013

Catch Estimate of Southern Bluefin Tuna

No	Year	Catch Estimates (tonnes)	No	Year	Catch Estimates (tonnes)
1	1976	12	20	1995	829
2	1977	4	21	1996	1614
3	1978	6	22	1997	2210
4	1979	5	23	1998	1324
5	1980	5	24	1999	2504
6	1981	1	25	2000	1203
7	1982	2	26	2001	1632
8	1983	5	27	2002	1701
9	1984	11	28	2003	565
10	1985	3	29	2004	633
11	1986	7	30	2005	1726
12	1987	14	31	2006	598
13	1988	180	32	2007	1077
14	1989	568	33	2008	926
15	1990	517	34	2009	641
16	1991	759	35	2010	635
17	1992	1232	36	2011	842
18	1993	1370	37	2012	909
19	1994	904			

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Fishing Fleet Structure

Fishing Fleet Structure in FMA 572 and FMA 573 *(IOTC Area)*

	2007	2008	2009	2010
< 5 GT	10.578	14.094	12.888	13.252
5 - 10 GT	5.499	5.943	5.615	6.754
10 - 20 GT	1.086	1.520	1.393	1.645
20 - 30 GT	1.324	1.163	1.849	1.583
30 - 50 GT	330	330	410	466
50 - 100 GT	829	829	486	765
100 - 200 GT	597	597	578	669
200 - 300 GT	16	16	7	8
300 - 500 GT	10	10	8	6
500 - 1000 GT	15	15	9	9
> 1000 GT	1	1	1	1
Total	20.285	24.518	23.244	25.158

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Fishing Fleet Structure in FMA 713; FMA 714; FMA 715; FMA 716 and FMA 717 *(WCPFC Statistical Area)*

	2007	2008	2009	2010
< 5 GT	30.203	36.784	35.659	39.346
5 - 10 GT	10.884	7.920	9.359	10.024
10 - 20 GT	2.714	1.815	2.517	2864
20 - 30 GT	637	813	844	1.032
30 - 50 GT	579	95	337	384
50 - 100 GT	1.263	1.132	702	1.140
100 - 200 GT	576	510	373	324
200 - 300 GT	29	24	43	44
300 - 500 GT	17	30	24	12
500 - 1000 GT	17	17	12	13
> 1000 GT	2	3	2	2
Total	46.921	49.143	49.872	55.185

Source: Indonesia Capture Fisheries Statistic, 2011 processed

4 Catch Composition by WPP and By Gear Type

Longline

Longline in FMA 716 and FMA 717

Tahun	Catch Estimation (Ton)								Total
	Skipjack	%	Yellowfin	%	Bigeye	%	Albacore	%	
2000	0		3.104	80,9	731	19,1	0		3.834
2001	0		4.001	80,9	942	19,1	0		4.942
2002	0		6.243	80,9	1.470	19,1	0		7.713
2003	0		9.209	80,9	2.168	19,1	0		11.377
2004	0		9.313	80,9	2.192	19,1	0		11.505
2005	0		14.152	74,4	4.845	25,6	0		19.017
2006	0		14.317	67,8	6.810	32,2	0		21.127
2007	0		16.153	71,2	6.536	28,8	0		22.689
2008	0		18.194	69,7	7.904	30,3	0		26.098
2009	0		23.574	74,2	8.205	25,8	0		31.779
2010	0		20.404	76,6	6.221	23,4	0		26.625
2011	0		22.638	72,3	8.681	27,7	0		31.320
Komposisi rata-rata			13.442	74	4.725	26			18.169

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Longline in FMA 713 and FMA 714 and FMA 715

Tahun	Catch Estimation (Ton)								Total
	Skipjack	%	Yellowfin	%	Bigeye	%	Albacore	%	
2000	0		NA		NA		NA		NA
2001	0		NA		NA		NA		NA
2002	0		NA		NA		NA		NA
2003	0		NA		NA		NA		NA
2004	0		NA		NA		NA		NA
2005	0		3.390	56	2.663	44	NA		6.053
2006	0		4.835	56	3.799	44	NA		8.634
2007	0		5.782	56	4.543	44	NA		10.325
2008	0		5.505	56	4.325	44	NA		9.830
2009	0		5.352	56	4.206	44	NA		9.558
2010	0		6.363	56	5.000	44	NA		11.363
2011	0		8.888	56	6.983	44	NA		15.871
Komposisi rata-rata			5.730	56	4.502	44			10.233

