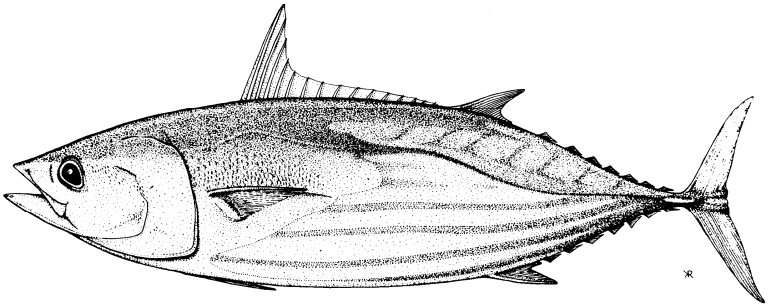
THIRD PHILIPPINES/WCPFC ANNUAL TUNA FISHERIES CATCH ESTIMATES REVIEW WORKSHOP

19 November 2010
Eurotel Hotel Conference Room
Manila, Philippines



Western and Central Pacific Fisheries Commission
Pohnpei, Federated States of Micronesia
December 2010

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1. INTRODUCTION

The Western and Central Pacific Fisheries Commission (WCPFC) has been involved in Philippines tuna fishery data collection through the Indonesia and Philippines Data Collection Project (IPDCP), which was developed at the Preparatory Conference for the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific (Anon. 2003) and adopted by the WCPFC in December 2005. The objectives of the IPDCP were

1) to collect and compile data that can be used to reduce the uncertainty of the assessments of tuna stocks in the Western and Central Pacific Ocean, and
2) to improve the monitoring of tuna fisheries in the Philippines and Indonesia so that both countries will be able to fulfill their future obligations in regard to the provision of fisheries data to the Commission.

The funding available under the IPDCP project was fully-utilized by 2009, but continuation of this important work in the Philippines (and Indonesia and Vietnam) has been subsequently included in a new project offered by the Global Environment Facility (GEF) - ***West Pacific East Asia Oceanic Fisheries Management (WPEA OFM)*** project, which began in 2010 (see http://www.wcpfc.int/doc/2009/wpea-ofm-project-document). The activities to be carried out under this project contribute towards the following objective:

"*To strengthen national capacities and international cooperation on priority transboundary concerns relating to the conservation and management of highly migratory fish stocks in the west Pacific Ocean and east Asia (Indonesia, Philippines and Vietnam)*"

The WPEA OFM project will cover, *inter alia*, the following key areas

(i) strengthen national capacities in fishery monitoring and assessment,
(ii) improve knowledge of oceanic fish stocks and reduce uncertainties in stock assessments,
(iii) strengthen national capacities in oceanic fishery management, with participant countries contributing to the management of shared migratory fish stocks,
(iv) strengthen national laws, policies and institutions, to implement applicable global and regional instruments.

The provision of annual tuna catch estimates is an important reporting obligation for member and cooperating non-member countries (CCMs) of the Western and Central Pacific Fisheries Commission (WCPFC). The official annual oceanic tuna catch estimates produced in the Philippines in the past by the Bureau of Agricultural Statistics (BAS) have been incomplete, in particular, they have not provided a breakdown of the oceanic tuna species (skipjack, yellowfin and bigeye tuna) catch BY GEAR, which is a fundamental requirement for the work of WCPFC, and consistent with reporting obligations of other Tuna Regional Fisheries Management Organisations (RFMOs) throughout the world.

Significant progress was made with the revision of annual catch estimates in the Second Philippines-WCPFC Annual Tuna Catch Estimates Review Meeting, held in Manila, Philippines in May 2010[1]. This meeting resolved several problems with the previous annual catch estimates and the main outcome was agreement on improved annual catch estimates by gear and species, in particular, more realistic bigeye tuna catch estimates, which had previously been of concern to the WCPFC Scientific Committee.

[1] http://www.wcpfc.int/doc/2010/second-philippineswcpfc-annual-tuna-fisheries-catch-estimates-review-workshop-17-18-may-201

In order to continue the work in resolving problems with the Philippines annual catch estimates, a one-day review workshop was convened in November 2010, and attended by important stakeholders with knowledge and information on the tuna fisheries in the Philippines (Government, Industry and NGO representatives with an interest in the fishery). A summary of the discussions and outcomes of this workshop is presented in this report.

Mr Noel Barut chaired the workshop and Mr Peter Williams covered the rapporteuring duties.

