SCIENTIFIC COMMITTEE
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ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS

WCPFC-SC10-AR/CCM-09

INDONESIA

INDONESIAN FISHERIES
IN
WCPFC CONVENTION AREA

PART ONE

MINISTRY OF MARINE AFFAIRS AND FISHERIES
THE REPUBLIC OF INDONESIA
2014

The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean

ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

INDONESIA

Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2014	[NO/YES]
If no, please indicate the reason(s) and intended actions:	

SUMMARY

The national catch estimates 2013 for the three species concern of the WCPFC which agreed in the national workshops in 2014 at FMAs 713,714, 715, 716 and 717 are as follows: skipjack –330,324 t; yellowfin – 132,266 t and bigeye – 18,084 with total 480,674 t. The catch estimate was agreed during the 5th Tuna Catch Estimates Review Workshops in June 2014,.Through West Pacific East Asia Oceanic Fisheries Management project (WPEA OFM) Port sampling activities have been continuing for four landing sites i.e Bitung, Kendari and Sodohoa,Sorong and recently in may 2014 expand to Mamuju to cover FMA 713 as a new port sampling. Currently there are 25 trained enumerators that assigned to conduct port samplings. Sorong. Catch composition by species by gear resulted from port sampling in Bitung and Kendari have been successful used for reference and validation for past and recent national tuna catch estimate.

BACKGROUND

Indonesia is an archipelagic nation located between the continents of Asia and Australia surrounded by two oceans, Pacific Ocean in the northern part and Indian Ocean in southern part. It consist of 17,508 islands and coast line of approximately 81,000 km. Totally, Indonesia has 5.8 million km^2 of marine waters consisting of 3.1 million km^2 of territorial waters (<12 miles) and 2.7 million km^2 of EEZ (12-200 miles).. Geographical situation of marine fisheries areas provide interaction with the convention area of WCPFC at Sulawesi Sea as well as Indonesia EEZ in Pacific Ocean where presence of at highly migratory species is obvious.

Internationally, fisheries resources identified as highly migratory resources should follow several international and regional measures or guidelines, such as UNCLOS 1982, FAO-Compliance Agreement1993,UN Fish Stock Agreement 1995 and FAO-Code of Conduct for Responsible Fisheries (CCRF).Indonesia has ratified UNIA 1995 through Act. Number 21 year 2009. The objective of this ratification is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the UNCLOS 1982.

Indonesian Law Number 31/2004 which amended by law Number 45/2009 of Fisheries in Article5 (2) stipulated that fishery management outside the Fishery Management Zones of the Republic of Indonesia shall be carried out inconformity with the laws and regulations, prerequisites, and/or generally accepted international standards. It is conducted to achieve the optimum and sustainable benefits while ensuring sustainable fishery resources (Article6 (1)). Furthermore, Article10 stipulated that the Government shall participate actively in the membership of anybody/institution/ organization at the regional or international levels with respect to the cooperation for regional and international fishery management.

Indonesia recently since late 2013 becomes a member of WCPFC with an outlook to improve international relations, and help secure her small scale fishers livelihood. This report is provided as part of obligation as a member of WCPFC.

ANNUAL FISHERIES INFORMATION

I. NOMINAL CATCHES IN FISHERIES MANAGEMENT AREA VIII

There was a routine activity for estimating national catch in a dedicated national workshop prior annual WCPFC Scientific committee meeting. The Indonesia Tuna Fisheries (WCPFC Area) Annual Catch Estimates workshops made improvement in estimating the national catches by gear by species for FMAs 713, 714, 715, 716 and 717. Mainly percentage of catch composition was using the RCFMC (P4KSI) Species Composition data by gear

I. NOMINAL CATCHES IN FISHERIES MANAGEMENT AREA

Indonesia total tuna catch for all gears in Area FAO within WCPFC Statistical Area was estimated as below:

Table 1. Total tuna catch (Skipjack, Yellowfin, Bigeye) for all gear within WCPFC statistical area estimated for 2000-2013

TOTAL TUNA CATCH -- ALL GEARS (WCPFC Statistical Area)									
Year	Estimated Tuna Catch (metric tonnes)								
	Skipjack	%	Yellowfin	%	Bigeye	%	Albacore	%	Total tuna
2000	220,109	64%	106,108	31%	15,984	5%			342,200
2001	202,541	59%	97,639	29%	14,708	4%			314,888
2002	194,675	57%	93,847	27%	14,137	4%			302,659
2003	198,580	58%	95,730	28%	14,421	4%			308,730
2004	261,456	76%	126,040	37%	18,987	6%			406,483
2005	173,203	51%	63,625	19%	10,688	3%			247,515
2006	217,310	64%	55,920	16%	12,612	4%			285,842
2007	243,118	71%	67,773	20%	10,999	3%			321,890
2008	255,918	75%	63,055	18%	15,613	5%			334,586
2009	279,985	82%	92,887	27%	15,762	5%			388,635
2010	273,637	80%	73,846	22%	10,771	3%			358,253
2011	270,101	79%	114,442	33%	12,901	4%			397,444
2012	254,413	74%	170,444	50%	18,460	5%			443,317
2013	330,324	69%	132,266	28%	18,084	4%			480,674

Table 2. Total tuna catch (Skipjack, Yellowfin, Bigeye) for all gear within FMA 713,714,715 ; FMA 716,717 and FAO area 71 estimated for 2013

FMAs	2013 estimates from DGCF statistics								
	Skipjack	%	Yellowfin	%	Bigeye	%	Albacore	%	Total tuna
FMAs 713,714 ,715	233,442	66%	107,144	30%	13,817	4%			354,402
FMAs 716, 717	96,882	77%	25,122	20%	4,267	3%			126,272
FAO Area 71	330,324	69%	132,266	28%	18,084	4%			480,674

The nominal catches in Fisheries Management Area 716 (IEEZ Sulawesi Sea) and 717 (IEEZ Pacific Ocean) is as the following table.