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Longline in WPP 572 and 573

Tahun	Catch Estimation (ton)										Total
	Cakalang		Yellowfin		Bigeye		Albacore		SBT		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	((ton)	(%)	(ton)	(%)	
2000	NA		NA		NA		NA				
2001	NA		NA		NA		NA				
2002	NA		NA		NA		NA				
2003	NA		NA		NA		NA				
2004	NA		NA		NA		NA				
2005	1.850		47.570		13.337		10.839		1.831		75.427
2006	2.741		27.090		13.278		2.383		447		45.939
2007	1.306		15.837		12.708		10.190		1.079		41.120
2008	492		15.133		11.830		11.159		888		39.502
2009	585		13.487		10.001		4.015		641		28729
2010	1.463		14.572		14.202		5.505		474		36.216
2011	4.666		8.976		15.488		6.999		700		36.829
Rata-rata	1.871	4,3	20.380	46,9	12.977	29,9	7.298	16,8	865	1,9	43.394

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Purse Seine

Purse Seine in FMA 716 and FMA 717

Tahun	Catch Estimation (Ton)								Total
	Skipjack	%	Yellowfin	%	Bigeye	%	Albacore	%	
2000	6.560		2.622		259		0		9.482
2001	8.456		3.432		334		0		12.222
2002	13.197		5.356		521		0		19.074
2003	19.466		7.900		769		0		28.135
2004	19.684		7.989		778		0		28.451
2005	22.163		10.873		968		0		34.004
2006	25.223		7.237		1.000		0		33.460
2007	21.022		9.653		734		0		31.409
2008	19.131		7.218		1.089		0		27.438
2009	28.599		6.591		1.465		0		36.614
2010	28.349		3.259		978		0		32.585
2011	27.477		4.618		891		0		32.986
Rata-rata	19.944	73,4	6.396	23,6	816	3,00			27.155

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Purse Seine in FMA 713 and WPP-RI 714 and FMA 715

Tahun	Catch Estimation						
	Skipjack		Yellowfin Tuna		Bigeye Tuna		Total
	(ton)	(%)	(ton)	(%)	(ton)	(%)	(Ton)
2000	54.851	69,2%	22.261	28,1%	2.167	2,7%	79.278
2001	49.710	69,2%	20.175	28,1%	1.963	2,7%	71.849
2002	47.890	69,2%	19.436	28,1%	1.892	2,7%	69.218
2003	43.815	69,2%	17.782	28,1%	1.731	2,7%	63.328
2004	60.109	69,2%	24.395	28,1%	2.374	2,7%	86.878
2005	13.070	65,2%	6.412	32,0%	571	2,8%	20.053
2006	16.918	75,4%	4.854	21,6%	671	3,0%	22.443
2007	16.710	66,9%	7.673	30,7%	583	2,3%	24.967
2008	18.195	69,7%	6.865	26,3%	1.036	4,0%	26.096
2009	28.303	78,0%	6.531	18,0%	1.451	4,0%	36.286
2010	30.749	87,0%	3.534	10,0%	1.060	3,0%	35.344
2011	23.662	83,0%	3.991	14,0%	855	3,0%	28.509
Rata-rata	33.665	71,60%	11.992	25,50%	1.363	2,90%	47.021

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Purse Seine in WPP-RI 572 and FMA 573

