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PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS

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PHILIPPINES

ANNUAL REPORT TO THE WESTERN and CENTRAL PACIFIC FISHERIES COMMISION (WCPFC)

PART1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

PHILIPPINE ANNUAL FISHERY REPORT UPDATE

July 2012

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, 2012	No
If no, please indicate the reason(s) and intended actions:	There was a delay in the consultation process with different government agencies and also with the tuna industry.

PHILIPPINE ANNUAL FISHERY REPORT 2012

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Summary

The Philippines expresses its strong commitment to promote effective management in order to achieve the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific Ocean (WCPO) in accordance with the 1982 Law of the Sea Convention, the UN Fish Stocks Agreement, and the WCPF Convention. In giving effect to the provisions of the WCPF Convention, the Philippines upholds that conservation and management measures developed by the Commission, including CMM 2011-01 and 2008-01 on the conservation and management of bigeye and yellowfin, would need to embody the principles and measures adopted under the Convention.

The ongoing research activities of the National Stock Assessment Program (NSAP) has continued to collect data on species composition, length frequency, vessel catch and effort information on key tuna landing sites around the country. The West Pacific East Asia Oceanic Fisheries Management Project (WPEA-OFMP) funded by UNEP-GEF-WCPFC which started in January 2010 will help strengthen national capacities and international cooperation on priority transboundary concerns relating to the conservation and management of highly migratory fish stocks in the West Pacific Ocean and East Asia (Indonesia, Philippines and Vietnam).

The Bureau of Fisheries and Aquatic Resources (BFAR) strongly encourage the tuna industry to continue supporting the catch documentation scheme which includes the catch and effort logsheet system for all purse seine and ringnet vessels. Aside from this BFAR also requires canneries to submit monthly cannery unloading data. There are various DA-BFAR Fisheries Administrative Orders such as FAO 238 that supports requirements on catch data documentation. All these efforts are geared towards improving tuna statistics/data gathering.

The Bureau has currently 135 trained observers and 30 trained debriefers. The VMS has already been operationalized although on a limited scale but the Bureau is in close collaboration with the industry to increase coverage. With the approval of Fisheries Administrative Order Nos. 240 and 241 these will strengthen the implementation of Fisheries Observer Program activities and VMS operations especially in the high seas.

The provisional catch estimates for the three species of concern of the WCPFC in 2011 are as follows: skipjack – 197,383MT; yellowfin – 123,014MT and bigeye – 9,612MT (BAS, 2012). Although a much lower catch estimate was obtained during the 5th Annual Tuna Catch Estimates Review Workshop with the following breakdown: skipjack – 67,486 MT; yellowfin – 37,172 MT and bigeye – 2,185 MT. The discrepancies between the two (2) estimates could be due to the difficulties in estimating the diverse municipal fisheries and could be explained as possible bias in the probability surveys due to very low coverage.

The Philippines, through the BFAR-NFRDI and other concerned agencies together with the tuna industry is doing a lot of efforts to improve data collection and to strengthen its national capacity and international cooperation on transboundary concerns in relation to the sustainable conservation and management of highly migratory fish stocks.

BACKGROUND

The Philippines is still one of the top fish producing countries in the world. Over 1.6 million Filipinos depend on the fishing industry for their livelihood. The Philippines is also considered a major tuna producer in the Western and Central Pacific Ocean (WCPO). The fishing industry's contribution to the country's Gross Domestic Products (GDP) in 2010 was 2.2% and 2.4% at current and constant prices, respectively *(Philippine Fisheries Profile, 2010)*.

Also in 2010, the foreign trade performance of the fishery industry gave a net surplus of 616 million dollars. With a total export value of 803 million US dollars and import value of 187 million US dollars. Tuna remained as the top export commodity with a collective volume of 106,449 MT for fresh/chilled/frozen, smoked/dried, and canned tuna products valued at US $337.719 million. Canned tuna, though, constitutes bulk of tuna products being exported. In general, tuna export went up by 2% in terms of volume and 3% in terms of value. Major markets for this commodity include USA, UK and Germany. *(Philippine Fisheries Profile, 2010)*.