LONGLINE and PURSE SEINE

Table 3. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Longline within FMA 716, 717 and high seas estimated for 2000-2013

LONGLINE (FMAs 716, 717 and High seas)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2000			20,399	81.6%	4,610	18.4%	25,009
2001			18,771	81.6%	4,242	18.4%	23,013
2002			18,042	81.6%	4,077	18.4%	22,119
2003			18,404	81.6%	4,159	18.4%	22,563
2004			24,231	81.6%	5,476	18.4%	29,707
2005			10,762	83.0%	2,202	17.0%	12,964
2006			9,482	75.9%	3,011	24.1%	12,493
2007			10,371	83.9%	1,993	16.1%	12,364
2008			12,689	78.0%	3,579	22.0%	16,268
2009			18,221	82.0%	4,000	18.0%	22,221
2010			14,041	92.0%	1,221	8.0%	15,262
2011			13,750	89.0%	1,699	11.0%	15,449
2012			11,656	76.0%	3,681	24.0%	15,337
2013			8,271	74.3%	2,860	25.7%	11,130

Table 4. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Purse seine gear within FMA 716, 717 estimated for 2000-2013

PURSE SEINE (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2000	8,087	77.3%	2,103	20.1%	265	2.5%	10,456
2001	7,442	77.3%	1,935	20.1%	244	2.5%	9,621
2002	7,153	77.3%	1,860	20.1%	235	2.5%	9,248
2003	7,296	77.3%	1,898	20.1%	239	2.5%	9,433
2004	9,606	77.3%	2,498	20.1%	315	2.5%	12,420
2005	12,462	65.2%	6,114	32.0%	544	2.8%	19,120
2006	12,665	75.4%	3,634	21.6%	502	3.0%	16,802
2007	8,619	66.9%	3,958	30.7%	301	2.3%	12,877
2008	5,625	69.7%	2,122	26.3%	320	4.0%	8,068

2009	7,551	78.0%	1,742	18.0%	387	4.0%	9,681
2010	5,525	87.0%	635	10.0%	191	3.0%	6,351
2011	9,815	83.0%	1,656	14.0%	355	3.0%	11,825
2012	25,164	74.9%	8,198	24.4%	235	0.7%	33,597
2013	62,726	96.0%	2,614	4.0%	0	0.0%	65,340

NOTE

1	Use same methodology for 2007 for years 2005 and 2006
2	Use average species composition for years 2005-2013 and apply to the total catch for years previous to 2004
3	Use average species composition for years 2005-2009 and apply to the total catch for 2010
4	Catch of albacore needstobe reviewed (possibly Thunnus albacares)
5	Percentage of catch composition of 2009 - 2012 using the P4KSI Species Composition data by gear.
6	The total catch for FMA Areas 716 and 717 is assumed to be the same as the WCPFC Statistical Area catch
7	Increasing the number of provinces that provide data of catch per gear per species
8	Percentage of catch composition of 2013 using the DGCF species composition (required the recheck and compare with P4KSI species composition)

POLE and LINE

Table 5. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Pole and Line within FMA 716, 717 estimated for 2000-2013

POLE-AND-LINE (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2000	28,377	82.2%	4,905	14.2%	1,256	3.6%	34,538
2001	26,112	82.2%	4,514	14.2%	1,156	3.6%	31,781
2002	25,098	82.2%	4,338	14.2%	1,111	3.6%	30,547
2003	25,601	82.2%	4,425	14.2%	1,133	3.6%	31,159
2004	33,707	82.2%	5,827	14.2%	1,492	3.6%	41,025
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	77.3%	6,983	20.4%	787	2.3%	34,228
2012	35,500	92.7%	1,277	3.3%	1,532	4.0%	38,309
2013	16,825	78.3%	4,284	19.9%	377	1.8%	21,486

NOTE :

1	2005-2008 catch estimates determined by DGCF using their statistical data collection and estimation systems. Species composition was reviewed by the workshop, compared with other fishery data sources (e.g. RCCF port sampling data, Philippines port sampling data and industry estimates), and adjusted accordingly.
2	Use same methodology for 2007 for years 2005 and 2006
3	Use average species composition for years 2005-2013 and apply to the total catch for years previous to 2004
4	Use average species composition for years 2005-2009 and apply to the total catch for 2010

5 Percentage of catch composition of 2009 - 2012 using the P4KSI Species Composition data by gear.

6 Percentage of catch composition of 2013 using the DGCF species composition (PAKSI data of 2013 covered only 4 (four) months)

HANDLINE (large-tuna)

Table 6. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Handline (Large tuena) within FMA 716, 717 estimated for 2000-2013

HANDLINE (large-tuna) (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2000			10,296	97.0%	316	3.0%	10,613
2001			9,475	97.0%	291	3.0%	9,766
2002			9,107	97.0%	280	3.0%	9,386
2003			9,289	97.0%	285	3.0%	9,575
2004			12,231	97.0%	375	3.0%	12,606
2005			1,393	98.0%	28	2.0%	1,421
2006			1,384	98.0%	28	2.0%	1,412
2007			1,147	98.0%	23	2.0%	1,170
2008			1,111	98.0%	22	2.0%	1,133
2009			3,256	99.0%	33	1.0%	3,289
2010			1,651	98.0%	34	2.0%	1,685
2011			1,658	96.0%	68	4.0%	1,726
2012			3,359	92.1%	290	7.9%	3,648
2013			2,537	96.0%	106	4.0%	2,642

NOTE :

1 2005-2008 catch estimates determined by DGCF using their statistical data collection and estimation systems. Species composition was reviewed by the workshop, compared with other fishery data sources (e.g. RCCF port sampling data, Philippines port sampling data and industry estimates), and adjusted accordingly.

2 FMA area 715 accounts for at least 5,000 t. more HL catch, but os not included here

3 Use same methodology for 2007 for years 2005 and 2006

4 Use average species composition for years 2005-2013 and apply to the total catch for years previous to 2004

5 Use average species composition for years 2005-2009 and apply to the total catch for 2010

6 Percentage of catch composition of 2009 - 2012 using the P4KSI Species Composition data by gear.

7 Percentage of catch composition of 2013 using the P4KSI species composition of FMAs 716-717

8 Handline (large tuna) WCPFC area based on adjustment figure

TROLL LINE

Table 7. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Troll Line within FMA 716, 717 estimated

for 2013

TROLL LINE (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2013	5,290	65.0%	2,447	30.1%	400	4.9%	8,138

NOTE:

1 Percentage of catch composition of 2013 using PPS Kendari species composition

SMALL FISH HANDLINE

Table 7. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Troll Line within FMA 716, 717 estimated for 2013

SMALL FISH HANDLINE (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2013	4,864	65.9%	2,255	30.6%	261	3.5%	7,380

NOTE:

1 Percentage of catch composition of 2013 using the DGCF species composition

GILLNET

Table 8. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Gillnet within FMA 716, 717 estimated for 2013

GILLNET (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2013	2,312	83.3%	460	16.6%	2	0.1%	2,775

NOTE:

1 Percentage of catch composition of 2013 using the DGCF species composition

OTHERS (Exclude Troll, small-fish HL, gillnet, etc.)