Tahun	Catch Estimation Tahunan (ton)								Total
	Cakalang		Yellowfin		Bigeye		Albacore		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000	NA		NA		NA		NA		NA
2001	NA		NA		NA		NA		NA
2002	NA		NA		NA		NA		NA
2003	NA		NA		NA		NA		NA
2004	NA		NA		NA		NA		NA
2005	22.960	97,2	651	2,8	NA		NA		23.611
2006	11.722	95,1	371	3,0	237	1,9	NA		12.330
2007	16.982	85,1	1.282	6,4	1.478	7,4	218	1,1	19.962
2008	13.216	75,9	3.373	19,4	726	4,2	86	0,5	17.403
2009	27.209	87,6	1.717	5,5	2.125	6,8	0	0	31.053
2010	22.652	63,7	4.334	12,2	8.226	23,1	341	0,9	35.553
2011	36.016	68,2	8.331	15,8	7,385	14,0	1.027	1,9	52.759
Rata-rata	21536	78,2	2865	10,1	2882	10,0	334	1,2	27.524

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Pole and Line

Pole and Line in FMA 716 and FMA 717

Tahun	Catch Estimation						Total
	Cakalang		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(Ton)	(%)	
2000	8.414	78,4%	1.827	17,0%	484	4,5%	10.725
2001	10.846	78,4%	2.355	17,0%	624	4,5%	13.825
2002	16.926	78,4%	3.675	17,0%	975	4,5%	21.576
2003	24.967	78,4%	5.421	17,0%	1.438	4,5%	31.826
2004	25.247	78,4%	5.482	17,0%	1.454	4,5%	32.183
2005	22.209	73,1%	6.581	21,7%	1.606	5,3%	30.396
2006	28.385	80,6%	5.166	14,7%	1.673	4,7%	35.224
2007	28.064	81,0%	5.332	15,4%	1.250	3,6%	34.646
2008	30.448	82,5%	4.590	12,4%	1.855	5,0%	36.893
2009	23.339	87,0%	6.045	10,0%	2.515	3,0%	31.899
2010	29.416	87,0%	3.381	10,0%	1.014	3,0%	33.812
2011	26.458	77,0%	6.983	20,0%	787	2,0%	34.228
Rata-rata	22.893	79,1	4.737	16,4	1.306	4,5	28.936

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Pole and Line in FMA 713 and WPP-RI 714 and FMA 715

Tahun	Catch Estimation						Total
	Skipjack		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000	86.227	78,4%	18.723	17,0%	4.965	4,5%	109.915
2001	67.725	78,4%	14.705	17,0%	3.900	4,5%	86.330
2002	55.924	78,4%	12.143	17,0%	3.220	4,5%	71.286
2003	40.728	78,4%	8.843	17,0%	2.345	4,5%	51.916
2004	51.692	78,4%	11.224	17,0%	2.976	4,5%	65.892
2005	54.081	73,1%	16.025	21,7%	3.911	5,3%	74.017
2006	72.746	80,6%	13.240	14,7%	4.288	4,7%	90.273
2007	90.514	81,0%	17.197	15,4%	4.032	3,6%	111.743
2008	94.262	82,5%	14.210	12,4%	5.743	5,0%	114.215
2009	110.574	87,0%	12.710	10,0%	3.813	3,0%	127.097
2010	105.280	87,0%	12.101	10,0%	3.630	3,0%	121.012
2011	97.057	77,0%	25.210	20,0%	2.521	2,0%	126.048
Rata-rata	77.234	80,6	14.694	15,4	3.779	4,0	95.812

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Pole and Line in FMA 572 and WPP-RI 573

Tahun	Catch Estimation (ton)								Total
	Cakalang		Yellowfin		Bigeye		Albacore		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	((ton)	(%)	
2000	NA		NA		NA		NA		NA
2001	NA		NA		NA		NA		NA
2002	NA		NA		NA		NA		NA
2003	NA		NA		NA		NA		NA
2004	NA		NA		NA		NA		NA
2005	2.071	75,2	684	24,8	0		0		2.755
2006	3.780	91,0	373	9,0	0		0		4.153
2007	0		0		0		0		0
2008	0		0		0		0		0
2009	3.613	90,9	358	9,1	0		0		3.971
2010	2.255	83,1	457	16,9	0		0		2.712
2011	2.506	60,5	1.639	39,5	0		0		4.145
Rata-rata	2.845	80,2	702	19,8	-	0,00	-	0,00	3.547