Chilled/frozen fish comprised the bulk of the total import in terms of value. Tuna, mackerel and sardines are the major import fish commodities in 2010. Tuna has the largest import share of 32% with an import value of US $59.1 million. Chilled/frozen tuna were mostly supplied by Papua New Guinea 8 %; Taiwan (ROC) 10%; Japan 4.3%; Singapore, 1% and Marshall Korea Rep, 6%. Other fishery imports include mackerel, 17% and sardines, 1%. *(Philippine Fisheries Profile, 2010)*.

ANNUAL FISHERIES INFORMATION

A. FLEET STRUCTURE

The fishing sector consists of municipal and commercial components, with the former involving vessels less than 3 GT in size, and under the jurisdiction of the Local Government Units (LGUs). The number of municipal vessels is not well documented in most areas. The larger commercial vessels (> 3GT) are required to fish outside municipal waters, beyond 15km off the shoreline and are required to secure commercial fishing vessel license (CFVL) at the Bureau of Fisheries and Aquatic Resources which is subject to renewal every three (3) years. With the implementation of RA 9379 or the Handline Fishing Law, this gives a separate category for the handline vessels which were formerly considered under the municipal fishing vessels.

The Bureau of Fisheries and Aquatic Resources (BFAR) classification of registered Philippine vessels operating in the Western and Central Pacific Region is shown in Table 1.

Table 1. Classification of Philippine registered vessels in WCPFC.
Source: WCPFC Website, as of 1 July 2012

Type of Vessel	Number of Vessels Registered			
	<250 GT	> 250GT	>500GT	**Total**
Bunker			1	**1**
Fish Carrier	111	51	26	**188**
Fishing Vessel not specified	8	2	1	**11**
Handline	1			**1**
Longline	7	8	9	**24**
Multi-purpose Vessel	6	1	1	**8**
Purse Seine	64	36	27	**127**
Support Vessel	254	4	4	**262**
Total	**451**	**102**	**69**	**622**

B. ANNUAL TUNA CATCH IN THE PHILIPPINE EEZ

Since 1987, the official fishery statistics for the Philippines have been compiled by the Bureau of Agricultural Statistics (BAS), based on probability (stratified random sampling by data collectors) and non-probability surveys (interviews by regular BAS staff) surveys, supplemented by secondary data from administrative sources e.g. landings sites and ports (Vallesteros, 2002). Annual Fisheries Statistics for commercial, municipal, inland and aquaculture sectors are published for three year time frames, most recently for 2006-2008 inclusive (BAS, 2009), and include volume and value of production by province and by region, information on fish prices and foreign trade statistics.

Catch breakdown by the 31 main marine species is available[1]. Estimates of annual bigeye and yellowfin catches for the past years have been reported as a combined catch (yellowfin/bigeye tuna) but for 2005 BAS started to separate catches for these two species of tunas (Table 2). However, there is still a need to improve the identification of these two (2) species to accurately reflect the actual catch of yellowfin and bigeye.

The annual tuna catch estimates include all the tuna catch unloaded in Philippine ports regardless where they were caught and does not separate those catches from foreign waters or whether it is caught by foreign-flagged vessel.

Table 2. Total tuna catch, by species, for 2007-2011
Source: BAS Annual Fisheries Statistics; 2011 data are provisional

Year	Commercial			Municipal			TOTAL
	Skipjack	Yellowfin	Bigeye	Skipjack	Yellowfin	Bigeye	
2007	152,098	82,660	17,325	33,766	51,832	16,891	**354,572**
2008	181,563	116,528	17,174	40,447	51,882	17,967	**425,561**
2009	201,262	91,440	3,701	50,262	60,997	2,034	**409,697**
2010	177,698	85,351	8,575	50,481	61,924	3,070	**387,099**
2011	147,979	68,625	6,022	49,404	54,389	3,591	**330,010**

Note: The annual tuna catch estimates for 2007-2011 includes all the tuna catch unloaded in Philippine ports regardless where they were caught and does not separate those catches from foreign waters or caught by foreign-flagged vessel which may account for around 113,256MT for 2011.

BFAR launched the catch documentation scheme which requires purse seine and ringnet operators to submit monthly logsheets report and for the canneries to submit monthly cannery unloading data. BAS is also in the process of implementing the new statistical frames and methodologies in order to address the above issue. All these efforts are geared towards improvement of the country's catch estimates.