2. REVIEW OF ANNUAL OCEANIC TUNA CATCH ESTIMATES

This main focus of this brief workshop was to

I. Review progress on the recommendations produced from the Second Workshop on Annual Catch estimates
II. Discuss key issues that were highlighted for review at the Second Workshop, and
III. Plan the work required for producing 2010 annual catch estimates which would be the focus of the Fourth Workshop, scheduled for May 2011.

The following sections briefly cover the key points from each presentation/working paper and subsequent discussion, noting that more detailed information is available in each presentation (see APPENDIX 4 for a list of working papers/presentations).

2.1 Review of current Philippines annual catch estimates

Mr Williams provided a brief overview of the developments related to the Philippines annual catch estimates, since the last workshop. The agreed annual catch estimates from the last workshop were submitted to the WCPFC and used in the work of the Commission (e.g. stock assessments) presented to the Sixth Scientific Committee Meeting (SC6), held in Tonga in August 2010. A section of the SC6 Data Gaps paper was dedicated to the progress in provision of more reliable data by the Philippines, with specific reference to the revised Philippines bigeye catch estimates. Another SC6 paper described in detail the changes made to the data for stock assessments, highlighting the recent revisions to Philippines catch estimates. Review of the estimates from each fishery showed that good progress has been made with the purse seine and ringnet estimates, but that more work was required on the estimates of large-fish handline and hook-and-line gears. It was hoped that this workshop would provide further guidance for the work required to improve estimates to be reviewed in May 2011.

2.2 Review of progress of recommendations from the Second Workshop

Mr. Barut presented each of the recommendations from the Second Workshop and asked the respective participants responsible to provide an update on any progress since May 2010. The following provides a summary of progress and discussions on each of the recommendations to date.

1. BFAR continue to work with industry on the provision of data. At this stage, coverage of the data provided for 2010 is low with only 4 of the 7 canneries providing cannery receipts data so far, and only 3 companies providing logsheet data. It was noted that ensuring the security/confidentiality of fishing company data was an important area for BFAR to continue to maintain. There was some discussion on the need to streamline the provision of logsheets and a misunderstanding on the need to provide both Catch Certification documents and logsheets. It was pointed out that these

are two different data types and are required by two different entities – the Catch Certification documents summarise the total trip catch, while the logsheet collects data at the fishing operational level and is important for stock assessments. The EU IUU agreement requires that both types of data are collected, the logsheets are to be collected as a requirement to cooperate with the Tuna RFMO (i.e. the WCPFC). It was suggested that BFAR to look into streamlining the process of submission wherever possible, and all stakeholders were encouraged to investigate how to raise awareness in the fishing industry with respect to the provision of logsheets. The Workshop recommended that BFAR/NFRDI conduct quarterly visits to GSC to conduct consultative meetings and collect logsheets from the purse seine fishery.

2. This workshop was only six months from the last workshop, and the next workshop will be held in May 2011.

3. BFAR produced the list of registered purse seine and ringnet vessel which would be helpful in reconciling the provision of logsheets and therefore coverage. In this respect, it ws noted that vessel 'inactvity' was equally important to determining whether a logsheet should be expected or not. In regards to logsheet provision (inventory), it was noted that the large vessels are generally compliant but the smaller vessels continue to be a problem and that a possibly way to resolve this was to coordinate efforts with the LGU (Local government unit).

4. Industry reiterated its concerns that the Philippines should be separated from the combined Philippines/Indonesia fishery in the stock assessments, particularly given that (i) Philippines estimates had improved, (ii) Philippines catches are smaller than Indonesia and therefore the impact will be smaller. They noted that any management measure that is directed towards the combined Philippines/Indonesian fisheries will therefore be difficult since the Philippines do not have control of Indonesian fisheries.

5. The workshop noted that the estimates of annual catches provided by BAS which are presented in WCPFC documents should include a note indicating that foreign-flagged catches are included and the amount of catch that represented. The annual catch estimates by gear and species determined from the Philippines Annual Catch Estimates Workshops should also be included in the Philippines Annual Report to the WCPFC, Part 1.

