



**COMMISSION
THIRTEENTH REGULAR SESSION**
Denarau Island, Fiji
5 – 9 December, 2016

UPDATE ON WPEA PROJECT

**WCPFC13-2016-36
25 November 2016**

Prepared by Indonesia, Philippines and Vietnam and the Secretariat

I. BACKGROUND

Indonesia and Philippines Data Collection Project (IPDCP)

1. In early 2000, while annual catches of key tuna species in the Philippines and the Pacific Ocean waters of Indonesia were estimated in a range of 20-30% of the total catch of WCPO, little or no information was available for WCPO tuna stock assessment. The lack of accurate catch statistics, effort data, and species composition and size composition data for the Philippines and Indonesia has been highlighted at meetings of the Standing Committee on Tuna and Billfish for many years and responsible for much of the uncertainty in the MULTIFAN-CL stock assessments for bigeye and yellowfin tuna.

2. After years of effort, strong support has also been expressed by agencies of Indonesia and Philippines. Since then, the data collection project started to take a concrete form through several meetings, working with IOTC, CSIRO, ACIAR, and Japan-OFCF. Throughout the Preparatory Conference period, the discussion evolved and fund raising was based on voluntary contributions from the Preparatory Conference participating countries. The activities of the proposed project include, for each country,

- a) a review of the tuna fisheries and the current monitoring systems;
- b) the compilation of historical catch and effort data;
- c) a workshop to formulate recommendations for the improvement of the monitoring system and to plan the sampling programmes;
- d) the establishment of a port sampling programme;
- e) the establishment of an observer programme;
- f) the analysis of data collected and compiled during the project; and
- g) a workshop to review the achievements of the project and to plan for future monitoring.

3. The budget for the activities at that time was about USD 184,000 for the Philippines and USD 229,000 for Indonesia, for a total cost of USD 413,000. This project was called IPDCP.

West Pacific East Asia Oceanic Fisheries Management Project (WPEA-OFM)

4. Funding support was the greatest issue for the continuity of the IPDCP project. The Secretariat advised the third IPDCP Steering Committee that the Global Environment Facility (GEF) had expressed interest in funding a project in Indonesia, Philippines and Vietnam. The objectives of the project were (i) to establish or improve the collection of tuna fishery data, and (ii) to promote good governance with regard to the management of tuna fisheries. The Steering Committee recommended that the WCPFC Executive Director continue to liaise with GEF, Indonesia, Philippines and Vietnam to develop a data collection and governance project for those countries. The Steering Committee recommended that, noting that GEF funding would not be available for another 18–24 months, CCMs continue to be invited to contribute to implement port sampling in Indonesia and Philippines, and that the Commission consider funding data collection in this area through its core budget.

5. Project Implementation Form, National Project Preparation Reports and Project Document were coordinated and prepared by the Secretariat, working with each country's focal point. The Secretariat was advised that its medium size project was accepted by the GEF in May 2009.

Improvements

6. Since the commencement of the IPDCP data collection project, starting in Philippines in 2005 and in Indonesia in 2007, there have been improvements in 2011 assessments of the WCPO tuna stocks by reducing uncertainty of input data and information. Especially, the WPEA-OFM project has greatly enhanced the quality of Indonesian and Philippine fishery data that are applied to regional tuna stock assessments conducted for the WCPFC. During the project period, the following improvements have been noted:

- More accurate estimates of total annual tuna catch by species
- More accurate estimates of species-specific catches by major fishing gear types
- The first size composition data from Indonesian tuna fisheries in more than two decades
- The establishment of operational-level data collection programmes (logsheets) for the industrial tuna fisheries
- The initiation of an observer programme in Philippines

These enhanced data were used for the first time in the skipjack, yellowfin and bigeye stock assessments conducted in 2011 by SPC.

7. Throughout the WPEA-OFM project period, similar progress in data collection occurred in Viet Nam, and their data were incorporated into regional stock assessments. Tuna catch data were originally collected in three provinces in Viet Nam, which was expanded to additional six provinces in 2013.

8. The WPEA-OFM was successfully completed in March 2013 and an independent evaluation report is available at:

<http://www.wcpfc.int/system/files/SC9-GN-IP-03-%5BWPEA-OFM-Independent-Evaluation-Report%5D.pdf>

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

9. UNDP and WCPFC Secretariat prepared a new full size project along with the following process.

Project Framework Document (PFD)

- 1) Project title: Reducing Pollution and Rebuilding Degraded Marine Resources in the East Asian Seas through Implementation of Intergovernmental Agreements and Catalyzed Investments
- 2) The UNDP started preparing a parent program PFD from mid-2011, which was submitted to the Global Environment Facility (GEF) on 29 March 2012, and a revision submitted on 12 April

2012. The PFD was endorsed by the GEF Secretariat in June 2012.
- 3) The list of projects under the PFD include:
 - a) YS LME Project: Implementation of the Yellow Sea Large Marine Ecosystem Strategic Action Program for Adaptive Management (USD 7,562,430)
 - b) WPEA: Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (USD 2,293,578)
 - c) PEMSEA¹: Scaling up the Implementation of the Sustainable Development Strategy for the Seas of East Asia (USD 10,143,992)
 - 4) Participating countries: Cambodia, China, Indonesia, Lao PDR, Philippines, Thailand, Timor Leste, Vietnam

Project Identification Form (PIF) for the WPEA Project

- 1) Project title: Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas (WPEA-SM)
- 2) UNDP and WCPFC started developing a new WPEA project PIF since from 2012 and the final PIF was submitted to GEF on 5 April 2013. The PIF was approved by the GEF Council on 1 May 2013.
- 3) Total project cost is USD 2,233,578, a 3-year full size project, with the three participating countries (Indonesia, Philippines, Vietnam).
- 4) PIF includes i) Indicative Project Framework, ii) Indicative co-financing, iii) Project Preparation Grant, iv) Project Justification, and v) Approval/Endorsement by GEF Focal Points of each country.

WPEA-SM Project Document

- 1) Drs Tony Lewis and Anna Tengberg developed the Project Document in consultation with UNDP, WCPFC Secretariat and the three participating countries from mid-2013.
- 2) After several reviews and revisions, the Project Document was endorsed by the GEF Secretariat on 12 May 2014, the final version was submitted to the GEF Council on 17 September 2014, and received their approval on 30 September 2014.

Commencement of WPEA-SM Project

- 1) Project Appraisal Committee Meeting
 - The *Project Appraisal Committee*, met in Manila on 28 May 2014, agreed that all three project partner countries (Indonesia, Philippines and Vietnam) accepted WCPFC as the Project Implementing Partner. They also agreed that the Science Manager of the Commission should continue managing the WPEA-SM Project.
- 2) A Project Cooperation Agreement between UNDP and WCPFC was made on 14 October 2014, and the WPEA-SM officially commenced on 28 October 2014.
- 3) The Project Inception Workshop was held in Da Nang, Viet Nam, 4-5 November 2014, and the Inception Workshop Report was adopted and submitted to the UNDP.

II. SUMMARY OF KEY WPEA ACTIVITIES IN 2016

10. The WPEA-SM Project has three components and several expected outcomes under each component as shown below.

Component 1	Regional governance for building regional and national adaptive capacity of IDN, PHL and VNM in the management of HMFS
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¹ PEMSEA: Partnerships in Environmental Management for the Seas of East Asia, Manila, Philippines (<http://www.pemsea.org>),

Expected Outcomes	<ol style="list-style-type: none"> 1. Improved regional mechanisms for monitoring and assessment of HMFS 2. Enhanced capacity of technical staff, policy and decision makers to integrate climate change impacts on HMS into management regimes
Component 2	Implementation of policy, institutional and fishery management reform
Expected Outcomes	<ol style="list-style-type: none"> 1. Enhanced compliance of existing legal instruments at national, regional and international levels 2. Adoption of market-based approaches to sustainable harvest of tunas 3. Reduced uncertainty in stock assessment and improved understanding of associated ecosystems and their biodiversity 4. Ecosystem Approach to Fisheries Management (EAFM) guiding sustainable harvest of the oceanic tuna stock and reduced by-catch
Component 3	Knowledge sharing on highly migratory fish stocks
Expected Outcomes	<ol style="list-style-type: none"> 1. Regional knowledge platform established on Pacific Ocean Warm Pool LME and EAS LME's shared tuna stocks and associated ecosystems

11. The project specified targets to be achieved during the project period which are listed in the *Project Results Framework* in the Project Document. To reach the targets under each component, key activities identified are as follows:

Component 1

- a) Capacity building of the participating countries in science;
- b) Sub-regional collaboration and governance in tuna fisheries, including establishment of MCS programmes;
- c) Estimation of annual tuna catches by species and by gear;
- d) Development of general guidelines on adaptive management and monitoring of highly migratory stocks to address climate change;

Component 2

- a) Review of national fisheries legislation in compliance with WCPFC requirements;
- b) Development of harvest strategy elements at national level;
- c) Tuna supply chain analysis;
- d) Establishment of appropriate certification system;
- e) Tuna data collection at landing sites and data review;
- f) Training and limited implementation of observer program me;
- g) Trial application of ecosystem approach to fisheries managemet.

Component 3

- a) Knowledge sharing by participating in the biennial GEF-IW Learn Conference and PEMSEA East Asian Seas Congress

12. Annually, around 15-20 individual activities are planned and implemented to meet the targets of the project. Despite the delay in implementing some activities due to protracted domestic/internal approval processes most activities were successfully implemented in 2015 and 2016. The status and progress of all activities planned for 2015 and 2016 are summarized in Attachment A.

13. In the WPEA project, most activities are related with capacity-building, consultancies and review workshops of the consultancy outputs at each country. Once a year, the project coordinators convene a three-country workshop to promote cooperation and collaboration at a sub-regional level. In 2015, the theme of the Sub-regional Workshop was stock assessments at national and sub-regional level, and Dr John Hampton (SPC) was invited as a resource person. In 2016, the three-country workshop was also convened prior to the Project Board Meeting in Cebu, 24-26 October, with Ms Sylvie Giraud (CLS) from France and Dr Osamu Sakai (National Research Institute of Far Seas Fisheries) from Japan as meeting resources. The workshop theme was better understanding in the impacts of climate change on tuna

fisheries and the structure and functioning of a harvest strategy framework. The prime goal of the workshop was to enhance the country's understanding in each theme, to share the progress of each country on each topic, and to address country's issues and problems with the invited experts.

14. The Third Project Board Meeting was convened in Cebu, Philippines on and 29 October, 2016. The meeting was represented by delegates from the three participating countries, UNDP-Regional Office, UNDP-Philippines, PEMSEA Secretariat and WCPFC Secretariat. The Ministry of Foreign Affairs and Trade of New Zealand attended the meeting as an observer. The meeting covered i) finance and administration, ii) review of the second year project activities per country, and iii) the work plan and budget for 2017. Each country tabled update reports on the detailed progress and outputs of the project activities in 2016, which are annexed in Attachment B, C and D.

15. In consultation with each participating country, the WCPFC Secretariat developed over 20 project activities for each country with an aim to complete the Project by the end of 2017. The Project Board endorsed the 2017 annual work plan and a total budget of USD 1,047,455. Detailed activities and budget allocation are in Attachment E.

16. The WPEA-SM project is anticipating a mid-term evaluation in early 2017. Each country expressed their wishes to complete the project by the end of 2017 but it is likely that this project may be extended for another six month into 2018.

Review of the progress of WPEA activities during 2015-2016

	IDN-2015	IDN-2016	IDN	PHL-2015	PHL-2016	PHL	VNM-2015	VNM-2016	VNM
1.1	01. Logbook awareness workshop	01-02. Logbook awareness workshop	Done						
1.1	02. Capacity building in science – participate in SC11	03. Capacity building in science – participate in SC12	Done	01. Capacity building in science – participate in SC11	03. Capacity building in science – participate in SC12	Done	2. Capacity building in science – participate in SC11	03. Capacity building in science – participate in SC12 and WCPFC13	Done
1.1	03. WPEA project coordination and implementation at national level	04. WPEA project coordination and implementation at national level	Done	03. WPEA project coordination and implementation at national level	03. WPEA project coordination and implementation at national level	Done	02. WPEA project coordination and implementation at national level	02. WPEA project coordination and implementation at national level	Done
1.1							4. Reconstruction of tuna catch histories prior to 2000	11. Review on the reconstruction of tuna catch history prior to 2000	Done
1.1	04. Annual tuna catch Estimates workshop	05. Annual tuna catch Estimates workshop	Done	02. Annual tuna catch Estimates workshop	02. Annual tuna catch Estimates workshop	Done	3. Annual tuna catch Estimates workshop	03. Annual tuna catch Estimates workshop	Done
1.1		15. Participation in SPC's Tuna Data Workshop	Deferred		15. Participation in SPC's Tuna Data Workshop	Done	9. Participation in SPC's Tuna Data Workshop	12. Participation in SPC's Tuna Data Workshop	Done
1.1				12. MCS and VMS programs established	04. MCS and VMS programs established	On-going			
1.2	05. Prior study on climate change (Consultancy)	07. Prior study on climate change (Consultancy)	Done	04. Prior study on climate change (Consultancy)	05. Prior study on climate change (Consultancy)	Done	5. Prior study on climate change (Consultancy)	07. Prior study on climate change (Consultancy)	On-going
1.2		16. Development of two guidelines on climate change	On-going		06. Development of two guidelines on climate change	On-going		08. Development of two guidelines on climate change	On-going
1.2	06. Review workshop on climate change consultancy	08. Review workshop on climate change consultancy	Done	9. Review workshop on climate change consultancy	18. Review workshop on climate change consultancy	Done	8. Review workshop on climate change and reference points consultancy		On-going
1.3									
2.1				5. Update of <i>Operational Guide for Filipino Fishermen</i>	07. Update of <i>Operational Guide for Filipino Fishermen</i>	Done		06. Fishermen's Guide – Translation of WCPFC CMMs	Done
2.1	07. National compliance – submission of Annual Report Part 1 and 2		Done				6. National compliance – submission of Annual Report Part 1 and 2	05. National compliance – submission of Annual Report Part 1 and 2	Done
2.1					09. Consultancy – review of national legislation to comply	Done			

					with WCPFC requirements				
2.1					10. Workshop on harvest strategy framework	Done			
2.2	08. Consultancy – Prior study on tuna supply chain analysis	10. Consultancy – Prior study on tuna supply chain analysis	Done	8. Consultancy – Prior study on tuna supply chain analysis	12. Consultancy – Prior study on tuna supply chain analysis	Done	10. Consultancy – Prior study on tuna supply chain analysis	13. Consultancy – Prior study on tuna supply chain analysis	On-going
2.2	09. Consultancy – Review and establishment of certification scheme	11. Consultancy – Review and establishment of certification scheme	Done	7. Consultancy – Review and establishment of certification scheme	11. Consultancy – Review and establishment of certification scheme	Done	11. Consultancy – Review and establishment of certification scheme	14. Consultancy – Review and establishment of certification scheme	On-going
2.2	06. Review workshop – prior studies on tuna supply chain analysis and certification scheme	06. Review workshop – prior studies on tuna supply chain analysis and certification scheme	Done		18. Review workshop – prior studies on tuna supply chain analysis and certification scheme	Done	12. Review workshop – prior studies on tuna supply chain analysis and certification scheme	15. Review workshop – prior studies on tuna supply chain analysis and certification scheme	On-going
2.3				14. Training workshop on E-logbook		Done			
2.3	10. Prior study on the review of harvest strategy framework	09. Prior study on the review of harvest strategy framework	On-going				7. Prior study on the review of harvest strategy framework		On-going
2.3	11. Workshop on the development of a harvest strategy framework		On-going	6. Workshop on the development of a harvest strategy framework		Done	8. Workshop on the development of a harvest strategy framework	20. Workshop on the development of a harvest strategy framework	On-going
2.3								09. Prior study on the development of a harvest strategy framework	On-going
2.3	12. National Tuna Data Review Workshop	12. National Tuna Data Review Workshop	Done	11. National Tuna Data Review Workshop	14. National Tuna Data Review Workshop	Done	3. National Tuna Data Review Workshop	03. National Tuna Data Review Workshop	Done
2.3	13. Sub-regional workshop on stock assessment	13. Sub-regional WS on the development of a harvest strategy framework and the impact of climate changes on tuna fisheries	Done	10. Sub-regional workshop on stock assessment	08. Sub-regional WS on the development of a harvest strategy framework and the impact of climate changes on tuna fisheries	Done	13. Sub-regional workshop on stock assessment	10. Sub-regional WS on the development of a harvest strategy framework and the impact of climate changes on tuna fisheries	Done
2.3	14. Data collection from port sampling, field supervision and training	14. Data collection from port sampling, field supervision and training	On-going	13. Data collection from port sampling, field supervision and training	16. Data collection from port sampling, field supervision and training	On-going	14. Data collection from port sampling and training; Field supervision for the review of port sampling protocols and monitoring of enumerators' activities	16. Data collection from port sampling and training	On-going
2.3								17. Field supervision –	Done

								review of port sampling protocols and monitoring of enumerators' activities	
2.3								18. Field trip to Vung Tau province to solve problems in port sampling protocols and data structure (issues resolved from Activity 17)	Withdrawn
2.4		06. Training of observers and implementation of observer programme	On-going					04. Training of observers and implementation of observer programme	On-going
2.4					17. Prior study on the application of EAFM to tuna fisheries	Done		19. Prior study on the application of EAFM to tuna fisheries; publication of a Fish Book in coastal ecosystem	On-going
2.4				15. Review workshop on a prior study related to the application of EAFM to tuna fisheries	13. National WS on sustainable fishing practices – orientation level for EAFM focusing on education at provincial level	On-going		20. Prior study on EAFM; Review workshop on a prior study related to the application of EAFM to tuna fisheries	On-going
2.4					18. Review workshop on a prior study on EAFM	Done			
2.4					19. Pilot scale application of EAFM to tuna fisheries	On-going			
3.1	15. Database development						15. website		
3.1	16. Participation in GEF-IW Learn Conference	17. Participation in GEF-IW Learn Conference	Done	16. Participation in GEF-IW Learn Conference and PEMSEA's EAS CONGRESS	20. Participation in GEF-IW Learn Conference	Done	16. Participation in PEMSEA's EAS Congress	21. Participation in GEF-IW Learn Conference	Done