The 5th Tuna Fisheries Catch Estimates Review Workshop last 17 – 18 May 2012 was conducted to review and validate Philippine catch estimates by species and gear type. Data from different sources, namely, BFAR (NSAP, logsheets, cannery receipts), BAS, PFDA and industry were presented and reviewed. Table 3 provides a breakdown of catch by gear and species according to the process undertaken in the workshop with the current 2011 BAS estimates. After removing the foreign-flagged catch landed in the Philippines from the BAS estimate, there was a difference of around 113,000MT. The difference could be due to the difficulties in estimating the diverse municipal fisheries and could be explained as possible bias in the probability surveys due to very low coverage. The workshop participants noted that while the

[1] Around 20% of the municipal catch and 6-8% of the commercial landings are not captured by these 30 species

industrial fleet estimates are now becoming more reliable, there is still a major problem in determining and validating the estimates of the small-scale municipal fisheries that needs to be resolved in the near future. One of the activities done to somehow address this issue was the study conducted in Region 8 to determine the likelihood that hook-and-line vessels at nearby landing sites would catch significant amounts of oceanic tuna species. For more details on the workshop outputs and study conducted in Region 8, please refer to the WPEA-OFM project outputs.

Table 3. Reconciliation of 2011 Tuna Catch Estimates by Gear and Species with the 2011 BAS Total Tuna Catch Estimates (in MT)
Source: Fifth Philippine/WCPFC Annual Tuna Catch Estimates Review Workshop Report, May 2012

GEAR/SPECIES	SKJ	YFT	BET	TOTAL
Purse seine	39,733	10,522	929	51,184
Ringnet	21,667	5,677	579	27,923
Handline	62	10,577	225	10,864
Hook-and-line	4,875	9,675	450	15,000
Others	1,149	721	1	1,871
TOTAL	67,486	37,172	2,185	106,842

Tuna catch breakdown by gear is not available from the present BAS national statistics publication. However, the WCPFC Tuna Fishery Yearbook has provided an estimated breakdown of catch by gear (Table 4).

No other fishing by foreign flag vessels is permitted in the Philippines EEZ, but a considerable amount of IUU fishing, based on the regularity of apprehensions of vessels illegally fishing in Philippine waters, would seem to occur, much of it involving tuna vessels. A desk study carried out in 1995 (PTRP, 1995) concluded that IUU longline catches of up to 10,000MT (40% yellowfin) may have been taken in some years.

Landings/ transshipments by foreign longline vessels are permitted in Davao (Toril) port, where around 3,500 - 5,500MT of mostly tuna is landed annually (Table 8). Over half is retained for processing and consumption, with the rest transshipped by air. Most of these retained catch do not pass the export quality standards and import permit is not necessary since the DA Secretary has signed a certificate of necessity. It is also assumed that all of this catch is taken outside Philippine waters.

Table 4. **Estimated catch of oceanic tuna species, by gear type, for 2006 – 2010 in Western and Central Pacific Oceans (in MT)**
Source: WCPFC Tuna Fishery Yearbook 2010

Year/Species	Handline	Hook-and-Line	Longline	Purse seine	Ringnet	Others	Total
2006							
Skipjack		32,900			13,623	922	47,445
Yellowfin	14,498	35,000	484		6,175	1,956	58,113
Bigeye	555	2,100	59		823	184	3,721
Total	15,053	70,000	543	182,285	20,621	3,062	291,564
2007							
Skipjack		32,900			16,629	1,064	50,593
Yellowfin	16,853	35,000	484		6,652	2,257	61,246
Bigeye	521	2,100	59		713	213	3,606
Total	17,374	70,000	543	205,122	23,994	3,534	320,567
2008							
Skipjack		32,900			17,761	1,355	52,016
Yellowfin	15,712	35,000	484		8,421	1,327	60,944
Bigeye	637	2,100	59		322	15	3,133
Total	16,349	70,000	543	243,952	26,504	2,697	360,045
2009							
Skipjack		23,899			29,862	1,355	55,116
Yellowfin	7,768	43,172	484		7,347	1,327	60,098
Bigeye	330	2,929	59		291	15	3,624
Total	8,098	70,000	543	209,107	37,500	2,697	327,945
2010							
Skipjack	131	25,200			26,417	2,167	53,915
Yellowfin	11,313	43,400	484		5,363	1,500	62,060
Bigeye	284	1,400	59		218	365	2,326
Total	11,728	70,000	543	167,190	31,998	4,032	285,491

