Sustainable Management of WPEA Tunas
Project Progress Report

3rd Quarter 2015

Submitted by the Project Manager SungKwon Soh

09 October 2015

AWARD BASIC INFORMATION

Award ID:	00077221
Project ID:	00088145
Award Title:	Regional: Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas
Business Unit:	PHL10
Project Title:	Regional: Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas
PIMS no.	4753
Implementing Partner (Executing Agency)	Western and Central Pacific Fisheries Commission (WCPFC)
Award Start Date & End Date	
Total Award Amount	$2,233,578

PROJECT PROGRESS

1. Several activities have been planned for the third quarter but implementation of those activities has been delayed in Indonesia and Vietnam awaiting finalisation of their internal approval process required to action this project, i.e., designating the execution department and finalizing the project activities and related budget. Project activities for these two countries have been deferred to the fourth quarter of 12015 or early 2016. The progress of the WPEA project at each country is annexed below.

Indonesia

2. There are two agencies in Indonesia which implement the WPEA-SM Project: Directorate General for Capture Fisheries (DGCF) and Research Center and Development for Fisheries (RCDF, formerly RCFMC).

3. Though Indonesia has approved the WPEA-SM project and both DGCF and RCDF have provided their official bank accounts, DGCF's internal process for dealing with project activities and budget with their finance office has yet to be cleared (There was a new request from the government in July 2015), hence delays for the project implementation continue in DGCF. In the case of RCDF, there was a re-structuring and the formal institute RCFMC merged with the Aquaculture Center, to become RCDF. However, the implementation of RCDF's project activities have continued to date.

4. Third quarter, WPEA-related activities conduced in Indonesia are listed below:
   a) Collection of tuna catch, effort and biological data from port sampling at these landing sites: Kendari Sodohoa, Bitung, Sorong and Mamuju (Majene). Data summary report - **Attachment A**.
   b) Supervision trip for port sampling conducted during August in Sorong. Trip report - **Attachment B**.
   c) Participation in the 11th regular session of the WCPFC's Scientific Committee as capacity building in fisheries science (5-14 August 2015, Pohnpei, FSM). Trip report - **Attachment C**. The participant described in his report lessons that he learned as follows (extracted from the trip report):
      i) SC11 provided an excellent opportunity for Indonesia to actively participate in the WCPFC, particularly through WPEA project. Indonesia's participation is essential for

maintaining its tuna fishery sustainable development in the long term and active participation in the work of the WCPFC.

ii) It is my first time to attend an SC meeting and I got new knowledge regarding tuna science, particularly in tuna research, since I am currently in charge of tuna management in the ministry of fisheries. This knowledge is quite important for me and for my office to contribute for the better management tuna resources in Indonesia.

iii) By attending the meeting, I fully recognized the importance of the data for research. Therefore, Indonesia should improve collecting data from logbook and observer programme to support tuna research in the WCPFC area.

iv) Another observation is that the research papers during the meeting did not focus much on main tuna species. There are many researches, projects and discussions that were related with bycatch and ecologically related species particularly on shark.

d) Establishment of a new government bank account for WPEA-SM project (in-kind contribution)

e) Development of an academic paper to establish a new research institute for large pelagic fish species in Bitung (In kind Contribution). The report - **Attachment D** (in Bahasa with a cover page in English).

f) Preparation of a prior study for the development of general guidelines on adaptive management and monitoring of highly migratory fish stocks in relation with climate change (on-going).

5. An overview of the project progress is summarized in Table 1.

Table 1. Progress of Indonesia's WPEA-SM project activities. Some activities were deferred to early next year 2016.

Outcomes	Activity (IDN)	Period scheduled	Q1 and Q2	Q3 and Q4
1.1	1. (DGCF) Logbook awareness WS	Q1-Q4		Deferred to early 2016
	2. (DGCF) Capacity building of the country science	Q3	Preparatory actions taken in Q2	Completed in Q3
	3. (DGCF, RCFMC) National tuna coordinator	Q1-Q4	Implemented in Q1 and Q2	Continued
	4. (DGCF) Annual Tuna Catch Estimates Workshop	Q2	Completed in Q2	
1.2	5. Prior Study on Climate Change	Q1-Q4	Preparatory actions taken in Q2	Will be implemented in Q4
1.2 and 2.2	6. Review WS on CC, Supply Chain Analysis, and Sustainability/Certification	Q4	Preparatory actions taken in Q2	Deferred to early 2016
2.1	7. (DGCF) Implementing national compliance review monitoring	Q1-Q4		Continued
2.2	8. Consultancy - Supply chain analysis/traceability	Q1-Q4	Preparatory actions taken in Q2	Will be implemented in Q4
	9. Consultancy on sustainability/certification	Q1-Q4	Preparatory actions taken in Q2	Will be implemented in Q4
2.3	10. Research on harvest strategy	Q2-Q4	Preparatory actions taken in Q2	Continued
	11. Convene a review WS on harvest strategy (RPs and HCRs)	Q4	Preparatory actions taken in Q2	Will be implemented in Q4

	12. (RCFMC) Conduct data review WS	Q1-Q4		Deferred to early 2016
	13. (RCFMC) Sub-regional stock assessment workshop	Q4		Will be implemented in Q4
	14. (RCFMC) Data collection from port sampling	Q1-Q4	Implemented in Q1 and Q2	Continued
3.1	15. Database	Q1-Q4		On-going
	16. IW Learn activities	Q1-Q4		Deferred to 2016

Philippines

6. There have been several activities conducted in the Philippines during the third quarter but some activities scheduled this year will be deferred to early 2016. Key activities include capacity building in science by supporting participation of one BFAR staff in the eleventh session of the WCPFC Scientific Committee and several MCS activities as summarised below.

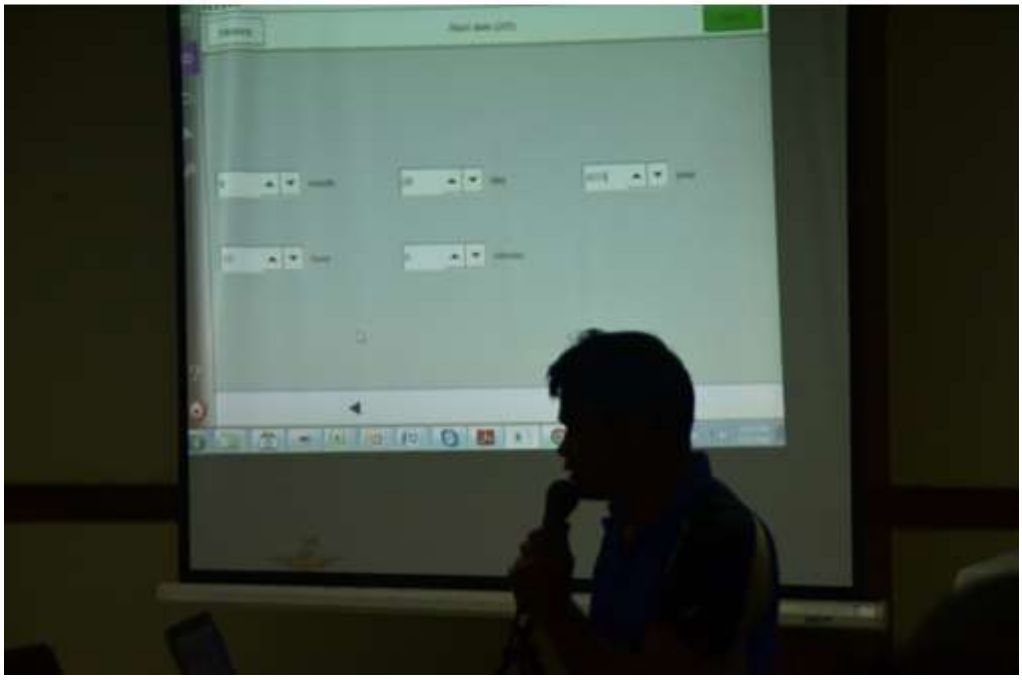
7. Observer Deployment**: A** total of 6 observers in the matrix below were deployed to board commercial fishing vessels (Purse Seine/Ring Net) operating within the Eastern Pacific Seaboard. This was to broaden observer data collection within the Philippine EEZ. Observers are on-board vessels for 10-15 days per month. The observers take on enumerator duties when on shore.

Name of Observer	Region	Area
Ruben Buemia	4-A (Calabarzon)	Infanta, Quezon
Ian Edward Calpe	4-A (Calabarzon)	Infanta, Quezon
Marco Briz	5 (Bicol)	Mercedez, Camarines Norte
Kenneth Molo	5 (Bicol)	Mercedez, Camarines Norte
Oriel Rosero	13 (Caraga)	Surigao
Francisco Piloton Jr.	13 (Caraga)	Surigao

8. Two training workshops were conducted in September.

1) A debriefers Workshop was held on 21-23 September 2015 with 30 participants (Fisheries Observers) at the BFAR MCS Station and the Fishing Technology Laboratory in Navotas City. The workshop aimed for the improvement of debriefing process, and identifying issues and concerns related with observer deployment and observer evaluation.

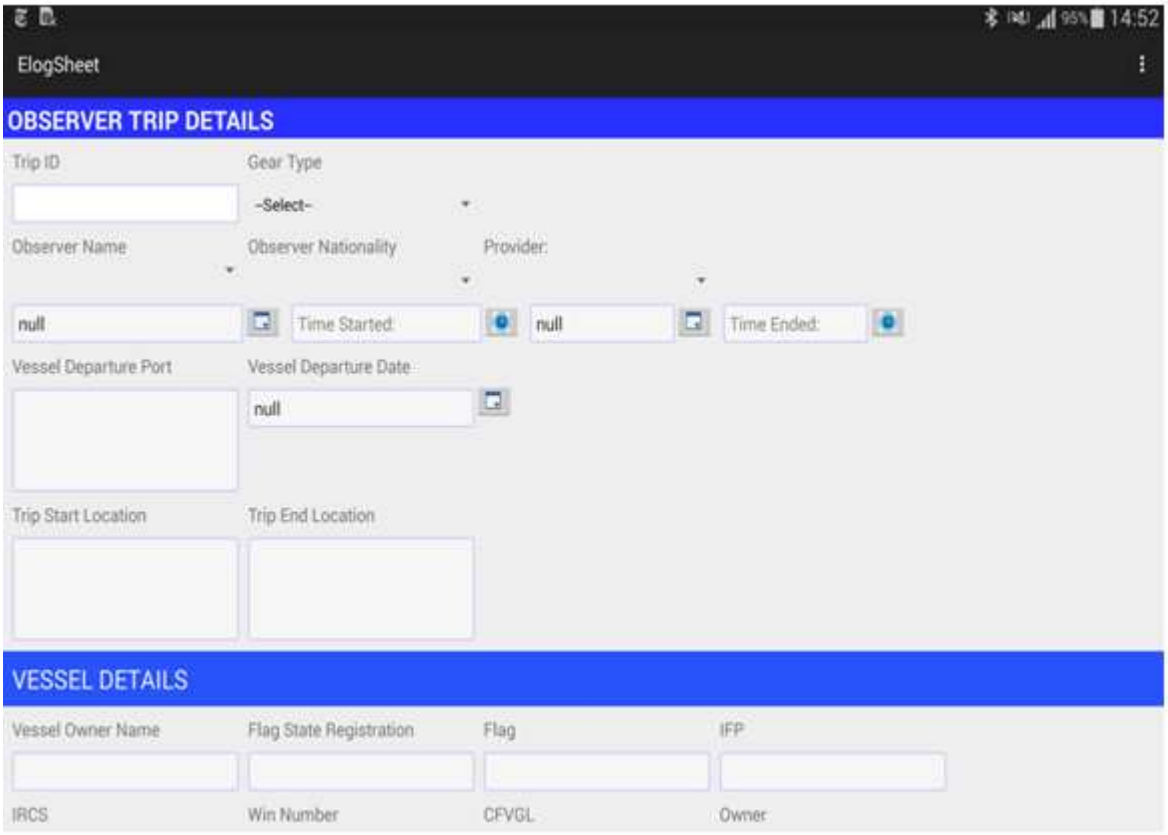
2) A training workshop on E-Logbooks (MARLIN) was held on 28-29 September 2015 in General Santos City with 60 participants (Vessel Captains and Fisheries Observers). Training focused on the operation, use and troubleshooting of the MARLIN unit installed in catcher vessels operating in high seas pockets no.1.



9. WPEA-supported the purchase of required IT equipment.

    1) The Philippine Fisheries Observer Program Management Office (PFOPMO) purchased two desktop units to be used for the Tuna Fisheries Observer System (TUBs) and data encoding of observer forms.
    2) Five Android Tablets for Pilot Testing of Electronic Observer Forms were also purchased..

10. The Development of Electronic Observer Forms. The Program has started to develop Observer Forms in Electronic Format. The Android application is currently undergoing a review and debugging process.



11. Capacity building is one of the main objectives of the WPEA Project. Every year, WPEA supports one scientist per country to attend the WCPFC's Scientific Committee meeting. The 2015 Philippine SC11 trip report is **Attachment E**. The participant described in her report lessons that she learned as follows (extracted from the trip report):

> The attendance on the 11th WCPFC Science Committee meeting in Pohnpei, Federated State of Micronesia, last August 3 to 14, 2015 has been beneficial and useful to the undersigned thus enhanced technical know-how's on various scientific activities contributed/shared by the scientists from other member countries and SPC. Hereunder are the observations and recommendations:
>
> a) The SC has continuously provided a good venue for scientists, fishery managers, compliance managers, regional /national observer coordinators and NGOs to discuss and share each other's works and experiences to upgrade knowledge and competencies on the latest trends and review of various fisheries status with focus on tunas in the WCPO and other species of special interest; issues related with data and statistics; stock assessment; management issues in relation to the implementations of the applicable conservation and management measures; ecosystem and bycatch mitigation and on other research projects including the West Pacific East Asia Project.
>
> b) It was also observed that after each paper presentations, the approach on open discussions to provide comments and observations has encourage the active participation of all member countries thus created a friendly working atmosphere and information sharing. Although there are some debates in the plenary due to different views and opinions, the respect of each other's contribution were deliberated and considered.
>
> c) Regarding the overall management and operation of the SC meeting, I fully support the decision making "Consensus Approach" which resulted in providing a unified scientific outputs.

d) Regarding the conduct of researches, there must be a need to encourage all member countries to conduct their respective compatible researches to validate the overall findings of the WCPFC scientific services provider. In this respect, the Commission must provide the corresponding capacity building training to interested CCMs to standardize the science protocol, methodologies, approaches and funding support in the implementation of the priority studies as well as promote the SPC's collaboration with interested CCMs.

e) In the case of the Philippines, the implementation of the WPEA Project activities and its flexible approach in supporting the country's /CCM's needs has been providing significant benefits. Its support is focused on the diversified requirements of the tuna fishing industry to improve its data collection both at the landing centers and onboard the fishing vessels using various documentation tools such as the NSAP data, logsheets, observers and VMS data. Despite the very limited budget provided by the WPEA Project, the Philippines through our BFAR budget has also provided counterparts in terms of sharing the expertise and/or services of technical and administrative personnel as well as its training and office facilities and other incidentals in order to attain the common objectives on the proper development and management of tuna resources to insure sustainable supply for the regional and national food security.

f) WCPFC Science Committee must develop a comprehensive capacity building programs based on the needs of the respective CCMs.