Table 9. Total tuna catch (Skipjack, Yellowfin, Bigeye) for Other gear within FMA 716, 717 estimated for 2013

OTHERS (FMAs 716 and 717)							
Year	Estimated Tuna Catch (metric tonnes)						
	Skipjack	%	Yellowfin	%	Bigeye	%	Total tuna
2000	22,966	93.9%	1,455	5.9%	41	0.2%	24,463
2001	21,133	93.9%	1,339	5.9%	38	0.2%	22,511
2002	20,313	93.9%	1,287	5.9%	36	0.2%	21,636
2003	20,720	93.9%	1,313	5.9%	37	0.2%	22,070

2004	27,281	93.9%	1,729	5.9%	49	0.2%	29,058
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	19,709	93.2%	1,259	5.9%	191	0.9%	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
2012	20,914	42.6%	25,431	51.8%	2,749	5.6%	49,094
2013	4,864	65.9%	2,255	30.6%	261	3.5%	7,380

NOTE:

1 2005-2008 catch estimates determined by DGCF using their statistical data collection and estimation systems. Species composition was reviewed by the workshop, compared with other fishery data sources (e.g. RCCF port sampling data, Philippines port sampling data and industry estimates), and adjusted accordingly.
2 The workshop acknowledged that information on species composition for these gears is lacking and more work in data collection for these gears is required in the future.
3 % BET was reduced from 7.0% to 0.4% refecting expected %BET to %Yft composition according to understanding that most of catch comes from the TROLL gear
4 Use same methodology for 2007 for years 2005 and 2006
5 Use average species composition for years 2005-2012 and apply to the total catch for years previous to 2004
6 Use average species composition for years 2005-2009 and apply to the total catch for 2010
7 % BET reduced from 7.0% to 0.4% refecting expected %BET to %YFT expected from these gears
8 Percentage of catch composition of 2009 and 2010 using P4KSI sampling in Kendari of 2010
9 Catch of other gears for 2013 excluded troll line, gill net and small-fish handline

Information for national catch estimate could be referred to the report of fifth Indonesia/WCPFC Annual tuna fisheries catch estimates Review workshops 16-17 June 2014**.**

II. THE NUMBER OF FISHING VESSELS OPERATING IN IEEZ SULAWESI SEA AND IEEZ PACIFIC OCEAN

Table 10. Number of fishing vessel operating in EEZ FMA 716 and 717, by size and gear

Gear	**Size Class (GRT)**	**2013**
Longline (in IEEZ FMA716-717)	-	
	0-50	14
	50-200	35
	200-500	0
	500+	0
Pole and Line (in IEEZ FMA716-717)	0-50	0
	50-150	0
	150+	0
Purse seine (in IEEZ FMA716-717)	0-500	147
	500-1,000	4
	1,000-1,500	0
	1,500+	0

Troll (in IEEZ FMA716-717)	0-10	N/A
	10-50	N/A
	50-200	N/A
	200-500	N/A
	500+	N/A

III. THE INDONESIAN FISHING FLEET STRUCTURE REGISTERED IN WCPFC, 2013

Table 11. Number of Indonesia fishing fleet by gear and type operating in EEZ registered in WCPFC

NO	FLEET	NUMBER
1	Tuna Long Line	159
2	Purse Seiner	128
3	Pole and Liner	21
4	Gillnetter	1
5	Support Vessel	49
6	Non Specified vessel	2
	Total	**360**

IV. DEVELOPMENTS/TRENDS IN THE FISHERY (CHANGES IN FISHING PATTERNS, FLEET OPERATIONS, TARGET SPECIES, LEVEL OF TRANSHIPMENT, ETC.)

During 2011 Indonesia fishing vessels have started joins the transhipment programme. In 2013, there were **14 (fourteen**) fishing vessels joined the transhipment programme (as shown in Table below).

Table 12: Transhipment Program (Proposed), 2013

No.	Name of Fishing Vessel (Call sign)	Name of Receiving Vessels	NOTIFICATION DECLARATION									
			Proposed Date and Location of Transhipment									
			Date	Location	Total weight (Kgs)							
					Bigeye	Yellowfin	Swordfish	Striped Marlin	Blue Marlin	Albacore	Shark	Others
1	MINAFA	SHOTA MARU	26-Jan-13	High sea					4,700		1,190	6,730
2	MINAFA	TENHO MARU	2-Mar-13	High sea	44,797	14,155	4,999			3,291		
3	ALIZA	SHOTA MARU	20-Apr-13	High sea			9,200				4,500	6,100
4	TOMIO	KAIHO MARU	9-May-13	High sea	109,793	23,094	17,926		426	6,401		

5	MINAKO	TENHO MARU	18-Jun-13	High sea	75,666	11,027	13,596	411		3,300		
6	ALIZA	TENHO MARU	19-Jun-13	High sea	80,810	8,044	16,773	714		1,089		
7	MINAKO	SHOTA MARU	29-Jun-13	High sea					12,500		2,400	6,100
8	MINAFA	KAIHO MARU	24-Aug-13	High sea	60,720	6,775	6,922		1,216	5,876		
9	TOMIO	KAIHO MARU	29-Aug-13	High sea	50,141	10,448	6,770		578	5,954		
10	LINA	KAIHO MARU	4-Sep-13	High sea	78,817	7,821	5,923	889		3,291		
11	ALIZA	KAIHO MARU	17-Sep-13	High sea	57,328	3,442	3,699	821		1,602		
12	MINAKO	TENHO MARU	28-Nov-13	High sea	110,130	18,211	7,554		2,181	3,867		
13	MINAKO	TENHO MARU	29-Nov-13	High sea	110,130	18,211	7,554		2,181	3,867		
14	MINAFA	TENHO MARU	2-Dec-13	High sea	68,000	7,500	10,000		600	1,000		

Table 13 Transhipment Program (Actual), 2013

No.	Name of Fishing Vessel (Call sign)	Name of Receiving Vessels	NOTIFICATION DECLARATION												
			Actual Transhipment												
			Date	Location	Total weight (Kgs)								Master's Name Fishing Vessels	Master's Name Carrier	WCPFC Observer Name
					Bigeye	Yellowfin	Swordfish	Stripped Marlin	Blue Marlin	Albacore	Shark	Others			
1	MINAFA	SHOTA MARU	25-Jan-13	WCPFC					4,700		1,190	6,730			
2	MINAFA	TENHO MARU	2-Mar-13	WCPFC	44,895	13,978	4,999	351		3,342					
3	ALIZA	SHOTA MARU	21-Apr-13	WCPFC			10,000				5,500	7,500	Tri Panji Rapiandi	Wang Kuo-Wen	Ureur Graham

4	TOMIO	KAIHO MARU	12-May-13	WCPFC	109,793	23,094	17,926	433		6,401			Paskah Halomoan T	Hideo Oikawa	Bwebwe Taake Rino
5	MINAKO	TENHO MARU	18-Jun-13	WCPFC	75,666	11,027	13,596	411		3,300			Sarwono Sup	Masamitsu Shirao	Auria Taburimai
6	ALIZA	TENHO MARU	18-Jun-13	WCPFC	85,000	9,000	20,000	800		1,000			Tri Panji Rapiandi	Masamitsu Shirao	Auria Taburimai
7	MINAKO	SHOTA MARU	30-Jun-13	WCPFC					12,500		2,400	6,100	Sarwono Sup	Wang Kuo-Wen	Valja John
8	MINAFA	KAIHO MARU	23-Aug-13	WCPFC	56,500	5,500	5,000	600		4,400			Tjuk Arief Sunarjanto	Hideo Oikawa	Ateri Beteru
9	TOMIO	KAIHO MARU	2-Sep-13	WCPFC	50,385	10,775	6,175	646		6,914			Paskah Halomoan T	Hideo Oikawa	Ateri Beteru
10	LINA	KAIHO MARU	14-Sep-13	WCPFC	94,000	9,300	7,000	1,100		3,700			Irwan	Hideo Oikawa	Ateri Beteru
11	ALIZA	KAIHO MARU	16-Sep-13	WCPFC	64,363	3,672	4,099	690		1,400			Tri Panji Rapiandi	Hideo Oikawa	Ateri Beteru
12	MINAKO	TENHO MARU	28-Nov-13	WCPFC	104,572	18,336	8,436	2,181		3,867			Sarwono Sup	Masamitsu Shirao	Seevare Tareimwa
13	MINAKO	TENHO MARU		WCPFC											
14	MINAFA	TENHO MARU	25-Jan-13	WCPFC											