C. ANNUAL CATCHES IN THE CONVENTION AREA

In addition to the estimated catch by Philippine vessels in the EEZ (see above), to this must be added catches by Philippines flag vessels taken outside the EEZ and elsewhere in the Convention area. The extra - EEZ catches are assumed to include those made by purse seine and ring net vessels in adjacent areas and based in overseas ports, and catches by the wide-ranging handline vessels. BFAR has already required fishing vessels such as purse seine and ringnet to adopt the logsheet system to address the above issue.

The fisheries data collection system records all catch landed by Philippine registered vessels including those fish caught outside Philippine waters (e.g. PNG, PIN waters). It is believed that up to 100,000MT of catch are taken outside the Philippine EEZ. This primarily includes catch by small purse seiners and ring netters and landing their catch in Philippine ports.

Purse seine catches in the PNG and Solomon Islands EEZ

Data on the catch by Philippine flag purse seine vessels fishing in Papua New Guinea (PNG) waters are available from the SPC Regional Database, and are summarized for the period 2007-2011 below. While the catch of Philippine flag purse seine vessels fishing in Solomon Islands waters for 2011 is around 2,000MT.

Table 5. Catch by Philippine flag purse seine vessels in PNG waters, 2007-2011.
Source: SPC Regional Tuna Fishery Database

Year	No. of Vessels	Catch (in MT)			
		Skipjack	Yellowfin	Bigeye	Total
2007	12	20,866	12,675	677	34,218
2008	14	26,958	21,117	1,801	49,876
2009	25	37,216	22,260	1,851	61,327
2010	22	43,870	27,594	1,966	73,430
2011	25	50,047	29,166	1,599	80,812

- 2011 – preliminary

Longline catches in Kiribati

In 2011, one (1) Philippine longline vessel has been granted fishing access in Kiribati, catch report for this vessel is summarized below.

Table 6. Catches of Philippine flagged longline vessels with fishing access in Kiribati for 2011.

Species	Catch (in MT)
Yellowfin	145.77
Bigeye	777.06
Albacore	36.39
Marlin	39.43
Swordfish	111.59
Shark	10.38
Others	13.56
TOTAL	**1,134.18**

DISPOSAL OF CATCH

Most of the **municipal** tuna catches are landed as wet fish in thousands of landing sites all over the Philippines. Much of the municipal catch is processed by drying, salting, smoking etc. No data are available on the disposal of the municipal catch after landing, but little of the municipal tuna catch would enter large scale commercial processing, the exception being large handline-caught tuna exported as sashimi and marketed either frozen or smoked, mostly in General Santos City and possibly small amounts of tuna sold as wet fish direct to canneries.

The **commercial** domestic tuna catch of oceanic tunas is increasingly directed towards processing by domestic canneries, based in the Philippines and elsewhere, with lesser amounts to frozen smoked operations. The estimated 200,000MT annual output of the 7 canneries is mostly supplied by landings from Philippine purse seiners and ring netters, both local vessels and via carriers from overseas operations. Overseas operations also supply canneries in PNG (~50,000MT p.a.); some tuna is imported to supplement cannery supply.

Official figures for **exports of tuna products** for the period 2007-2011 are tabulated below. The first category includes chilled sashimi quality fish, frozen whole fish for canning and presumably frozen smoked tuna. The volume of canned exports is somehow fluctuating.