12. An overview of the project progress is summarized in Table 2.

Table 2. Progress of Philippine WPEA-SM project activities. Some activities were deferred to early 2016.

Outcome	Activity (PHL)	period	Q1 and Q2	Q3 and Q4
1.1	1. Capacity building in country's science	Q3	Preparatory actions taken in Q2	Completed in Q3
	2. Catch estimation WS	Q2	Completed in Q2	
	3. NTC	Q1-Q4	Implemented in Q1 and Q2	Continued
1.2	4. Prior study on CC (consultancy)	Q2	Preparatory actions taken in Q2	On-going
2.1	5. Update *Operational Guide for Filipino Fishermen*	Q1	Implemented in Q1	
	6. WS on national RPs and HCRs	Q4	Preparatory actions taken in Q2	Deferred to early 2016 (Q1)
2.2	7. Prior study on certification and eco-labeling	Q2	Preparatory actions taken in Q2	On-going
	8. Consultancy on Philippine Tuna Supply Chain Analysis	Q2	Preparatory actions taken in Q2	On-going
	9. National workshop on three Consultancy Reports from pilot study	Q2	Preparatory actions taken in Q2	Deferred to early 2016 (Q1)
2.3	10. Sub-regional stock assessment workshop	Q4		Will be implemented in Q4
	11. Data review WS	Q2	Completed in Q2	
	12. MCS and VMS programs established	Q1-Q4	Implemented in Q2	Continued
	13. Port sampling	Q1-Q4	Implemented in Q1 and Q2	Continued
	14. Training WS on E-logbook	Q3		Completed in Q3
2.4	15. Orientation on EAFM and WS on EAFM (combined with WS on RPs and HCRs)	Q2-Q3		Deferred to early 2016 (Q1)
3.1	16. IW Learn / PEMSEA EAS Congress	Q4		Will be implemented in Q4

Vietnam

13. Since a government reshuffling in November 2014, this project has been approved by the Viet Nam Prime Minister, the Minister of the Ministry of Agriculture; and the Rural Department assigned Directorate of Fisheries (D-FISH) as an implementing agency. The D-FISH Director instructed to establish a Project Management Board to facilitate this project. Currently, the Project Board includes four staff: Deputy Director of DECAFISH (which is under D-FISH), the WPEA Project national tuna coordinator (NTC), one staff from finance office, and another from the Science & Technology and International Cooperation Department (Director Nguyen Viet Manh). As of 9 October, Vietnam is in the process of selecting the Project Board member. Once complete, an official government bank account will be established for this project.

14. The NTC provided detailed information on the internal coordination of WPEA-SM project approval process within D-FISH as a record:

a) NTC drafted an official letter for Department of Capture Fisheries (DECAFISH) to submit to D-FISH Director General to assign DECAFISH as a national implementation agency of the project. Based on this proposal, D-FISH Director General has issued a decision No 519/QD-TCTS-KHCN&HTQT dated on 27 October 2015 to allow DECAFISH to propose a National Project Management Board (PMB).

b) Based on the Director Generals Decision, DECAFISH sent an official letter to Administrative Division of D-FISH to send a representative to involve in the project as an accountant. The administrative division assigned Ms. Tran Hai Yen to become involved in the project. Based on this, NTC drafted a proposed list of members for the Project Management Board including the following staff and sent the draft to the Director General of D-FISH:
   - Mr. Nguyen Van Trung, Director of DECAFISH as focal point of Viet Nam with WCPFC.
   - Mr. Pham Ngoc Tuan, Deputy Director of DECAFISH as Director of the project.
   - Mr. Pham Viet Anh, Fisheries Officer of DECAFISG as a NTC.
   - Ms. Tran Hai Yen, Administrative Devision of D-FISH as a project accountant.

c) D-FISH Director has wants an additional member of the PMB to representative of Department of Science and Technology and International Cooperation. Therefore, DECAFISH is preparing another proposal for re-submission to the D-FISH's Director General.

15. Data collection from tuna landing sites is a high priority in the WPEA project, but because of the delay of Vietnam's internal approval of this project, no substantial activities have been conducted including tuna fishery data collection. The Project Manager and NTC visited five key provinces in June 2015 and encouraged each province to resume their port sampling and data collection ASAP, promising that enumerator's salary would be reimbursed once the project approval process is finalized and a bank account is established.

16. During the provincial trip, all provincial Sub-DECAFIREP directors asked an official letter from the central government to resume their port sampling. NTC coordinated the process of sending the official letters. Following receipt of the official letter from D-FISH, all nine provinces have been collecting data since July 2015, using WCPFC sampling protocols.. Some provinces such as Khanh Hoa had already implemented WCPFC-type data collection since January 2015, though logbook data collection was missing. The following table summarizes the progress of port sampling and logbook data collection in the nine provinces during the last three quarters 2015.

Province	Fisheries	Status of data collection
Binh Dinh	Longline	Both port sampling and logbook data collection resumed in July 2015
	Gillnet and purse seine	
Phu Yen	Longline	Both port sampling and logbook data collection resumed in

	Gillnet and purse seine	July 2015
Khanh Hoa	Longline	Port sampling resumed since January and logbook data collection resumed since July 2015
	Gillnet and purse seine	Both port sampling and logbook data collection resumed in July 2015
Da Nang	Gillnet and purse seine	Port sampling resumed in July 2015
Quang Nam		
Quang Ngai		
Ninh Thuan		
Binh Thuan		
Baria-Vung Tau		

17. Capacity building in science in Vietnam was also enhanced by supporting one scientists attendance at the WCPFC's Scientific Committee meeting in August 2015. The trip report to the meeting is in **Attachment F.** The participant described in his report lessons that he learned as follows (extracted from the trip report):

a) SC11 provided much scientific information on the status of tuna stocks and introduced advanced stock assessment methods (e.g. Multifan-CL, Ecopath with Ecosim, SEAPODYM, CPUE standardization methods, etc.).

b) Viet Nam delegation learned the process of tuna management, including data analysis, stock assessment, development of reference points and recommendation of management strategies/measures as being implemented at WCPFC. This was very useful for Viet Nam delegation to understand how to enhance and build capacity on tuna fisheries management and assessment in the future. In addition, lessons learned from the process also emphasized the importance of tuna data collection and obligations of Viet Nam as a cooperating non-Member in complying with WCPFC requirements, especially related with tuna fisheries data collection and provision.

c) SC11 provided a great chance for Viet Nam to gradually approach to the scientific work of WCPFC. Vietnam's participation is very useful in maintaining its tuna fisheries be sustainable in the long term.

d) At the stage, due to the lack of technical expertise, Viet Nam should consider the application of the outcomes of regional stock assessments to its tuna fisheries management at the national level, including application of reference points and management strategies.

e) There is a strong need for Viet Nam to actively participate in the scientific works of the WCPFC and thus Vietnamese Government should consider allocation of a permanent government budget to support its delegation to attend the WCPFC Scientific Committee meetings.

18. An overview of the project progress is summarized in Table 3 below.

Table 3. Progress of the Viet Nam's WPEA-SM project activities. Some activities are deferred to early 2016.

Outcome	Activity (VNN)	period	Q1 and Q2	Q3 and Q4
1.1	1. Support participation of Vietnam to SC11	Q3	Preparatory actions taken in Q2	Completed in Q3
	2. National tuna coordinator	Q1-Q4	Implemented in Q1 and Q2	Continued
	3. Convene a data review and catch estimation workshop	Q2	Deferred to Q4	Will be implemented in Q4
	4. Reconstruction of catch histories	Q2	Preparatory actions taken in Q2	On-going
1.2	5. Prior study on CC	~~Q4~~	Preparatory actions	On-going

		Q3	taken in Q2	
2.1	6. Implementing national compliance review monitoring	Q1-Q4		Continued
	7. Consultancy on RPs and HCRs	Q4		Deferred to 2016
	8. WS on Consultancies for CC and RPs	Q4		Deferred to early 2016
	9. Participation in Tuna Data WS at SPC	Q2	Completed in Q2	
2.2	10. Consultancy – TUNA Supply chain analysis/traceability	Q2	Preparatory actions taken in Q2	On-going
	11. Consultancy on sustainability/certification	Q2	Preparatory actions taken in Q2	On-going
	12. WS on Market-based Sustainability Consultancies	Q4		Deferred to early 2016
2.3	13. Sub-regional SA scientists' meeting	Q4		Will be implemented in Q4
	14. Port sampling	Q1-Q4	Partially implemented	Implemented since July 2015
3.1	15. website			No plan in 2015
	16. Participation in the regional knowledge platform	Q1-Q4		No plan in 2015

Attachment A

Data summary from Port Sampling
INDONESIA

Research Centre and Development for Fisheries

I Gede Bayu Sedana

1. Under WCPFC's WPEA project, Indonesia collects tuna catch, effort and biological data from port sampling at key tuna landing sites for tuna fisheries in Fisheries Management Area (FMA)716, 717 and archipelagic waters FMA 713, 714 and 715.

2. Data collection follows WCPFC's sampling protocol by fishery and by species at Bitung, Sorong, Kendari/Sodohoa and Mamuju since 2015.

3. The attached Table 1 shows the proportion of species composition by fishing gear at three landing areas: Bitung, Kendari/Sodohoa, and Sorong during 2010-2014.

4. Abbreviations

Area

BTG	Bitung
KDI	Kendari/Sodohoa
SOR	Sorong

Fishing gear

LHL	Large Hand Line
SHL	Small Hand Line
LL	Long Line
PL	Pole and Line
PS	Purse Seine
TR	Troll Line
TLH	Troll Line & Hand Line

Table 1. Species Composition – showing the composition of tuna catch for each area and gear in the year of 2010 – 2014.

Unit: Percent (%)

Area	Gear	2010			2011			2012			2013			2014		
		YFT	BET	SKJ	YFT	BET	SKJ	YFT	BET	SKJ	YFT	BET	SKJ	YFT	BET	SKJ
BTG	LHL	98.24	1.76	-	96.18	3.82	-	93.18	6.82	-	90.42	9.58	-	97.05	2.95	-
	LL	93.64	6.36	-	89.69	10.31	-	84.07	15.93	-	97.98	2.02	-	91.79	8.21	-
	PL	4.91	4.90	90.19	3.36	2.27	94.37	4.53	5.25	90.22	3.42	3.59	92.99	8.19	10.30	81.51
	PS	15.79	2.80	81.41	7.09	1.59	91.33	19.59	1.47	78.95	7.44	1.78	90.77	4.70	1.47	93.83
	SHL	93.32	6.68	-	91.54	8.46	-	90.13	9.87	-	1.59	7.75	90.66	100.00	-	-
KDI	PL	13.74	3.74	82.52	26.79	1.77	71.44	30.98	0.39	68.63	29.50	2.24	68.26	33.97	0.39	65.64
	PS	27.71	5.45	66.83	25.84	4.34	69.82	27.74	2.74	69.52	28.51	6.74	64.75	40.73	0.88	58.39
	SHL	21.13	20.51	58.36	30.72	1.08	68.19	44.84	1.29	53.87	34.83	2.71	62.46	47.86	5.43	46.72
	TLH	n/a	n/a	n/a	39.65	10.08	50.27	60.35	10.84	28.81	50.75	5.55	43.70	48.48	8.49	43.03
	TR	22.02	17.39	60.59	30.87	13.49	55.63	27.98	0.57	71.45	34.83	2.94	62.23	50.23	6.68	43.08
SOR	PL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.78	6.43	82.78
	PS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13.84	3.27	82.89	12.14	6.23	81.63

Attachment B

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION (WCPFC)

Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (WPEA-SM)

The Port Sampling Supervision and Data Validation Report

August, 2015

Prepared by

Agustinus Anung Widodo

INDONESIA

Background

Lack in biological and fish stock understanding of the tuna resource in Indonesian Pacific Area particularly FMAs 713, 714, 715, 716 and 717 making it difficult to conduct an appropriate tuna management. A major step through port sampling program in key of tuna fisheries bases in eastern Indonesia i.e. Bitung and Kendari, Sorong and Mamuju has been demonstrated by the used as a reference on annual tuna catch. The port sampling program in Bitung and Kendari/Sodohoa started in 2008, whereas in Sorong started in 2012, then followed by Mamuju-Sulawesi in 2014.

Visit the sampling site is urgently required in order to supervise or validate the data that already collected by the enumerators fourth in Bitung,Kendari/Sodohoa, Sorong and Mamuju. The activity will assure, enumerators are completing their tasks correctly. This also gives the RCMFC an opportunity to maintain communication to all enumerators. This report is the result of supervision in Sorong 24-28 August, 2015.

Result

1. General Condition

Port sampling program in Sorong carried out in Citra Raja Ampat Canning Co. Ltd for the pole & line fishery, Anindo Perkasa Abadi Co. Ltd. for hand line fishery and Minatama Sorong Co. Ltd. for purse seine fisheries. Since Indonesia implements legislation banning transhipment that began in December 2014, almost of all the tuna purse seine fleet that no longer in operation. Tuna purse seine fleet fishing in FMAs 714-717 in general practice transhipment, the catcher boats in fishing ground for months while fish catch is transshipped on carrier boats. Unfortunately, Anindo Perkasa Abadi Co. Ltd. is also no longger operation since early 2015. Therefore since January 2015 sampling port program activity is only done on the pole & line and hand line fisheries.

2. The activity during 24 – 28 August 2015

Time	Activity	Venue
24 August 2015	Arrive in Sorong	Stay in Mamberamo Hotel
25 August 2015 (Morning)	- Visit to Sorong Regency Fisheries Office. - Visit to Sorong Fishing Port - Visit Citra Raja Ampat Canning Co. Ltd. in order to work consolidation.	Each of their office (Sorong).

(Afternoon)	Invite enumerators in order to get an explanation regarding the sampling port activities.	Hotel Mamberamo
26 August 2015 (Morning) (Afternoon)	- Class of the sampling technique (a refreshing) for enumerators. - Together with enumerators visit Citra Raja Ampat Canning for work consolidation and check the sampling equipment.	Sorong Regency Fisheries Office. Citra Raja Ampat Canning Co. Ltd's dock.
27 August 2015	Visit Sorong Fisheries Academy for socialization about the WCPFC and the port sampling activity for the student and several lectures.	The Aula of Sorong Fisheries Academy.
28 August 2015	Leaving Sorong.	-

3. Enumerators performance and Sampling Equipment Condition

Overall, enumerators are carrying out their duties properly but some sampling equipment should be renewed especially are rubber boats, rain coat, work uniform (polo shirt with WCPFC/KKP). The performance as per August 2015 is shown in table 1.

Enumerator activity:

Sampling Site	Fishery	Sampling Activity
Citra Raja Ampat Canning Co Ltd	Pole & Line	Good
Anindo Perkasa Abadi Co. Ltd	Hand Line	No activity
Minatama Sorong	Purse Seine	No activity

Sampling Equipment Condition

Sampling Equipment	Number	Condition
Measuring boards	3	Good
Calipers	3	Good
Fish Identification Books	3	Good
Rubber boats	3	Need renew
Rain Coats	3	Need renew
Work uniform (polo shierts)	3	Need renew

Prepared by A.Anung Widodo.