**Project Title: Sustainable Management of Highly Migratory Fish Stocks
in the West Pacific East Asian Seas**

West Pacific East Asia Oceanic Fisheries Management Project (WPEA OFM)

Review of the WPEA Annual Work Plan, 2nd year
INDONESIA (DFRM and CFRD)

Presented in WS Project Board Meeting

CEBU 28 -29 October 2016



Background

- Regional governance for building regional and national adaptive capacity of Indonesia, Philippines and Vietnam in the management of highly migratory fish stocks
- Implementation of policy, institutional and fishery management reforms.
- Knowledge sharing on highly migratory fish stocks

Status of Project Activities (DGCF)

Activity	Date	Output	Budget (USD)	Status
Catch Estimation Workshop	15 – 17 June 2016	WS was held on 15 – 17 June 2016 National Report of Annual Tuna Catch Estimates Workshop	12027 (2nd WPEA)	Completed Reported
Harvest strategy WS ; 3 WS. 1 st and 2 nd Technical WS, 8 th Management Objective WS	April 2016, Nov 2016	Development of HS particularly for 713,714,715 (AW)	15,000 (GOI DGCF)	Completed
Tuna supply chain analysis / traceability, including preparatory meetings and Tuna sustainability/certification, including preparatory meetings	7 – 8 June 2016	Consultancy was held on 7 – 8 June 2016 Paper : 1. Indonesia Tuna Supply Chain Review 2. Prior Study on Sustainability/Certification	6368 (2nd WPEA)	Completed Report Produced

Status of Project Activities (DGCF)

Activity	Date	Output	Budget USD	Status
Logbook Awareness WS in Bitung	16 – 18 Maret 2016	WS was held on 16 March 2016 and attended by 37 participants workshop from province agencies, district agencies, fishing port officer, captain, companies	2724 (2ndWPEA)	Completed reported
Logbook Awareness WS in Gorontalo	14 - 16 Maret 2016	WS was held on 14 March 2016 and attended by 39 participants workshop from province agencies, district agencies, fishing port officer, captain, companies	5538 (2nd WPEA)	Completed Reported

Status of Project Activities (DGCF)

Activity	Date	Output	Budget USD	Status
review Workshop on climate change, supply chain analysis and sustainability/certification	20 – 22 June 2016	WS was held on 20 – 22 June 2016 Identification of the fisheries status and action needed for supply chain analysis and sustainability/certification	11136 (2nd WPEA)	Completed Report Produced
Participating in SC 2016 (novia and Saut Tampubolon)	Aug 2016	Capacity building understanding WCPFC SC result	1339 (2nd WPEA)	Report produced

Status of Project Activities (Port Sampling Program-CFRD)

Activity title	Date	Output	Budget (US \$)	Status
port sampling in Bitung, Sodohoa, Kendari, Majene Gorontalo	Jan – Dec 2016	<ol style="list-style-type: none"> 1. Data port sampling produced 2. Enumerators Salary paid 	93196 (2ndWPEA)	Completed
				Nov-Dec – ongoing (include Gorontalo)
NTC and Staff	Jan-Dec 2016	National-level 2016 WPEA project activities were well coordinated	7200 (2nd WPEA)	Completed
Data Audit workshop	Bitung 10-11 March 2016	Refreshment of Sampling Protocol conformation Elimination of data anomalies	9600 (2nd WPEA)	Completed

Status of Project Activities (Supervision-CFRD)

Activity title	Date	Output	Budget (US \$)	Status
Supervision and data validation on port sampling in Bitung, Sodohoa Kendari, Sorong, Majene	Januari 2016 (sorong)	Port sampling activities supervised and Data validated	1.260 (Inkind)	completed
	July 2016 (Gorontalo, Bitung, Sorong majene)	Recruit and train new enumerators in Gorontalo	3,524 (WPEA)	Completed
	November 2016 & Februari 2017 (Gorontalo, Bitung, Sorong, Kendari, Majene)	Port sampling activities supervised and Data validated Equipment	14,344 (WPEA)	On going
Supervision (Bitung, NTT, Bali) → Anung widodo	July, Set, Oct 2016	Port sampling activities of MDPI and SFP	5.000 (Inkind)	Report Produced

Status of Project Activities (Regional Observer Program)

Activity	Date	Output	Budget (US \$)	Status
Authorization Regional Observer program Indonesia	2-3 May 2016	Authorize Indonesian ROP	2,292 (WPEA +WCPFC+ Inkind)	Report produced Completed
Indonesian Observer Program training	Februari 2017	Eighteen (18) trained observers that understand the work of Observer under WCPFC standard	19,585 (2nd WPEA)	On going 2017

Status of Project Activities

Activity	Date	Output	Budget (US \$)	Status
Preparatory work for HS (2 times) and CC (2 times) WS	Oct 2016	Prelim Data analysis	1500 Inkind (CFRD+ 2nd WPEA)	Report Produced
Participating in Three Country WS Philippine (Fayakun, Lilis, Wijopriono, Saut Tampubolon)	23-27 Oct 2016	Understanding the concept of CC & HS	12,000 2nd WPEA	ongoing
Training of HS in Hobart Australia Lilis, Erna, Novia, Putu	July 2016	Understanding the concept of HS and MSE	++12,500 GOI/ACIAR/M DPI	WS report Produce
Monitoring of research institute for Oceanic Fisheries Bitung (RIOF)	Januari-December	Maintenance office and facility of RIOF.	10.000 Inkind (CFRD)	completed

Status of Project Activities (Technical HS workshop)

Activity	Date	Output	Budget (US \$)	Status
1st technical harvest strategy workshop	April 2016	Specific Analysis such as LB SPR to Skipjack FMA 713-717 report produced Workshops Report produced Technical training and consultancy report produced	6,500 (2nd WPEA)	Report produced Completed
2nd Harvest Strategy WS	November 2016	Standardized CPUE, selectivity, Framework Model.	4,000 (2nd WPEA)	On going

Status of Project Activities (Climate Change)

Activity	Date	Output	Budget (US \$)	Status
Prior study to Climate Change	March 2016	National expert : Dr Wijopriono Report of prior study on climate change. Presentation of the consultancy outcomes at the CC Workshop	2,500 (2nd WPEA)	Report produced Completed
Development of two guidelines to Cope CC	February 2017	Two Guidelines of adaptive managemnt to cope with CC	5000 (2nd WPEA)	On going
Worshop on on CC	March 2017	The two guidelines used for capacity building of national technical fishery staff, policy and decision maker	10000 (2nd WPEA)	On Going

Strengthening Tuna fisheries management: Harvest Strategy Development

1. Continuation from WPEA 1st
2. Series of Workshop, Public and expert Consultation
3. Convince Minister and Binding in legal Instrument
(Regulation /Decree)

Lesson learned: Follow-Up, Commitment, Expertise, Capacity, Relatively similar person handle the Issue.



**RENCANA
PENGELOLAAN PERIKANAN**
TUNA, CAKALANG DAN TONGKOL



RPP-TCT



KEPUTUSAN
MENTERI KELAUTAN DAN PERIKANAN REPUBLIK INDONESIA
NOMOR 107/KEPMEN-KP/2015

TENTANG

RENCANA PENGELOLAAN PERIKANAN
TUNA, CAKALANG DAN TONGKOL

DENGAN RAHMAT TUHAN YANG MAHA ESA
MENTERI KELAUTAN DAN PERIKANAN REPUBLIK INDONESIA,

Ministerial Regulation No 107/KEPMEN-
KP/2015

Fisheries Management Plan : Tuna, Skipjack
and Neritic Tuna

NPOA-NTMP

1.2.2.1. Objective 1 Point 3
(Harvest Strategy)

And

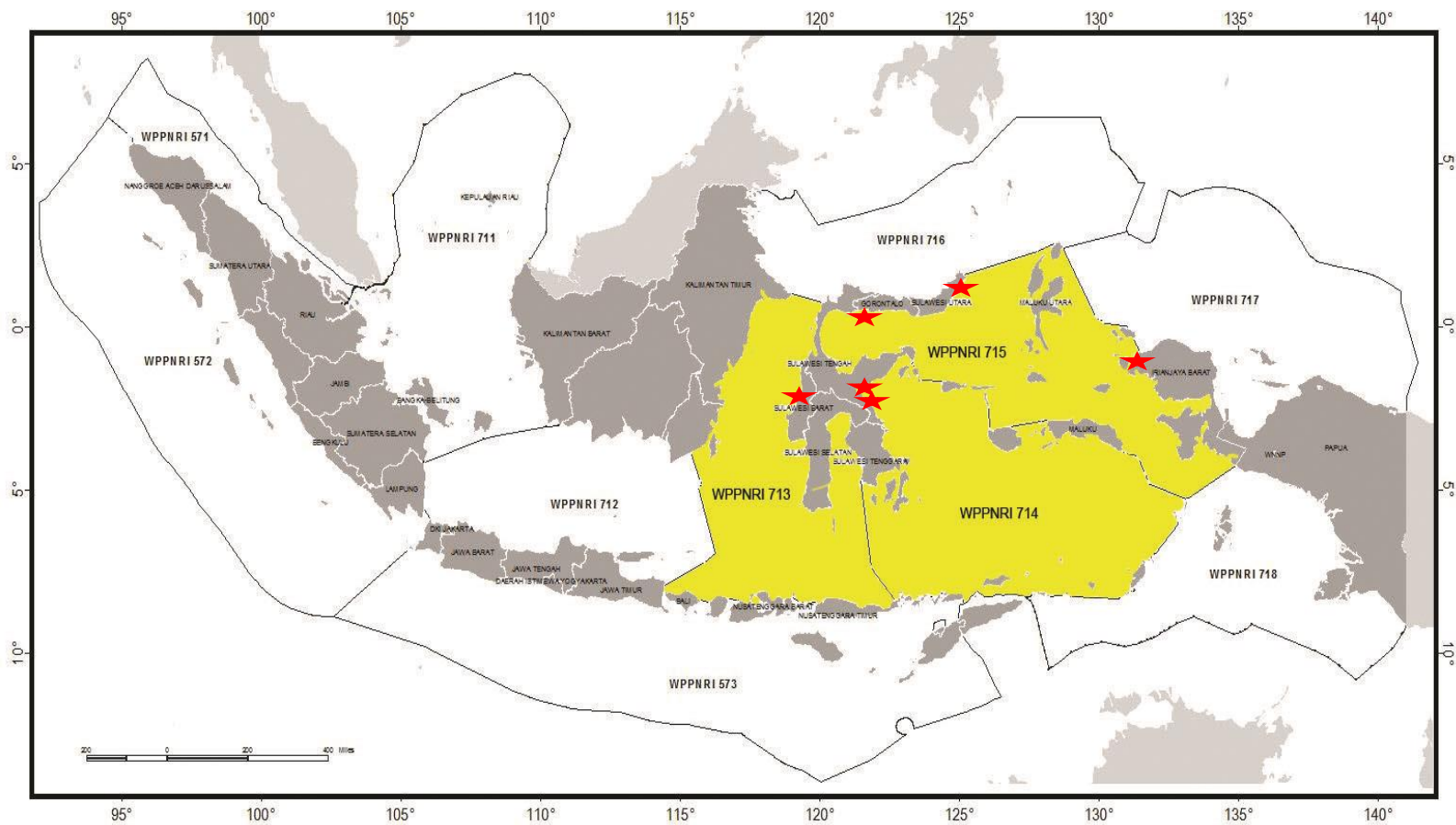
1.2.2.2 Objective 2 Point 4
Meeting among Scientist, Manager and
Stakeholder

MANTAINING and IMPROVING DATA COLLECTION Port Sampling 2015-2016

- Sampling Sites:
 - Bitung 5 landing sites (BMU, BMB, Nutrindo, Sinar purefoods, Fishing port (12 Enumerators)
 - Kendari (PPS Kendari 5 enumerators and Sodohoa 3 enumerators)
 - Sorong (3 enumerators)
 - Majene (2 enumerators)
 - Gorontalo (4 enumerators)



Landing sites for tuna in the FMAs 713, 714 & 715



Main landing sites

WPPNRI 713

Mamuju
Bone
Maumere
Majene (WPEA: 2014 -)

WPPNRI 714

Kendari (WPEA: 2010 -)
(ACIAR: 2013 - 2017)
Sodohoa (WPEA: 2010 -)
Ambon
Tual
Larantuka

WPPNRI 715

Bitung (WPEA: 2010)
Ternate
Sorong (WPEA: 2012 -)
(ACIAR: 20...)
Fak Fak
Gorontalo (Aug 2016)

SAMPLING LOCATIONS AND ENUMERATORS

LOCATION	SAMPLING SITE	GEAR	TARGET OF CATCH
BITUNG (12 Enumerators)	PT. Aneka Loka	TLL	YFT, BET
	PT. Bintang Mandiri Bersaudara	PS	SKJ, YFT, BET
	PT. Bitung Mina Utama	TLL	YFT, BET
	PPS Bitung	TLL, PS, PL, HL/TR	YFT, BET, SKJ
	PT. Nutrindo Fresh food Int'l	HL, TLL	YFT, BET
	PT. Perikanan HL	HL	YFT, BET
	PT. Sinar Purefood	PS	SKJ, YFT, BET
KENDARI (8 Enumerators)	PPS KEndari	PS, PL	SKJ, YFT, BET
	Sodohoa	HL/TR	SKJ, YFT, BET
SORONG (3 Enumerators)	PT Citra Raja Ampat	PL	SKJ, YFT, BET
MAJENE (2 Enum's)	PT OBI	HL	YFT, BET
GORONTALO (4 Enum's)	Kota Gorontalo	HL	YFT, BET
	PPN Kwandang	PS, TR	SKJ, YFT, BET, FRI

PORT SAMPLING AUDIT



Review of progress on recommendations from the 3rd WPEA-Indo Port sampling WS

Review of Database System, use at P4KSI/RCFMC and dissemination to WCPFC

Visit Port sampling Site

Summary of data collected
Problems faced/Staffing issues
Changes in fleet and on-shore activities in past year
Other information.