6. The workshop again noted the considerable effort needed to determine accurate tuna catch estimates from the Municipal fisheries (particularly the "hook-and-line" gear), which continue to be a problem with no obvious solution other than providing better coverage, which would require more funding. The NSAP Review workshop recommended each regional office collects information on the non-NSAP sampled sites which would hopefully provide a better indication of the extent of municipal fisheries catches. BAS has provided the WCPFC with a proposal for conducting a Frame Survey, with modified data collection forms, to get better indications of the Palawan tuna catch estimate; WCPFC needs to consider where to find the considerable funds to conduct this work. Industry asked BFAR to help prepare a proposal for an increased government budget to cover data collection in municipal landing sites catching tuna and they will offer their support in the submission process.

7. The outcomes of the Second Philippines/WCPFC Annual Catch estimates workshop (May 2010) were summarised and presented in the SC6 Data Gaps paper, with positive feedback from participants. The report of the May 2010 workshop was also posted on the WCPFC web site.

2.3 Differences between "Baby" purse-seine and the "large" purse-seine vessels

Mr Williams provided a presentation to introduce discussion on the differences between the operations of the large purse seine vessels and the ringnet/"baby" purse seine vessels. The presentation highlighted the need to distinguish these two categories in the data used in stock assessments, primarily because their catch rates and general area of operation are clearly different. Figures 1 and 2 highlight some of the differences in these two categories of Philippine flagged vessels evident in the data, noting that the method of separating these categories at this stage is rudimentary.

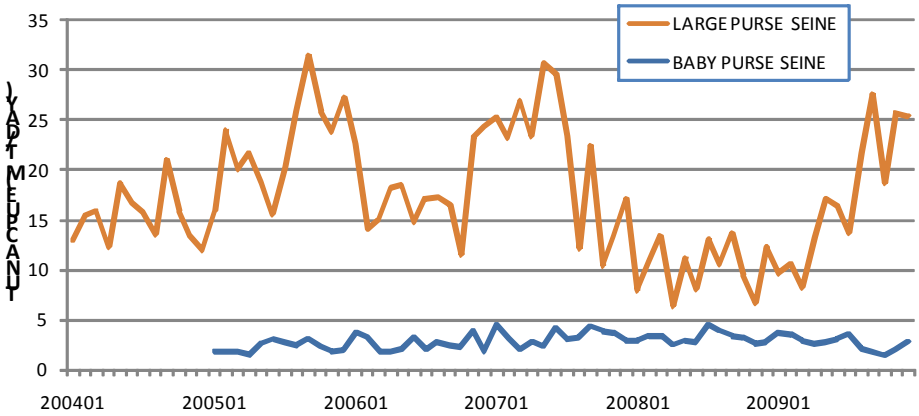


Figure 1. Monthly catch rates of Philippine-flagged large purse seine and ringnet/"baby" purse seine vessels (Source: logsheet data)