Table 7. Tuna exports by commodity, 2007 –2011
Source: NSO data, in BAS Fisheries Statistics for 2007 – 2011

Tuna commodity, by volume (MT)	2007	2008	2009	2010	2011
Fresh/chilled/frozen	26,854	32,365	23,504	33,688	22,027
Dried/smoked	0.4	17			13,933
Canned	48,284	76,910	83,604	76,801	58,071
TOTAL VALUE (million USD)	218.55	395.94	346.40	359.38	314.507

ONSHORE DEVELOPMENTS

A. HARBOR INFRASTRUCTURE

The General Santos Fish Port Complex (GSFPC), the country's major tuna unloading port, with 112,891 MT total tuna unloadings in 2011, has undergone expansion and improvement. Major components of the said expansion/improvement project includes construction of deep wharves, cold storage and processing area, port handling equipment, power substation, waste water treatment plant, water supply system and other ancillary facilities. GSFPC port facilities have already met international standards for HACCP GMP-SSOP and accredited by the European Union (EU), Japan and United States. Six other major fish ports in the country are proposed for rehabilitation in the near future. The Navotas Fish Port Complex, in Metro Manila is the second largest tuna landings are recorded with unloadings of around 10,000 MT annually. Rehabilitation project for NFPC includes upgrading of port facilities *(such as roads, electrical and power system, landing quay and west breakwater)*, construction of cold storage and processing plant, and waste water treatment facilities.

B. PROCESSING PLANTS

There are currently 7 tuna canneries in the Philippines, 6 in General Santos and 1 in Zamboanga.

There are two Philippine-owned and operated canneries in Papua New Guinea one in Madang and another one in Lae processing around 50,000MT per year.

Most of the handline catch supply fresh and frozen sashimi grade to the export processors and some to the domestic market. There are more than 15 frozen tuna processors in the Philippines, 80% of which are located in General Santos City and supports about 3,000 jobs. Majority of its production is exported to US and European countries.

STATUS of TUNA FISHERY DATA COLLECTION SYSTEMS

A. LOGSHEETS DATA COLLECTION & VERIFICATION

Since 2008, the Bureau of Fisheries and Aquatic Resources (BFAR) launched the catch documentation scheme which includes the catch and effort logsheet system for the purse seine and ringnet vessels. Aside from this BFAR also requires canneries to submit monthly cannery unloading data. TUFMAN Database and PECAN Database systems are being utilized to process the data collected from logsheets and cannery

receipts, respectively. All these efforts are geared towards improving tuna statistics/data gathering. Recently, DA-BFAR as approved a new Fisheries Administrative Order (FAO 238): Rules and Regulations Governing the Implementation of Council Regulation (EC) No. 1005/2008 on Catch Certification Scheme. This regulation officially requires all vessels especially those exporting in EU market to submit catch logsheets as requirement for the issuance of Catch Certificates and this helped improve timely logsheets data compliance.

Based on the status of appraisal of (2004) historical operational logsheets data from Philippine purse seine/ringnet vessels to determine high seas days, Philippines has a total of 4,923 high seas days effort from 60 vessels (15 companies) that gave sufficient information required by WCPFC, the latest appraisal for these operational data was done November 2011.

B. OBSERVER PROGRAM and Vessel Monitoring System (VMS)

The BFAR regularly conducts observer training, twice in a year to recruit new observers. There are currently 135 trained observers ready to board the vessels especially to those vessels intending to fish during the FAD closure period (1 July to 30 September 2012). In 2011, the Philippine Observer Programs has covered 243 purse seine and ringnet sets operating in Celebes Sea, Sulu Sea, West Philippine Sea and the Eastern Pacific Seaboard. The program has also conducted Debriefing Training Coarse last June 7 -14, 2012 and has trained 30 debriefers to conduct debriefing procedures and protocols to the observers. There were also observer coverage to those vessels fishing in the PNG EEZ, provided by PNG NFA.

The Bureau of Fisheries and Aquatic Resources (BFAR) has operationalized the national VMS but on a limited scale at the moment. The Bureau is continually in close collaboration with the private sector to increase VMS coverage.

There were two (2) recently, approved DA-BFAR Fisheries Administrative Orders that supports the implementation the Philippine Fisheries Observer Program (PFOP) and operationalization of Vessels Monitoring System (VMS). These were FAO No. 240: Rules and Regulations in the Implementation of Fisheries Observer Program in the High Seas and FAO No. 241: Regulations and Implementation of the Vessel Monitoring System in the High Seas.

C. PORT SAMPLING PROGRAM

The National Stock Assessment Program (NSAP) has continued to collect port sampling data in major tuna landing sites (e.g. species composition, length frequency and vessel catch and effort information). Increased port sampling coverage was realized through the West Pacific East Asia Oceanic Fisheries Management Project (WPEA-OFMP) which started last 2010.