ANNUAL CATCH ESTIMATE

- May – June annually
- Peter William, DGCF , CFRD, Association
- Produce annual catch estimate by gear by species
- Annual report Part 1

Harvest Strategy Development Process in Indonesia

Case study: Tuna fisheries in FMAs 713, 714 and 715 (archipelagic waters)



KEPUTUSAN
MENTERI KELAUTAN DAN PERIKANAN REPUBLIK INDONESIA
NOMOR 107/KEPMEN-KP/2015

TENTANG

RENCANA PENGELOLAAN PERIKANAN
TUNA, CAKALANG DAN TONGKOL

DENGAN RAHMAT TUHAN YANG MAHA ESA
MENTERI KELAUTAN DAN PERIKANAN REPUBLIK INDONESIA,



Mandate to develop
Harvest Strategy
Case study: Tuna fisheries in
FMAs 713, 714 & 715

Led by:

- DGCF, CFRD - AMFRD,

Supported by:

- WCPFC, MDPI, ACIAR,
IPNLF

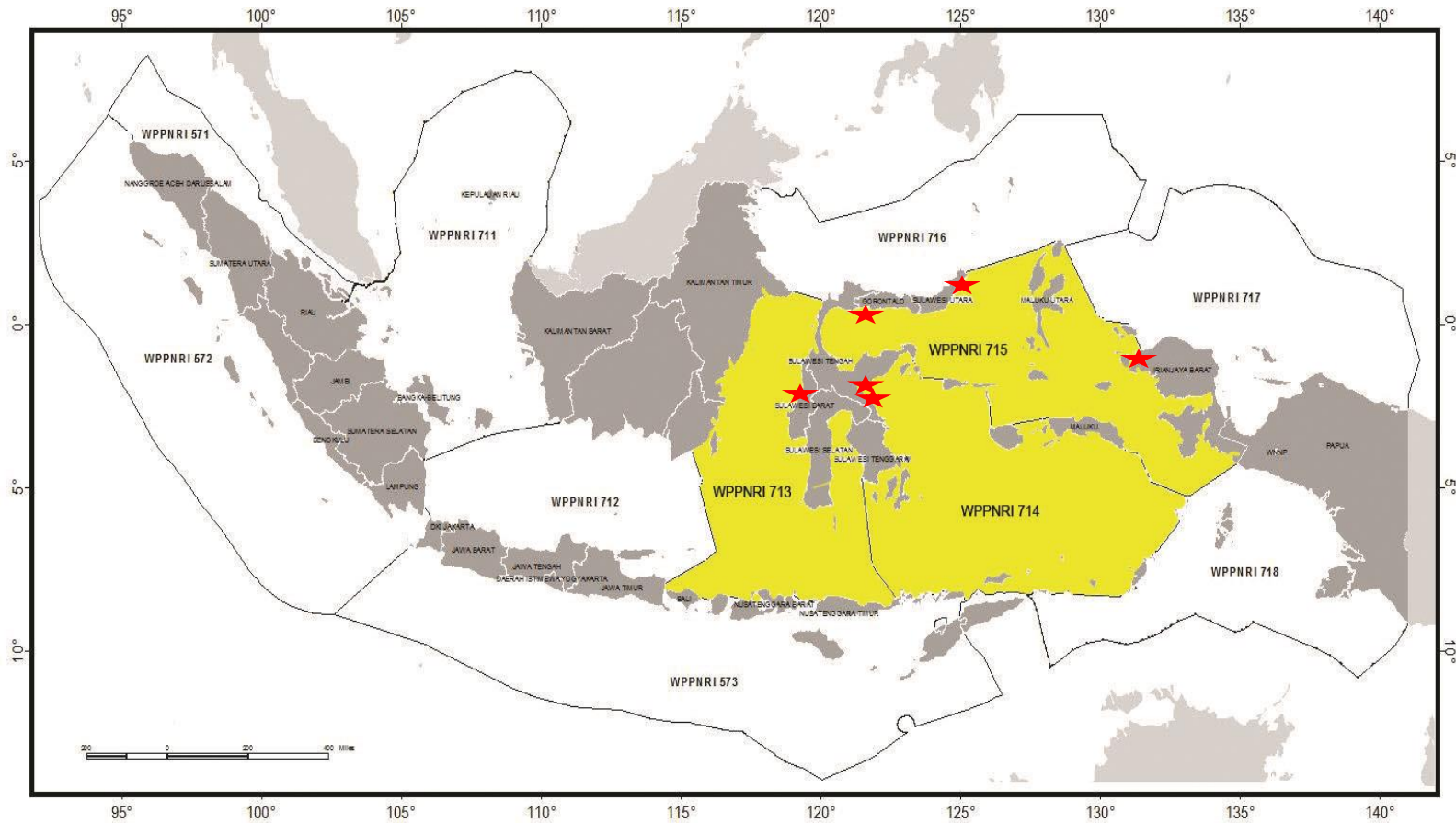
Experts:

- CSIRO experts



- Stakeholder for Management WS by DGFC
- Technical workshop by CFRD - AMFRD

Harvest Strategy of YFT and SKJ within Archipelagic Water



1. Not Convention area of any RFMOs (Sovereignty of Indonesia)
2. Approximately 40 % of Total annual catch of Tuna was taken from this area
3. Management measures compatible with RFMOs (WCPFC and IOTC)

Data Sets for Potential Use in HS Development

Data series name	Sampling period	Sampling frequency	FMA coverage	% landing/gear coverage	Source of effort/catch data	Relative abundance?	Size indices?	On going?	Comments
RCFMC-WCPFC WPEA	2010 →	Daily	713, 714, 715, 716 & 717	30% of # vessels landed. PL,PS,SHL,TLH,TR,LHL,LL	effort (fishing days, hooks), total catch volume per port-sampled vessel	✓, SKP, YFT, BET, ALB(Bitung)	✓	✓	Best series in terms of time, area, gear coverage
ACIAR / CSIRO / RCMFC	Oct 2013 - Dec 2015	Daily	714, 715	20% of # vessels landed. Mainly HL and TL, but also PL, PS at 4 ports	Number of fishing days, catch per trip recorded by enumerator		✓	Data collection at Kendari is still on-going under CFRD	Would be considerable benefit in continuing coverage at Sorong.
BPPL / RIMF	2011, 2013,	Daily, sometimes weekly	714, 716	PL,PS,HL,TL	No effort data		✓		What are we losing if ACIAR monitoring discontinues: e.g. FAD fishing information.
	2012 - 2014		713, 714, 715		No effort data				Provided by the skipper as part of the requirements from the port authority. Minimalist info but generally collected for all vessels in major ports. Is likely the data presented on the port authority website.
SDI - logbook		Per trip		LL, PS, TR			✓		
RITF observer trips	2002		714	LL	Number of hooks available				
AP2HI	2010 - 2014 →	Monthly aggregate	714, 715, 716	HL, PL	No effort data			✓	No length data and they use GT as effort (Ibu Titta moved). Only send summarised data (monthly). Not clear whether Co. may have more detailed effort/catch data
SFP	2015	Not everyday??	714	HL	No effort data		✓		Sustainable Fishery Partnership. Ibu Gaytri; Planning for 5 year data collection.
MDPI	2012 →	Daily	713, 714, 715	HL,PL	Number of fishing days & catch (not clear)	✓, YFT, SKP, ?BET?	✓	✓	Need some clarifications for information data table that we don't understand
WWF	2006 →	Daily	714	HL <5GT, GN	Number of fishing days (no available for Wakatobi)		✓	✓	no length and effort data in Wakatobi sampling site.
PSB	1978-1994		714	LL, 1 fishing company	Number of hooks available & catch per set (# fish)				One company, historical, Co. no longer exists. May be a more recent update of data into the 2000's.
Logbook Bitung (RCFMC)	2011 - 2013		714, 715	PS					Currently lead by Pak Dutto. Collected from the ports by Pak Dutto. Collected by PPS-Bitung PA.
SDI - statistics/catch estimate WS	2002 →		713, 714, 715	all gears	Estimated total catch for each FMA	x		✓	This is the catch estimate ws data

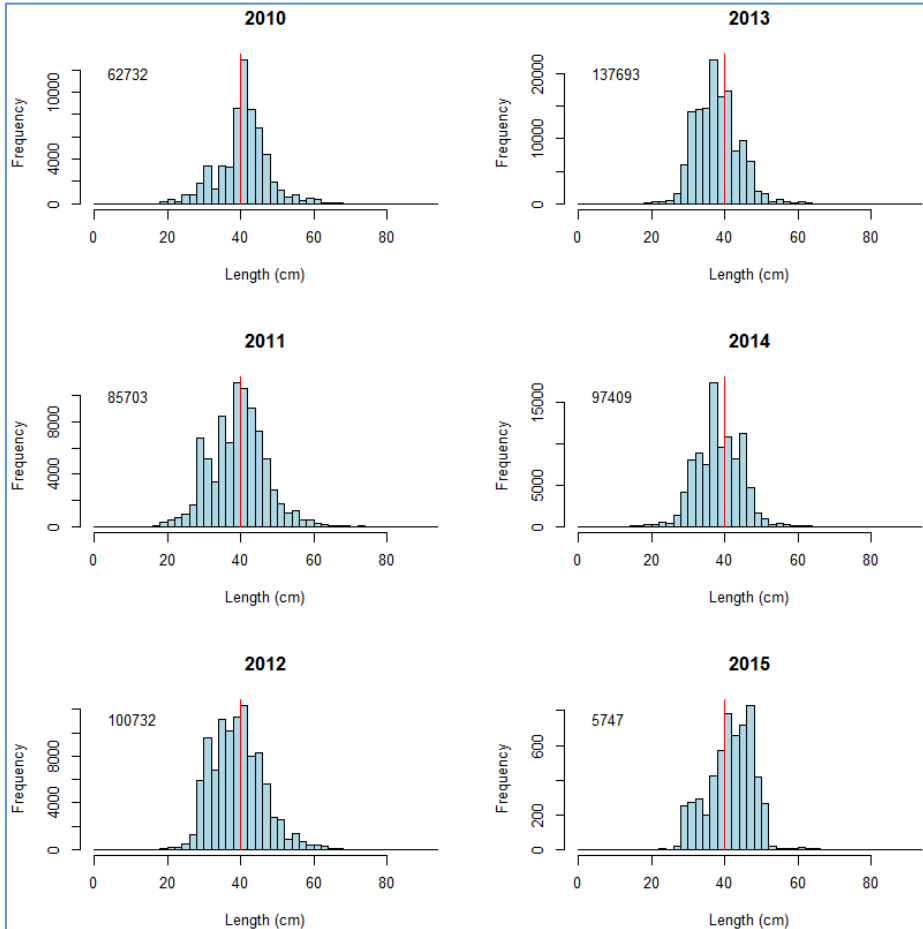
Green = detailed analysis;

Orange = further investigation/clarification of data definitions/sources.

Red = not suitable for HS input series due to lack of time series or sufficient coverage

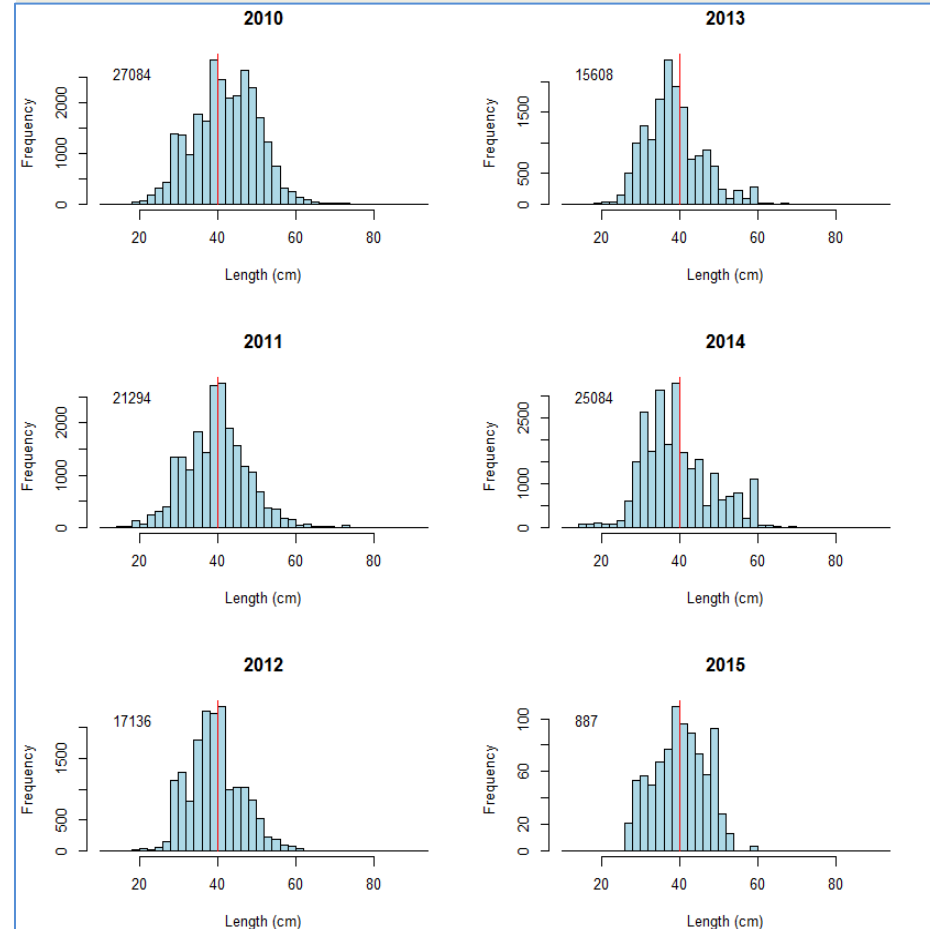
Length Frequency Distribution (Size Data)

SKJ – PS (WPEA)



2010 – 2014 : SKJ < 40 cmFL higher
 2015 : SKJ > 40 cmFL higher

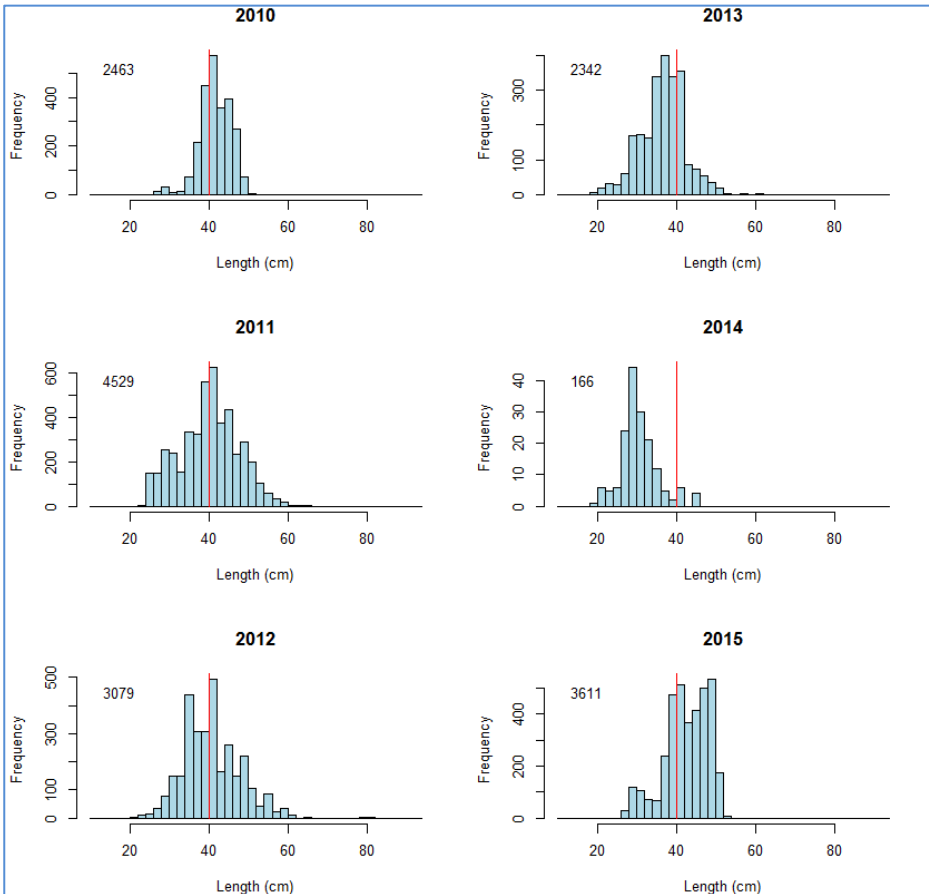
SKJ – PL (WPEA)



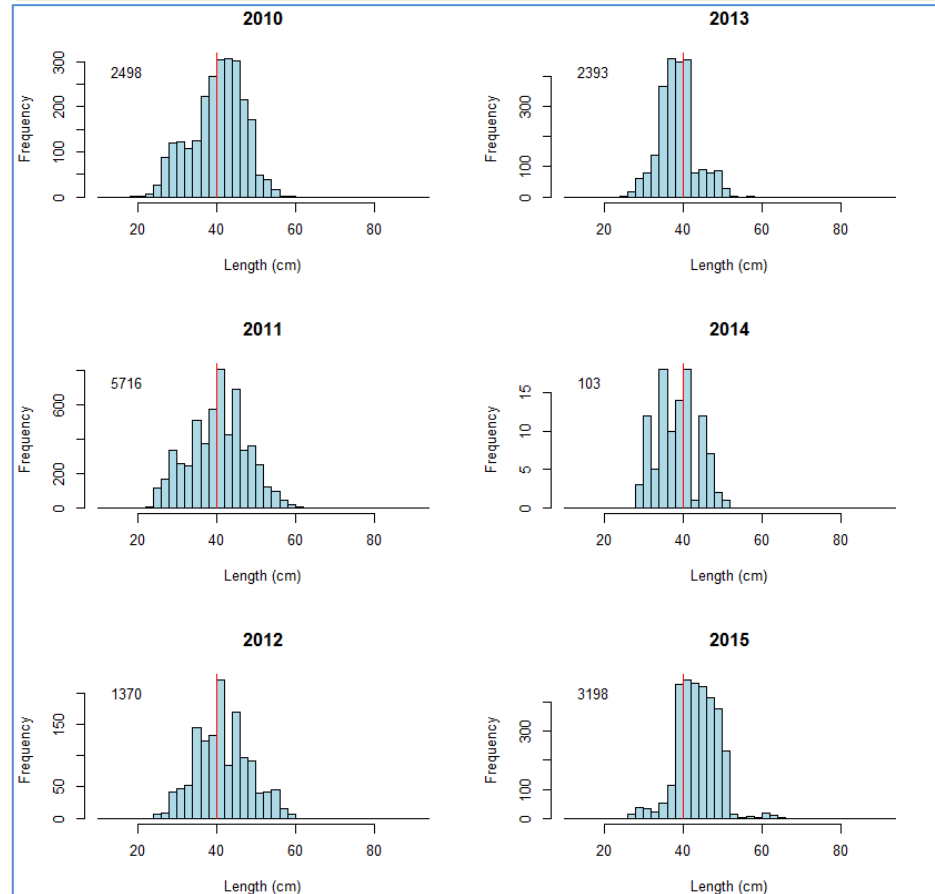
2010 : SKJ > 40 cmFL higher
 2011 – 2014: shifting