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION (WCPFC)

Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (WPEA-SM)

The Port Sampling Supervision and Data Validation Report

August, 2015

Prepared by

I Gede Bayu Sedana (Data Base Manager-RCFMC), Dr. Lilis Sadiyah, (Data Analyst-RCFMC), and Ignatius Trihargiyatno (Researcher-RCFMC)

INDONESIA

BACKGROUND

In the data collection process that has been done by the enumerators there are still some obstacles:

1. Some data cannot be used because its validity is questionable. It emerged during the last catch estimate workshop. To answer that, clarification is required on site. This activity aims to answer those questions and to identify problems and constraints in the current data collection process.
2. Delays in delivery of the data form resulting in the late process of data entry. This problem is being addressed by the development of an online database. With it, enumerators can directly enter data after the sampling activity is completed.

OBJECTIVES

1. Review of data collection in Bitung (16-19 Aug 2015), Kendari and Sodohoa (20-22 Aug 2015)
2. Introducing the online database prototype and to gather inputs from enumerators about it

PERSON INCHARGE

1. I Gede Bayu Sedana (Data Base Manager-RCFMC)
2. Dr. Lilis Sadiyah, (Data Analyst-RCFMC)
3. Ignatius Trihargiyatno (Researcher-RCFMC)

RESULTS

1. The problems with data collection in Bitung, kendari and sodoha and suggested solutions

No	Locations	Issues	Suggested solution or comments
1.	Bitung	The unusually high composition of BET in the Bitung Fishing Port	It is possible that the fish is misidentified. It is a good idea to have a short training to refresh the enumerators regarding the fish identification.
	Bitung	Very limited Troll Line data	So far there is no Troll Line vessels operating in Bitung, so any existing data is wrong and will be deleted.
	Bitung	Limited gillnet fisheries data	It is suggested that enumerators should start covering the gillnet vessels also.
3	Bitung	Incomplete data forms	Copy missing data on site and bring it to Jakarta.
4	Bitung	Catch composition based on skipper interview	Remind the enumerators that they should use the actual catch info from sampling, not from interviewing the skipper. Sampling Protocol refreshment needed.
5	Kendari	Incomplete data forms	Copy missing data on site and bring it to Jakarta.
6	Kendari dan	Catch composition	Remind the enumerators that they

	Sodohoa	based on skipper interview	should use the actual catch info from sampling, not from interviewing the skipper. Sampling Protocol refreshment needed.

2. Online Database Preview

   To resolve one of the issues where the data entry process is late because of delays in the form data delivery, an online database software will be created. With this software enumerators can directly enter the data after sampling activity is complete. Data entry can be done anywhere - so long as there is an internet connection - using desktop pc, laptop or handphone/tablet as the software is browser based.

   On this trip, database manager showed a prototype of the online database software to the enumerators and having discussion with them to gather inputs and comments regarding the software.

No	Suggestions/Comments	Notes
1	Enumerators suggest that the Vessel Registry be taken from the port authority.	Accepted. Will try to contact persons in charge for the vessel data.
2	Enumerators suggest that the software should be bilingual (English & Bahasa Indonesia)	Accepted. Will be available in the final version.
3	Enumerators suggest that they can only manage their own data (User A cannot manage User B data, and vice versa)	Accepted. Will be applied in the final version.
4	Database Manager explain about the change in the fishing ground information where we'll start to use one degree map	Maps distributed in all three locations and the enumerators will start to use it immidiately
5	Enumerators suggest that the Fish Data Reference should include a picture of the fish	Accepted. Pictures will be available in the final version.
6	Due to limited access to internet, enumerators suggest that the software operated in online & offline mode.	Rejected. That kind of software is hard to maintenance. Regarding the internet access, they will be supplied with gsm modems and monthly internet allowances. The gsm modems will be replaced with better internet connection when available. (Budget?)

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Appendix

Attachment C

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION (WCPFC)

Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (WPEA-SM)

INDONESIA

Trip Report

Participation in the Eleventh Regular Meeting of the Scientific Committee in Phonpei, Federated States of Micronesia, on 5-13 August 2015

Prepared by

Yayan Hernuryadin

Ministry of Marine Affairs and Fisheries

INDONESIA

Executive Summary:

- Attendee Name: Yayan Hernuryadin
- Attendee Title: Mr., Directorate of Fish Resources Management
- Department: **Directorate General of Capture Fisheries, Ministry of Marine Affairs and Fisheries.**
- Implemented site: Phonpei, Federated States of Micronesia.

I . Introduction

1. The eleventh Scientific Committee meeting (SC11) of the WCPFC convened in Phonpei, Federated States of Micronesia, 5-13 Augustus 2015. The SC11 reviewed current status of tuna species at the region of WCPO in order to provide reasonable and relevant management and conservation measures. A good chance has achieved to have a better knowledge of stock assessment of five species (SP albacore, SWP striped marlin, Oceanic whitetip shark, silky shark and SP swordfish) in WCPO and other theme issues such as data and statistics, ecosystem and bycatch and management issues.

2. Scientific Committee meeting (SC) is regularly convened every year in August as a very important part of scientific works of WCPFC. The Scientific Committee of WCPFC has the responsibility to review current status of tuna species at the region of WCPO in order to provide reasonable and relevant management and conservation measures and thus a meeting of the SC has been regularly held to discuss and evaluate current status of the regional tuna fisheries.

3. Opening
   The Eleventh Regular Session of the Scientific Committee (SC101) was held in Phonpei, Federated States of Micronesia from 5–13 August 2013. Ludwig Kumoru chaired the meeting. Rhea Moss-Christian, the Commission Chair of WCPFC, delivered opening remarks.

2. Tuna resource status of WPCO region

2. 1. REVIEW OF FISHERIES

a. Overview of Western and Central Pacific Ocean (WCPO) fisheries

- The provisional total WCPFC Statistical Area tuna catch for 2014 was estimated at 2,860,648 mt, clearly the highest ever at 170,000 mt above the previous record catch in 2013 (2,690,881 mt); this catch represented 83% of the total Pacific Ocean catch of 3,486,124 mt, and 60% of the global tuna catch (the provisional estimate for 2014 is 4,783,629 mt, and when estimates are finalised is expected to be the highest on record mainly due to increased WCPFC Statistical Area catches).
- The 2014 WCPFC Statistical Area catch of skipjack (1,957,693 mt – 68% of the total catch) was the highest recorded, eclipsing the previous record of catch in 2013 by 115,000 mt (1,842,485 mt). The WCPFC Statistical Area yellowfin catch for 2014 (608,807 mt – 21%) was also the highest recorded (5,000 mt higher than the record catch of 2008 – 603,244 mt) mainly due to increased catches in several longline fisheries. The WCPFC Statistical Area bigeye catch for 2014 (161,299 mt – 6%) was slightly higher than in 2013, but relatively stable compared to the average over the past ten years. The 2014 WCPFC Statistical Area albacore catch (132,849 mt - 5%) was slightly lower than in 2013 and about 15,000 mt lower than the record catch in 2002 at 147,793 mt. The WCPFC Statistical Area albacore catch includes catches of north and south Pacific albacore in the WCPFC Statistical Area, which comprised 76% of the total Pacific Ocean albacore catch of 173,702 mt in 2014. The south Pacific albacore catch in 2014 (83,033

mt) was the fourth highest on record (about 6,000 mt lower than the record catch in 2010 of 88,942 mt).

b. Overview of Eastern Pacific Ocean (EPO) fisheries

- Yellowfin tuna catches have remained fairly stable since the mid-1980s, except for a peak in 2001 through 2003, followed by a substantial decline in 2006 through 2008, a slight increase in 2009 and 2010, and again a decline in 2011 through 2013. The 2014 catch on dolphin associated schools was greater than the past three years, but less than 2009 and 2010. The catches of yellowfin in unassociated schools in 2014 remained low, similar to the previous eight years. The current stock assessment method being used for yellowfin is Stock Synthesis 3. Since 2004 recruitment has been relatively low, though not quite as low as it was during 1979 through 1981. Recent estimates indicate that the yellowfin spawning biomass in the EPO is overexploited (S<Smsy), but that overfishing is not taking place (F<Fmsy). The current status of the stock is considerably more pessimistic if a stock recruitment relationship is assumed, if a higher value is assumed for the average size of the older fish, and if lower rates of natural mortality are assumed for adults.
- The status of the skipjack stock has been evaluated using eight different data and model based indicators. The purse-seine catch has been significantly increasing since 1994, and in 2014 was similar to the other peak years over the past decade, and near the upper reference level. Following a large peak in 1999, the catch per days fished on floating objects has generally fluctuated between an average level and the upper reference level. The value for 2014 was similar to that of 2013, and below the upper reference level. Except for 2010, the biomass and recruitment, have been relatively high over the past decade including for 2014, and the exploitation rate has remained relatively high during this same period. There is uncertainty about the status of skipjack tuna in the EPO, and there may be differences in the status of the stock among regions. However, there is no evidence that indicates a credible risk to the skipjack stock(s).
- There have been substantial historical changes in the bigeye fishery in the EPO. Beginning in 1994 purse-seine catches increased substantially from targeting tunas associated with drifting FADs in the equatorial EPO. The estimated 2014 total bigeye catch of 60,000 tons by purse seine vessels was similar to the average of the past decade. The estimated 2014 bigeye longline catch of 35,000 tons was comparable to that of the past six years. The current stock assessment method being used for bigeye is Stock Synthesis 3. A full assessment was conducted in 2012, which included some major changes in methodology to the previous full assessment done in 2010. The assessment for 2014 was similar to that for 2013, except for the inclusion of updated and new data. Recruitment estimates have been variable since 1975. There were very high peaks in recruitment indices corresponding with the major El Nino events in 1983 and 1998. Recruitment indices over the past six years have been close to the average value. Recent estimates indicate that the bigeye spawning biomass in the EPO is not overexploited (S>Smsy), and that overfishing is not taking place (F<Fmsy). The current status of the stock is considerably more pessimistic if a stock recruitment relationship is assumed, if a higher value is assumed for the average size of the older fish, and if lower rates of natural mortality are assumed for adults.

3. Annual report-part 1

Annual report-part 1 of tuna fishery status of Indonesia was also presented during the meeting. The summaries of the report included some main points such as: Fisheries management Areas (FMAs) 716

(Sulawesi Sea) and 717 (PaCific Sea – North Papua), 713(Makassar strait and flores sea), 714 (Halmahera sea), and 715 (Banda Sea) are five fisheries management areas among eleven FMAs which concerned by WCPFC convention area. Long liners and purse seiner are the main fishing gears type operated in EEZ of those FMAs, with 158 and 124 respectively registered in WCPFC in 2014. The national catch estimates of three main tuna species in 2014 was estimated for skipjack –322,840 t (67 %); yellowfin – 136,210 t (28 %) and bigeye – 23,868 t (5 %) with total 482,918 t. Recent workshop of sixth Indonesia/WCPFC annual tuna fisheries catches estimated on 24-26 June 2015 has been revised national catch estimate as reported in the workshop report.

The Data collection for fisheries statistic is mainly conducted by DGCF_MMAF while scientific ports sampling monitoring data is conducted under RCFMC-MMAF. Period of data collection is January – December. Method of data collection is a combination of Landing site based conducted by fishing ports and fish Landing Sites, Port sampling program based conducted for landing ports by enumerators in five landing sites i.e Bitung, Kendari, Sodoha, Sorong and Majene. Other data is collected through fishing log book program, observer and VMS scheme.

The development of fishing logbook is on going but still facing a substantial problem in the operational level,such low level of log book with high data quality submitted by fishers, the coverage of observer program still low and still required to validate,
Key research activities in the WCPFC Convention area are:
Observer program conducted by (RITF) in the Banda Sea (FMA 715) and Catch monitoring for Neritic tuna by RIMF in Archipelagic marine water.

Developing capacity for management of Indonesias pelagic fisheries resources (Colaboration research with ACIAR, CSIRO Australia) (RCFMC and ACIAR_CSIRO) and Tuna research in the sulu-sulawesi in collaboration with SEAFDEC

4. DATA AND STATISTICS THEME

There are some issues regarding the data and statistic gaps:

- Several CCMs continue to provide estimates for the key shark species (which is in accordance with the change in the requirements to include the key shark species catches) and some coastal states have begun using the new extended longline logsheets which have the provision for reporting sharks at the species level. There was also missing aggregate catch/effort data from Indonesia that should generated from fishing log book. Challenge for Indonesia to provide Bycatch data including sharks through observer or logbook programme, currently Indonesia still struggling to implement log book programme.
- The backlog in ROP data provision and processing has improved with observer service providers and ROP data management team becoming more settled in dealing with the requirements for 100% coverage in the purse seine fishery. Currently Indonesia do not has observer for domestic purse seine fishery.

5. STOCK ASSESSMENT THEME

A. Tuna

- **Bigeye**
  - SC11 noted that no stock assessment was conducted for WCPO bigeye tuna in 2015. Therefore, the stock status description from SC10 is still current. SC11 also noted that the total bigeye catch in 2014 was 161,229 mt, which was a 5% increase over 2013 and a 5% increase over the average for 2010–2013. SC11 also noted that the bigeye catch in 2014

was 48% above the estimated maximum sustainable yield (108,520 mt), although those two numbers are not directly comparable because MSY is calculated based on the historical average recruitment.

- SC11 also noted the analysis of the sensitivity of the WCPO bigeye tuna stock assessment to the inclusion of EPO data and dynamics within a Pacific-wide model. SC11 concluded that the dynamics of bigeye tuna in the WCPO estimated using the Pacific-wide model are not substantially different from those estimated using the WCPO-only model, especially with respect to the main stock status indicators used by WCPFC. Therefore, SC11 recommends that it is reasonable to continue to provide management recommendations to WCPFC on the basis of WCPO-only regional stock assessment models.
- SC11 noted that no management advice has been provided since SC10. Therefore, the advice from SC10 should be maintained, pending a new assessment or other new information.

- **Yellowfin tuna**
  - SC11 noted that no stock assessment was conducted for WCPO yellowfin tuna in 2015. Therefore, the stock status description from SC10 is still current.
  - SC11 noted that the total yellowfin catch in 2014 was the highest ever recorded at 608,807 mt, which was a 10% increase over 2013 and a 9% increase over the average for 2010–2013.
  - SC11 noted that no management advice has been provided since SC10. Therefore, the advice from SC10 should be maintained, pending a new assessment or other new information.

- **Skipjack Tuna**
  - SC11 noted that no stock assessment was conducted for WCPO skipjack tuna in 2015. Therefore, the stock status description from SC10 is still current
  - SC11 noted that the total skipjack catch in 2014 is provisionally estimated to be 1,957,693 mt, which is the highest catch recorded, a 6% increase over 2013 and a 14% increase over the average for 2010–2013.
  - The SC noted that skipjack tuna catch in 2014 was 20% above the estimated MSY (1,618,800 mt) although those two numbers are not directly comparable because MSY is calculated based on the historical average recruitment
  - SC11 reviewed information related to identifying changes in the spatial distribution of skipjack (including range contraction) in response to increase in fishing pressure. Project 67 on the impacts of recent catches of skipjack tuna on fisheries on the margins of the WCPFC Convention Area demonstrated no statistical evidence for skipjack range contraction (SA-WP-05). SC11 recommends that WCPFC12 take note of the analyses completed to date and that further work on this issue be undertaken, including:
    - ✓ more extensive skipjack tagging activities, including in sub-tropical and temperate regions to provide better information on stock connectivity and movement; and
    - ✓ analysis of operational longline data including skipjack catch to improve the estimation of relative abundance trends by latitude
  - SC11 noted that no management advice has been provided since SC10. Therefore, taking note of the current catch status pointed above, the advice from SC10 should be maintained

- **South Pacific albacore tuna**

- The South Pacific albacore spawning stock is currently above both the level that will support the MSY and the adopted spawning biomass limit reference point, and overfishing is not occurring (F less than Fmsy).
- While overfishing is not occurring, further increases in effort will yield little or no increase in long-term catches and result in further reduced catch rates.
- Decline in abundance of albacore is a key driver in the reduced economic conditions experienced by many PICT domestic longline fleets. Further, reductions in prices are also impacting some distant water fleets.
- For several years, SC has noted that any increases in catch or effort in sub-tropical longline fisheries are likely to lead to declines in catch rates in some regions (100 S-30oS), especially for longline catches of adult albacore, with associated impacts on vessel profitability.
- Despite the fact that the stock is not overfished and overfishing is not occurring, SC11 reiterates the advice of SC10 recommending that longline fishing mortality and longline catch be reduced to avoid further decline in the vulnerable biomass so that economically viable catch rates can be maintained.