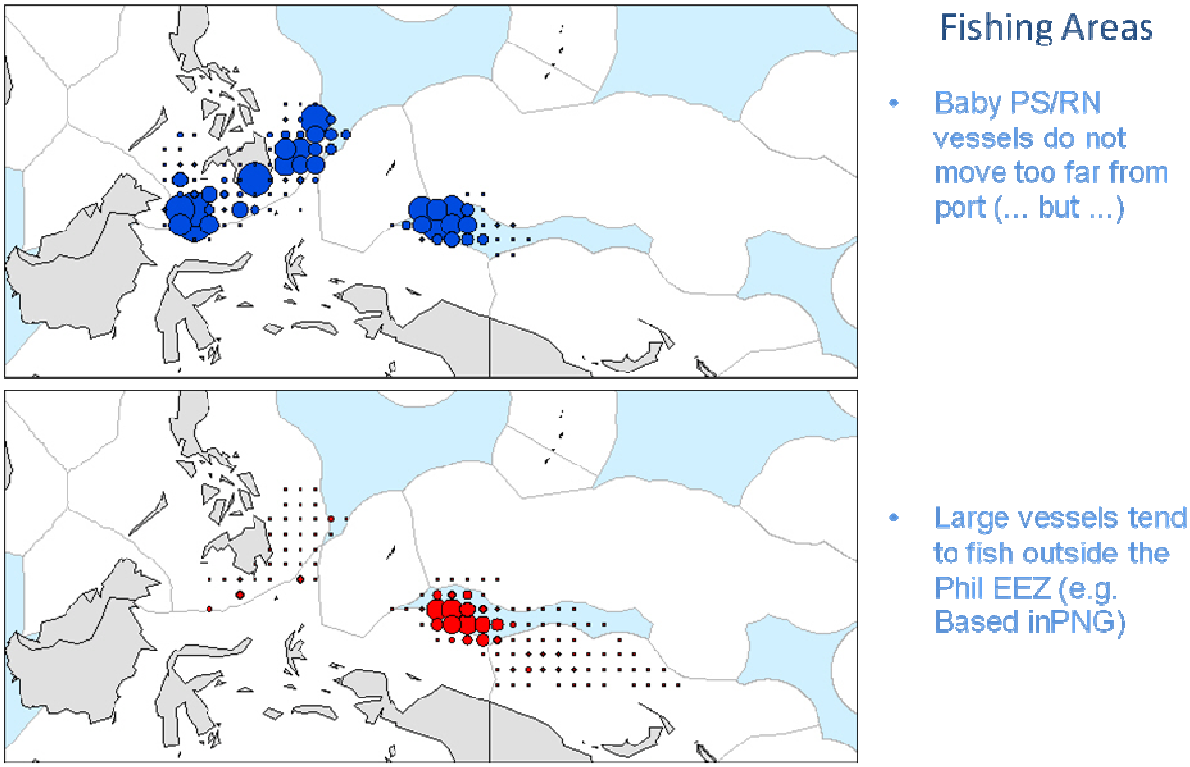


Figure 2. Distribution of effort for the Philippine-flagged large purse seine (bottom) and ringnet/"baby" purse seine (top) fleets, 2004-2010 (Source: logsheet data)

The workshop proceeded to discuss the different attributes for each of these categories which could then be used to update the list of purse seine vessels with a new field for category of vessel, and subsequently, *inter alia*, extend this distinction to the data available used in stock assessments. Industry provided useful descriptions of the two categories and this information has been summarized in a table in APPENDIX 5.

The workshop recommended that BFAR and Industry revise the list of purse seine/ringnet vessels to distinguish between these two categories and then BFAR/NFRDI and WCPFC/SPC ensure that this distinction is made in the database system (see APPENDIX 4).

2.4 Review of purse seine and ringnet landings flow-chart

The Workshop briefly reviewed the diagrams showing the flow of landings into Philippin ports from the purse-seine and ringnet catch. Due to limited time, this agenda item was not reviewed extensively and it was agreed that WCPFC/SPC would revise to reflect the decisions on combining "baby" purse seine with ringnet for participants to consider in the period prior to the next workshop. The revived diagrams are provided in Appendices 6 and 7.

2.5 Catch estimates for large-fish Handline vessels

The workshop briefly discussed recent developments in the large-fish Handline fishery. There continues to be reports of a significant fishery in Mindoro, but estimates (of around 6,000 t. / year) have yet to be confirmed. The market for the fish is apparently the Manila fresh sashimi market but also reports of exported product, and it appears that the product is shipped from Mindoro to Manila. BFAR are deploying two enumerators in early 2011 to monitor the landings. Dr Ingles reported that the current World Wildlife Fund (WWF) project (which is focusing on improving the supply chain, catch documentation, etc.) provides the following information:

- An estimate of around 7,000 t in 2009, essentially large yellowfin tuna
- There are apparently 16 buyers based in Mindoro (8 in Sablayan. 2-3 in Santa Cruz and 6 in Mamburao).
- Fish are shipped and then landed at Cavites and Batangas
- Squids are used as bait
- Sashimi grade tuna are destined for export
- Plan to establish a common landing point and processing facility on Mindoro (as per GSC model)
- Vessels fish in South China Sea and the season is February – October
- Plan to improve HACCP, traceability towards meeting MSC requirements

The Workshop noted that this catch is currently not included in the annual catch estimates for large-fish Handline fishery and would need to be considered at the May 2011 meeting, hopefully with confirmed landing amounts.

3. OTHER TYPES OF FISHERY DATA

The WCPFC noted the importance of standardized data collection for regional tuna stock assessments and that logsheet and observer data are fundamental types of data used by WCPFC scientists. The time available for discussion in this workshop was limited, so only brief review was possible, concentrating on the provision of data for 2010.

3.1 Progress with Logbook implementation

BFAR continue to collect and process logsheets but the coverage for 2010 so far is very low, with only three companies providing logsheets so far. It was noted that provision of logsheets for the large purse seine vessels is better than for the smaller "baby" purse seine and ringnet vessels. The Workshop recommended that BFAR consider visiting General Santos City on a quarterly basis specifically to follow-up the provision of logsheets with each fishing company/entity, and take the opportunity to raise awareness with the industry on the importance of providing this information to ensure the correct decisions are made on the sustainability of the resource. In this respect, WCPFC/SPC was asked to provide whatever support is necessary to assist in this process.