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Hand Line

Hand Line in FMA 716 and FMA 717

TAHUN	Catch Estimation						Total
	Skipjack		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000			398	98	8	2	406
2001			513	98	10	2	523
2002			800	98	16	2	816
2003			1.180	98	24	2	1.204
2004			1.194	98	24	2	1.218
2005			1.393	98	28	2	1.421
2006			1.384	98	28	2	1.412
2007			1.147	98	23	2	1.170
2008			1.097	98	35	2	1.133
2009			3.256	99	33	1	3.289
2010			1.651	98	34	2	1.685
2011			1.658	96	68	4	1.726
Komposisi rata-rata			1.306	97,9	28	2,1	1.334

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Hand Line in FMA 713 and WPP-RI 714 and FMA 715

TAHUN	Catch Estimation						TOTAL
	Skipjack		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000			NA		NA		
2001			NA		NA		
2002			NA		NA		
2003			NA		NA		
2004			NA		NA		
2005	0		100	98	2	2	102
2006	0		143	98	3	2	146
2007	0		172	98	3	2	175
2008	0		163	98	3	2	166
2009	0		2.259	99	23	1	2.282
2010	0		2.191	98	45	2	2.236
2011	0		2.201	96	92	4	2.293
Komposisi rata-rata			1.032	97,7		2,3	1.057

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Pole and Line in FMA 572 and WPP-RI 573

Tahun	Catch Estimation (ton)								Total
	Cakalang		Yellowfin		Bigeye		Albacore		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	((ton)	(%)	
2000	NA		NA		NA		NA		NA
2001	NA		NA		NA		NA		NA
2002	NA		NA		NA		NA		NA
2003	NA		NA		NA		NA		NA
2004	NA		NA		NA		NA		NA
2005	66	45,2	80	54,8	0		0		146
2006	353	38,9	554	61,1	0		0		907
2007	685	44,4	856	55,4	2	0,1	0,6	0,03	1.543
2008	2.947	31,7	5.256	56,8	58	0,6	984	10,6	9.247
2009	3.720	53,5	3.028	43,6	200	2,9	0		6.949
2010	3.373	50,1	3.117	46,3	200	2,9	39	0,5	6.729
2011	2.743	53,2	2.133	41,2	239	4,6	39	0,7	5.154
Rata-rata	1.983	45,2	2.146	48,9	99	2,2	151	3,4	4.382

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Alat Tangkap Lainnya

Alat Tangkap Lainnya in FMA 716 and FMA 717

TAHUN	Catch Estimation						TOTAL
	Skipjack		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000	5.785	93,9	367	5,9	10	0,2	6.162
2001	7.458	93,9	473	5,9	13	0,2	7.943
2002	11.638	93,9	738	5,9	21	0,2	12.397
2003	17.167	93,9	1.088	5,9	31	0,2	18.286
2004	17.360	93,9	1.100	5,9	31	0,2	18.491
2005	18.050	93,7	1.142	5,9	10	0,4	19.202
2006	19.588	93,7	1.240	5,9	11	0,4	20.838
2007	19.032	93,7	1.209	5,9	81	0,4	20.322
2008	19.182	93,2	1.245	5,9	16	0,4	21.159
2009	23.484	81,5	5.187	18,0	144	0,5	28.814
2010	17.891	81,5	3.951	18,0	110	0,5	21.953
2011	15.778	71,0	6.000	27,0	444	2,0	22.222
Rata-rata	16.034	88,4	1.978	10,9	77	0,3	18.149

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Alat Tangkap Lainnya in FMA 713 and WPP-RI 714 and FMA 715