- **North Pacific albacore, Pacific bluefin tuna, North Pacific swordfish**
  - SC11 noted that no stock assessments were conducted for these species in 2015. Therefore, the stock status descriptions from SC10 are still current.
  - SC11 noted that no management advice has been provided since SC10. Therefore, the advice from SC10 should be maintained, pending a new assessment or other new information

B. Shark

- Oceanic whitetip shark (Carcharhinus longimanus), Silky shark (Carcharhinus falciformis) and South Pacific blue shark (Prionace glauca).
- SC11 noted that no stock assessments were conducted for these shark species in 2015. Therefore, the stock status descriptions from SC8 and SC9 are still current for oceanic whitetip shark and silky shark, respectively.
- SC11 noted that no management advice has been provided since SC8 and SC9 for oceanic whitetip shark and silky shark, respectively. Therefore, previous advice should be maintained, pending a new assessment or other new information.
- SC11 noted that no stock assessment was conducted for North Pacific blue shark in 2015. Therefore, the stock status description from SC10 is still current.
- SC11 noted that no management advice has been provided since SC10. Therefore, the advice from SC10 should be maintained, pending a new assessment or other new information.
- SC11 recommends that the Commission consider the undetermined stock status of shortfin mako shark in the North Pacific when developing and implementing management measures.

C. Billfish

- **South Pacific swordfish**
  SC11 noted that no stock assessment was conducted for South Pacific swordfish in 2015. Therefore, the stock status description from SC9 is still current. SC11 noted that no management advice had been provided since SC10. Therefore, the advice from SC9 should be maintained**.**
- **Southwest Pacific striped marlin**
  SC11 noted that no stock assessment was conducted for southwest Pacific striped marlin in 2015. Therefore, the stock status description from SC8 is still current. SC11 noted that no management advice had been provided since SC10. Therefore, the advice from SC8 should be maintained.

- **North Pacific striped marlin**
  overfishing is occurring relative to MSY-based reference points and the WCNPO striped marlin stock is overfished.
  SC11 recommends that the Commission develop a rebuilding plan for North Pacific striped marlin with subsequent revision of CMM 2010-01 in order to improve stock status.
- **Pacific blue marlin**
  SC11 noted that no stock assessment was conducted for Pacific blue marlin in 2015. Therefore, the stock status description from SC9 is still current.
  SC11 noted that no management advice had been provided since SC9. Therefore, the advice from SC9 should be maintained, pending a new assessment or other new information.

6. MANAGEMENT ISSUES THEME

- Noting that SC10 had considered levels of risk associated with breaching the LRP within the range 5-20%, that the identification of acceptable risk is a management issue, SC11 reaffirmed the recommendation made by SC10 that WCPFC12 identify the level of acceptable risk which should be applied to breaching a LRP for the key target species, noting that the UN Fish Stocks Agreement states that the risk of exceeding LRPs should be very low.
- SC11 noted the work undertaken in support of identifying appropriate LRPs for elasmobranchs within the WCPFC, in particular the report of the Pacific shark life history Expert Panel Workshop (WCPFC-SC11-2015/EB-IP-13) and that other work necessary to identify and support the development of LRPs for sharks has been included in the updated shark research plan. SC11 recommends that the WCPFC12 continues to support this work.
- SC11 considered the draft work-plan (WCPFC-SC11-2015/MI-WP-01) provided by Australia to progress the harvest strategy approach, which is required under CMM 2014-06. SC11 strongly supported the initiative by Australia to develop this plan.
- SC11 considered the scientific aspects of the draft CMM on a target reference point for WCPO skipjack tuna (WCPFC-SC11-2015/MI-WP-02) provided by PNA. SC11 recommends that PNA take into consideration comments provided by SC11 in further developing this draft CMM.
- SC11 reviewed information related to the identification of an appropriate TRP for south Pacific albacore tuna, noting in particular a decline in the economic performance of this fishery (WCPFC-SC11-2015/MI-WP-03) and the consequences for the stock and the fishery of a range of candidate target reference points (WCPFC-SC11-2015/MI-WP-04).
- Noting the total number of FAD sets in 2014 was still greater than those in 2010, SC11 reaffirms the recommendation of SC8 (para 351 of the SC8 summary report [check ref]) supporting the need for additional or alternative targeted measures to reduce the fishing mortality on bigeye tuna, as seen as appropriate by the Commission.
- SC11 reviewed the analysis of the relative impact of associated and unassociated set types on skipjack tuna stock status.
- SC11 reviewed information related to understanding bigeye tuna interactions in the purse seine fishery through characterisation of catches in space and between sets with the aim of identifying management options that reduce impacts on bigeye with minimal losses to the purse seine fishery (WCPFC-SC11-2015/MI-WP-07).

7. ECOSYSTEM AND BYCATCH MITIGATION THEME

- Considering the Monte Carlo analysis of longline shark mitigation methods (e.g. hook type, leader material, non-deployment of shallow hooks, and a prohibition on shark lines) presented in SC11-EB-WP-02, in order to inform WCPFC12's further consideration of revising shark CMMs to incorporate shark mitigation requirements that reduce catch rates and at-vessel mortality.
- Noting the Monte Carlo simulations run presented in EB-WP-02, which showed that given the model assumptions, banning wire trace and shark lines would further reduce fishing mortality of

oceanic whitetip and silky sharks by longline compared to the current choice between the two mitigation measures.

- Noting that the Monte Carlo mitigation model and its inputs can be improved through an increase in available observer data and more studies on post-release survival rates for key shark species.
- SC11 was able to review the ratio of fin weight to shark carcass weight from one study (SC11-EB-IP-03). This study demonstrated that shark fin weight data suffered from some serious limitations, potential biases and errors. SC11 was unable to confirm the validity of using a 5% fin to carcass ratio in CMM 2010-07 and forwards these concerns to TCC, noting that an evaluation of the 5% ratio is not currently possible due to insufficient information for all but one of the major fleets implementing these ratios.
- Notes that according to the most recent information provided by SPC, finning still occurs in the Convention Area.
- SC11 recommends that WCPFC 12 adopt the guidelines for safe release of encircled animals including whale sharks as contained in the ISG-4 report (Attachment E) and recommends that TCC11 provide any additional considerations for the Commission's decisión.
- Consider development of a list of minimum requirements that such a plan should include, guidelines to evaluate such a plan, and the definition of a target shark fishery for future review by SC, TCC and the Commission.

8. OTHER RESEARCH PROJECTS

The WCPFC Secretariat reported on the progress of the West Pacific East Asia Project and introduced a new Global Environment Facility-funded project (Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas), which includes Indonesia, Philippines and Vietnam as project partners, Pacific Tuna Tagging Project (PTTP), and ABNJ Tuna Project and Bycatch Components.

9. COOPERATION WITH OTHER ORGANISATIONS

SC11 reviewed the status of WCPFC's cooperation with other organizations.

10. SPECIAL REQUIREMENTS OF DEVELOPING STATES AND PARTICIPATING TERRITORIES

The Secretariat briefly described briefly described how the fund was distributed in 2015, the fourth year of the second phase of the JTF Project. USD$140,553.75 was available this year to support seven projects.

11. FUTURE WORK PROGRAM AND BUDGET

SC 11 has made work program and budget arrangement for 2016. The budget for 2016 is USD 1.732.200, and Indicative Budget for 2017 = USD 1.592.200, and 2018 = USD 1.229.200.

12. ADMINISTRATIVE MATTERS

Indonesia confirmed to host SC12 in Bali, Indonesia, scheduled to take place from 3-11 August 2016

13. CLOSE OF MEETING

Fiji stated that they would volunteer to host the 2016 Commission meeting. The SC Chair closed the meeting at 3:10pm on 13 August 2015.

CLOSING

The SC11 provided a great chance for Indonesia to actively participate in the WCPFC frame of work particularly through WPEA project. Indonesia's participation is very useful for maintaining its tuna fishery sustainable development in the long term and active participation in the work of the WCPFC.

OBSERVATION AND SUGGESTION

1. It is my first time to attend the SC meeting and I got new knowledge regarding tuna science, particularly in tuna research, since I am currently in charge of tuna management in the ministry of fisheries. This knowledge is quite important for me and for my office to contribute for the better management tuna resources in Indonesia.
2. By attending the meeting, I fully recognized the importance of the data for research. Therefore, Indonesia should improve collecting data from logbook and observer programme to support tuna research in the WCPFC area.
3. Another observation is that the research papers during the meeting did not focus much on main tuna species. There are many researches, projects and discussions that were related with bycatch and ecologically related species particularly on shark.

Attachment D

ACADEMIC PAPER
RESEARCH INSTIUTE for OCEANIC FISHERIES - BITUNG
(RIOF BITUNG)

This report is in Bahasa and one paragraph introductory remark is annexed below:

This document is an academic paper required as prerequisite for establishment of any new institute within the Ministry of Marine Affairs and Fisheries. The first effort to establish a research institute for tuna fisheries in Bitung was failed in February 2015 due to similar name in the academic paper related with the existing Tuna Research Institute in Benoa, Bali. This is the second trial of proposing a new research institute with different name, i.e., "Research Institute for Ocean Fisheries (RIOF)". This document is prepared in more detail to establish a new research institute in Bitung to address data collection and monitoring gaps of highly migratory fish species in the Pacific Ocean side. If the proposed Research Institute is agreed by Indonesian government, it will support the activities of Indonesian tuna data collection and monitoring, particularly in fisheries management areas of the Pacific Ocean side (716, 717) and archipelagic waters (713, 714, and715) that currently being supported by the WPEA project. The document also reports all past activities including all facilities that have been historically supported by the WPEA and the Indonesia and Philippines Data Collection Project in order to convince to the government assessor that this academic paper is worth to be approved.

NASKAH AKADEMIK
LOKA PENELITIAN PERIKANAN SAMUDERA– BITUNG
(LPPS-BITUNG)

PUSAT PENELITIAN DAN PENGEMBANGAN PERIKANAN
BADAN PENELITIAN DAN PENGEMBANGAN
KELAUTAN DAN PERIKANAN

KATA PENGANTAR

Puji syukur kepada Allah SWT atas tersusunnya “Naskah Akademik Loka Penelitian Perikanan Samudera, Bitung (LPPS-Bitung)”, yang merupakan pengembangan kelembagaan pada Pusat Penelitian dan Pengembangan Perikanan.

Naskah Akademik ini memuat dasar-dasar pertimbangan dalam penyusunan kelembagaan Loka Penelitian Perikanan Samudera, Bitung, dari dimensi teoretik maupun normatif dengan mempertimbangkan kondisi empirik dan kebutuhan pengembangan lembaga Penelitian perikanan di masa mendatang. Selain itu, dalam naskah ini juga dimuat desain organisasi, sejarah terbentuknya, sarana dan prasarana pendukung, sumberdaya manusia serta kegiatan yang telah dilaksanakan oleh Puslitbang Perikanan sebagai dasar terbentuknya Loka Penelitian Perikanan Samudera Bitung.

Harapan kami, mudah-mudahan kajian ini dapat menjadi bahan pertimbangan yang obyektif, ilmiah, dan rasional dalam menetapkan lebaga Loka Penelitian Perikanan Samudera, Bitung. Dengan berdirinya Loka Penelitian Perikanan Samudera di Bitung diharapkan data dan informasi sumber daya perikanan pelagis besar yaitu berbagai jenis tuna termasuk jenis-jenis ikan beruaya jauh dan endemik lainnya di Samudera Pasifik bagian Barat dan sekitarnya yang sesuai RFMO dapat terpenuhi sehingga makin meningkatkan peran aktif lembaga penelitian dalam organisasi internasional, disamping itu kontinuitas dan keakuratan data dapat terjaga.

Terima kasih kami ucapkan kepada semua pihak yang telah membantu terselesaikannya naskah akademis ini.

Penyusun

DAFTAR ISI

DAFTAR TABEL

DAFTAR LAMPIRAN

NASKAH AKADEMIK

LOKA PENELITIAN PERIKANAN SAMUDERA– BITUNG

A. LATAR BELAKANG

Ruang hidup Bangsa Indonesia setelah berlakunya UNCLOS 1982 mencakup Wilayah Negara Republik Indonesia (NRI) dan Wilayah Yurisdiksi Indonesia. Wilayah Yurisdiksi Indonesia terdiri atas zona ekonomi eksklusif (ZEE), landas kontinen dan zona tambahan (UU nomor 43 tahun 2008). Luas wilayah perairan laut NKRI adalah sekitar 3,1 juta km^2, sedangkan luas ZEE Indonesia adalah sekitar 2,7 juta km^2. Kedaulatan atas Wilayah NKRI dan hak berdaulat atas Wilayah Yurisdiksi Indonesia tersebut, termasuk pula penegakan kedaulatan di Wilayah NKRI ataupun hak berdaulat di Wilayah Yurisdiksi atas sumber daya ikan (SDI), wajib ditegakkan dan dipertahankan. Selain itu, potensi kemakmuran dari SDI yang ada pada ruang hidup Bangsa Indonesia tersebut perlu didayagunakan pada tingkat optimal untuk mewujudkan tujuan dan cita-cita nasional, yaitu antara lain memajukan kesejahteraan umum untuk mewujudkan bangsa yang makmur (Pembukaan Undang Undang Dasar Negara Republik Indonesia tahun 1945). Untuk mewujudkan tujuan dan cita-cita nasional tersebut dilaksanakan pembangunan nasional.

Salah satu modal dasar dalam Pembangunan Nasional adalah sumber kekayaan alam (SKA), antara lain sumber daya ikan (SDI) di laut. Agar SDI tersebut dapat dipergunakan untuk sebesar-besar kemakmuran rakyat secara berkeadilan dan berkelanjutan, Pemerintah melakukan pengelolaan perikanan. Berdasarkan Pasal 6(1) Undang-Undang nomor 31 tahun 2004 tentang Perikanan yang telah direvisi menjadi Undang-Undang nomor 45 tahun 2009, pengelolaan perikanan dalam wilayah pengelolaan perikanan Republik Indonesia (WPP-RI) dilakukan untuk tercapainya manfaat yang optimal dan berkelanjutan, serta terjaminnya kelestarian sumber daya ikan.