V. SPECIFIC INFORMATION ABOUT IMPLEMENTATION OF CMM (SEABIRD, CETACEAN, AND WHITE-TIP SHARK)

a. Seabird : Not available
b. Cetacean : Indonesia already regulate the implementation of the CMM by stipulating the Minister Regulation No. 12 year 2012 on Fishing Business in High Seas, Minister Regulation No. 30 year 2012 on Fishing Business in Fisheries Management Area of Republic of Indonesia, and Minister Regulation No. 26 year 2013 on Amended of Minister Regulation No. 30 year 2012 on Fishing Business in Fisheries Management Area of Republic of Indonesia.
c. White-tip Shark : Not available

VI. DISPOSAL OF CATCH (FRESH/FROZEN/OTHER)/MARKET DESTINATION (EXPORT)

The detail of the Indonesia export of tuna product 2013 (January to June) as shown in the table below:

Table 14 Export Vulome and value for Large Tuna, Skipjack and neritic (Actual), 2013

No.	Exported Tuna	2013	
		Volume (Kgs)	Value (US$)
1	Tuna, Skipjack, neritic	105.106.000	398.353.000
	Total	105.106.000	398.353.000

NOTE :
Preliminary figures until June 2013

VII. SUMMARY OF OBSERVER AND PORT SAMPLING PROGRAMMES (SCIENTIFIC DATA)

In terms of national observer program, Ministry of Marine Affairs and Fisheries has released Regulation Number 01 Year 2013 concerning observer programme. 2. Recently in 2014 DGCF conducted a new recruitment for observer and start a trial programme for the recruited observer (30 person) however results from this trial observer still required to validate prior reported the WCPFC.

VIII. STATISTICAL DATA COLLECTION SYSTEMS IN USE

The statistical data collection system was designed on 1973. In 1974, Government started established and developed of statistical system. In 1976, Government implemented the survey method on national-wide, also developed survey frame based on the 1973 Agriculture Census. In 1974, government started data collection based on the Potential Village. During 1984-1989 Government has been improved data collection method. 1990 – Now, Government has been strengthening data collection method, data collection form, data processing, species breakdown, within eleven fisheries management area.

Organization and Job Duties

1. Directorate General of Capture Fisheries has responsible for designing survey method, supervision of the survey, tabulation/compilation, analyzing, and publishing of National Capture Fisheries Statistics
2. Province Fisheries Services has responsible for selecting sampling village at district level, supervision of the survey at the district level, tabulation/compilation, analyzing, and publishing of Provincial Capture Fisheries Statistics
3. District Fisheries Services has responsible for supervision, collecting of data, processing/estimation of the survey form, and reporting statistical fisheries data at district level.
4. Field Enumerators has responsible for collecting data in field.

The Generalized Procedure of Data Acquisition

- Refers to the landing. Fisheries data collection system sourced fishing port and industrial port/processor (census for powered boat) and sampling village (multiple raising factors for non-powered boat) at district level.
- The total catch from districts are aggregated per province and are validated and published in the annual fishery report by national government
- The generalized procedure of data acquisition shown on the flowchart bellow:

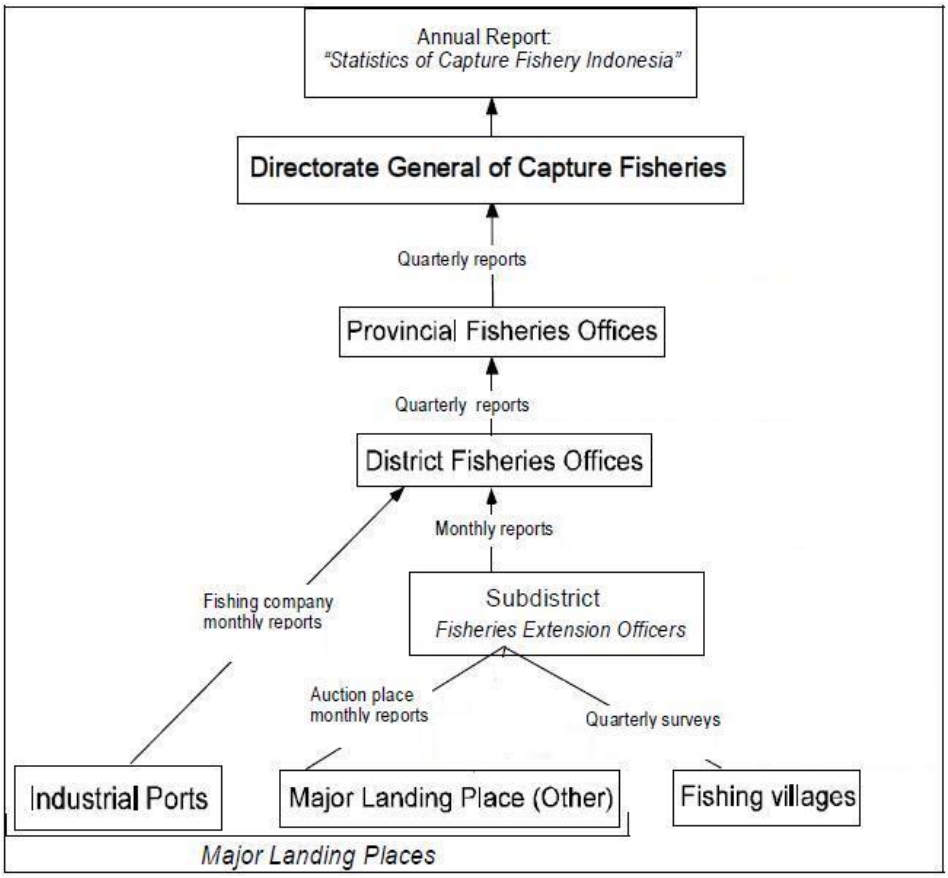

Figure 1. General procedure of Indonesia Fishery data and statistic acquisition (DGCF_2011)