The recent initiatives with logsheet implementation in the Philippines purse seine fishery was acknowledged as a very positive development by the WCPFC members, with the hope that coverage would continue to improve and extend to the large-fish Handline fishery.

The separating the large purse seine fleet data from the Ringnet/Baby purse seine data will have implications for the database system used by BFAR. WCPFC/SPC will be tasked with assisting to revise the database system to ensure this separation is accounted for in the TUFMAN system.

3.2 Progress with the National Observer Programme

The National Observer Programme continues to progress with more observers trained by the WCPFC and a total of 69 observer trips (491 sets) conducted over the past 12 months. The data collected by observers have been entered into EXCEL files at this stage, but this makes it difficult to produce a wide range of reports, especially the ability to interface with GIS systems. BFAR requested the WCFPC/SPC to provide assistance in installing a observer database system (TUBS), including training as soon as practical.

4. RECOMMENDATIONS AND WORKSHOP CLOSE

The workshop participants reviewed and agreed on a list of seven recommendations, which were a revision to the recommendations from the second workshop and based on discussions made during this workshop (see **APPENDIX 3**). All participants agreed to review and attempt to action the recommendations relevant to their work in the tuna fisheries over the coming months in the lead-up to the fourth workshop planned for May 2011.

The process of estimating annual catch estimates in the Philippines has further evolved since the first workshop in 2008, but despite encouraging signs and cooperation and commitment from all sections, there remains significant work to undertake. The WCPFC/WPEA is committed to holding this type of workshop on, at least, an annual basis in the short term to ensure the annual catch estimates for the Philippines are reliable.

The representatives from BFAR and the WCPFC provided brief closing remarks, thanking participants for their attendance and fruitful discussion. The meeting was then closed.

APPENDIX 1 – AGENDA

THIRD PHILIPPINES/WCPFC
ANNUAL TUNA FISHERIES CATCH ESTIMATES
REVIEW WORKSHOP

19 November 2010
Eurotel Conference Room
Quezon City, Philippines

Agenda

1. OPENING

2. APPOINTMENT OF CHAIRPERSON AND RAPPORTEURS

3. ADOPTION OF THE AGENDA

4. REVIEW OF ANNUAL OCEANIC TUNA CATCH ESTIMATES

4.1 Review of current Philippines annual catch estimates
4.2 Review of progress of recommendations from the second workshop
4.3 Differences between “baby” purse-seine and the “large” purse-seine vessels
4.4 Review of purse seine and ringnet landings flow-chart
4.5 Catch estimates for large-fish Handline vessels

5. OTHER TYPES OF FISHERY DATA

5.1 Progress with Logbook implementation
5.2 Progress with the National Observer Programme

6. RECOMMENDATIONS AND WORKSHOP CLOSE

APPENDIX 2 – LIST OF PARTICIPANTS

THIRD PHILIPPINES/WCPFC ANNUAL TUNA FISHERIES CATCH ESTIMATES REVIEW WORKSHOP

19 November 2010
Eurotel Conference Room
Quezon City, Philippines

List of Participants

Name	Agency
Dexter Teng	TSP Maritime Industries
Atty. Rene Barrion	RD Fishing Corporation
Patrick Dale Sacay	Frabelle Fishing Corp
Angle Buan	Fishing Association - APFFI
Exec. Director Bayani Fredeluces	Fishing Federation - SOCKSARGEN
Alma Dickson	BFAR Central Office
Rafael Ramiscal	BFAR Central Office
Peter Eric Cadapan	BFAR Central Office
Asst. Director Ambutong Pautong	BFAR 12
Asst. Director Rosario Segundina Gaerlan	BFAR 1
Macmod Mamalangkap	BFAR-ARMM
Francis Buccat	BFAR 1
Reynaldo Laurena	BFAR 4B
Samuel Resma	MINDA
Port Manager Mike Lamberte	PFDA
Nilo Katada	BFAR-ARMM
Reynato Galan	BFAR 8
Cynthia Vallesteros	BAS
Estella De Ocampo	BAS
Virginia Villoria	BAS
Dr. Jose Ingles	WWF
Sarah Bales	DA-NAFC
Noel Barut	NFRDI
Elaine Garvilles	NFRDI
Peter Williams	SPC/WCPFC