Sumber daya ikan (SDI) yang hidup di laut Indonesia, dengan luas keseluruhan sekitar 5,8 juta km^2, dinilai memiliki tingkat keragaman hayati (*biodiversity*) yang paling tinggi, karena terdiri dari sekitar 37% jumlah species ikan di dunia (Kantor Menteri Negara Lingkungan Hidup, 1994). Bila SDI dan tingkat keanekaragaman hayatinya dapat dipertahankan kelestariannya pada tingkat optimum,

kelangsungan usaha penangkapan ikan akan terjamin. Kelestarian usaha penangkapan ikan, pada gilirannya, akan menjamin kelestarian industri hulu dan hilirnya. SDI juga merupakan sumber plasma nutfah yang amat diperlukan dalam pengembangan pembudidayaannya. Pemanfaatan sumber daya tersebut untuk mendukung usaha budidaya antara lain adalah sebagai sumber induk alami. Plasma nutfah sangat penting dalam pemuliaan genetika dalam rangka menghasilkan induk unggul. Dengan demikian, kelestarian SDI dan keanekaragaman hayatinya juga akan memberi jaminan kelangsungan usaha budidaya dan industri penunjangnya, baik industri hulu maupun industri hilirnya.

Didukung oleh potensi perikanan dan peluang pasar yang dimiliki Indonesia, prospek untuk membangun perikanan Indonesia menjadi salah satu kegiatan ekonomi yang strategis dinilai cerah. Hal ini terkait dengan kecenderungan semakin meningkatnya permintaan dunia akan produk perikanan, baik karena pertambahan penduduk maupun pergeseran pola konsumsi ke produk-produk perikanan, dan semakin terbatasnya pasokan dari perikanan dunia yang menjadikan ikan sebagai salah satu komoditas yang semakin strategis di pasar dunia.

Namun, pembangunan perikanan di Indonesia saat ini dihadapkan pada masalah pemanfaatan SDI secara berlebih (*over-exploitation*) serta praktek penangkapan ikan secara IUU (*illegal, unrepoted and unregulated fishing*) dan destruktif serta kondisi lingkungan yang banyak mengalami degradasi. Hal tersebut telah menyebabkan kelestarian SDI terancam dan produksinya menurun, kelangsungan usaha perikanan juga terancam, serta menyebabkan menurunnya manfaat ekonomi yang dapat diperoleh. Peningkatan kasus pemanfaatan SDI yang melebihi daya dukungnya diikuti dengan peningkatan konflik antar nelayan.

Pada saat ini, sebagian besar stok SDI pada beberapa Wilayah Pengelolaan Perikanan Republik Indonesia (WPP-RI) telah dimanfaatkan penuh bahkan ada yang melebihi daya dukungnya. Komisi Nasional Pengkajian Sumber Daya Ikan menyimpulkan bahwa 21 stok/sub-stok ikan atau sekitar 55.3% dari 38 stok/sub-stok ikan di WPP-RI telah dimanfaatkan penuh bahkan ada yang melebihi daya dukungnya. Sementara itu sembilan stok/sub-stok ikan atau sekitar 23.7% belum dapat ditentukan tingkat pemanfaatannya karena data/informasi belum mencukupi. Jumlah stok ikan yang dapat dikatakan masih memungkinkan ditingkatkan pemanfaatannya hanya sebanyak delapan stok/sub-stok ikan atau sekitar 21%. Sejumlah *species* ikan dilaporkan telah sulit didapatkan bahkan nyaris

hilang dari perairan Indonesia.

Pusat Penelitian dan Pengembangan Perikanan (Puslitbangkan), yang merupakan salah satu unit organisasi eselon II di bawah Badan Penelitian dan Pengembangan Kelautan dan Perikanan (Balitbang KP), Kementerian Kelautan dan Perikanan, mempunyai tugas melaksanakan penelitian dan pengembangan perikanan di bidang kelautan danperikanan. Di dalam melaksanakan tugas tersebut Puslitbangkan didukung 4 (empat) eselon III yaitu Bagian Tata Usaha, Bidang Bidang Perencanaan dan Kerja Sama, Bidang Tata Laksana dan Pelayanan Jasa dan Bidang Data, Informasi, Monitoring dan Evaluasi. Puslitbang perikanan didukung oleh 9 (sembilan) Unit Pelaksana Teknis (UPT). Dari UPT yang ada, dalam melaksanakan tugas penelitian khususnya di bidang perikanan tangkap dan konservasi, Puslitbangkan didukung oleh 4 (empat) Unit Pelaksana Teknis (UPT) yaitu Balai Penelitian Perikanan Laut (BPPL) di Muara Baru, Jakarta, Balai Penelitian Peikanan Perairan Umum (BP3U) di Mariana, Palembang, Balai Penelitian Pemulihan dan Konservasi Sumber Daya Ikan (BP2KSI) di Jatiluhur, Purwakarta dan Loka Penelitian Perikanan Tuna (LPPT) di Benoa, Bali.

Dari sisi kelembagaan, Puslitbangkan adalah institusi utama yang diberi tugas untuk melaksanakan penelitian dan pengembangan perikanan di bidang kelautan dan perikanan. Tugas tersebut meliputi wilayah kerja yang mencakup seluruh perairan NRI sedangkan keberadaan UPT sebagian besar berlokasi di bagian barat Indonesia. Secara geografis perairan di bagian timur Indonesia mempunyai karakteristik ekologis yang berbeda dengan perairan di bagian barat Indonesia, sehingga dalam rangka peningkatan kinerja penelitian yang efektif dan efisien diperlukan pengembangan kelembagaan. Karena hal-hal tersebut maka perlu untuk membentuk Loka Penelitian Perikanan Samudera(LPPS) yang berlokasi di Bitung sehingga tugas yang diemban oleh P4KSI dapat dilaksanakan dengan baik.

Indonesia terletak di antara dua samudera dan dua benua serta berbatasan dengan beberapa negara. Indonesia memiliki peran sangat strategis dalam pengelolaan bersama terhadap sumber daya ikan yang bersifat “*shared*”, “*stradling*” dan “*highly migratory*” terutama kelompok sumber daya perikanan pelagis besar khususnya tuna dan marlin yang habitatnya merupakan perairan laut lepas atau perairan Samudera. Konsekuensi logis dari kondisi tersebut, maka Indonesia meratifikasi UNCLOS. Oleh karena itu, Indonesia seyogyanya mengikuti

konvensi-konvensi Internasional. Selanjutnya Indonesia berkewajiban mendukung lembaga pengelola sumber daya ikan regional seperti WCPFC (*Western and Central Pacific Fisheries Commission*), CCSBT (*Commision for Conservation of Southern Bluefin Tuna*), IOTC (*Indian Ocean Tuna Commission*),APFIC (*Asia-Pacific Fishery Commission*), IATTC(*Inter-American Tropical Tuna Commission*), maupun lembaga regional lain sepertiSCS-LME (*Sulu Celebes Sea Large Marine Ecoregion*), SEAFDEC (*Southeast Asian Fisheries Development Center*) dan APEC (*Asia-Pacific Economic Cooperation*), serta CTI (*Coral Triangle Inisiative)*.

Pada tanggal 9 Juli 2007 Indonesia menjadi anggota tetap pada organisasi pengelola perikanan regional IOTC, dan sejak tanggal 8 April 2008 menjadi anggota tetap pada CCSBT. Pada tahun 2006, Indonesia telah menjadi CNM (*cooperating non member*) pada WCPFC dan pada tahun 2013 resmi menjadi *full member*. Pada tahun 2013 Indonesia menjadi CNM (*cooperating non member)* dari Inter-American Tropical Tuna Commission (IATTC). Dengan masuknya Indonesia ke dalam empat lembaga tersebut menunjukkan komitmen Indonesia bekerjasama dengan negara-negara lain dalam mengelolaan sumber dayaikan tuna di Samudera Hindia dan Samudera Pasifik secara berkelanjutan dan meningkatkan upaya penanggulangan *illegal fishing*, terutama jenis-jenis ikan tuna.

Keanggotaan Indonesia dalam organisasi internasional, khususnya yang terakhir sebagai anggota penuh pada WCPFC memberikan beberapa keuntungan, antara lain: (1) menghemat waktu dan biaya yang sangat mahal dengan adanya kesempatan kerjasama penelitian dan pengumpulan data perikanan, pemanfaatan TAC (*Total Allowable Catch*), MCS (*Monitoring, Controlling and Surveylance*) dan penegakan hukum, serta pengelolaan dan konservasi sumber daya ikan yang banyak membutuhkan tenaga ahli; (2) tidak dianggap melakukan penangkapan tuna secara *illegal* di perairan laut lepas di wilayah perairan Samudera Pasifik; dan (3) mendapatkan jaminan akses pemasaran tuna di pasar Internasional. Berbagai kebutuhan informasi ilmiah terutama yang menyangkut data ilmiah tentang sumber daya perikanan pelagis besar khususnya ikan tuna yang menjadi komoditas utama organisasi WCPFC akan diperoleh dan dihasilkan dari LPPS Bitung dengan wilayah kerja di Perairan Samudera Pasifik Bagian Barat.

B. JUSTIFIKASI

Sebagai konsekuensi logis keikutsertaan Indonesia dalam lembaga pengelolaan sumber daya ikan regional seperti WCPFC dan lembaga lainnya sangat diperlukan dukungan data yang komprehensif. Dalam rangka persiapan melaksanakan komitmen tersebut maka Indonesia harus menyiapkan data dan informasi yang berkaitan dengan sumber daya sesuai dengan standar Organisasi Pengelola Perikanan Regional (*Regional Fisheries Management Organization*-RMFO).

Sampai saat ini institusi yang sangat berperan dalam dukungan data bagi kerjasama WCPFC adalah Stasiun Monitoring Perikanan Tuna Bitung yang lokasinya berada di Pelabuhan Perikanan SamuderaBitung,Sulawesi Utara. Institusi yang sudah ada tersebut masih belum terstruktur secara resmi sebagai bagian dari unit pelaksana teknis di bawah Puslitbangkan.Keberadaan institusi formal yang bertanggung jawab terhadap ketersediaan data ilmiah di Bitung semakin mendesak dengan telah masuknya Indonesia sebagai *Full Member* pada organisasi WCPFC sejak tanggal 28 Agustus 2013 dengan ketetapan Peraturan Presiden Republik Indonesia No. 61 tahun 2013. Mengingat perannya yang sangat penting tersebut, maka diperlukan suatu sistem organisasi yang dibentuk secara logis dan terstruktur sebagai institusi penelitian yang berada di bawah Puslitbangkan, Balitbang KP, KKP. Untuk mendukung maksud tersebut dan mengantisipasi bahwa sumber daya yang akan dikelola oleh WCPFC tidak hanya ikan tuna tetapi berbagai jenis ikan yang secara ekologis terkait dengan perikanan tuna, Puslitbangkan mengusulkan Stasiun Monitoring Perikanan Tuna Bitung tersebut menjadi Loka Penelitian Perikanan Samudera, Bitung (LPPS-Bitung).

C. TUJUAN

Membentuk institusi penelitian sumber daya perikanan samudera yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnya di perairan Samudera Pasifik bagian Barat dan sekitarnya agar tersedia data dan informasi ilmiah yang memadai sebagai bahan pengelolaan secara bertanggung jawab serta mendukung peranan Indonesia pada organisasi pengelola perikanan regional.

D. MANDAT

1. Melaksanakan penelitian sumber daya perikanan samudera yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnya di perairan Samudera Pasifik bagian Barat yang meliputi bidang biologi, dinamika dan genetika populasi, pengkajian stok sumber daya ikan, oseanografi perikanan, dinamika perikanan tangkap, alat tangkap, alat bantu penangkapan, dan metoda penangkapan ikan, serta pelaksanaan eksplorasi dan evaluasi sumber daya ikan;
2. Melaksanakan kegiatan kerjasama penelitian sumber daya perikanan pelagis besar di perairan Samudera Pasifik bagian Barat dan sekitarnya baik nasional, regional dan internasional;
3. Menyediakan data dan informasi terkait perikanan sumber daya perikanan pelagis besar di perairan Samudera Pasifik bagian Barat dan sekitarnya;
4. Mendukung kegiatan lembaga lingkup KKP kaitannya dalam hal peranan Indonesia pada lembaga pengelolaan perikanan regional.

E. KEDUDUKAN, TUGAS DAN FUNGSI

Loka Penelitian Perikanan Samudera, Bitung yang selanjutnya disingkat LPPS-Bitung, adalah unit pelaksana teknis Kementerian Kelautan dan Perikanan di bidang penelitian sumber daya perikanan perikanan pelagis besar yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnya yang dipimpin oleh seorang Kepala, berada di bawah dan bertanggung jawab kepada Kepala Pusat Penelitian dan Pengembangan Perikanan serta dibina secara umum oleh Kepala Badan Penelitian dan Pengembangan Kelautan dan Perikanan.

LPPS-Bitung mempunyai tugas melaksanakan kegiatan penelitian sumber daya perikanan perikanan pelagis besar yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnya di perairan Samudera Pasifik bagian Barat dan sekitarnya.

Dalam melaksanakan tugas sebagaimana dimaksud di atas, LPPS-Bitung menyelengarakan fungsi:

a. Penyusunan rencana, program dan anggaran; pemantauan dan evaluasi, serta laporan;
b. Pelaksanaan kegiatan teknis penelitian sumber daya perikanan perikanan pelagis besar yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnya di perairan Samudera Pasifik bagian Barat yang meliputi bidang biologi, dinamika dan genetika populasi, pengkajian stok sumber daya ikan, oseanografi perikanan, dinamika perikanan tangkap, alat tangkap, alat bantu penangkapan, dan metoda penangkapan ikan, serta pelaksanaan eksplorasi dan evaluasi sumber daya ikan;
c. Pelayanan teknis penelitian, jasa, informasi, komunikasi, penyebarluasan hasil penelitian dan pengelolaan kerja sama penelitian;
d. Pengelolaan sarana dan prasarana penelitian; dan
e. Pelaksanaan urusan tata usaha dan rumah tangga.

F. SUSUNAN ORGANISASI

LPPS-Bitung terdiri dari:

a. Urusan Tata Usaha;
b. Subseksi Tata Operasional;
c. Subseksi Pelayanan Teknis; dan
d. Kelompok Jabatan Fungsional.

Urusan Tata Usaha mempunyai tugas melakukan urusan tata usaha, administrasi keuangan, persuratan, kearsipan, perlengkapan dan rumah tangga; kepegawaian dan organisasi.

Dalam melaksanakan tugas sebagaimana dimaksud di atas,Urusan Tata Usaha menyelenggarakan fungsi melaksanakan urusan tata usaha, administrasi keuangan, persuratan, kearsipan, perlengkapan dan rumah tangga;kepegawalandan organisasi.

Subseksi Tata Operasional mempunyai tugas melakukan penyusunan rencana,program dan anggaran; pemantauan dan evaluasi serta pelaporan.

Dalam melaksanakan tugas sebagaimana dimaksud di atas Subseksi Tata Operasional menyelenggarakan fungsi melaksanakan penyiapan bahan penyusunan rencana, program dan anggaran; pemantauan dan evaluasi serta

pelaporan.

Subseksi Pelayanan Teknis mempunyai tugas melakukan pelayanan jasa, informasi, komunikasi, penyebarluasan hasil penelitian, pengelolaan kerja sama penelitian dan pengelolaan sarana dan prasarana penelitian.

Dalam melaksanakan tugas sebagaimana dimaksud di atas Subseksi Pelayanan Teknis menyelenggarakan fungsi melaksanakan pelayanan jasa, penyiapan bahan informasi, dokumentasi, promosi, komunikasi dan penyebarluasan hasil penelitian; pengelolaan kerja sama penelitian,pendayagunaan dan pemeliharaan sarana dan prasarana penelitian termasuk laboratorium; serta pengelolaan perpustakaan.