TAHUN	Catch Estimation						TOTAL
	Skipjack		Yellowfin Tuna		Bigeye Tuna		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	
2000	34.459	54,7%	25.633	40,7%	2.894	4,6%	62.987
2001	29.061	53,0%	23.120	42,2%	2.622	4,8%	54.804
2002	27.751	50,2%	24.710	44,7%	2.822	5,1%	55.283
2003	17.431	42,3%	21.265	51,7%	2.466	6,0%	41.162
2004	1.221	9,1%	10.904	81,2%	1.310	9,7%	13.435
2005	43.630	93,7%	2.772	5,9%	187	0,4%	46.588
2006	54.450	93,7%	3.459	5,9%	233	0,4%	58.142
2007	67.776	93,7%	4.306	5,9%	290	0,4%	72.371
2008	74.699	93,2%	4.771	5,9%	321	0,4%	80.192
2009	65.726	81,5%	14.516	18,0%	403	0,5%	80.646
2010	61.951	81,5%	13.682	18,0%	380	0,5%	76.013
2011	79.668	71,0%	30.296	27,0%	2.244	2,0%	112.209
Rata-rata	46.485	74%	14.953	23,8%	1.348	2,2%	62.819

Source: Indonesia Capture Fisheries Statistic, 2011 processed

Alat Tangkap Lainnya in FMA 572 and WPP-RI 573

Tahun	Catch Estimation (ton)								Total
	Cakalang		Tuna Sirip Kuning		Tuna Mata Besar		Albakor		
	(ton)	(%)	(ton)	(%)	(ton)	(%)	((ton)	(%)	
2000	NA		NA		NA		NA		NA
2001	NA		NA		NA		NA		NA
2002	NA		NA		NA		NA		NA
2003	NA		NA		NA		NA		NA
2004	NA		NA		NA		NA		NA
2005	21.721	72,1	8.343	27,7	0		63	0,2	30.127
2006	31.922	91,6	2.196	6,3	732	2,1	0		34.850
2007	28.723	64,8	10.979	24,8	2.843	6,4	1.716	3,9	44.262
2008	30.222	96,8	969	3,2	0		0		31.191
2009	30.155	58,8	13.664	26,7	5.848	11,4	1.544	3,0	51.213
2010	38.723	52,7	25.446	34,6	2.142	2,9	7.145	9,7	73.456
2011	34.975	58,7	17.465	29,3	3.738	6,2	3.361	5,6	59.539
Rata-rata	30920	66,7	11295	24,4	2186	4,7	1976	4,2	46377

Source: Indonesia Capture Fisheries Statistic, 2011 processed

5 Related Legislation

Related Legislation

1. Fishing authorization (SIPI)

- **Minister** Regulation No. 12/2012 regarinng Capture Fisheries Business in the High Seas
- Minister Regulation No. 30/2012 regarinng Capture Fisheries Business at Fisheries Management zones (FMAs) Republic of Indonesia, amended by Minister Regulation No. 26/2013 regarinng Capture Fisheries Business at Fisheries Management zones (FMAs)

2. Vessels Marking *(Unique Vessel Identifier).*

- Minister Regulation No: 27/2009 regarinng Vessels Registration and Marking

3. Fishing logbook : Minister Regulation No. 18/2010 regarinng Fishing logbook**.**

4. Observer : Minister Regulation No. 01/2013 regarinng Observer**.**

5. Vessel Monitoring System: Minister Regulation No. 10/2010 regarding Vessel Monitoring System

6 Issues and Concern

Issues and Concern

1. Stock Status
2. Catch limit
3. Social and Economy
4. Mindset Vs Compliance

Stock Status

a. IEEZ and Territorial
   - As estimated by WCPFC
   - Catch Limit

b. Archipelagic Water.
   - Research unit has to undertak research to determine an estimate of stocks status.
   - Catch Limit

Catch Limit

a. We do not have an effective mechanism.
b. Involved a huge number of small-scale fisheries
c. We need to learn in tis concern from other WCPFC member that are having similiar circumtances.

Social Economy

a. Livelihood
b. A lot of people involved and depend their sorce of income on tuna fisheries.

Mindset Vs Compliance

a. A big Investment
b. Return only from tuna
c. Mindset : Production Oriented
d. Paradox condition:
   - Catch tends to decrease : increase effort
   - Changing gear type from hook to net.
   - Dispute potential

e. How to swicth the mindset ?

THANK YOU