APPENDIX 3 – List of Working Papers / Presentations / Background information

- Register of purse seine/ringnet vessels including GRT and other attributes that may potentially distinguish the large and small PS vessels
- A working paper showing progress in addressing the recommendations from the second workshop held in May 2010
- A presentation showing the need to separate estimates for 'baby' purse seine and large purse seine and potential attributes to distinguish between the two categories.
- Product flow diagrams produced at PTUNASTAT-2, for review at PTUNASTAT-3

APPENDIX 4 – Workshop recommendations

THIRD PHILIPPINES/WCPFC
ANNUAL TUNA FISHERIES CATCH ESTIMATES
REVIEW WORKSHOP

19 November 2010
Eurotel Conference Room
Quezon City, Philippines

RECOMMENDATIONS

1. The workshop acknowledged the significant progress in the compilation and provision of cannery receipt and logsheet data from the purse seine fishery over the past 2-3 years.
    a. **Industry** (fishing companies and canneries) were strongly encouraged to continue improving the coverage and provision of these data to BFAR, including the continued search and provision of historical logsheet data, which is viewed as a very positive initiative by the WCPFC.
    b. The workshop acknowledged the requirement for fishing companies/vessels to provide both Catch Documentation forms and logsheets, and recommended **BFAR** to look into streamlining the process of submission wherever possible. **BFAR** should clearly explain the two distinct purposes of the EU Catch documentation form and the logsheet.
    c. **BFAR, WCPFC/SPC and Industry** were encouraged to investigate how to raise awareness in the fishing industry with respect to the provision of logsheets. Fishing stakeholders should be made aware of the importance that this information plays in ensuring the sustainable exploitation of the tuna instead of only highlighting the need for provision for compliance purposes. For example, translation of the WCPFC requirements with respect to data.
    d. The Workshop recommended **BFAR/NFRDI** to conduct quarterly visits to GSC to conduct consultative meetings and collect logsheets from the purse seine fishery.

2. The workshop served to inform participants of the member-country obligations for the provision of scientific data to the WCPFC and provided a mechanism for reviewing and agreeing on estimates in the future. It was therefore recommended that this workshop continue on (at least) an annual basis in the short-term until some of the more crucial problems with annual catch estimates have been resolved. The fourth Annual Catch estimates Workshop will be scheduled for May 2011.

3. The workshop agreed that it will be necessary to separate the tuna catch and effort data for (i) large purse-seine vessels and (ii) the "Baby" Purse-seine/ Ringnet vessels (targeting oceanic tuna species) due to the clear differences in catch rates and the effect this would have on stock assessments. The Workshop agreed on a set of specific criteria to distinguish these two categories (see Table x).

    a. The workshop acknowledged the work by **BFAR** in producing a list of all Philippine purse seine vessels so that the relevant category of vessel could be assigned (i.e. large purse-seine versus the "Baby" Purse-seine /RINGNET vessels). The workshop recommended that **BFAR and Industry** work together to update this vessel list to assign the category of vessel before the

next workshop (May 2011) so that it would ensure there would be no ambiguity when determining the catch estimates by category of fleet.

b. **WCPFC/SPC and BFAR** will then use this list of vessels to separate the catch/effort data used in stock assessments into the two categories.

4. With the improvement in annual catch estimates in the domestic Philippines fisheries, **Industry** requested to **WCPFC/SPC** that separation of the Philippines from the Philippines/Indonesia fishery in the stock assessments be considered so they can better implement any management measures that the Philippines have control of.

5. **BAS, BFAR, PFDA and Industry** were asked to continue their work in excluding foreign-flag landings in the Philippines from their annual catch estimates to the WCPFC. The estimates of annual catches from **BAS** which are presented in any WCPFC documents should include a note indicating that foreign-flagged catches are included and the amount of catch that represented. The annual catch estimates by gear and species determined from the Philippines Annual Catch Estimates Workshops should also be included in the Philippines Annual Report to the WCPFC, Part 1.

6. The workshop noted the considerable effort needed to determine accurate tuna catch estimates from the Municipal fisheries (particularly the "hook-and-line" gear), which continue to be a problem.