D. UNLOADING / TRANSHIPMENT

Transshipment by foreign vessels is permitted in only one port in the Philippines - Davao (Toril), as noted earlier. Table 8 below lists the details of these unloading.

Table 8. Vessel Arrivals and Unloading Volumes by Foreign Vessels, Davao Fish Port
Source: PFDA, 2011

Year	Port Calls	Volume of Unloadings (MT)	Transhipped (MT)	Retained (MT)
2007	762	5,928	2,478	3,450
2008	504	3,916	1,552	2,364
2009	420	2,978	1,166	1,812
2010	396	3,514	1,387	2,127
2011	316	2,687	1,273	1,414

E. OTHERS

There is a Fishery Improvement and MSC-Certification of the Artisanal Hand-Lining Fishery for *Yellowfin Tuna* in the Gulf of Lagonoy and Mindoro Island in the Philippines a project jointly implemented by WWF and Blueyou Consultancy supported by Coop / Bell Seafood (Switzerland) and Seafresh (Netherlands) in Partnership with the German Development Bank DEG aims to realize a better managed fishery rewarded by the Marine Stewardship Council (MSC) within the 4 year period. The long term goal of this initiative is to secure the global market opportunities of artisanal tuna handline fisheries in the Philippines.

RESEARCH & FUTURE ACTIVITIES COVERING TARGET & NON-TARGET SPECIES

The West Pacific East Asia Oceanic Fisheries Management Project (WPEA-OFMP) officially started its activities in January 2010. The objectives of this project is to strengthen national capacities and international cooperation on priority transboundary concerns relating to the conservation and management of highly migratory fish stocks in the West Pacific Ocean and East Asia (Indonesia, Philippines and Vietnam). The project has two (2) components, namely, 1) catch monitoring, data enhancement, fishery assessment and 2) policy & institutional strengthening and fishery management.

The Philippine Government through the Bureau of Fisheries and Aquatic Resources and National Fisheries Research and Development Institute (BFAR-NFRDI) in collaboration with the SOCKSARGEN Federation of Fishing and Allied Industries Inc., started to conduct gonadal maturity studies for one (1) year period on major tuna species, namely, yellowfin, bigeye and skipjack.

There is another UNDP-GEF funded project which started last year entitled Sulu Celebes Sea Sustainable Fisheries Management Project. This project aims to improve the condition of fisheries and their habitats in the Sulu-Celebes Sea to a sustainable level through an integrated, collaborative and sustainable tri-national management (Indonesia, Malaysia, Philippines).

DA-BFAR Fisheries Administrative Order (FAO) No. 236: Rules and Regulation on the Operation of Purse Seine and Ringnet Vessels using Fish Aggregating Devices (FADs) locally known as Payaos during the FAD Closure Period as Compatible Measure to WCPFC CMM 2008-01 was issued last May 31, 2010 to reduce fishing mortality of bigeye and yellowfin tuna. In order to improve this compatible measure, all purse seine and ringnet catcher vessels shall have observers on board, who shall gather data and recommend further

improvements during the aforementioned period. The effectivity of FAO 236 was extended up to February 28, 2013 (FAO No. 236-1).

With the recent development in the 8th WCPFC Regular Session in March 2012, Conservation and Management Measure (CMM) 2011-01 for Temporary Extension of CMM 2008-01 was adopted giving Philippines limited access to High Seas Pocket Number 1 (HSP-1) as a Special Management Area (SMA). Philippines has also approved a new FAO on the Regulations and Implementing Guidelines on Group Tuna Purse Seine Operations in High Seas Pocket Number 1 as a Special Management Area. This will be supported by other FAOs such as the extension of FAO 236 and also approval of new FAO on the National Tuna Fish Aggregating Device (FAD) Management Policy (FAO No. 244). These new DA-BFAR Fisheries Administrative Orders will make sure that conservation and management objectives on CMM 2011-01 and 2008-01will not be compromised.

Recently, BFAR also announced to conduct a study on Tuna Migration where they intend to deploy of six (6) Fisheries Observers that will cover areas in Ilocos, Zambales and Eastern Samar.

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