II. RESEARCH ACTIVITIES (TUNAS, OTHER SPECIES, SPECIES OF SPECIAL INTEREST, OCEANOGRAPHIC INFLUENCES, ETC.)

During the WS of national tuna annual catch estimate it was realized that Indonesia require the configuration catch composition by species by gear for Area FMAs 713, 714, 715 to have best estimate of tuna catch for representing archipelagic waters. Therefore it was recently established a new sampling site to cover those three FMAs, Mamuju as a center for tuna landings from the Makassar Strait, that appropriate as a bridge site configuring at least FMAs 713 and 714. Other Research Project is developing capacity for management of Indonesias pelagic fisheries resources , Planned Project Duration : 2012-2015 . Objectives: To improve Indonesia's capacity to assess and manage its tuna fisheries to improve Indonesia's pelagic fisheries research capacity. The project also address population structure of Bigeye tuna and yellowfin tuna through genetic and parasites analysis Implementing Unit : RCFMC – ACIAR. Recent progress: Field trip and survey to collect samples have been performed and still continuing. Research institute for marine fisheries (RIMF) also conduct tuna fisheries research within FMA 716 in collaboration with SEAFDEC.

Fishing Ground

Base on the way points those recorded in the GPSs of each fleet as well as interview with their skippers, the fishing grounds as presented on the Figure 5 as below:

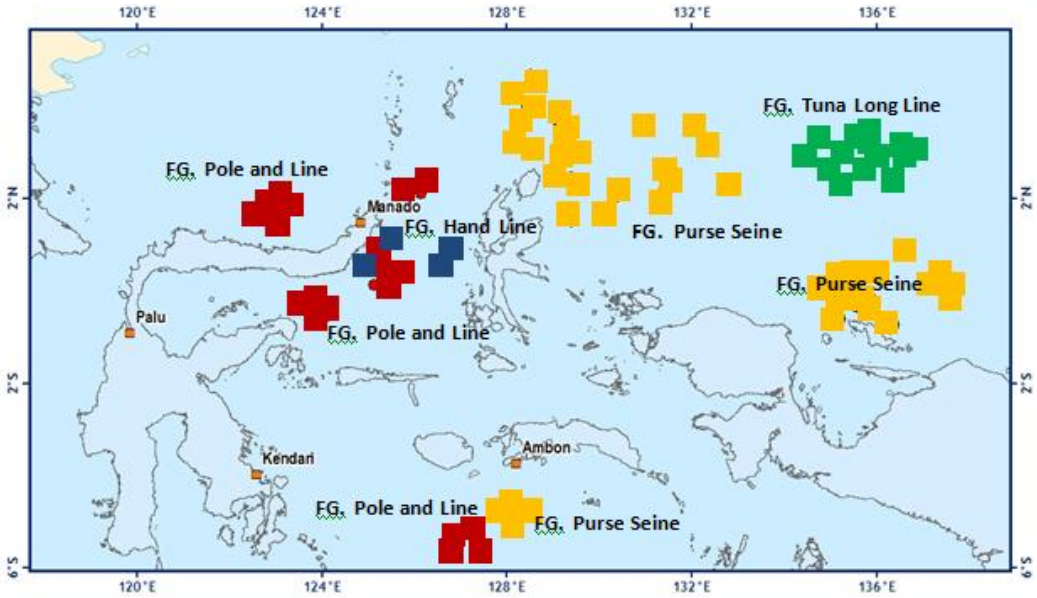

Figure 2. The fishing area of pole and line (indicated as red dots), hand line (blue dots), purse seine (yellow dots) and long line (green dots) as presented in Satria et all 2012.

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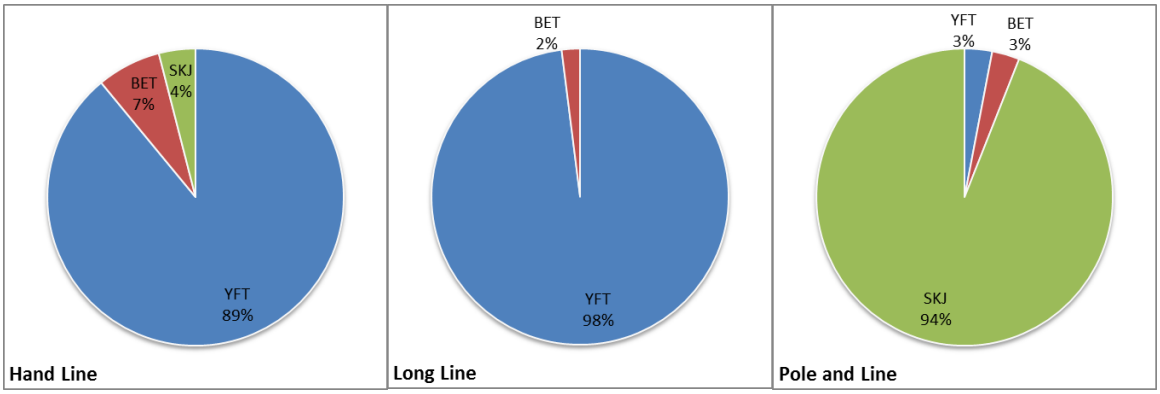
Catch Composition

Port sampling result in Bitung year 2013 showed that the catch composition by gear were vary for instance purse seine in Bitung was skipjack (91 %), yellowfin tuna (7 %) and bigeye tuna (2 %). Pole and line was skipjack (94 %), yellowfin tuna (3 %) and bigeye tuna (3 %). Hand line was yellowfin tuna (89%), bigeye tuna (7 %) and skipjack tuna (4%). While catch composition of tuna long line was yellowfin tuna (98 %) and bigeye tuna (2 %). The catch composition is presented on Figure 3.



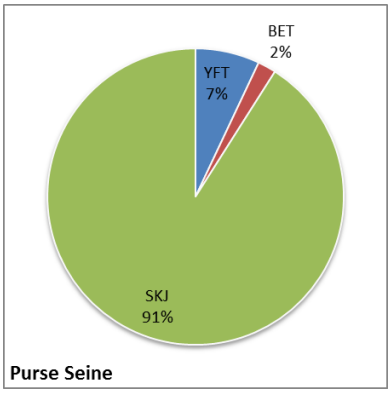


Figure 3. Catch composition of Hand Line, Long Line, Pole and Line, and Purse Seine based at Bitung in 2013

Kendari's Port sampling in year 2013 showed thatcatch composition of purse seine was skipjack (66 %) yellowfin (28 %) and bigeye tuna (6 %). Pole and line was skipjack (69 %), yellowfin tuna (29 %), and bigeye tuna (2%). Whilst catch composition of troll line was skipjack 62 %, yellowfin tuna 35 %, and bigeye tuna 3% (Figure 4).