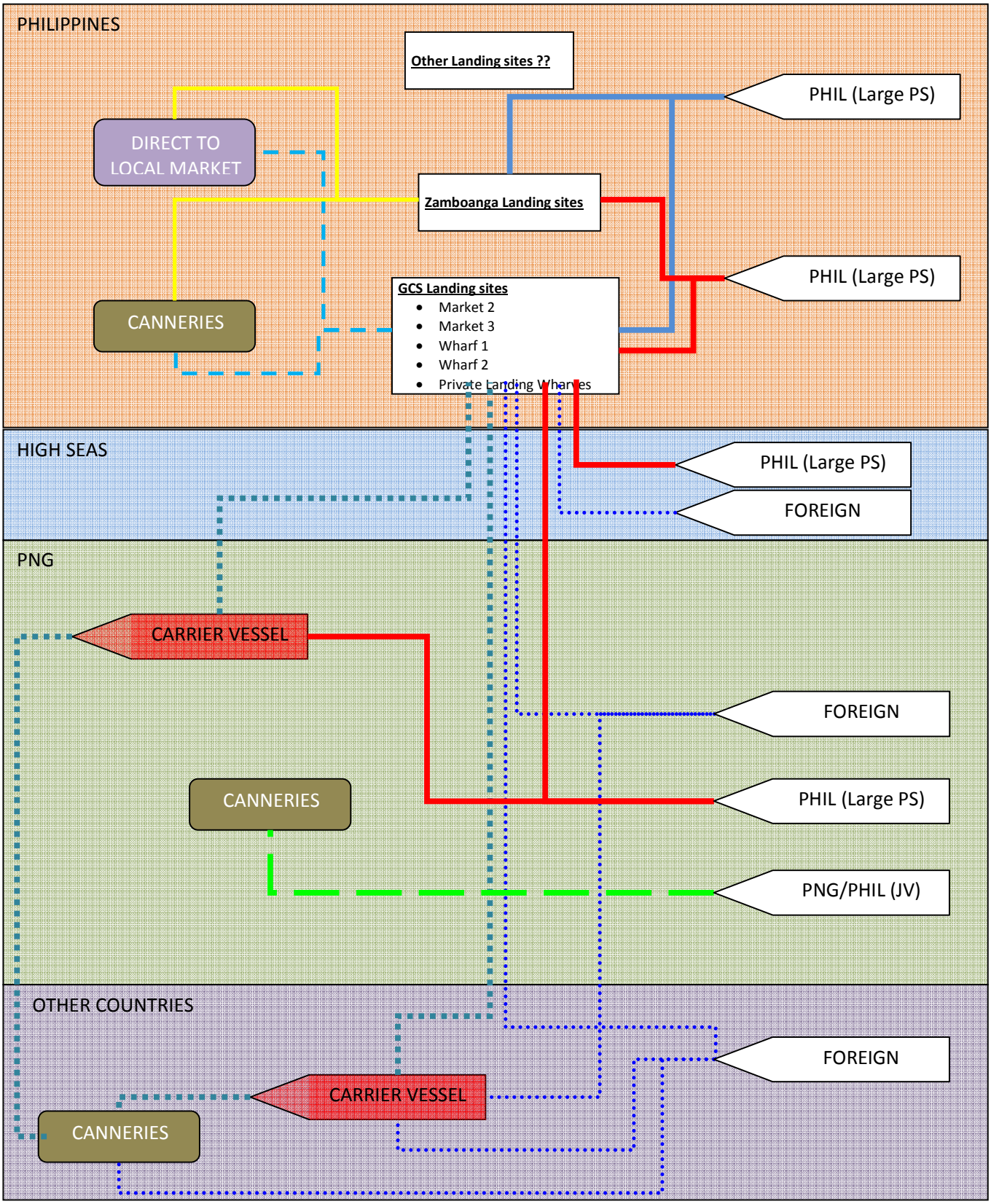
    a. It was recommended that **BAS, BFAR and other interested parties** develop a proposal for determining the methodology and resources required to conduct targeted censuses of municipal landing sites to determine accurate tuna catch levels by GEAR and SPECIES.
    b. **BFAR** will endeavour to improve tuna catch estimates from the Municipal fisheries by considering additional information from non-NSAP monitored sites which will be reviewed at the NSAP Review meetings in December 2010 and May 2011.
    c. **Industry** offered to assist **BFAR** prepare a proposal to request more resources for data collection through an increase in the annual budget to ensure that annual catch estimates submitted to the WCPFC are more reliable.