Length Frequency Distribution

SKJ – HL (WPEA)



SKJ – TR (WPEA)

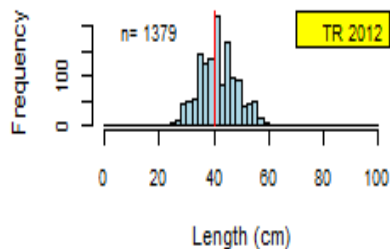
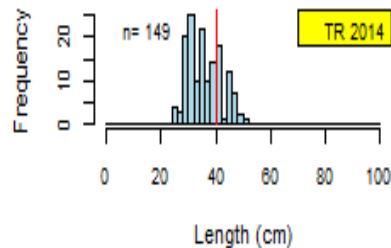
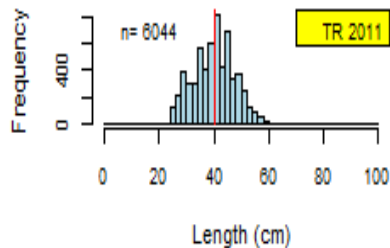
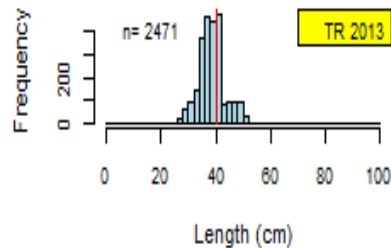
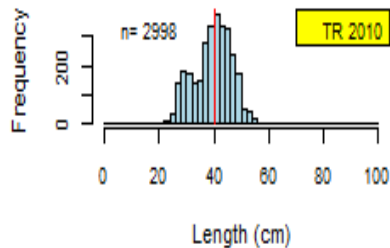


2010 – 2014 : shifting

2014 : mostly SKJ < 40 cmFL

2015 : mostly SKJ > 40 cmFL

Results (cont'd)



A novel length-based empirical estimation method of spawning potential ratio (SPR), and tests of its performance, for small-scale, data-poor fisheries

Adrian Hordyk^{1*}, Kotaro Ono², Sarah Valencia³, Neil Loneragan¹, and Jeremy Prince^{1,4}

¹Centre for Fish, Fisheries and Aquatic Ecosystems Research, Murdoch University, 90 South Street, Murdoch, WA 6150, Australia

²School of Aquatic and Fisheries Science, University of Washington, Seattle, WA, USA

³Bren School of Environmental Science and Management, University of California, Santa Barbara, CA, USA

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*Corresponding author: tel: +61 893606685; e-mail: a.hordyk@murdoch.edu.au

Hordyk, A., Ono, K., Valencia, S., Loneragan, N., and Prince, J. A novel length-based empirical estimation method of spawning potential ratio (SPR), and tests of its performance, for small-scale, data-poor fisheries. – ICES Journal of Marine Science, doi:10.1093/icesjms/fsu004.

Received 30 August 2013

The spawning potential ratio (SPR) is a key metric for stock assessment. Hordyk et al. (this issue) present a novel length-based empirical estimation method of SPR, and tests of its performance, for small-scale, data-poor fisheries. The method involves (i) testing some parameters for sensitivity, (ii) applying the method to data (F/M) and selectivity (S) to calculate the SPR. With high length and age composition data, the method estimates the parameters when

Keywords: Beverton-Holt

Introduction

Measurements of relatively cheap and common forms of fishery-dependent data (e.g. length and Deriso, 1999) are the collection of a large number of fish, especially so for small-scale fisheries, is a defined annual task of ageing

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Downloaded from <http://icesjms.oxfordjournals.org/>

Introduction to per-recruit models for stock assessment

Adrian Hordyk and Neil Loneragan

Acknowledgements

Dr Alex Hesp, Dr Peter Coulson

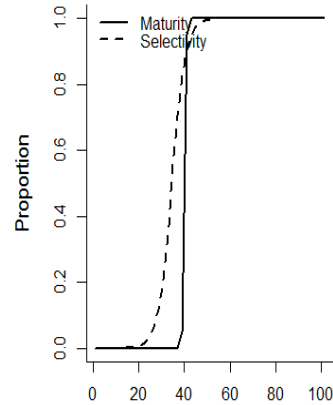
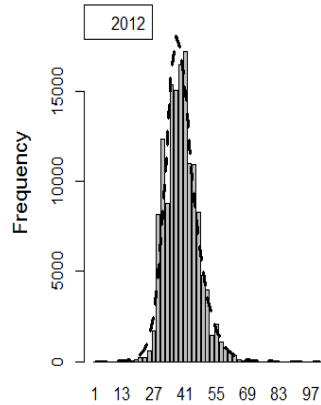
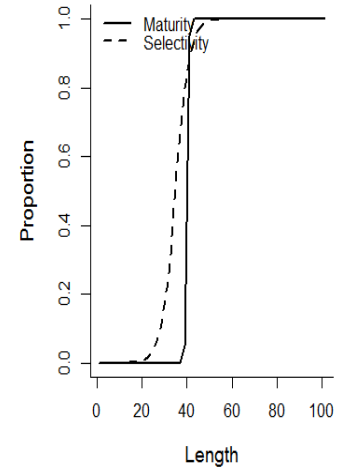
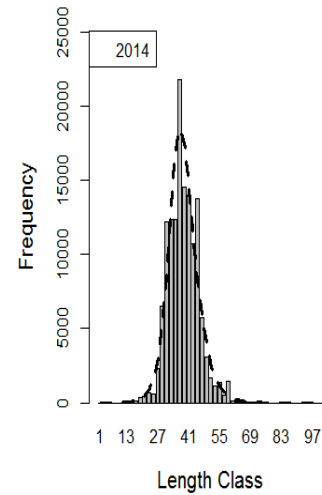
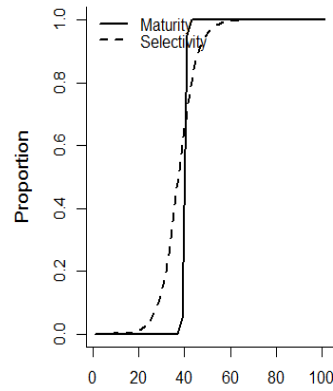
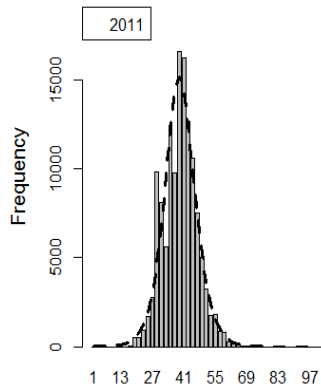
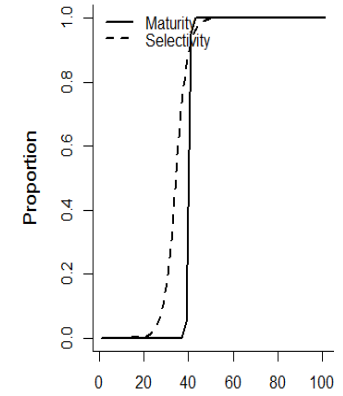
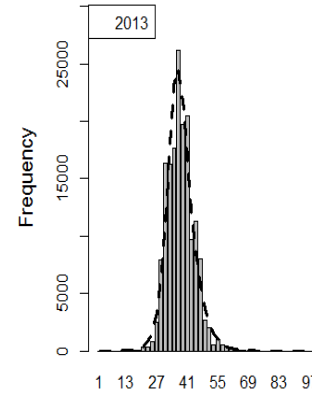
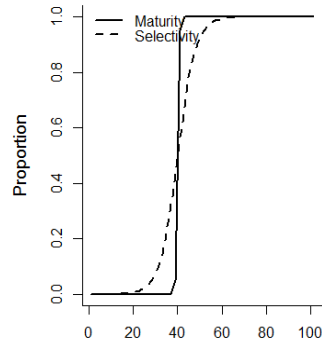
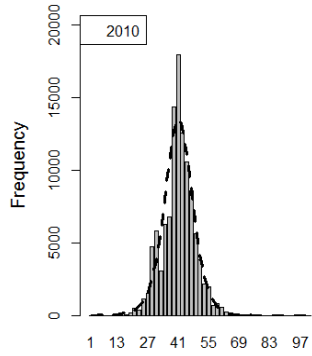


By definition, SPR is always 1 when $F = 0$
SPR declines continuously and smoothly with increasing F

Questions to think about:

- Is the SPR of the stock above or below the reference point(s)?
- Should fishing mortality be decreased or can it be increased?
- Is the stock in danger of recruitment overfishing?

Results (cont'd)



(LB-SPR Require further investigation related to selectivity issue):

Year	Est. SPR	Est. F/M	Biological parameters	
			M/k	
2010	0.4	7.28	Linf	93.6
2011	0.3	6.44	L50	40
2012	0.3	5.15	L95	41
2013	0.2	6.96		
2014	0.2	6.20		

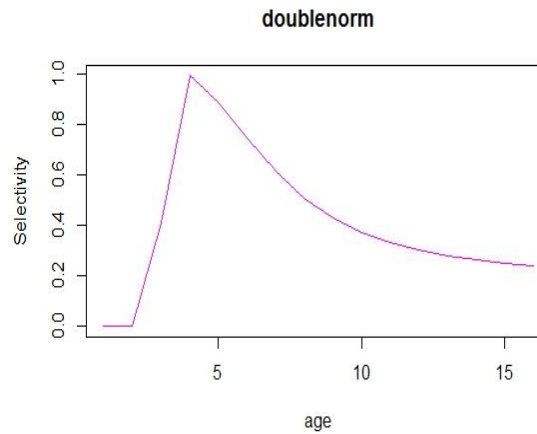
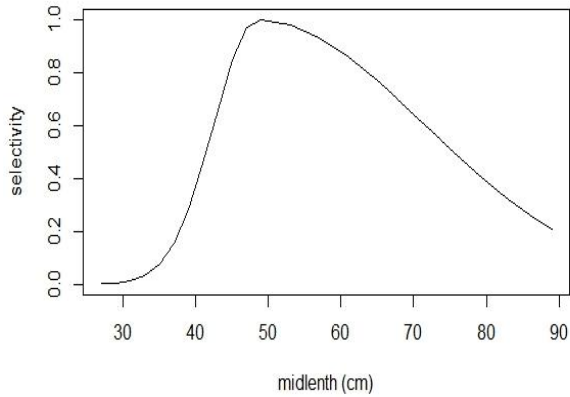
Hoyle *et al.* (2011); Tanabe *et al.* (2003)

- The LB-SPR analysis assumed that large fish that are missing in the catch have all been caught.
- Within the length data used in the analysis do not cover large fish. 4.
- The low estimated SPR and high estimated F/M maybe pessimistic.

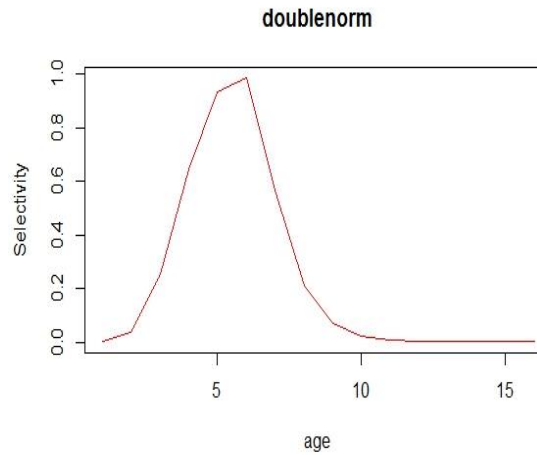
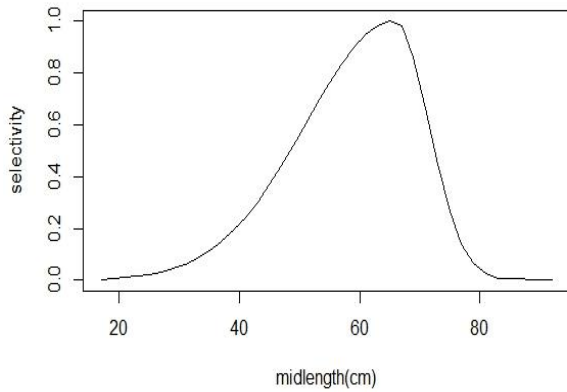
Number of fish sampled less than 40 cm (%)

	PL	PS	SHL	TLH	TR
2010	38	29	22	0	45
2011	47	44	41	96	43
2012	51	48	44	98	35
2013	59	58	70	99	59
2014	55	54	97	96	71

Preliminary – Selectivity (PL)



Pole and line in Kendari



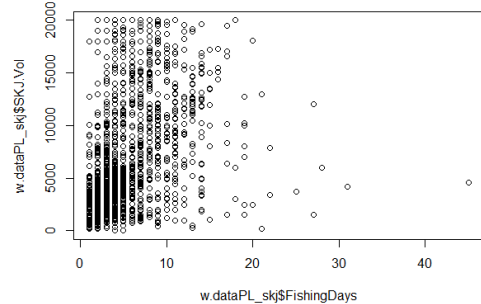
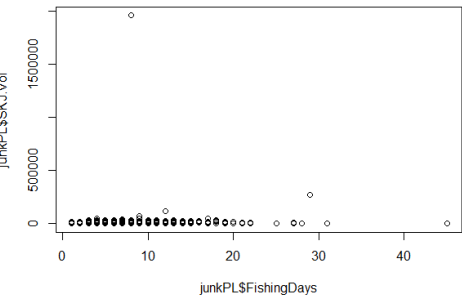
Pole and line in Sorong

Hook Size

Type of operation

**Fishing Ground
AW – non AW**

Preliminary CPUE Standardisation



Family: Gamma Link function: inverse Formula: $\log(\text{SKJ.Vol}) \sim \text{as.factor(year)} + \text{as.factor(quarter)} + \text{s(FishingDays)}$

Parametric coefficients: Estimate Std. Error t value Pr(>|t|)

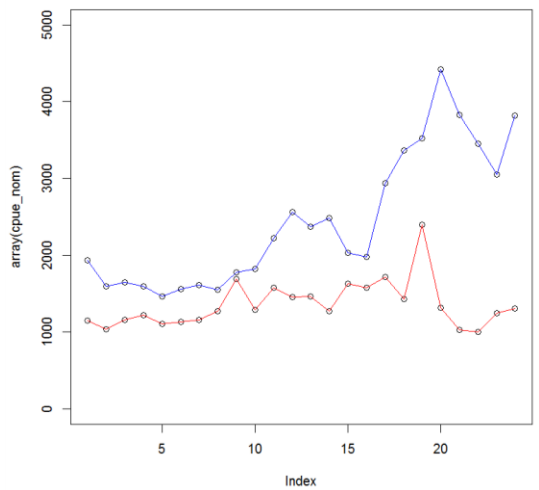
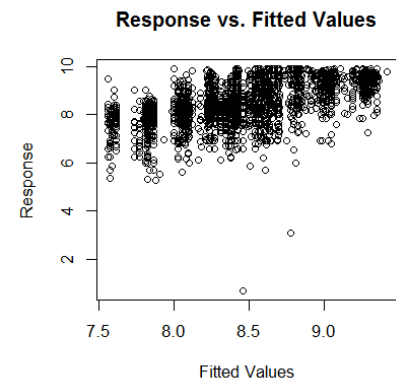
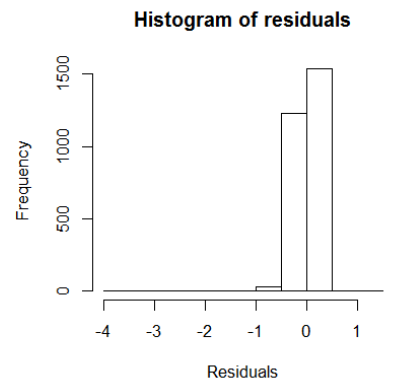
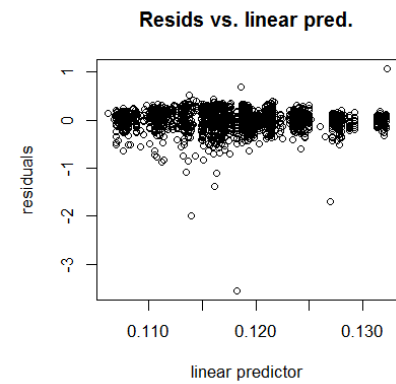
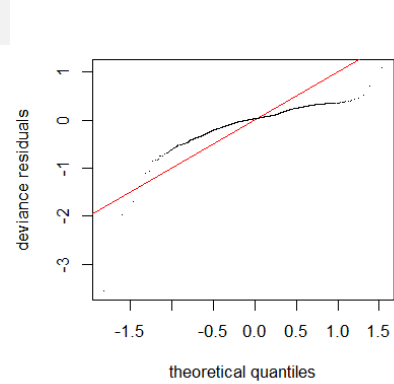
	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	1.231e-01	5.956e-04	206.686	< 2e-16 ***
as.factor(year)2011	2.202e-04	6.679e-04	0.330	0.742
as.factor(year)2012	-3.735e-03	7.020e-04	-5.320	1.12e-07 ***
as.factor(year)2013	-2.606e-03	6.340e-04	-4.110	4.07e-05 ***
as.factor(year)2014	-8.223e-03	6.172e-04	-13.323	< 2e-16 ***
as.factor(year)2015	-5.306e-03	6.815e-04	-7.785	9.73e-15 ***
as.factor(quarter)2	2.084e-04	5.669e-04	0.368	0.713
as.factor(quarter)3	4.768e-05	5.998e-04	0.079	0.937
as.factor(quarter)4	-4.230e-04	5.161e-04	-0.820	0.413