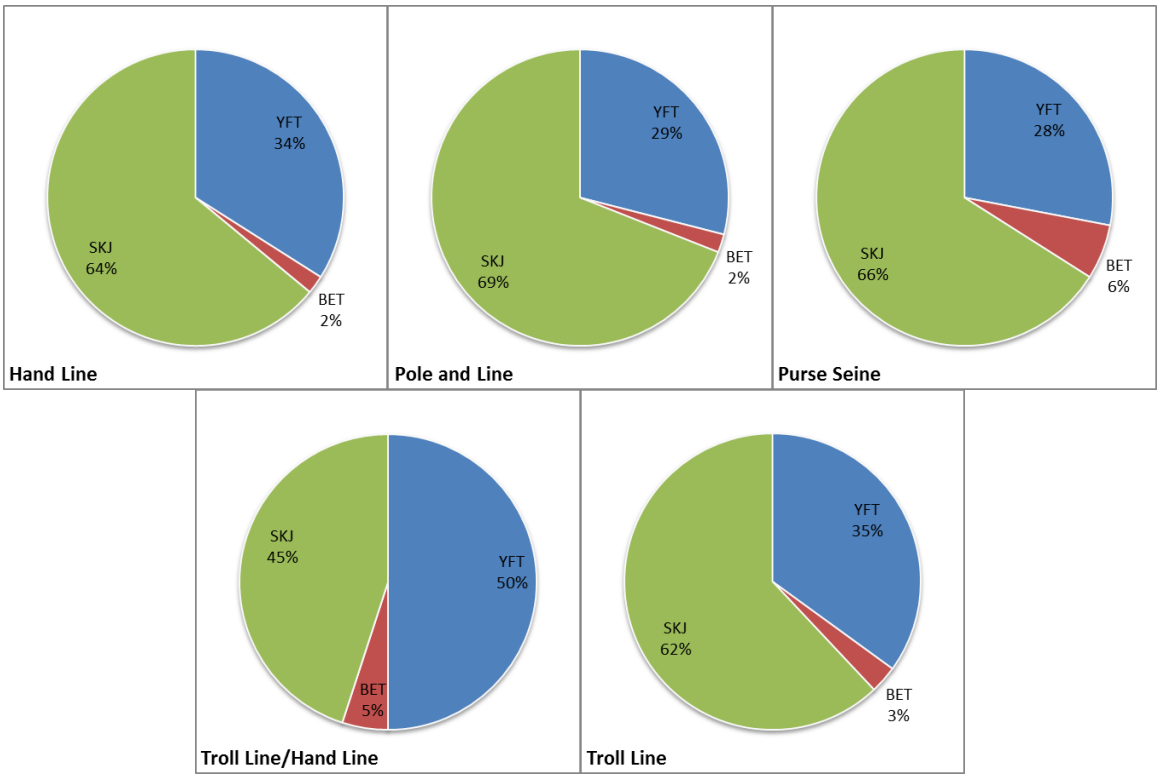


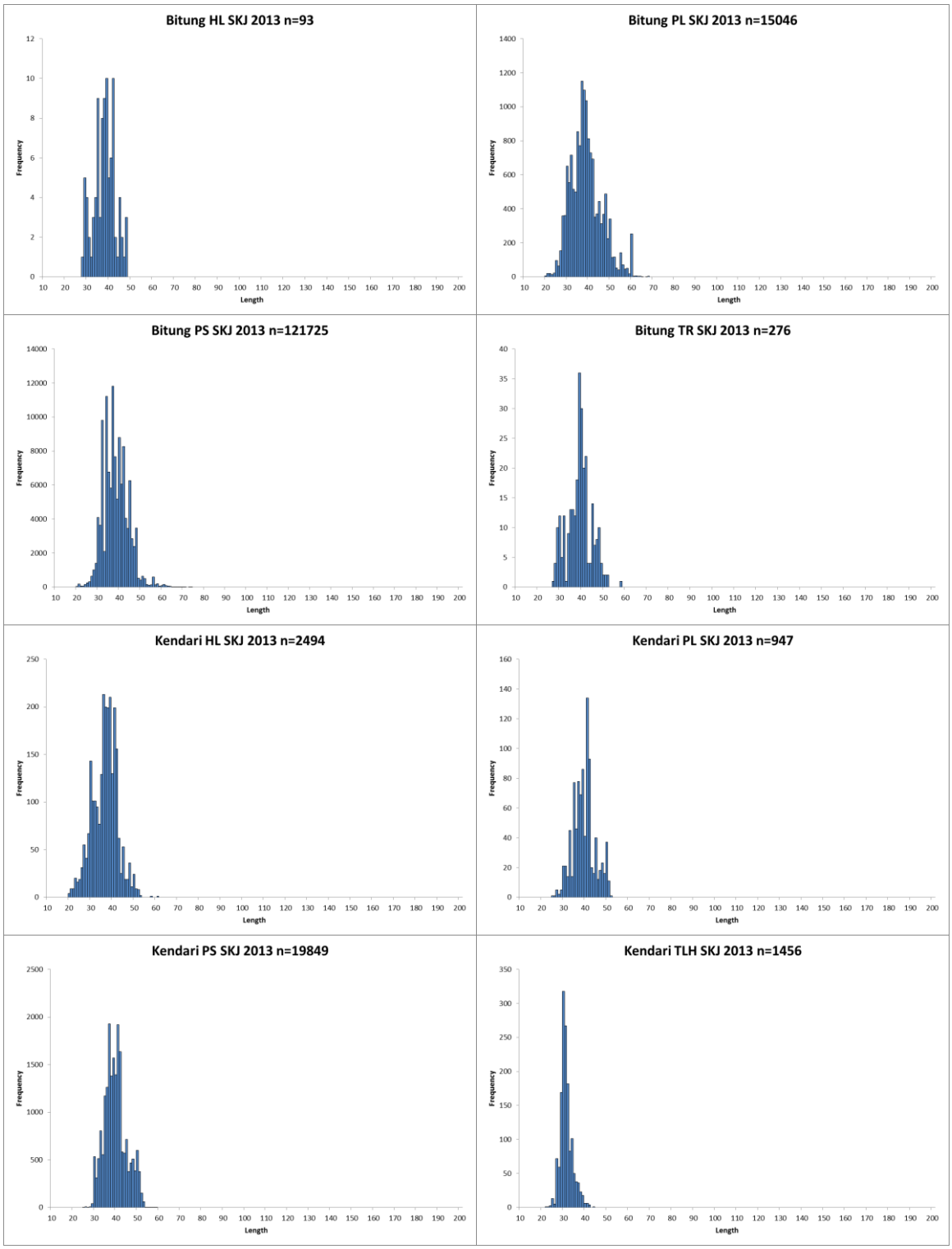
Figure 4. Catch composition of Hand Line, Pole and Line, Purse Seine, Troll Line/Hand Line, and Troll Line based at Kendari.in 2013.

Size Distribution

Skipjack (*Katsuwonus pelamis*)

Size (fork length-FL) distribution of skipjack (SKJ)-*Katsuwonus pelamis* caught by purse seine (PS) based at Bitung ranged 20-74 cm (mode 37 cm), while in Kendari ranged 25-59 cm (mode 37 cm).