G. KELOMPOK JABATAN FUNGSIONAL

Kelompok Jabatan Fungsional di lingkungan LPPS-Bitung mempunyai tugas melaksanakan kegiatan penelitian sumber daya perikanan perikanan pelagis besar yaitu berbagai jenis tuna termasuk jenis-jenis ikan peruaya jauh dan endemik lainnyadan kegiatan lain yang sesuai dengan tugas masing-masing jabatan fungsional berdasarkan peraturan perundang-undangan yang berlaku.

Kelompok Jabatan Fungsional terdiri dari Peneliti, Perekayasa, Teknisi Penelitian dan Perekayasaan, Arsiparis, Pranata Komputer, Pranata Humas, Statistisi, Pustakawan dan jabatan fungsional lain yang diatur berdasarkan peraturan perundang-undangan yang berlaku.

Masing-masing kelompok jabatan fungsional dikoordinasikan oleh seorang tenaga fungsional senior yang ditetapkan oleh Kepala LPPS - Bitung.

Jumlah pejabat fungsional sebagaimana dimaksud di atas ditentukan berdasarkan kebutuhan dan beban kerja.

Jenis dan jenjang jabatan fungsional sebagaimana dimaksud di atas diatur sesuai dengan peraturan perundang-undangan yang berlaku.

H. TATA KERJA

Dalam melaksanakan tugas, pimpinan satuan organisasi dan kelompok jabatan fungsional wajib menerapkan prinsip koordinasi, integrasi, dan

sinkronisasi baik dalam lingkungan masing-masing maupun antarsatuan organisasi dalam Iingkungan LPPS-Bitung serta dengan instansi lain di luar LPPS- Bitung sesuai tugas masing-masing.

Setiap pimpinan satuan organisasi wajib mengawasi pelaksanaan tugas bawahan masing-masing dan apabila terjadi penyimpangan agar mengambil langkah-langkah yang diperlukan sesuai dengan peraturan perundang-undangan yang berlaku.

Setiap pimpinan satuan organisasi bertanggung jawab memimpin dan mengkoordinasikan bawahan masing-masing dan memberikan bimbingan serta petunjuk pelaksanaan tugas kepada bawahannya.

Setiap pimpinan satuan organisasi dan kelompok jabatan fungsional wajib mengikuti dan mematuhi petunjuk dan bertanggung jawab kepada atasan masing-masing serta menyampaikan laporan berkala tepat pada waktunya.

Setiap laporan yang diterima oleh pimpinan satuan organisasi daribawahan, wajib diolah dan dipergunakan sebagai bahan penyusunan laporan lebih lanjut dan untuk memberikan petunjuk kepada bawahan.

Dalam penyampaian laporan kepada atasan, tembusan laporan wajib disampaikan pula kepada satuan organisasi lain yang secara fungsional mempunyai hubungan kerja.

Dalam melaksanakan tugas, setiap pimpinan satuan organisasi dibantu oleh pimpinan satuan organisasi di bawahnya dan dalam rangka pemberian bimbingan kepada bawahan masing-masing wajib mengadakan rapat berkala.

I. PROGRAM KERJA

Program kerja LPPS-Bitung terdiri dari 2 program utama, yaitu program penelitian dan program pengembangan kapasitas institusi.

1. Program Penelitian

   Penelitian biologi, yang mencakup aspek reproduksi (fekunditas, *length at first maturity*, *maturity*, taksonomi, serta *stomach conten*t), aspek tingkah laku/*behaviour* (kebiasaan makan), siklus hidup ikan *(life history)*.

Penelitian dinamika dan genetika populasi, pengkajian stok sumber daya ikan, oseanografi perikanan dan lingkungan, mencakup aspek *mortality*, *growth* (tingkat pertumbuhan), *recruitment, length and frequency* dan hasil tangkapan, data *catch* bulanan menurut spesies, data komposisi jenis dan ukuran (berat dan panjang per individu setiap jenis tuna dan *by catch* yang didaratkan). Aspek oseanografi perikanan dan lingkungan mencakup dinamika fisika kimiawi dan biologi perairan.

Penelitian dinamika eksploitasi, mencakup struktur armada yang memanfaatkan sumberdaya tersebut, *catch dan effort* (jumlah tangkapan per satuan upaya), daerah penangkapan (*fishing ground*), musim penangkapan, teknologi penangkapan dan alat bantu penangkapan serta sarana dan prasarana yang digunakan untuk mengeksploitasi sumberdaya dan tingkah laku ikan *(fish behaviour)*.

2. Program Pengembangan Kapasitas Institusi

Program pengembangan kapasitas institusi terdiri dari pengembangan sumber daya penelitian (SDM, sarana dan prasarana serta dana), pengembangan kerjasama, serta diseminasi. Sumber daya penelitian merupakan faktor penting yang menentukan keberhasilan pelaksanaan program penelitian yang ada di LPPS -Bitung. Untuk meningkatan kualitas, kapasitas dan kapabilitas sumber daya penelitian khususnya SDM penelitian dilakukan melalui:

- Peningkatan jenjang pendidikan
- Peningkatan jenjang jabatan fungsional dan struktural
- Peningkatan keterampilan administrasi dan teknis
- Rekruitmen tenaga dilakukan sesuai dengan kebutuhan dan bidang keahlian

J. LOKASI

Loka Penelitian Perikanan Samudera (LPPS) Bitung berada di kompleks Pelabuhan Perikanan Samudera -Bitung, Sulawesi Utara. Aktifitas kegiatan administrasi perkantoran loka penelitian dijalankan pada lokasi dengan gedung dan

tanah yang berstatus sewa jangka panjang. Pada saat ini sudah mendapat persetujuan dari pihak Pelabuhan Perikanan Samudera – Bitung untuk membangun gedung kantor di dalam area pelabuhan dengan luas tanah sekitar 500 m^2. Wilayah kerja dari LPPS Bitung adalah peariran Indoneisa bagian timur yang merupakan bagian dari perairan Samudera Pasifik Bagian Barat.

K. SEJARAH BERDIRINYA LOKA PENELITIAN PERIKANAN SAMUDERA, BITUNG

Perairan laut Indonesia yang cukup luas dan mempunyai berbagai sumber daya akuatik yang menghuninya diharapkan akan menjadi tulang punggung pembangunan Indonesia, maka didalam pengembangan perikanan tangkap keikutsertaan secara aktif dalam suatu *Regional Fisheries Management Organization* (RFMO) maupun organisasi perikanan regional lainnya adalah merupakan hal yang penting. Dalam rangka pengelolaan eksploitasi sumber daya ikan berbasis pemanfaatan berkelanjutan kaitannya dengan RFMO bermanfaat bagi Indonesia antara lain : (1) Data dan informasi yang berkaitan dengan sumber daya tersebut (sesuai dengan yang dipersyaratkan) harus dipersiapkan dengan baik, dan (2) Keikutsertaan dalam pertemuan regional secara konsisten harus diikuti. Dengan demikian diharapkan Indonesia mempunyai peran kunci di dalam organisasi-organisasi regional dan internasional tersebut.

Indonesia adalah negara yang mempunyai laut terluas di kawasan Asia. Penangkapan sumber daya ikan tuna di perairan Samudera Pasifik bagian Barat oleh armada perikanan Indonesia adalah cukup nyata sehingga kelangkaan data dan informasi ilmiah akan menimbulkan masalah bagi Indonesia didalam pengelolaan sumber daya yang bersifat highly migratory maupun *stradling* secara keseluruhan.

Langkah awal dalam memperoleh data/informasi ilmiah yang diperlukan sebagai calon anggota RFMO telah dilaksanakan di perairan Samudra Pasifik Bagian Barat melalui kerja sama dengan SPC, IPTP dan IATTC, namun kegiatan tersebut telah berakhir pada tahun 2007, sedangkan data/informasi ilmiah tersebut harus secara terus menerus diperoleh sebagai bahan untuk pengelolaan yang berkesinambungan.Sejak tahun 2008, kerjasama dengan WCPFC mulai dirintis untuk memperoleh data/informasi ilmiah yang lebih konprehensif dan terstruktur

dengan melakukan kegiatan sampling di Bitung.

Sampai saat ini data dan informasi yang berkaitan dengan sumber daya yang bersifat *highly migratory* sesuai dengan yang disyaratkan oleh RFMO masih belum memadai. Statistik nasional perikanan Indonesia masih memiliki kekurangan yakni belum bisa digunakan untuk analisis catch per unit effort, hasil tangkapan tidak menggambarkan asal perairan ikan tersebut ditangkap dan informasi tentang ukuran ikan yang tertangkap secara time series tidak tergambar.

Sejauh ini metoda pengumpulan data yang dipergunakan ditujukan untuk memperoleh informasi yang berkaitan dengan keperluan statistik produksi (untuk seluruh jenis ikan) bukan untuk keperluan pengkajian stok, sehingga suatu perlakuan khusus dalam hal metoda pengumpulan data untuk beberapa jenis ikan tertentu perlu diterapkan.

Sebagai negara anggota dari WCPFC Indonesia juga berkewajiban untuk memenuhi resolusi-resolusi yang telah ditetapkan. Salah satunya adalah Indonesia wajib menghadiri pertemuan *Scientific Committee Meeting* yang dilakukan WCPFC dalam setiap tahunnya. Dalam pertemuan tersebut Indonesia wajib menyampaikan temuan ilmiah dalam rangka menetukan status perikanan tuna dan sejenisnya di Perairan Samudera Pasifik dan sekitarnya.

Hal-hal tersebut di atas telah mendorong Pusat Penelitian Penelitian dan Pengembangan Perikanan mendirikan Loka Penelitian Perikanan Samudera, Bitung dengan tujuan mendapatkan data dan informasi yang tepat dan akurat serta yang sesuai dengan kepentingan Indonesia dalam perundingan-perundingan di RFMO, khususnya di WCPFC.

L. SUMBERDAYA MANUSIA

Sumber daya manusia sampai dengan tahun 2015 terdiri dari 15 (lima belas) orang. Kelima belas orang ini terdiri atas 1 (satu) orang PNS, 2 (dua) orang CPNS, 1 (satu) orang koordinator, 10 (sepuluh) orang petugas enumerator, dan 1 (satu) orang petugas data entry.

Enumerator adalah pengumpul data perikanan tuna (purse seine, longline dan pole and line) yang didaratkan dan diproses di perusahaan pemrosesan. Secara lebih rinci daftar tenaga dimaksud dapat dilihat pada Tabel 1.

Table 1. Tenaga yang saat ini ada di Loka Penelitian Perikanan Samudera Bitung.

NO	NAMA	STATUS	Pendidikan/Jurusan	Jabatan
1	Adi Kuswoyo, S.Pi	PNS	S1. Pemanfaatan Sumberdaya Perikanan	Teknisi Litkayasa
2	Roy Kurniawan. S.Pi	CPNS	S1 Managemen Sumber daya Perairan	Peneliti
3	Novan Setiawan	CPNS	DIII Perikanan	Penyiap Bahan
4	Mistun, S.T	Tenaga Kontrak	S1. Teknik Kelautan	Koordinator Enumerator
5	Farid Irawan, A.Md	Tenaga Kontrak	DIII perikanan	Enumerator
6	Hamilton Kakambong, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
7	Ronaldo E. A. Kumaunang, S.T	Tenaga Kontrak	S1. Teknik Kelautan	Enumerator
8	Musthaqim Massora, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
9	Samsir, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
10	Muhammad Jaenal Sukri, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
11	Suprianto, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
12	Suriadi, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
13	Tasbih, A.Md	Tenaga Kontrak	DIII Perikanan	Enumerator
14	Jondris Dilli	Tenaga Kontrak	SLTA	Enumerator
15	Salman, S.Pi	PNS pada Stasiun PSDKP Bitung	S1 Perikanan	Entry data

M. SARANA DAN PRASARANA

Sampai dengan akhir tahun 2013 telah tersedia sarana gedung kantor sementara yang menempati salah satu bangunan di blok perkantoran di dalam

komplek Pelabuhan Perikanan Samudera, Bitung. Sarana dan prasarana yang telah tersedia sebagaimana tercantum dalam Tabel 2.

Table 2. Daftar Barang Inventaris Intrakomtabel

No	Nama Barang	Merk/Type	Tahun Perolehan	Kuantitas	Kondisi	
					Baik	Buruk
1	Sepeda Motor	Honda Revo	2010	2	V	
2	AC	Thosiba 10 SKSPX	2010	1	V	
3	Meja	½ biro 2 laci	2010	3	V	
4	Kursi Besi	Putar OCS Series	2010	3	V	
5	Almari Besi	Lemari Arsip	2010	1	V	
6	Meja Komputer	Meja+kursi	2010	1	V	
7	Komputer	-	2010	1	V	
8	Printer	HP Laser Jet K209A	2010	1	V	
9	Printer	Canon M348	2010	1		V
10	Frezzer	Sanyo SFC 21 K	2010	1	V	
11	Kamera Digital	10 Mega pixel	2010	1	V	

N. HASIL

Loka Penelitian Perikanan Samudera -Bitung sudah menunjukkan eksistensinya di dunia internasional sejak tahun 2009. Hal tersebut merupakan langkah dan upaya untuk memperbaiki sistem pendataan yang

berstandar internasional melalui mekanisme pengumpulan data oleh enumerator. Selanjutnya pengolahan data dilakukan dengan menggunakan software yang telah dibuat khusus untuk keperluan menyimpan data hasil enumerasi ke dalam bentuk database sesuai dengan standar WCPFC.

Data yang dikumpulkan dalam kegiatan enumerasi ini adalah data pendaratan (informasi trip, dan informasi tangkapan), serta data sampling biologi (spesies, ukuran panjang dan berat). Data tersebut disesuaikan dengan kebutuhanorganisasi pengelola perikanan regional (RFMO) dalam rangka Estimasi hasil tangkapan tahunan per spesies per jenis alat tangkap yang diperlukan untuk pengkajian stok.

Sebagai output dari kegiatan ini telah dihasilkan sebuah buku protokol sampling yang di terbitkan Pusat Penelitian Pengelolaan Perikanan dan Konservasi Sumber daya Ikan (sekarang Puslitbangkan). Selain itu, hasil sampling digunakan oleh Direktorat Sumber daya Ikan, Direktorat Jenderal Perikanan Tangkap untuk memperbaiki data statistik perikanan tangkap dengan cara menjabarkan komposisi jenis tuna.

O. MANFAAT

Diharapkan dengan adanya LPPPB-Bitungdapat memudahkan operasional dan pelaksanaaan kegiatan penelitian di Bitung, Sulawesi Utara, dalam rangka pengumpulan dan analisa data perikanan khususnya sumber daya tuna dan jenis ikan peruaya jauh di Samudera Pacifik (area konvensi WCPFC)dan sekitarnya dalam rangka pengelolaan sumber daya yang bertanggung jawab dan mendukung kegiatan lembaga lingkup KKP kaitannya dengan peranan Indonesia pada lembaga pengelolaan perikanan regional.

Sentra perikanan tuna terbesar di Indonesia berada di Bitung (Propinsi Sulawesi Utara). Kesinambungan usaha perikanan tuna yang ada di Bitung tersebut sangat dipengaruhi oleh kondisi sumber daya yang ada (Samudera Pasifik bagian Barat sebagai daerah penangkapan). Kesinambungan keberadaan sumber daya tuna memerlukan pengelolaan yang baik yang didukung oleh data ilmiah yang memadai. Dengan demikian maka kesinambungan usaha akan tetap terjamin sehingga akan menjamin pula peluang lapangan kerja bagi penduduk setempat.