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Approximate significance of smooth terms: edf Ref.df F p-value

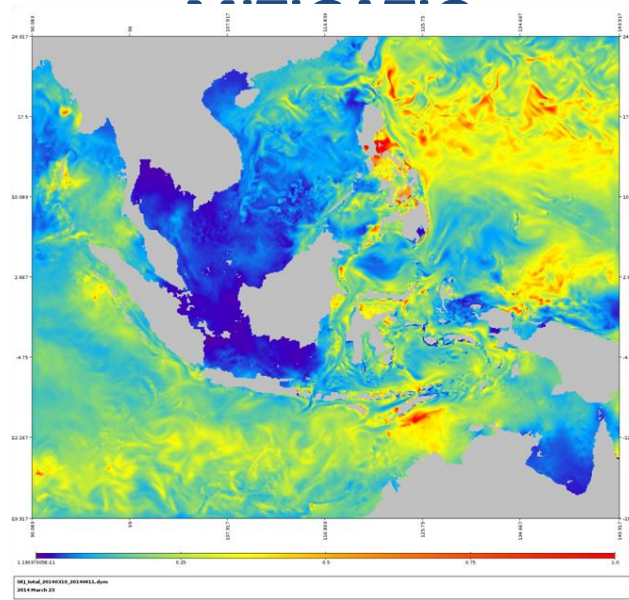
Term	edf	Ref.df	F	p-value
s(FishingDays)	6.938	7.954	57.01	<2e-16 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
 R-sq.(adj) = 0.283 Deviance explained = 26.3%
 GCV = 0.033877 scale est. = 0.028252 n = 2802



SEAPOODYM

for sustainable tuna fisheries management
ADDRESSING CLIMATE CHANGE ADAPTATION and



SEAPOODYM outputs include, on a weekly basis : Abundance estimates (by FMA),

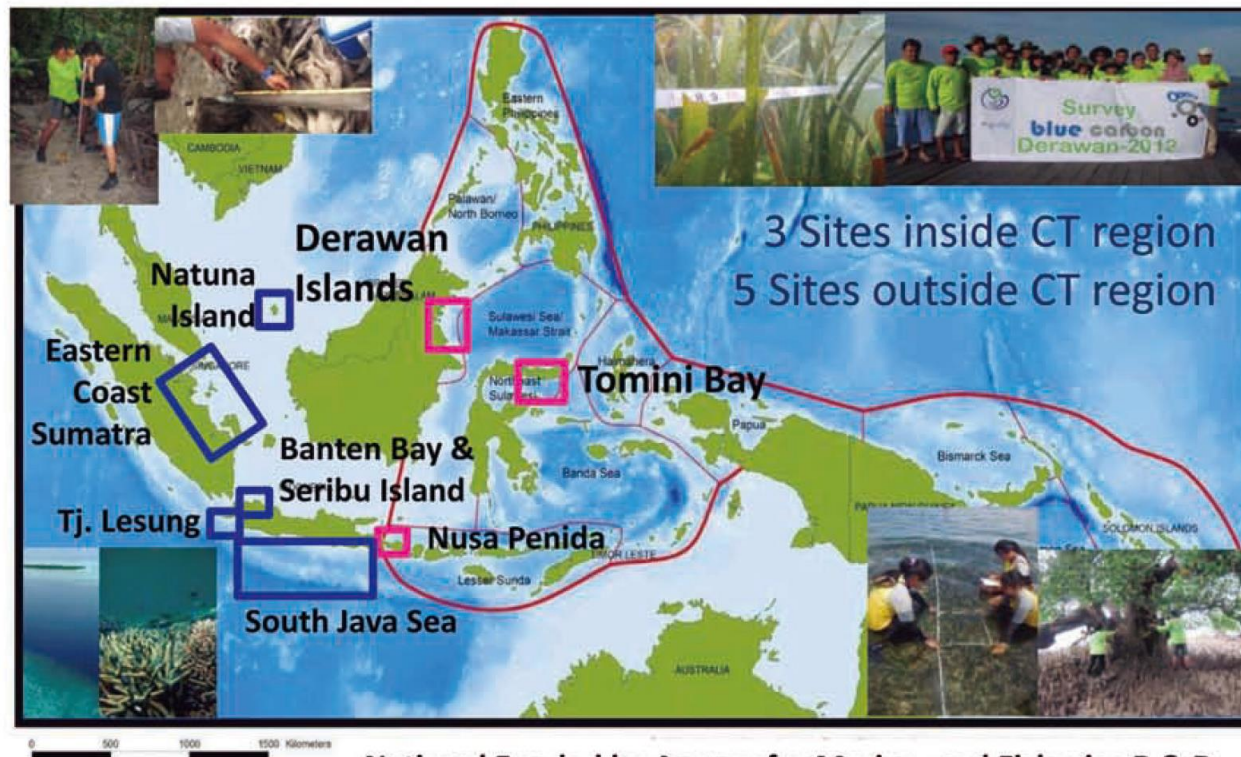
SEAPOODYM detailed information on the stock distribution (by class of age) shall support:

- Optimal Catch and Effort Allocation
- Real Time monitoring of effort and catch
- Identification of spawning grounds & nursery areas and their time variability
- Illegal fishing control
- Rapid improvement of fishing statistics
- Rapid improvement of fish model

RESEARCH: CARBON FOOTPRINT AND BLUE CARBON

- RESEARCH ON CARBON FOOTPRINT FOR TUNA FISHING (2015-2016)
- RESEARCH ON BLUE CARBON (2011-2015)

Research & Monitoring on Marine & Coastal Carbon Sites



National Funded by Agency for Marine and Fisheries R & D

Lesson learned from on going WPEA

1. Good Project Document
2. Good Project Manager
3. Long Process...(undefine)
4. Expert consultation and Expert Involvement
5. Good Data Collection
6. Analyses capacity
7. Capability Translate to Management
8. Regional and subregional Collaboration
9. Unstable USD exchange rate to IDR
10. Others (Effeciency, friendship,...PM Coord)

Following Activities

- Continue develop harvest strategy for 713,714,715 for SKJ and YFT (technical WS and Stakeholders WS)
- HS is expected to be adopted by December 2017 (NTMP)
- Observer recruitment, training and Trial on board
- Collect and develop data base for By-catch
- Select and conduct Pilot Sites (NTT) for EAFM study on reducing juvenile tuna catch on selected gear.
- Continue Climate change study and develop the two guidelines to Cope with Climate Change
- Supply chain Study
- Cont..Data Collection and Data base maintenance
- Data Analyses, Writing and Reporting

Acknowledgement (thanks to)

- UNDP, GEF, WCPFC Executive Director and Secretariat, and partner governments/agencies
 - Dr. Jose Padilla, of the UNDP Bangkok office represented UNDP/GEF , Imee and staff of the UNDP Manila office.
 - Sungkwon SOH Ph.d (Sc Manager WCPFC, **WPEA-PM**)
 - Dr.Tony Lewis (Prodoc consultant)
 - Mr. Peter William (SPC database manager)
 - Director CFRD-AMFRD and Director DRFM_DGCF
 - All person including port sampling enumerators and staff who cannot listed here

Thank you

Contact person:

fsatria70@gmail.com CFRD-NTC

Sautampubolon@yahoo.com DGCF



PROGRESS REPORT

Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas

(WPEA – SM)

Philippines

BASIC INFORMATION

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

Project Leader : Noel C. Barut – Project Focal Point

Duration : 3 years (2015 – 2017)

Implementing Agencies:

Lead Agencies :

**National Fisheries Research and Development Institute (NFRDI)
Bureau of Fisheries and Aquatic Resources (BFAR)**

Funding Agencies :

UNEP – GEF

Western and Central Pacific Fisheries Commission (WCPFC)

OBJECTIVE

- “To strengthen national capacities and regional cooperation to implement fishery sector reforms that will sustain and conserve the highly migratory fish stocks in the West Pacific Ocean and East Asian Seas while considering climatic variability and change”

PROJECT COMPONENTS

1. Strengthened regional governance and national adaptive capacity in management of highly migratory fish stocks moving amongst the Pacific Ocean Warm Pool Large Marine Ecosystem (POWPLME) and East Asian LMEs
2. Implementation of policy, institutional and fishery management reform
3. Knowledge sharing on highly migratory shared fish stocks

Activities Conducted in 2016

2016 WPEA-SM Activities

A. 7th WPEA-NSAP Tuna Data Review Workshop

- conducted last May 19 - 20, 2016 in East Asia Royal Hotel, General Santos City
- 35 participants attended the said workshop coming from various BFAR-NSAP Regional Offices
- Purpose: To review port sampling data from NSAP to come-up with best possible catch estimates by species and gear type for 2015.

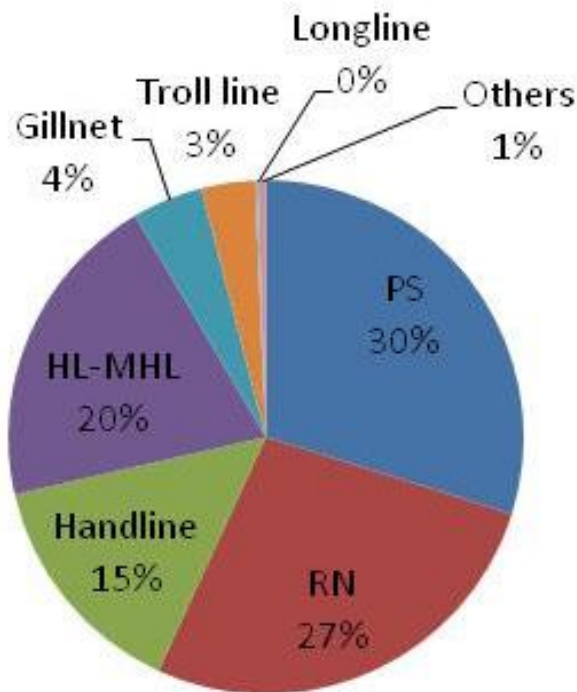


7th WPEA-NSAP Tuna Data Review Workshop
East Asia Royale Hotel, General Santos City

2016 WPEA-SM Activities

A. 7th WPEA-NSAP Tuna Data Review Workshop

Percentage Catch Contribution by Gear for 2015



Catches by Gear (in MT)					
2015	SKJ	YFT	BET	ALB	TOTAL
PS	37,792	11,828	917	-	50,537
RN	37,471	7,955	373	1	45,800
Handline	2,820	20,825	743	283	24,671
HL-MHL	12,833	17,726	585	2,952	34,096
Gillnet	7,309	97	67	3	7,476
Troll line	3,351	1,796	551	1	5,699
Longline	160	133	5	7	305
Others	543	308	4	0	855
TOTAL	102,279	60,669	3,244	3,246	169,438

2016 WPEA-SM Activities

B. 9th Philippines/WCPFC Annual Tuna Fisheries Catch Estimates Review Workshop

- conducted last May 23 – 24, 2016 in East Asia Royale Hotel, General Santos City
- Purpose: To validate existing data from various sources such as the PSA, port sampling (NSAP), logsheets, cannery, observer, PFDA and industry estimates, in order to work towards a system for producing reliable catch estimates by species and by gear type that was submitted to WCPFC.



9th Philippine Tuna Catch Estimates Workshop

May 23-24, 2016

East Asia Royale Hotel, General Santos City



Oceanic Tuna Catch Estimates for 2015

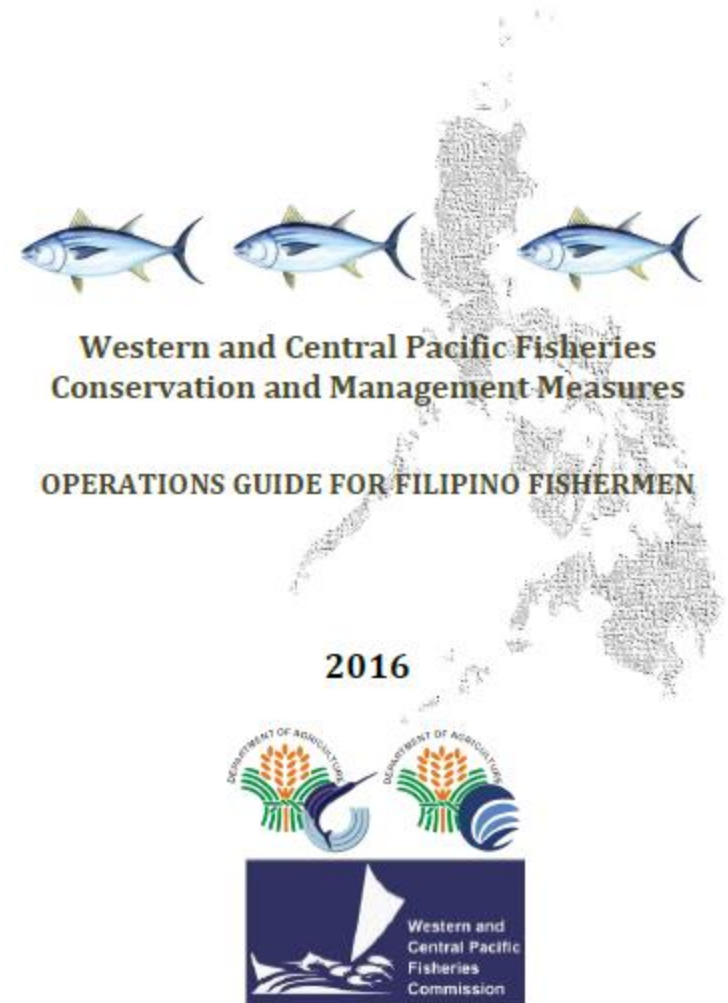
Gear	Year	SKJ		YFT		BET		TOTAL
		MT	%	MT	%	MT	%	MT
PS	2015	42,594	75%	13,332	23%	1,034	2%	56,959
RN	2015	37,471	82%	7,955	17%	373	1%	45,799
HANDLINE	2015	2,820	15%	20,825	82%	743	2%	24,388
HOOK-AND-LINE	2015	12,833	39%	17,726	60%	585	1%	31,144
OTHERS	2015	11,797	82%	2,266	16%	220	2%	14,283
TOTAL	2015	107,515	62%	62,104	36%	2,955	2%	172,573

TOTAL	2014	116,186	64%	60,860	34%	3,172	2%	180,218	2014
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2016 WPEA-SM Activities

C. Operational Guide for Filipino Fishermen

- developed to help facilitate the implementation of Western and Central Pacific Fisheries Commission (WCPFC) conservation and management measures by Filipino fishermen.
- It also provides a summary of important information that fishermen would need to consider in fishing for tuna resources in the Western and Central Pacific Ocean.
- The Operations Guide not only aims to supplement orientation and training but also to help promote sustainable management of tuna resources.
- This is provided to skippers and crew prior to fishing operations to serve as a useful reference on board fishing vessels.



2016 WPEA-SM Activities

D. Expansion of Observer Data Collection

- 6 observers were hired and deployed on fishing vessels (Purse Seine/Ring Net) in **Surigao** in order to increase the number of observers in the Philippine EEZ.

Name of Observer	Region
Ruben Buemia	4-A (Calabarzon)
Ian Edward Calpe	4-A (Calabarzon)
Marco Briz replaced by John Vergel Cenabre	5 (Bicol)
Kenneth Molo	5 (Bicol)
Oriel Rosero replaced by Mario Laroa	13 (Caraga)
Francisco Piloton Jr.	13 (Caraga)



2016 WPEA-SM Activities

E. Conduct of Workshop for the Use of Observer Electronic Forms in Android Tablets

- Development team of BFAR have come up with an android base application of observer report forms that can be installed on android tablets and will be able to transmit information/data collected by the observers to the Fisheries Observer Program Management Office much faster and to which data check and analysis can be done much faster.
- the training workshop will be conducted within this year, still waiting for the android tablets to be delivered.