Skipjack caught by pole and line (PL) in Bitung ranged 20 -68 cm (mode 37 cm). Skipjack caught by troll line (TR) based at Kendari ranged 26-53 cm (mode 41 cm). size distribution by species and gear based at Bitung and Kendari in a yearly basis is presented on figure 5.



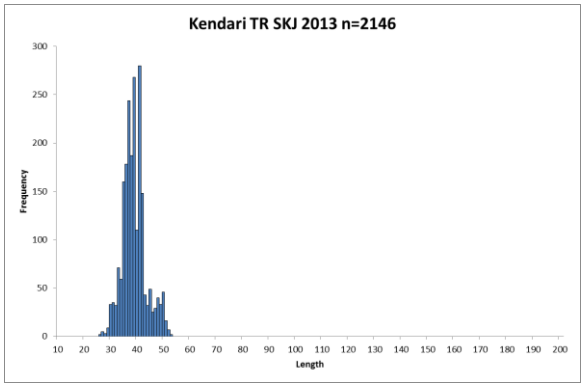
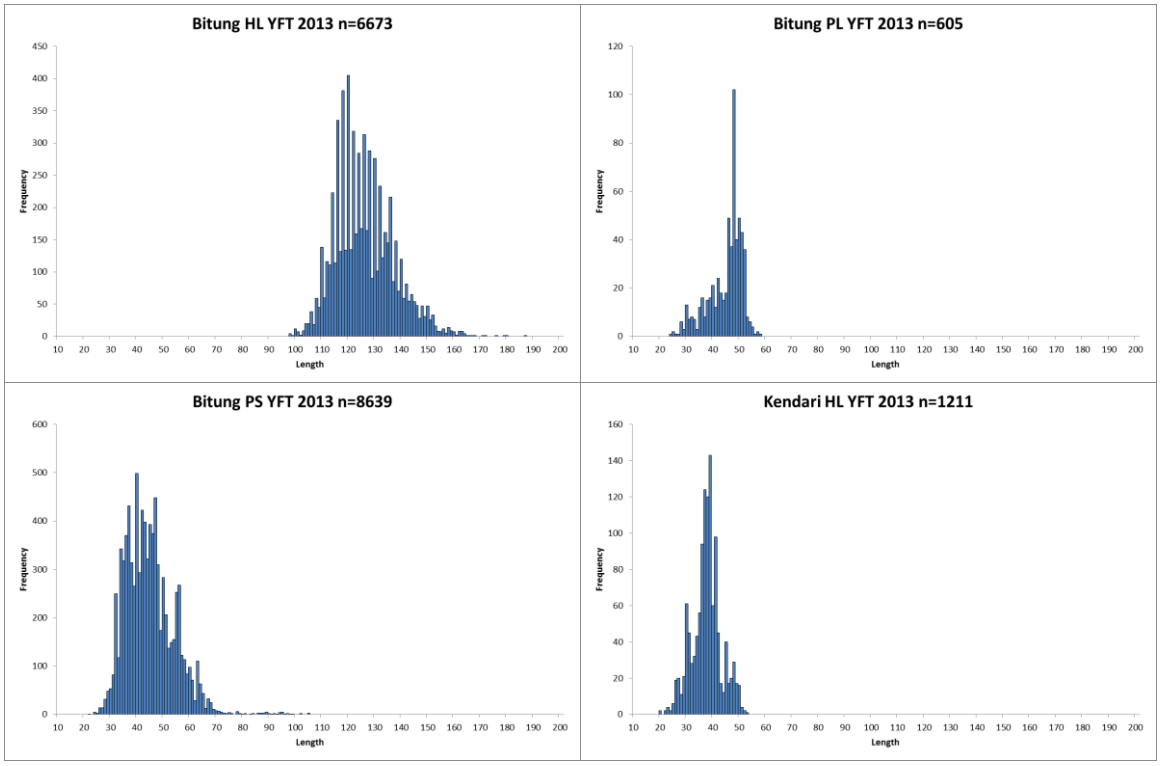


Figure 5. Size distribution (FL) of skipjack caught by purse seine, pole and line as well as troll line based at Bitung and Kendari.

Yellowfin Tuna (*Thunnus albacares*)

Size distribution of yellowfin tuna (YFT)-*Thunnus albacares* caught by purse seine based at Bitung ranged 22-105 cm (mode 40 cm) whilst in Kendari ranged 26-56 cm (mode 42 cm). Yellowfin tuna caught by pole and line based at Bitung ranged 24 -58 cm (mode 48 cm), whilst in Kendari ranged 27-52 cm (mode 41 cm). Yellowfin tuna caught by hand line (HL) ranged 98-187 cm (mode 120). Yellowfin tuna caught troll line (TR) ranged 27-52 cm (mode 39 cm),