P. DAMPAK

Dampak yang diharapkan dari adanya LPPPB-Bitung ini adalah kelancaran operasional kantor penelitian di Bitung untuk mendukung peningkatan peran aktif lembaga penelitian dalam berpartisipasi pada organisasi pengembangan perikanan regional seperti WCPFC. Dampak lain yang timbul adalah peningkatan peran Indonesia dalam negosiasi penentuan alokasi pemanfaatan sumber daya ikan tuna di area konvensi WCPFC khususnya spesies tuna sirip kuning, tuna mata lebar dan cakalang. Disamping itu juga dalam rangka penguatan kelembagaan P4KSI yang memiliki mandat pengkajian sumber daya ikan khususnya di perairan konvensi WCPFC.

PENUTUP

Dengan berdirinya Loka Penelitian Perikanan Samudera di Bitung diharapkan data dan informasi sumber daya perikanan Samudera yaitu berbagai jenis tuna termasuk jenis-jenis ikan beruaya jauh dan endemik lainnya di Samudera Pasifik bagian Barat dan sekitarnya yang sesuai RFMO dapat terpenuhi sehingga makin meningkatkan peran aktif lembaga penelitian dalam organisasi internasional,

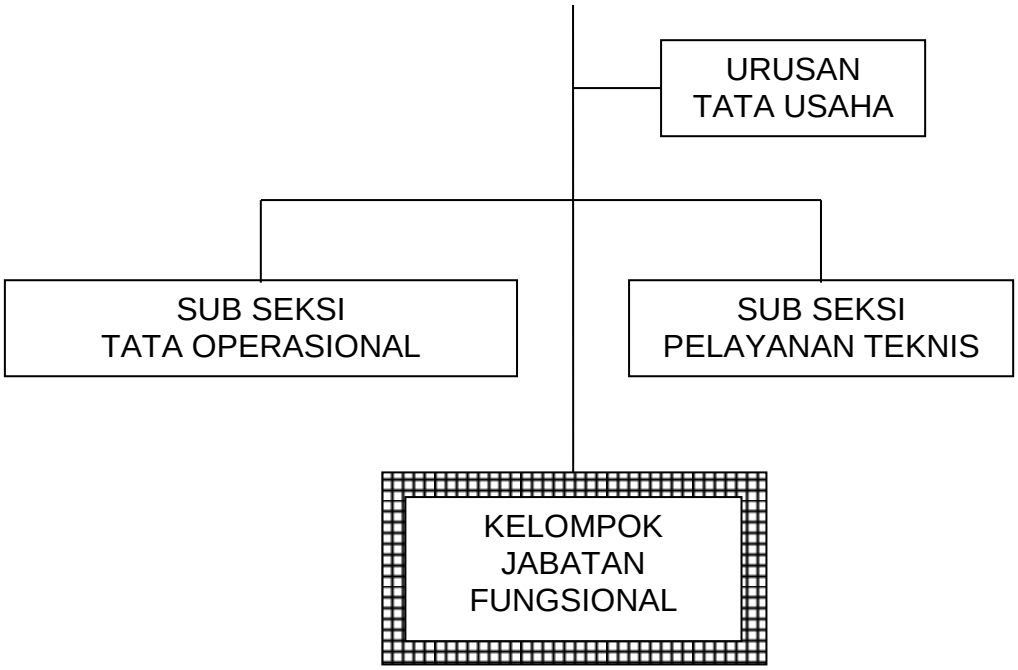
disamping itu kontinuitas dan keakuratan data dapat terjaga.

Terima kasih kami ucapkan kepada semua pihak yang telah membantu terselesaikannya naskah akademis ini.

Lampiran 1. Struktur Organisasi Bitung

STRUKTUR ORGANISASI
LOKA PENELITIAN PERIKANAN PELAGIS BESAR, BITUNG

LOKA PENELITIAN
PERIKANAN PELAGIS
BESAR - BITUNG


URUSAN
TATA USAHA
SUB SEKSI
TATA OPERASIONAL
SUB SEKSI
PELAYANAN TEKNIS
KELOMPOK
JABATAN
FUNGSIONAL

Lampiran 2. Dokumentasi Kegiatan Stasiun Monitoring Perikanan Tuna Bitung

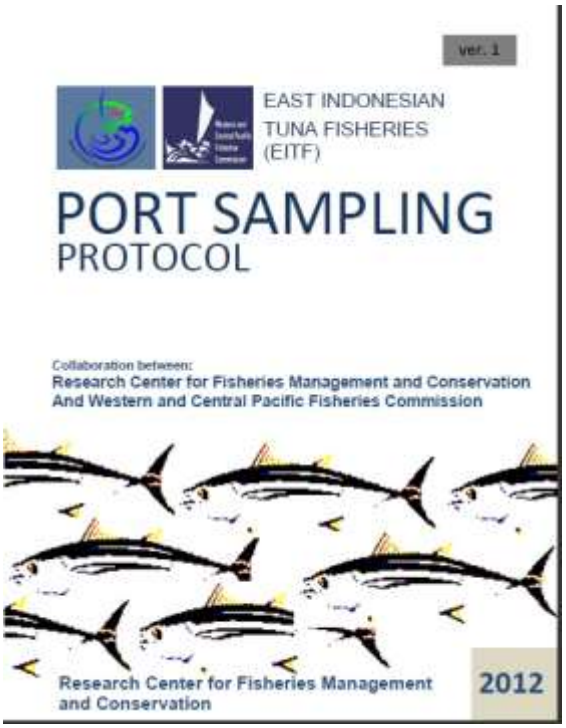
Sumberdaya Manusia

Sarana dan Prasarana

Kegiatan Enumerasi




Document



Republic of the Philippines
Department of Agriculture
BUREAU OF FISHERIES AND AQUATIC RESOURCES
PCA Compound, Elliptical Road, Diliman, Quezon City
Tel No. 929-9597
Fax No. 929-8074

TITLE / SUBJECT : OFFICIAL TRAVEL REPORT

DATE : 28 August 2015

1. NAME/S :	ALMA DICKSON, DFT
2. POSITION :	**Chief, National Marine Fisheries Development Center;**
3. OFFICE :	Bureau of Fisheries and Aquatic Resources / National Fisheries Research and Development Institute PCA Building, Elliptical Road Diliman, Quezon City
4. TRAVEL AUTHORITY :	
5. DATE OF TRAVEL :	Departure : August 2, 2015 Arrival : August 17, 2015
6. DESTINATION :	Pohnpei, Federated States of Micronesia
7. NATURE/PURPOSE OF TRAVEL :	To attend/participate in the 11th Regular Session of the Scientific Committee of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC-SC11).

8. ACTIVITIES UNDERTAKEN:

HEADS OF DELEGATIONS MEETING

The Meeting was convened a day prior to the SC11 Meeting for the Heads and Delegations to discuss and agree on the agenda and structure of the Meeting.

AGENDA ITEM 1 — OPENING OF MEETING

The meeting was opened by the Chair of the Scientific Committee Ludwig Kumoru, welcoming delegations of the WCPFC Members, Cooperating Non-members and Participating Territories (CCMs) and Observers to the Eleventh Regular Session of the Scientific Committee (SC11). Opening remarks were presented by the Commission Chair Rhea Moss-Christian. The new Executive Director Feleti Teo made remarks which emphasised strong communication, community engagement by the Commission, and early consultations with stakeholders are valuable.

AGENDA ITEM 2 — REVIEWS OF FISHERIES

Peter Williams (SPC-OFP) and P. Maru (FFA Secretariat) presented SC11-GN-WP-01, an overview of tuna fisheries in the western and central Pacific Ocean for 2014, including economic conditions.

The provisional total WCPFC Statistical Area tuna catch for 2014 was estimated at 2,860,648 mt, clearly the highest ever at 170,000 mt above the previous record catch in 2013 (2,690,881 mt); this catch represented 83% of the total Pacific Ocean catch of 3,486,124 mt, and 60% of the global tuna catch (the provisional estimate for 2014 is 4,783,629 mt, and when estimates are finalised is expected to be the highest on record mainly due to increased WCPFC Statistical Area catches).

The 2014 catch of skipjack (1,957,693 mt – 68% of the total catch) was the highest recorded, eclipsing the previous record of catch in 2013 by 115,000 mt (1,842,485 mt). The yellowfin catch for 2014 (608,807 mt – 21%) was also the highest recorded (5,000 mt higher than the record catch of 2008 – 603,244 mt) mainly due to increased catches in several longline fisheries. The bigeye catch for 2014 (161,299 mt – 6%) was slightly higher than in 2013, but relatively stable compared to the average over the past ten years. The 2014 albacore catch (132,849 mt - 5%) was slightly lower than in 2013 and about 15,000 mt lower than the record catch in 2002 at 147,793 mt.

Economic conditions in the tuna fisheries of the WCPFC Statistical Area during 2014 were mixed compared with

2013. US dollar (USD) prices for canning lightmeat raw materials (skipjack and yellowfin) saw a year on year decline in 2014 of around 30% across major markets while prices for whitemeat raw materials increased by 10% to 20%. In contrast USD prices for longline sashimi products in 2014 were little changed from 2013.

STATUS OF TUNAS IN THE EASTERN PACIFIC OCEAN (EPO)

Kurt Schaefer, IATTC presented a summary of the fishery and assessments of the major stocks of tunas exploited in the Eastern Pacific Ocean (SC11-GN-WP-02). The fishing capacity of the purse-seine fleet fishing in the EPO increased rapidly during 1995 to 2005, but has been fairly steady since about 2006, at about 200,000 cubic meters of well volume. Recent estimates indicate that the yellowfin spawning biomass in the EPO is overexploited (S<Smsy), but that overfishing is not taking place (F<Fmsy).For skipjack, except for 2010, the biomass and recruitment, have been relatively high over the past decade including for 2014, and the exploitation rate has remained relatively high during this same period. Recent estimates indicate that the bigeye spawning biomass in the EPO is not overexploited (S>Smsy), and that overfishing is not taking place (F<Fmsy).

UPDATES ON TUNA FISHERY BY CCM

Each member country, participating territories and cooperating non-members (CCMs) were given opportunity to give updates of their tuna fishery, highlighting recent changes and developments in their fisheries as described in Part 1 of their Annual Report to the Commission.

The Philippines reported ongoing initiatives such as a national stock assessment program and observer program, catch documentation and validation, the implementation of a Vessel Monitoring System and other collaborative activities supporting Philippines' efforts towards improving tuna data collection. Philippines passed Republic Act 10654 known as the Philippine Fisheries Code of 1998 and in 2015 Philippines approved and implemented Fisheries Administrative Order No. 245-3 (FAO 245-3) on the Regulations and Implementing Guidelines on Group Tuna Purse Seine Operations in High Seas Pocket Number 1 as a Special Management Area. This is supported by other FAO initiatives such as the National Tuna FAD Management Policy (FAO No. 244), FAO 236-4: Extension of FAO 236 series of 2010 and other FAOs.

AGENDA ITEM 3 — DATA AND STATISTICS THEME

The Data and Statistics theme was convened by L. Kumoru (PNG). P. Williams (SPC-OFP) presented SC11-ST-WP-01 on scientific data available to the Western and Central Pacific Fisheries Commission including a review of the tier scoring system for scientific data submission which has been developed for evaluating compliance with the provision of scientific data to the Commission. Also presented was recent development in WPEA Phase 2 project taking place in Indonesia, Philippines and Vietnam and main data gaps for these two CCMs and one cooperating non-member.

AGENDA ITEM 4 — STOCK ASSESSMENT THEME

SC11 strongly recommends that the multi-fleet operational level data be retained by SPC for the purpose of conducting stock assessments, with particular emphasis on WCPO bigeye tuna. SC11 noted that the total yellowfin catch in 2014 was the highest ever recorded at 608,807 mt, which was a 10% increase over 2013 and a 9% increase over the average for 2010–2013. SC11 noted that no stock assessment was conducted for WCPO skipjack tuna in 2015. Therefore, the stock status description from SC10 is still current.

SC11 noted that no management advice has been provided since SC8 and SC9 for oceanic whitetip shark and silky shark, respectively. Therefore, previous advice should be maintained, pending a new assessment or other new information. SC11 also noted that no management advice has been provided for South Pacific blue shark.

AGENDA ITEM 5 — MANAGEMENT ISSUES THEME

SC11 reviewed information related to tropical tunas (WCPFC-SC11-2015/GN-WP-01). Noting the longline bigeye catch and the total number of FAD sets in 2014 was still higher than in 2010 (taken as a reference year for the current CMM), and the number of FAD sets was 5% above the mean total number for the 2005-2014 period, SC11 recommends the need for additional or alternative targeted measures to reduce the fishing mortality on bigeye tuna, as seen as appropriate by the Commission.

SC11 also reviewed evaluation of CMM-2013-01 (WCPFC–SC11-WCPFC11-03). Noting revised tropical tuna measure adopted at WCPFC 11 (CMM-2014-01) is slightly different from the assumption used in the analysis, SC11 requests the Science Service Provider consider the implementation of updated projections, including

evaluation of the potential impact of CMM 2014-01, for the consideration of tropical tuna measures at WCPFC12.

Noting the request in paragraph 584 of the SC10 report, SC11 reviewed working paper WCPFC-SC11-2015/MI-WP-05 which analysed the relative impact of associated and unassociated set types on skipjack tuna stock status. Results indicated that skipjack stock status is relatively insensitive to the proportions of associated or unassociated sets of purse seine effort, with slight benefits to stock status with a higher proportion of unassociated sets. In addition, SC11 noted that the analyses had assumed a linear relationship between CPUE and stock abundance (potentially unrealistic in purse seine fisheries) and had not taken account of effort creep in purse-seine effort, for both associated and unassociated sets. SC11 also noted that a decrease in days searching and an increase of days in transit in logbooks might partially explain the increased CPUE observed. SC11 recommends that WCPFC12 take note of this paper and that further analyses be undertaken taking into account the issues identified above.

SC11 reviewed working paper WCPFC-SC11-2015/MI-WP-09 which analysed the relative impact of associated and unassociated set types on yellowfin tuna stock status. SC11 advises WCPFC12 that based on the results of the analyses described in this paper yellowfin tuna stock status in the WCPO is relatively insensitive to whether purse seine effort is comprised of mainly associated sets or unassociated sets and these results are consistent with working paper WCPFC-SC10-2014/MI-WP-05. SC11 also noted that a slightly better stock status (higher spawning biomass) for yellowfin tuna and slightly lower average catch of yellowfin tuna occurred when purse seine effort compositions favoured unassociated sets. SC11 recommends that WCPFC12 take note of these conclusions and that further analyses be undertaken taking into account alternative relationships between CPUE and abundance.

SC11 reviewed analyses undertaken to estimate potential tropical purse seine fleet sizes given existing effort limits and candidate target stock levels (WCPFC-SC11-2015/MI-WP-10). SC11 noted that these analyses are an important contribution to the development of a purse seine capacity management scheme for the WCPFC and supported further work to identify patterns of participation by full-time and part-time vessels within the fishery, the need to relate both participation and effort creep to vessel characteristics, and the expansion of similar analyses to the longline fleets. SC11 recommends that WCPFC12 take note of these preliminary analyses and requests the Commission identity any specific analyses which may assist the Commission's consideration of fleet capacity.