The image displays three screenshots of the ElogSheet Android application interface, showing various data entry forms for observer trip details, vessel sightings, and vessel information.

Left Screenshot: OBSERVER TRIP DETAILS

VESEL OR AIRCRAFT SIGHTINGS/FISH, BUNKERING AND OTHER STANDARDS

VESEL OR AIRCRAFT SIGHTINGS

UTC TIME
UTC DATE UTC TIME OBSERVER'S VESSEL POSITION
LATITUDE (N/S) LONGITUDE (E/W)

ADD DELETE

FISH TRANSFERING, FISH DUMPING, BUNKERING

UTC TIME
UTC DATE UTC TIME OBSERVER'S VESSEL POSITION
LATITUDE (N/S) LONGITUDE (E/W)

ADD DELETE

SAVE

IRCS Win Number

Middle Screenshot: OBSERVER TRIP DETAILS

Trip ID Gear Type
--Select--

Observer Name Observer Nationality

Time Started: null

Vessel Departure Port Vessel Departure Date

Trip Start Location Trip End Location

VESEL DETAILS

Vessel Owner Name Flag State Registration

IRCS Win Number

Right Screenshot: DAILY ACTIVITY

Observer Trip:
Observer:

DAILY ACTIVITY

Ship Date Ship Time UTC Date UTC Time

SAVE RESET

DAILY LOGS

ID	SHIP DATE	SHIP TIME	UTC DATE	UTC TIME	ACTION
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2016 WPEA-SM Activities

F. E-Logbook Training

- conducted last September 21 - 22, 2016 in General Santos City
- attended by fishing vessel captain/master and crew



2016 WPEA-SM Activities

G. Review Workshop on Legal Arrangements, EAFM, Certification and Supply Chain Analysis

- conducted last May 30 – June 1, 2016 in Davao City
- this workshop was convened to identify specific activities to reach project target in relation to EAFM; adaptive fisheries management against climate change; and market-based approach to sustainable harvest of tunas through certification and supply chain analysis; and to review fisheries legal framework in complying with WCPFC requirements.



2016 WPEA-SM Activities

H. National Harvest Strategy Workshop

- conducted last June 2-3, 2016 in Davao City
- this workshop was convened to understand the components of harvest strategy framework, to identify details for the Philippine requirements and to establish detailed work plan to meet such requirements.



2016 WPEA-SM Activities

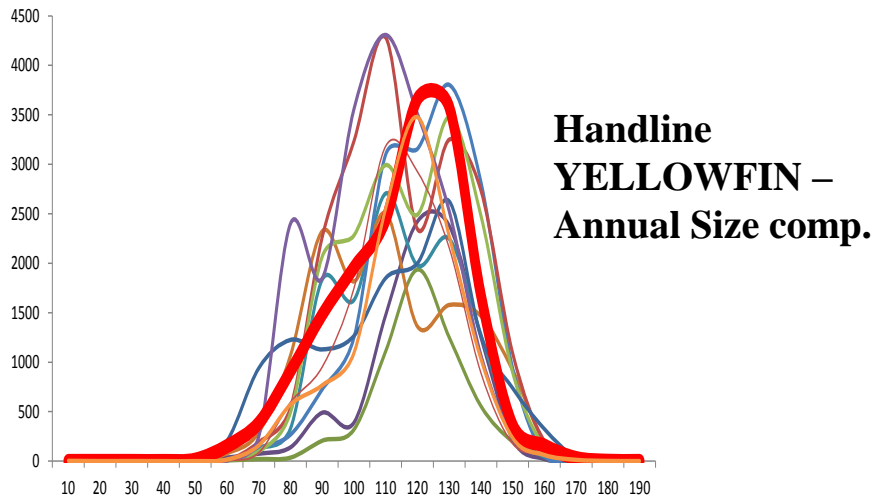
I. Port Sampling Data Collection

- tuna catch and length data were collected from various landing sites and are encoded in the NSAP Database System, in collaboration with BFAR-NSAP Regional Offices.
- Port sampling, data encoding, field supervision and other activities are ongoing.

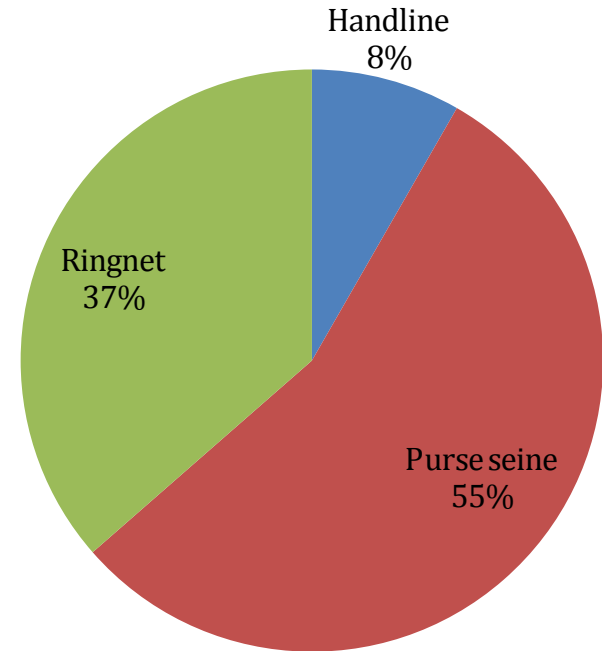


2016 WPEA-SM Activities

I. PORT SAMPLING



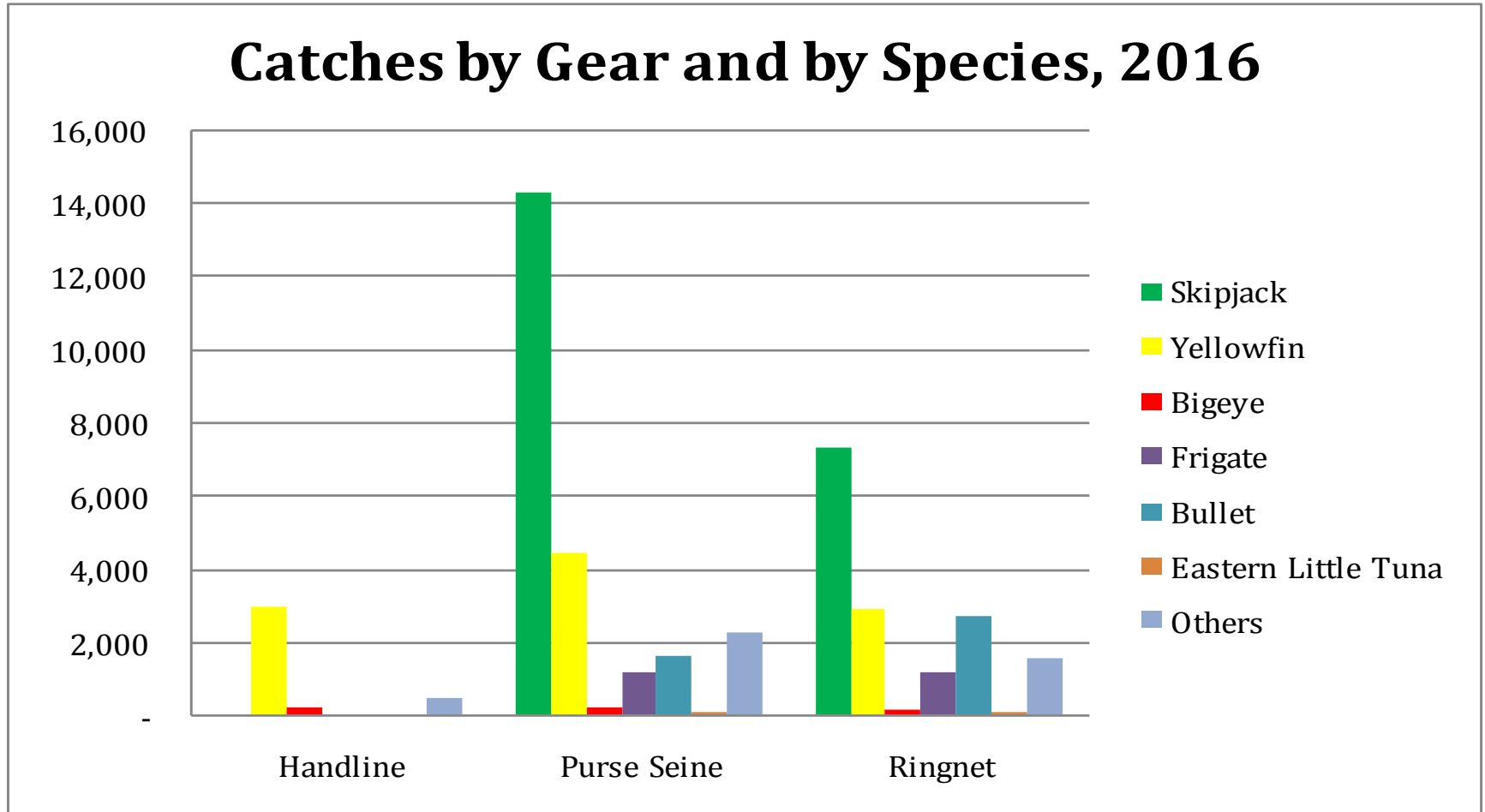
Percentage Catch Contribution by Gear 2016



Gear	Catch (MT)
Handline	3,606.64
Purse seine	24,036.21
Ringnet	15,847.17
Total*	43,490.02

2016 WPEA-SM Activities

I. PORT SAMPLING



Source: BFAR – NSAP 12 (as of 15 Oct 2016)

2016 WPEA-SM Activities

J. Participation to the 12th 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-SC12)

- One participant from the Philippines was supported by this project to attend the WCPFC-SC112 in Bali, Indonesia last August 3-11, 2016.



2016 WPEA-SM Activities

K. Participation to TDW-10

- One (1) participant from the Philippines was supported by this project to attend the **10th Tuna Data Workshop (TDW-10)** held SPC Headquarters, Noumea, New Caledonia last 25 – 29 April 2016.



2016 WPEA-SM Activities

L. Participation to IWC8

- One (1) participant from the Philippines was supported by this project to attend the **Eighth GEF Biennial International Waters Conference (IWC8)** held Sri Lanka last May 9 – 13, 2016.



Future Activities

The future activities of this project will include but not limited to the following:

1. Continue to conduct country-wide port sampling activities including cannery receipts data collection; and improve logsheets data collection
2. Continue to conduct annual tuna catch estimates review workshops
3. Review and update the Operational Guide for Filipino Fishermen
4. Conduct of activities/consultancies on Harvest Strategy, EAFM, Climate Change, Tuna Supply Chain, Eco-labelling & Certification and others.
5. Continue to increase observer data collection /coverage in the Philippine EEZ.



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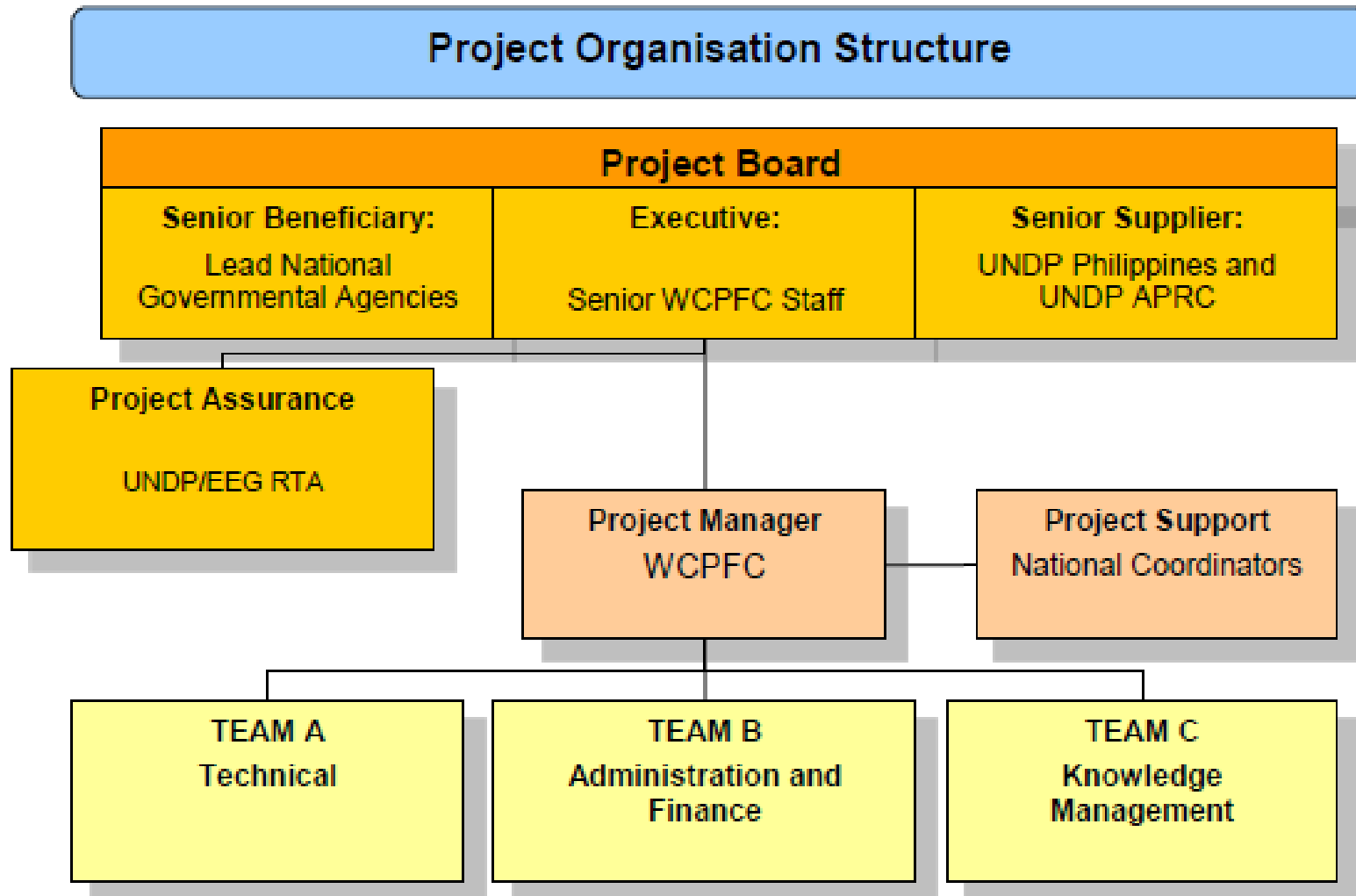