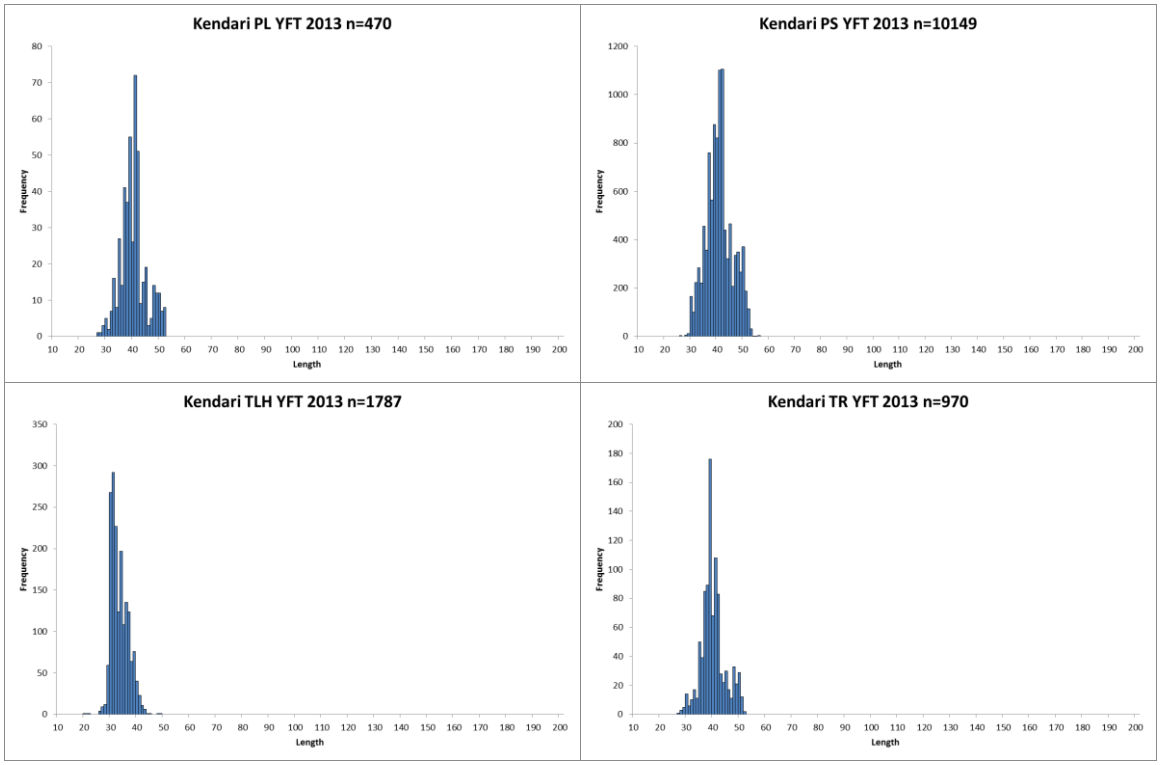
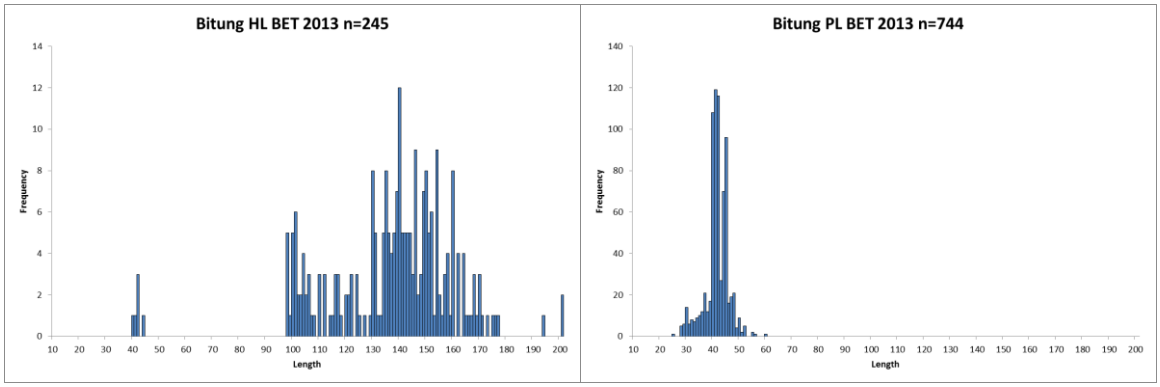


Figure 6. Size distribution (FL) of yellowfin tuna caught by purse seine, pole and line, hand line as well as troll line based at Bitung and Kendari.

Bigeye Tuna (*Thunnus obesus*)

Size distribution of bigeye tuna (BET)-*Thunnus obesus* caught by purse seine based at Bitung ranged 20-75 cm (mode 42cm) whlist in Kendari ranged 27-56 cm (mode 50 cm). Bigeye tuna caught by pole and line based at Kendari ranged 34 -57 cm (mode 53 cm). Whilst bigeye caught by hand line (HL) ranged 40-209 cm (mode 140).



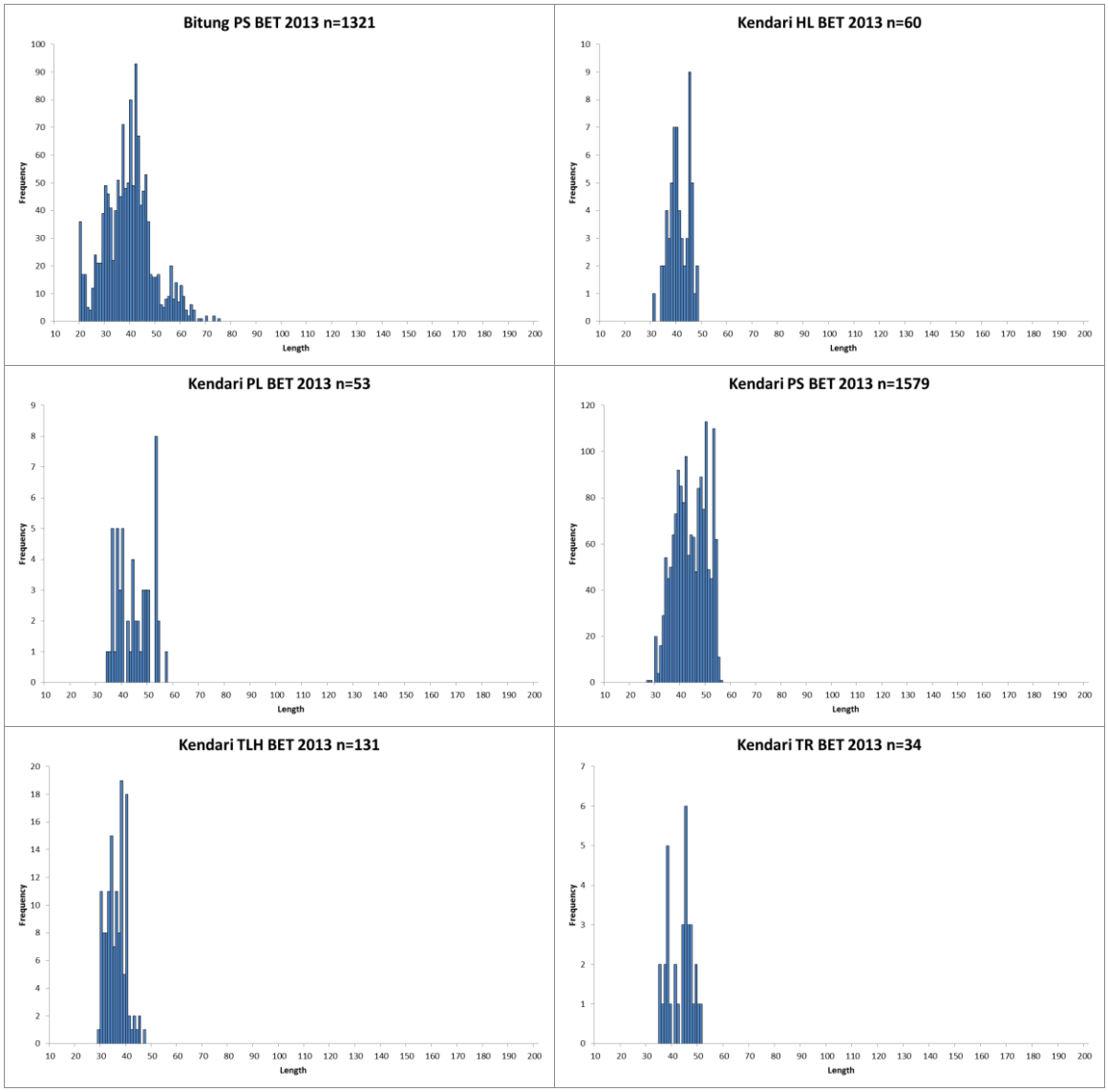


Figure 7. Size distribution (FL) of bigeye tuna caught by purse seine, pole and line, and hand based at Bitung and Kendari.

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