AGENDA ITEM 6 — ECOSYSTEM AND BYCATCH MITIGATION THEME

Ecosystem and Bycatch Mitigation Theme convenor J. Annala reminded the Committee that SC11 has been asked to review five CMMs and provide advice. SC11 was also asked to conduct a brief review of the SEAPODYM model.

AGENDA ITEM 7 — OTHER RESEARCH PROJECTS

West Pacific East Asia Oceanic Fisheries Management Project

The WCPFC Science Manager gave a brief presentation on the new GEF-funded 'Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas'project, including the development process, key activities, budget scope, and key outcomes from the previous projects (WCPFC-SC11-2015-RP/WPEA-01).

Pacific Tuna Tagging Project

The Chair of the Pacific Tuna Tagging Project(PTTP) working group, L. Kumoru (PNG) noted that the group met on Thursday 6 August 2015 in Pohnpei, FSM. The steering committee summary report (SC11-RP-PTTP-01) was made available to SC11 participants.

AGENDA ITEM 8 — COOPERATION WITH OTHER ORGANISATIONS
AGENDA ITEM 9 — SPECIAL REQUIREMENTS OF DEVELOPING STATES AND PARTICIPATING TERRITORIES
AGENDA ITEM 10 — FUTURE WORK PROGRAMME AND BUDGET
AGENDA ITEM 11 — ADMINISTRATIVE MATTERS

Future operation of the Scientific Committee

The SC Chair noted that the Secretariat had trialed a new procedure this year for developing its meeting report. Observing that it had worked well the Chair called for views from SC11.

Election of Officers of the Scientific Committee

The SC Chair noted the need for an SC Vice-Chair.Cook Islands noted that this was the SC Chair's third year as Chair and acknowledged his work. This CCM encouraged non-FFA members to provide support to the Commission as SC Chair.

J. Annala (New Zealand), co-convenor of the Ecosystems and Bycatch Theme advised SC11 that next year will be his last as co-convenor and his co-convenor, A. Batibasaga (Fiji), was not going to be available next year. There was a need to appoint a new co-convenor for this Theme and eventually two.

Tonga was nominated by Fiji and accepted as the new co-convenor for the Ecosystems and Bycatch Theme. After discussions around whether or not the SC Chair and Vice Chair had to be from different chambers within the Committee, advice from the Secretariat and views of a number of CCMs in plenary, A. Batibasaga's nomination was accepted and he was accepted by SC11 as the SC Vice-Chair.

Next meeting

Indonesia confirmed to host SC12 in Bali, Indonesia, scheduled to take place from 3-11 August 2016. The Cook Islands flagged that discussions are taking place in-country about the possibility of hosting SC13 in 2017. The SC Chair noted that if no other CCM offers to host SC13, it will be held in Pohnpei, FSM.

AGENDA ITEM 12 — OTHER MATTERS

There were no other matters raised for discussion.

AGENDA ITEM 13 — ADOPTION OF SC11 SUMMARY REPORT

The Report of the 11th Regular Session of the Science Committee will be adopted intercessionally.

AGENDA ITEM 14 – CLOSE OF THE MEETING

Fiji mentioned that it would be hosting the 2016 Commission meeting. Sincere thanks were expressed to the Chair, theme convenors, the Secretariat and the rapporteur for their hard work, professionalism and smoothly run meeting. The SC members were thanked for their good spirits and collaborative work. FSM's hospitality was particularly noted. On behalf of Secretariat, the Commission Executive Director thanked and congratulated the SC for accomplishing its task. FSM wished participants a safe trip home. The SC Chair closed the meeting at 3:10pm on 13 August 2015.

9. IMPRESSIONS :

The SC11 Meeting of the WCPFC was well attended by scientist, some managers, industry representatives and delegation members of each CCMs. The meeting gave a good venue to show the recent stock assessment results of scientific research/analysis done in the WPO that will serve as basis for formulating conservation and management measures for the sustainable management of our tuna fishery resources particularly our tuna stocks and other highly migratory fish stocks in the Western and Central Pacific Ocean (WCPO).

10. RECOMMENDATIONS:

It is recommended that implementation of various programs including WPEA-SM, NSAP, Observer, VMS to improve the compliance to data requirements and other obligations as a member country to the Western and Central Pacific Fisheries Commission (WCPFC).

SUBMITTED BY:

ALMA C. DICKSON, DFT
Chief, National Marine Fisheries
Development Center

Annex. OBSERVATIONS AND RECOMMENDATIONS

The attendance on the 11th WCPFC Science Committee meeting in Pohnpei, Federated State of Micronesia, last August 3 to 14, 2015 has been beneficial and useful to the undersigned thus enhanced technical know-how's on various scientific activities contributed/shared by the scientists from other member countries and SPC. Hereunder are the observations and recommendations:

a) The SC has continuously provided a good venue for scientists, fishery managers, compliance managers, regional /national observer coordinators and NGOs to discuss and share each other's works and experiences to upgrade knowledge and competencies on the latest trends and review of various fisheries status with focus on tunas in the WCPO and other species of special interest; issues related with data and statistics; stock assessment; management issues in relation to the implementations of the applicable conservation and management measures; ecosystem and bycatch mitigation and on other research projects including the West Pacific East Asia Project.

b) It was also observed that after each paper presentations, the approach on open discussions to provide comments and observations has encourage the active participation of all member countries thus created a friendly working atmosphere and information sharing. Although there are some debates in the plenary due to different views and opinions, the respect of each other's contribution were deliberated and considered.

c) Regarding the overall management and operation of the SC meeting, I fully support the decision making "Consensus Approach" which resulted in providing a unified scientific outputs.

d) Regarding the conduct of researches, there must be a need to encourage all member countries to conduct their respective compatible researches to validate the overall findings of the WCPFC scientific services provider. In this respect, the Commission must provide the corresponding capacity building training to interested CCMs to standardize the science protocol, methodologies, approaches and funding support in the implementation of the priority studies as well as promote the SPC's collaboration with interested CCMs.

e) In the case of the Philippines, the implementation of the WPEA Project activities and its flexible approach in supporting the country's /CCM's needs has been providing significant benefits. Its support is focused on the diversified requirements of the tuna fishing industry to improve its data collection both at the landing centers and onboard the fishing vessels using various documentation tools such as the NSAP data, logsheets, observers and VMS data. Despite the very limited budget provided by the WPEA Project, the Philippines through our BFAR budget has also provided counterparts in terms of sharing the expertise and/or services of technical and administrative personnel as well as its training and office facilities and other incidentals in order to attain the common objectives on the proper development and management of tuna resources to insure sustainable supply for the regional and national food security.

f) WCPFC Science Committee must develop a comprehensive capacity building programs based on the needs of the respective CCMs.

WEST PACIFIC EAST ASIA OCEANIC FISHERERIES MANAGEMENT PROJECT

TRIP REPORT

Participation at the Eleven Regular Meeting of the Scientific Committee at Pohnpei, Federated States of Micronesia, on 5-13 August 2015

Executive Summary:

- Government agency representative: Pham Viet Anh.
- Title: Fisheries Officer.
- Name of organization: Directorate of Fisheries, Ministry of Agriculture and Rural Development.

- Scientific agency representative: Nguyen Viet Nghia.
- Title: Vice-Director.
- Name of organization: Research Institute for Marine Fisheries, Ministry of Agriculture and Rural Development.

Introduction

1. Scientific Committee meeting (SC) is regularly convened every year in August as a very important part of scientific works of WCPFC. The Scientific Committee of WCPFC has the responsibility to review current status of tuna species at the region of WCPO in order to provide reasonable and relevant management and conservation measures and thus a meeting of the SC has been regularly held to discuss and evaluate current status of the regional tuna fisheries.

2. Under the WPEA OFM project, Viet Nam has been supported a fund source to send its delegation to participate the SC11 meeting. The main aims of the participation were to provide better understanding on scientific work of WCPFC and to gradually improve compliance in term of scientific data provisions of tuna fisheries for regional stock assessments. The meeting also provide a chance for the participants from member countries to report and update their countries' tuna fisheries status.

3. The theme conveners and their assigned themes are:

Data and Statistics theme	L. Kumoru (PNG)
Stock Assessment theme	J. Brodziak (USA) and H. Nishida (Japan)
Management Issues theme	R. Campbell (Australia)
Ecosystem and Bycatch Mitigation theme	J. Annala (NZ) and A. Batibasaga (Fiji)

Tuna resource status of WPCO region

4. Information on status, biology and related ecosystems of tuna stocks in the WCPO region were obtained and understood. This information can be summarized as follows:

5. The provisional total WCPFC Statistical Area tuna catch for 2014 was estimated at 2,860,648 mt, clearly the highest ever at 170,000 mt above the previous record catch in 2013 (2,690,881 mt); this catch represented 83% of the total Pacific Ocean catch of 3,486,124 mt, and 60% of the global tuna catch (the provisional estimate for 2014 is 4,783,629 mt, and when estimates are finalised is expected to be the highest on record mainly due to increased WCPFC Statistical Area catches).

6. The 2014 WCPFC Statistical Area catch of skipjack (1,957,693 mt – 68% of the total catch) was the highest recorded, eclipsing the previous record of catch in 2013 by 115,000 mt (1,842,485 mt). The WCPFC Statistical Area yellowfin catch for 2014 (608,807 mt – 21%) was also the highest recorded (5,000 mt higher than the record catch of 2008 – 603,244 mt) mainly due to increased catches in several longline fisheries. The WCPFC Statistical Area bigeye catch for 2014 (161,299 mt – 6%) was slightly higher than in 2013, but relatively stable compared to the average over the past ten years. The 2014 WCPFC Statistical Area albacore catch (132,849 mt - 5%) was slightly lower than in 2013 and about 15,000 mt lower than the record catch in 2002 at 147,793 mt. The WCPFC Statistical Area albacore catch includes catches of north and south Pacific albacore in the WCPFC Statistical Area, which comprised 76% of the total Pacific Ocean albacore catch of 173,702 mt in 2014. The south Pacific albacore catch in 2014 (83,033 mt) was the fourth highest on record (about 6,000 mt lower than the record catch in 2010 of 88,942mt).

Annual report-part 1

7. All Members, Participating Territories and Cooperating Non-Members presented in the meeting presented their annual report-part 1 on their tuna fishery status and data collection and research at the meeting.

8. Annual report-part 1 of tuna fishery status of Vietnam was also presented during the meeting. The summaries of the report included some main points such as: There are three main fisheries in Vietnam targeting tuna species and tuna-like species. These fisheries are tuna longline, gillnet and purse seine fisheries, which are mostly catching bigeye, yellowfin and skipjack tuna species in the Vietnamese waters. Over the past some years, data collection system for Vietnamese tuna fisheries was insufficient and thus total catches of tuna and other related species were not available.

9. Longlines/handline fishery (LL/HL) is the main fishing method used in tuna fisheries and this fishery is highly developed in the central provinces (i.e. Phu Yen, Khanh Hoa and Binh Dinh). There is no LL/HL vessel registered in other provinces. There is a slight down trend on tuna LL/HL vessel number in 2014 comparing to 2013. Total of tuna LL/HL of 2014 is 1,607 vessels (Table 1). All these vessels are registering to fish in the Vietnamese EEZ.

10. In addition, tuna species can also be caught by purse seine and other fisheries targeting on skipjack tuna and other neritic tuna and bycatch species. In 2014, number of gillnet have keep a stable with a slight change compared to 2013. Total number of gillnet vessels registered in 2014 is 979 vessels focusing on large capacity vessel groups. In contrast, there was a significant increase of purse seine vessels in 2014. While there were only more than 500 units of purse seine vessels in 2012, it was increased 1,581 in 2014. However, it is noted that these purse seine vessels are not only targeting on oceanic tuna but many of them are purse seine vessels targeting on small pelagic fishes such as mackerel, anchovy, scad, herring.

Stock status of four tuna species

Yellowfin tuna:

11. SC11 noted that no stock assessment was conducted for WCPO yellowfin tuna in 2015. Therefore, the stock status description from SC10 is still current.

12. SC11 noted that the total yellowfin catch in 2014 was the highest ever recorded at 608,807mt, which was a 10% increase over 2013 and a 9% increase over the average for 2010–2013.

Bigeye tuna:

13. SC11 noted that no stock assessment was conducted for WCPO bigeye tuna in 2015. Therefore, the stock status description from SC10 is still current.

14. SC11 noted that the total bigeye catch in 2014 was 161,229 mt, which was a 5% increase over 2013 and a 5% increase over the average for 2010–2013. SC11 also noted that the bigeye catch in 2014 was 48% above the estimated maximum sustainable yield (108,520 mt), although those two numbers are not directly comparable because MSY is calculated based on the historical average recruitment.

15. SC11 also noted the analysis of the sensitivity of the WCPO bigeye tuna stock assessment to the inclusion of EPO data and dynamics within a Pacific-wide model. SC11 concluded that the dynamics of bigeye tuna in the WCPO estimated using the Pacific-wide model are not substantially different from those estimated using the WCPO-only model, especially with respect to the main stock status indicators used by WCPFC. Therefore, SC11 recommends that it is reasonable to continue to provide management recommendations to WCPFC on the basis of WCPO-only regional stock assessment models.

16. SC11 did not consider the Pacific-wide sensitivity analysis to be a new stock assessment for the purpose of formulating management advice.

Skipjack tuna:

17. SC11 noted that no stock assessment was conducted for WCPO skipjack tuna in 2015. Therefore, the stock status description from SC10 is still current.

18. SC11 noted that the total skipjack catch in 2014 is provisionally estimated to be 1,957,693mt, which is the highest catch recorded, a 6% increase over 2013 and a 14% increase over the average for 2010-2013.

19. The SC noted that skipjack tuna catch in 2014 was 20% above the estimated MSY (1,618,800mt) although those two numbers are not directly comparable because MSY is calculated based on the historical average recruitment.

20. SC11 reviewed information related to identifying changes in the spatial distribution of skipjack (including range contraction) in response to increase in fishing pressure. SC11recommends that WCPFC12 take note of the analyses completed to date and that further work on this issue be undertaken, including:

    - more extensive skipjack tagging activities, including in sub-tropical and temperate regions to provide better information on stock connectivity and movement; and
    - analysis of operational longline data including skipjack catch to improve the estimation of relative abundance trends by latitude.

Final remarks/conclusion

21. SC11 provided much scientific information on status of tuna stocks and introduced advanced stock assessment methods (e.g. Multifan-CL, Ecopath with Ecosim, SEAPODYM, CPUE standardization methods…).

22. Viet Nam's delegations have also learnt the process from data analysis, stock assessment, development of reference points and recommendation of management strategies/measures as being implemented at WCPFC. This is very useful to enhance and build capacity for Viet Nam's delegations on tuna fisheries management and assessment in the future. In addition, learning from these processes also emphasized the importance on tuna data collection and obligations of CNM as Viet Nam to comply with WCPFC requirements on tuna fisheries data collection and provision.

23. The SC11 provided a great chance for Viet Nam to gradually approach to scientific work of WCPFC. Vietnam's participation is very useful for maintaining its tuna fishery sustainable development in the long term.

24. At the moment, due to lack of skilled expertise and thus Viet Nam should consider to use outcomes of regional stock assessment for its tuna fisheries management at the national level such as application of reference points and management strategies.

25. There is a strong need for Viet Nam to actively participate the scientific works of WCPFC and thus Vietnamese Government should take into consideration to annually

allocate a permanent budget source to fund for its delegations even in the case without obtaining funding source of WCPFC.