**Sustainable Management of Highly Migratory Fish
Stocks in the West Pacific and East Asian Seas
(WPEA-SM Project)**

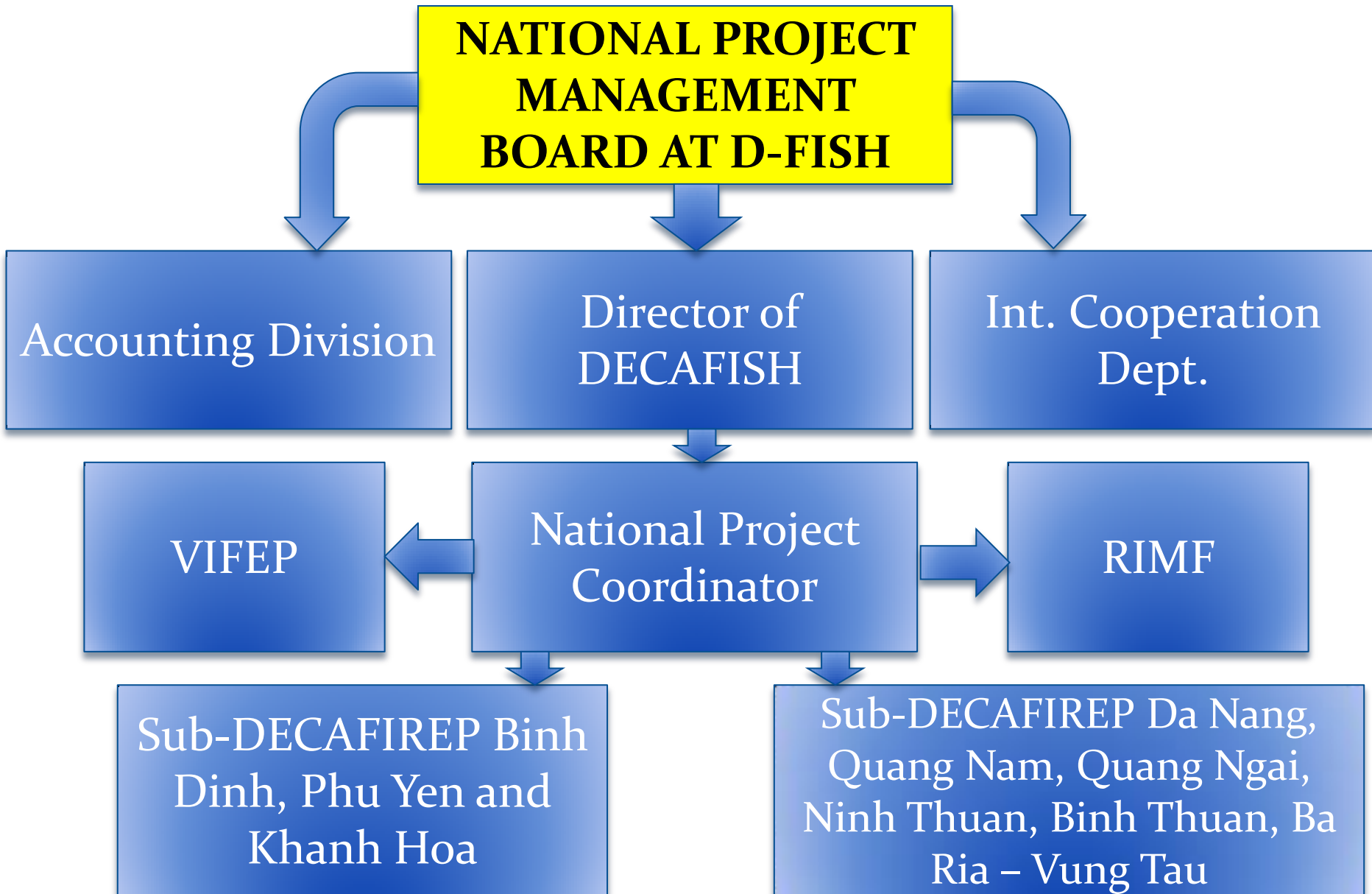
VIETNAM'S PROJECT PROGRESS

**WPEA-SM Project Board Meeting
28-29 October 2016
Cebu, Philippines**

REGIONAL IMPLEMENTATION ARRANGEMENTS



NATIONAL IMPLEMENTATION ARRANGEMENTS



Activities in 2016

01. Support participation of Vietnam to SC12	06. Summary Translation of the WCPFC 2015 CMMs into Vietnamese
02. National tuna coordination (NTC)	07. Consultancy – Prior study on Climate Change
03. Convene A Data Review and catch estimation workshop	08. Development of guidelines to cope with the impacts of climate change
04. Observer programme	09. Development of harvest strategy framework
05. Monitoring the compliance with WCPFC requirements	10. Three country workshop on HS and CC Issues

Activities in 2016

11. Reconstruction of catch histories	16. Port sampling
12. Support participation in SPC's Tuna Data Workshop	17. Field trip for the supervision of data collection and port sampling
13. Consultancy – TUNA Supply chain analysis/traceability	18. Field trip for the supervision of data collection in Vung Tau provinces
14. Consultancy – Sustainability/certification	19. Consultancy on EAFM issue
15. Workshop for the review of Market-based Sustainability and other Consultancies	20. Review Workshop on EAFM and HS Consultancies
	21. IW: Learn

1. Port sampling

- Port sampling in **9 provinces**;
- Three main tuna fisheries (i.e. LL/HL, PS and GN)
- Collected data types: landing data, logbook, observer data



1. Port sampling

Provinces	Total unloading	Port samples	Landing samples	Logbook
Binh Thuan	1,356	90	594	
Da Nang	5,473	90	600	
Quang Nam	611	78	375	
Quang Ngai	259	90	259	
Khanh Hoa	4,571	720	3,144	494
Binh Dinh	4,430	306	1,697	977
Ninh Thuan	1,335	90	634	31
Grand Total	18,035	1,464	7,303	1,502

2. Conduct a review and catch estimate WS

(20-24 June 2016 in Binh Dinh province):

Gear	BET	YFT	SKJ	TOTAL
Gillnet	453	628	38.821	39,902
Purse seine	1,925	6,431	37,454	45,810
Longline/handline	2,026	17,859	-	19,885
Total	4,405	24,918	76,275	105,597

3. Observer program

- Collaboration with WWF to implement observer for LL&HL
- One training for observer conducted;
- 7 observer trips conducted;
- Planning to write an summary report on observer trips in 2016.
- Planning to conduct a risk assessment for bycatch species under collaboration with Fisheries Improvement Program (FIP) via WWF.

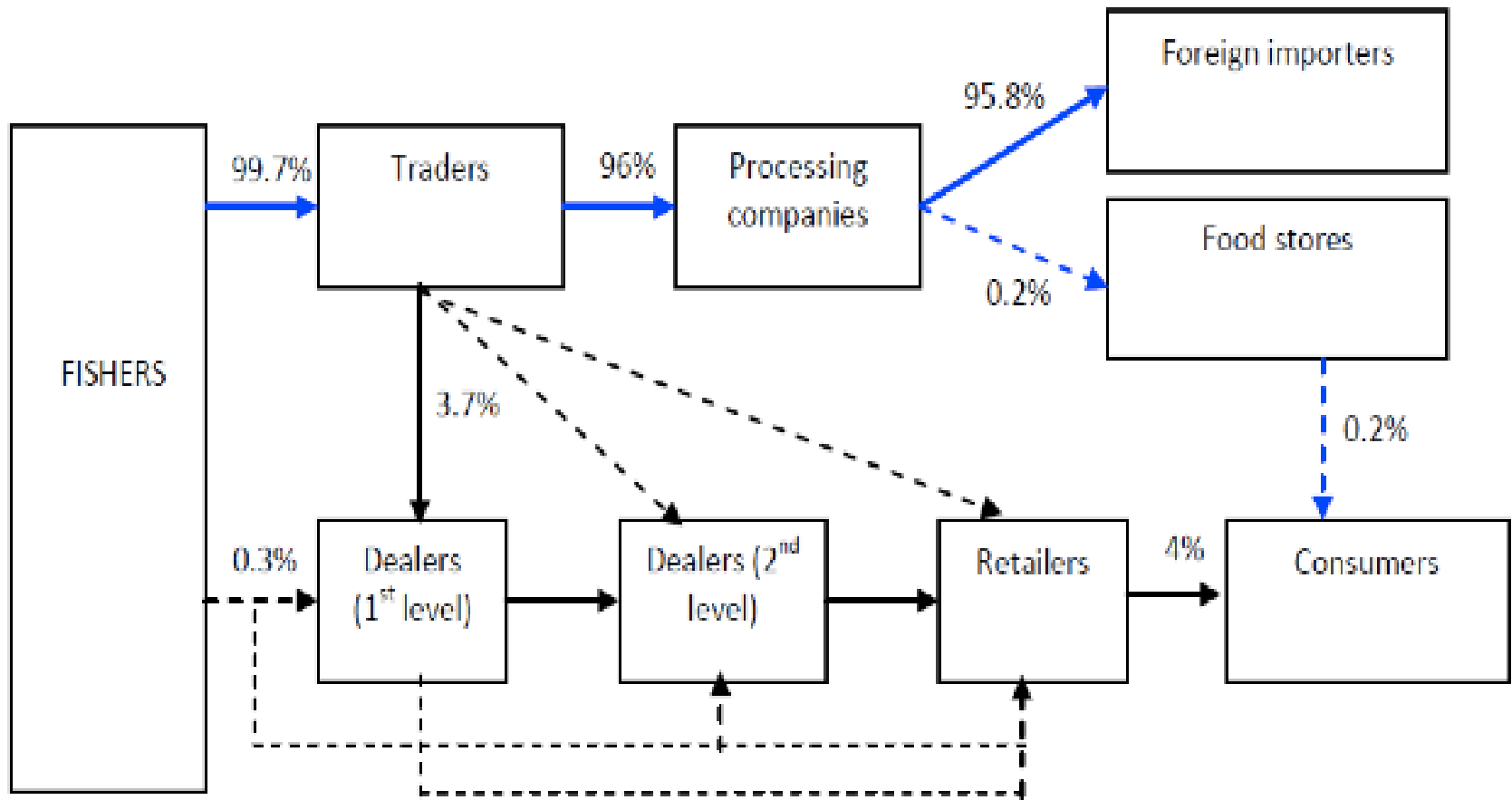
4. Translation of the Convention and relevant CMMs into Vietnamese

- The WCPFC convention translated into Vietnamese;
- Some relevant CMMs was translated too;
- WWF funded to edit and print 100 hard copies of the translation version.

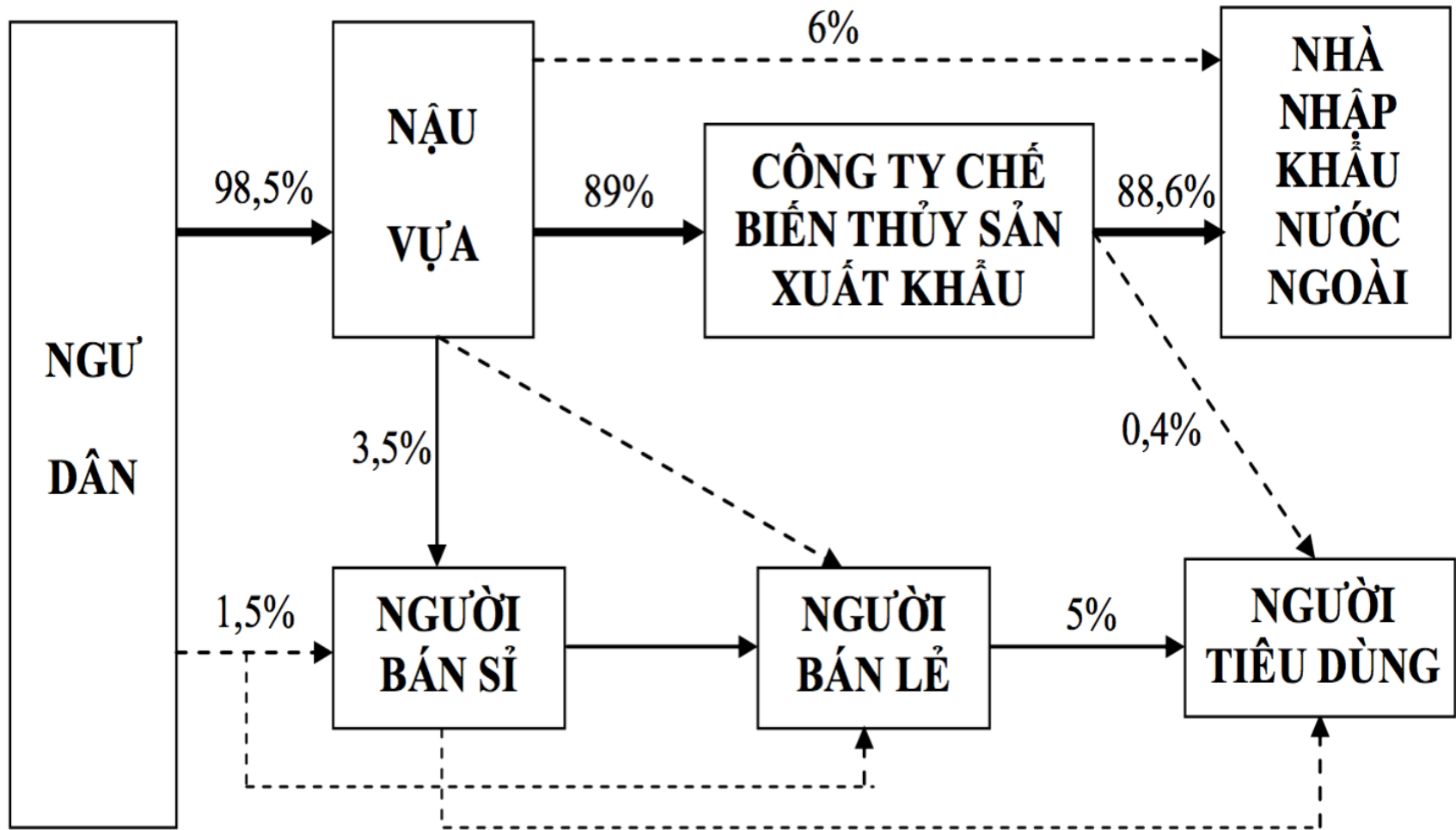
5. Climate change issues

- Impacts of climate change reviewed for tuna fisheries in Viet Nam;
- A statistical model was developed to integrate climate change impacts into tuna fisheries consideration on changes of catch rate and economic income;
- A first draft of adaptive guidelines on climate change produced.

6. Tuna supply chain analysis (1)

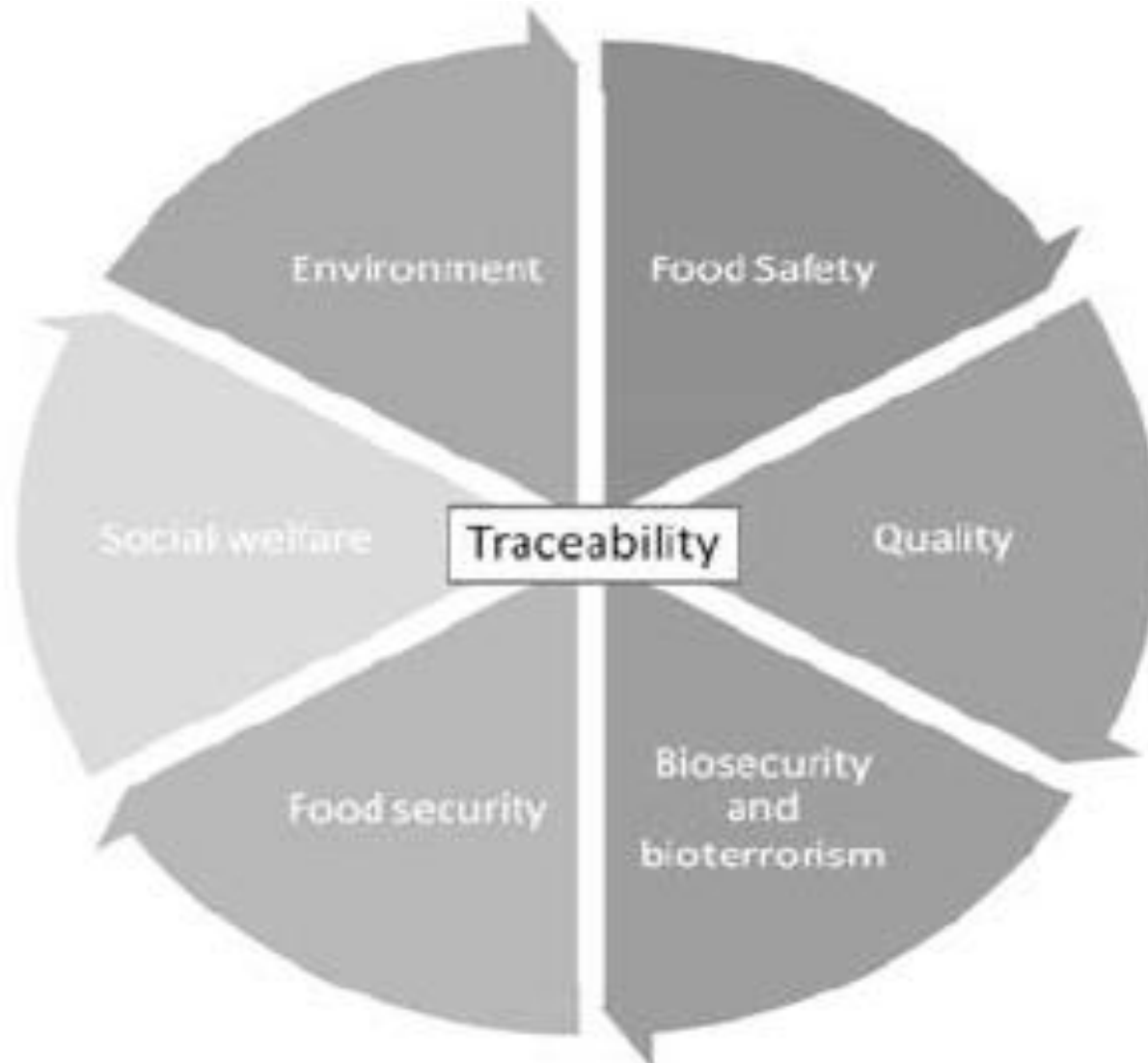


6. Tuna supply chain analysis (2)



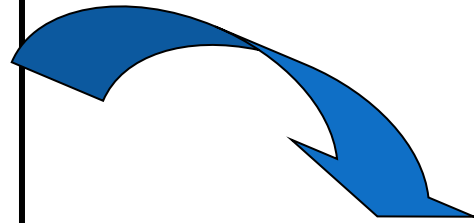
Tuna supply chain for Skipjack in Khanh Hoa province

7. Certification scheme analysis



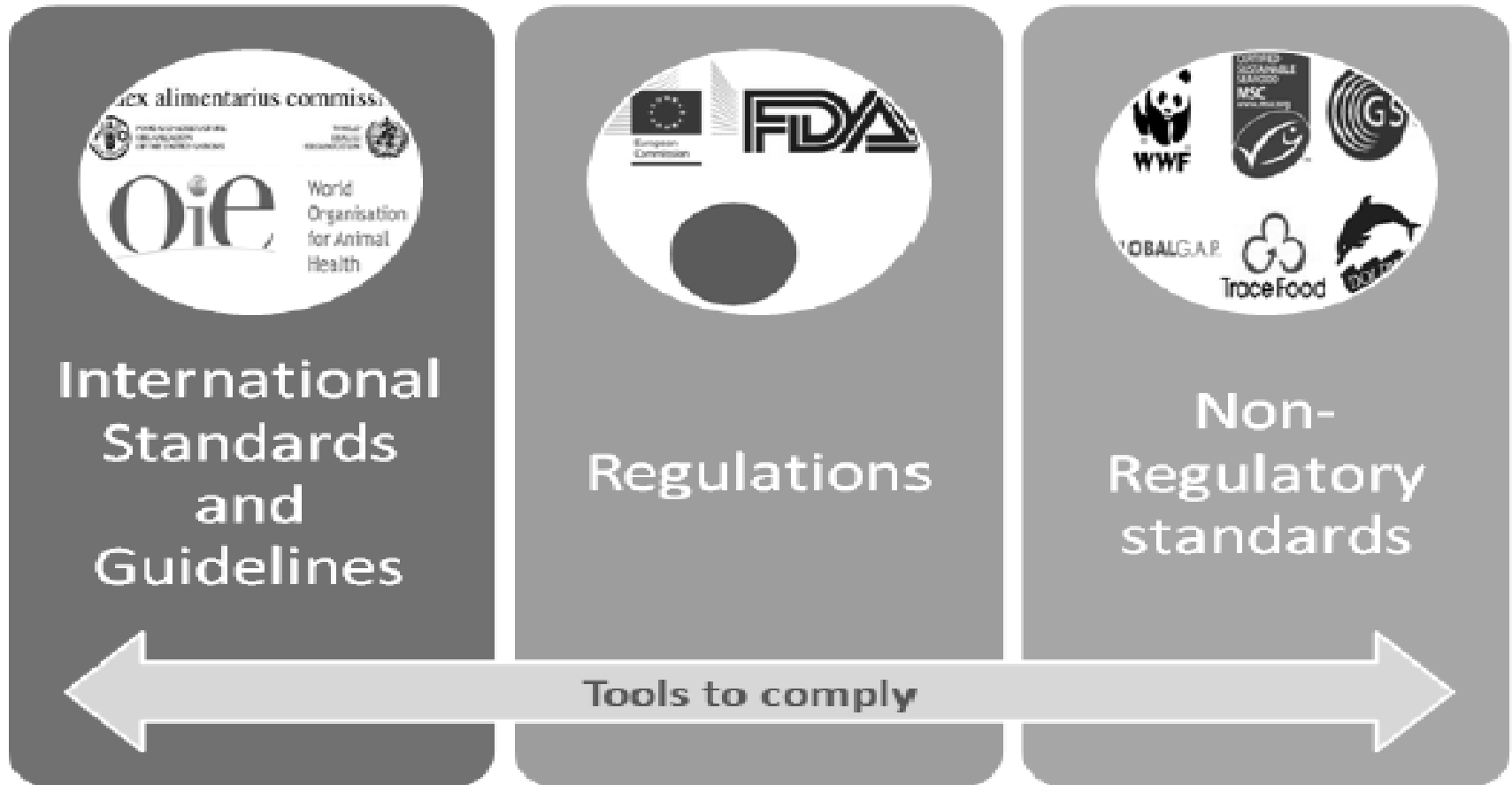
Traceability: Background and Use of

- ❖ Help determines the cause of the security problems that occur fishery products,
- ❖ Meet consumer expectations for safety and quality of fishery product purchased
- ❖ Provides the ability to withdraw fishery product efficiently in the event of contamination
- ❖ Comply with the various legal requirements.



- Safety (risk management),
- Quality,
- Biosecurity,
- Business management

8. Certificate types



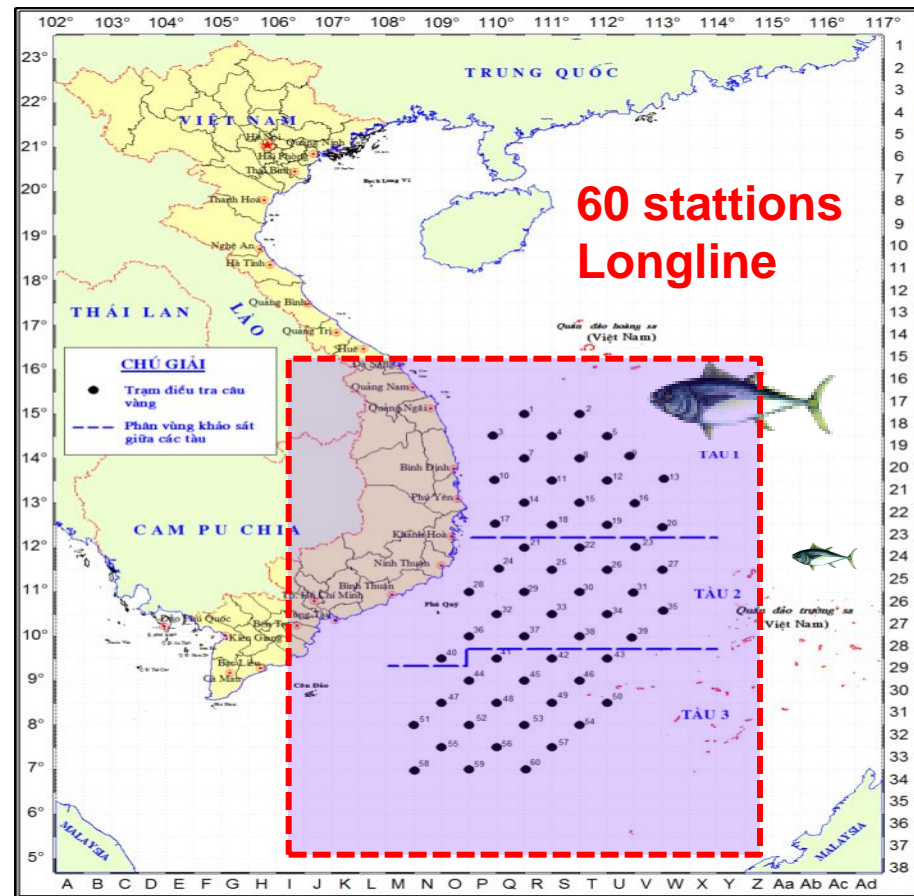
Source: FAO 2013

8. Certification types in Viet Nam

Type of certificate	Requiring country/organization	Objective
EU catch certificate	EU	Traceability; IUU removal
ICCAT swordfish and bigeye catch statistic	ICCAT	Traceability and sustainability
Marine Stewardship Council (MSC)	US and EU	Sustainability
Earth Island Institute (EII)	US and EU	???

Contribution

- National tuna fisheries surveys;
- Private sectors, NGOs: Fisheries improvement program;
- Conduct observer in collaboration with WWF;
- Total in kind contribution of \$ 461,760 US



OCEANIC TUNA SURVEYS



Constraints

- Discontinuation of port sampling in six months;
- Institutional rearrangement;
- Lack of human resources.

Advantages

- Project manager work closely with NTC;
- Technical support by WCPFC;
- Highly consideration by decision makers;
- National tuna fisheries management plan approved;
- Recognized the important roles of tuna fisheries in national economic contribution;
- Market-based management instruments: EU catch certificate, WCPFC requirements...

Acknowledgement

- GEF/UNDP for funding support
- WCPFC for coordination and implementation
- Dr. SK Soh for very high collaboration and support
- Mr. Peter Williams from SPC for port sampling guidelines
- Dr. Antony Lewis for technical support
- All Sub-Departments

THANK YOU



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

2017 ANNUAL WORK PLAN AND BUDGET

1. In 2017, a total of 65 activities were identified to meet the target of WPEA project with a total budget of \$1,047,445, including a country programme budget of \$947, 445 and a programme management budget of \$100,000 (11%). Indonesia, Philippines and Vietnam have 23, 21 and 21 activities, respectively.
2. According to the Logframe, each country's activities are similar but not equal. Three country workshops have been convened each year: a workshop on sub-regional stock assessment in Viet Nam, 2015, and a workshop for the development of harvest strategy and climate change impacts workshop in Philippines, 2016. In 2017, the theme of the three country workshop will be "sub-regional cooperation and collaboration," which will be held in Indonesia.
3. For the monitoring and management of project activities, the following process is applied to each activity:
 - 1) Submission of a detailed project activity proposal (format is in **Annex A**) to be reviewed by the project manager;
 - 2) Submission of a signed project activity proposal signed by national project coordinator;
 - 3) Wire-transfer of the project activity budget;
 - 4) Implementation of each activity and submission of activity outputs as described in the proposal;
4. Project activity titles and budget is summarized below.

Outcome	ID	Indonesia	Budget
1.1	1	Travel - Capacity building in science - Participation in SC13 (Cook Island)	7,000
1.1	2	WS - Sub-regional cooperation - national workshop	5,000
1.1	3	Consultancy - Project coordination and administration at national level	8,400
1.1	4	Travel - Participation in Annual Tuna Data workshop at SPC	8,000
1.1	5	WS - Indonesia's Annual Tuna Data Review WS from Port Sampling - Bitung/Kendari	20,000
1.1	6	WS - Three-Country WS (Sub-regional cooperation - tentative topic) - Indonesia	20,000
1.1	7	Reconstruction of historical tuna catches and effort	10,000
1.2	8	Consultancy - Climate Change Report	1,000
1.3	9	Consultancy, WS - Development of Harvest Strategy Framework for archipelagic pole-and-line skipjack fishery	90,000

1.3	10	WS - Final WS on Climate Change - Review of Consultancy Report	10,000
2.1	11	Consultancy - Compliance with WCPFC - Consultancy: production of MCS report "Indonesian actions to combat IUU fishing activities"	2,000
2.1	12	Consultancy - National legislation review - DGCF WS on the review of the consultancy	8,000
2.2	13	Consultancy - Supply Chain characterized for selected tuna fisheries (local expert)	13,000
2.2	14	"WS - Review WS on Supply Chain and Chain of Custody (1-day WS)	12,000
2.2	15	WS - Stakeholder workshop on sustainable fishing practices in NTT (supply chain, certification)	15,000
2.3	16	Consultancy, WS - SA Report: Risk assessment of retained, by-catch and ETP species	9,000
2.3	17	Port sampling	64,480
2.3	18	WS - Catch Estimation workshop	24,000
2.4	19	Consultancy - Implementation of WPEA trial observer programme - data collection (training, trip, etc)	8,000
2.4	20	Consultancy, WS - EAFM Consultancy and Stakeholder WS in NTT	10,000
2.4	21	Consultancy - Pilot scale EAFM application (NTT)	12,700
2.4	22	WS - EAFM workshop (final) –policy makers	5,000
3.1	23	Participation in the regional knowledge platform	6,000
Total Budget			368,580

Outcome	ID	Philippines	Budget
1.1	1	Capacity building in country's science (SC13) (support to SC13 meeting participation)	6,060
1.1	2	Annual tuna catch estimation Workshop (in conjunction with Data Review Workshop)	4,950
1.1	3	WPEA Project coordination at national level	11,400
1.1	4	Preparation for the Sub-regional (WCPFC/PEMSEA) Consultation Forum - National workshop	5,000
1.1	5	Three-Country Workshop - Development of Sub-regional Cooperation and Collaboration Mechanism	12,000
1.1	6	Capacity building in fishery monitoring - participation in SPC Tuna Data review Workshop	4,000
1.2	7	Climate Change Modelling WS (WS budget, one int'l expert)	5,000
1.2	8	Workshop to review two adaptive management guidelines against the impact of climate changes	3,000
1.3	9	Workshop for the development of climate change policy - <i>General Manual for the Climate Change Disaster Risk Reduction Management</i>	12,000
2.1	10	Publication of Updated <i>Operational Guide for Filipino Fishermen</i>	1,000
2.1	11	Consultancy and Workshop on the review of the Philippine FAD management policy	8000
2.1	12	Harvest Strategy Workshops (two workshops in 2017)	30000

2.2	13	Observer programme - expanded tuna data collection (BFAR - joint with bycatch data collection)	20,000
2.2	14	Supply chain analysis (consultancy and workshop)	9000
2.2	15	Development of market-based sustainable fishing manual - certification (consultancy and workshop)	5,000
2.3	16	Data Review WS (in conjunction with annual tuna catch estimation workshop)	21,455
2.3	17	Port sampling and tuna catch data collection	38,000
2.4	18	Observer programme - bycatch data collection (BFAR - joint with tuna data collection)	29,100
2.4	19	Workshop on risk assessment for bycatch data (Int'l consultant)	13000
2.4	20	Pilot scale EAFM application to a selected site and fishery (data collection, consultancy and workshop)	4,000
3.1	21	Sub-regional knowledge sharing activity	6,000
Total Budget			247,965

Outcome	ID	Viet Nam	Total
1.1	1	Capacity building in science and compliance - Participation in SC13 (Cook Island) - 2 staff/SC meeting and 1 staff/TCC meeting	17,000
1.1	2	Sub-regional cooperation - consultancy and national workshop	10,000
1.1	3	National Tuna Coordination and Finance and administration fee for the WPEA project	10,500
1.1	4	Participation in Annual Tuna Data workshop at SPC	4,000
1.1	5	Vietnam's Annual Tuna Data Review WS from Port Sampling (in conjunction with Catch Estimates WS)	20,000
1.1	6	Three-Country WS (Theme - Sub-regional cooperation) in Indonesia	15,000
1.2	7	Consultancy - Finalization of two guidelines for adaptive management against the impacts of climate change, including field trip	6,000
1.3	8	Two workshops for the Revision of NTMP - review and reflection of consultancy outputs related with RPs and HCRs, CC issues, EAFM, and market-based sustainability issues, as required	50,000
1.3	9	National climate change policy and training workshop (2-day WS)	25,000
2.1	10	Compliance with WCPFC - report of Part 1 and Part 2	3,600
2.1	11	Harvest Strategy Workshop (Int'l expert) - 2-day WS (in conjunction with Climate Change Policy and Training WS)	15,000
2.1	12	Consultancy - Finalizing RPs and HCRs to be reflected into NTMP (RIMF)	3,000
2.2	13	WS - Stakeholder workshop on sustainable fishing practices in Nha Trang	8,000
2.3	14	Publication of Species ID for shark and other bycatch species in Vietnamese	2,000
2.3	15	Update of Vietnam's Tuna Fishery Profile (RIMF)	2,000
2.3	16	Port sampling - data collection, data input into database, and	93,800

		field supervision	
2.3	17	Catch Estimation WS with Species ID training for shark and bycatch (in conjunction with National Tuna Data Review WS)	20,000
2.4	18	WPEA observer programme in collaboration with WWF	5,000
2.4	19	Development of EAFM application guide (EAFM prior study continued)	5,000
2.4	20	EAFM workshop – policy makers	10,000
3.1	21	Participation in the regional knowledge platform	6,000
Total budget			330,900

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

Activity-based Project Proposal

COUNTRY

SUBJECT:

PART A. ADMINISTRATIVE SUMMARY

- 1) **Project Activity Title:**
- 2) **Organization:**
- 3) **Administrative Contact:**
- 4) **Principal Investigator and CV:**
- 5) **Reference to WPEA OFM Project:** Output: Activity ID:
- 6) **Commencement and Completion Date:**
- 7) **Project Budget Requested (Details in Attachment X):**

PART B: PROJECT PROPOSAL DESCRIPTION

- 1) **Background and Need**
- 2) **Objectives**
- 3) **Project Outputs and Form of Results**
- 4) **Methods**
- 5) **Risks of project not achieving Project Objectives**
- 6) **Schedule of Milestones**
- 7) **Other Related Projects**
- 8) **Project Staff and CV's**
- 9) **Detailed costs against milestones**
- 10) **Bank Information**

Bank Name	
Bank Address	
Account Name	
Account Number	
Swift Code	

Signature

Proposed:	
National project coordinator	Date:
Recommending approval:	
Administrative Contact	Date:
Approved:	
WPEA-SM Project Manager	Date:

Attachment X

Item	Budget Description	Source of budget (In-kind contribution from Vietnam, or Grant funding)	Amount
Travel	Local consultants Training instructors, if outside of the meeting venue city Relevant fishery officers, if outside of the meeting venue city		\$ \$ \$
Meeting arrangement	Meeting room, no cost if government building is used Meeting facilities, equipments, vehicles, communications, etc.		\$ \$
Misc.	Refreshments etc.		\$
Others			
Total			\$