7. The **WCPFC/SPC** will take note of the outcomes of this workshop and include relevant text on the discussions and recommendations in papers prepared on data provisions for the upcoming WCPFC Scientific Committee meeting to be held in August 2011.

APPENDIX 5 – Differences between Large purse-seine and Ringnet/"Baby" purse-seine vessels

Large Purse-seine	Ringnet / "Baby Purse seine
Single seine operation	Group seine operation. • 1 catcher vessel • 2-3 carriers • 2-3 light boats Referred to as "Traditional" Vessels or "Unay" in GSC, dating back to 1970s.
Refrigerated brine storage wells	No fish holds on Catch vessels. Catch transferred directly to carriers. Carriers have **FRESH CRUSHED ICE only**
Generally fish OUTSIDE the Philippines EEZ	Generally fish WITHIN the Philippines EEZ
Can have extended trip length > 30 days	Restricted in trip length by ICE on carriers (typically 5-7 days only, with a maximum of 4 days travel)
Net dimensions typical of other purse seine fleets	Smaller net dimensions (narrower and shallower) than large purse seine vessels Some Ringnet vessels have smaller mesh size to target small pelagic.
Net retrieval equipment is typical of other purse seine fleets	Net retrieval equipment. RINGNET : no power-block only a manual winch (map-power) BABY PURSE SEINE : rudimentary power block; capstan/windlass at bow? (in any event, smaller than large purse seine vessels)
Maximum speed can be > 10 knots	Maximum speed is 6-7 knots, too slow for free-school fishing; only FAD fishing possible. 75 HP.
Annual CPUE is typically > 15MT/day on average	Annual CPUE is typically < 5MT/day on average

APPENDIX 6 – Landed Catch flow diagram for large PURSE-SEINE vessels



LEGEND

Catch from the "large" Philippine purse-seine vessels

1. Catches taken in Philippines EEZ, High seas and PNG waters
2. Vessels may be
   - Based in Philippines and return to Philippines to offload catch
   - Based in Philippines but transship to carriers that return to Philippines to offload
3. Catch from these vessels may be offloaded to GSC Fish port wharves or private landing sites or Zamboanga (are there any other landing sites ?)
4. Catch from these vessels landed in the Philippines (from catcher or carrier vessels) goes to …
   - Philippines Canneries (70% ?)
   - Direct to local market (30% ?)
5. Is there any catch from these vessels (based in PNG) that goes to PNG canneries ?
6. What are the characteristics of vessels that fish in this fleet ?
   - > 300 GRT ?
   - Power winch ?
7. This fleet includes the Manila-based vessels
8. Which companies operate these vessels ?
9. Information on these catches are potentially available from the following sources -
   - Logsheets provided to BFAR (Philippines-based vessels)
   - Logsheets provided to PNG/National Fisheries Authority (in theory, vessels licensed to fish in PNG waters, but based in both PNG and Philippines)
   - Cannery receipts in the Philippines (only for Philippines-based vessels)
   - PFDA monitoring of GSC landing sites
   - NSAP monitoring of Landing sites in the Philippines
   - Data provided to SFFAII for vessels landing at GSC

Catch from Foreign purse-seine vessels (into the Philippines)

1. Catches taken outside Philippine waters
2. Catches of foreign vessels may be landed directly to the Philippines by the catcher vessels or via a carrier vessel.
3. All foreign-flagged catch landed in the Philippines goes to the canneries
4. The 2009 estimate of foreign-flagged catch landed in the Philippines was ~ 70,000 t.
5. Information on Foreign flagged catches into the Philippines are potentially available from the following sources -
   a. Cannery receipts in the Philippines
   b. PFDA and NSAP monitoring
6. Foreign-flagged catch can also go to several other canneries in other countries.

Catch from PNG/Philippine joint-venture vessels (based in PNG)

1. Catches taken inside PNG waters
2. Vessels belonging to RD Fishing (PNG) and Frabelle (PNG) Corp. belong to this category
3. Catches from these vessels go to the canneries in PNG
4. Does some of the catch from these vessels go back to the Philippine ?
5. The catch from these vessels SHOULD NOT BE INCLUDED IN THE ANNUAL CATCH ESTIMATES FOR THE PHILIPPINES PURSE-SEINE FLEET
6. The catch from these vessels is included in the Annual catch estimates for PNG purse seine fleet (since they are considered to be chartered vessels to PNG)
7. Information on these catches are potentially available from the following sources -
   a. Logsheets provided to PNG/National Fisheries Authority

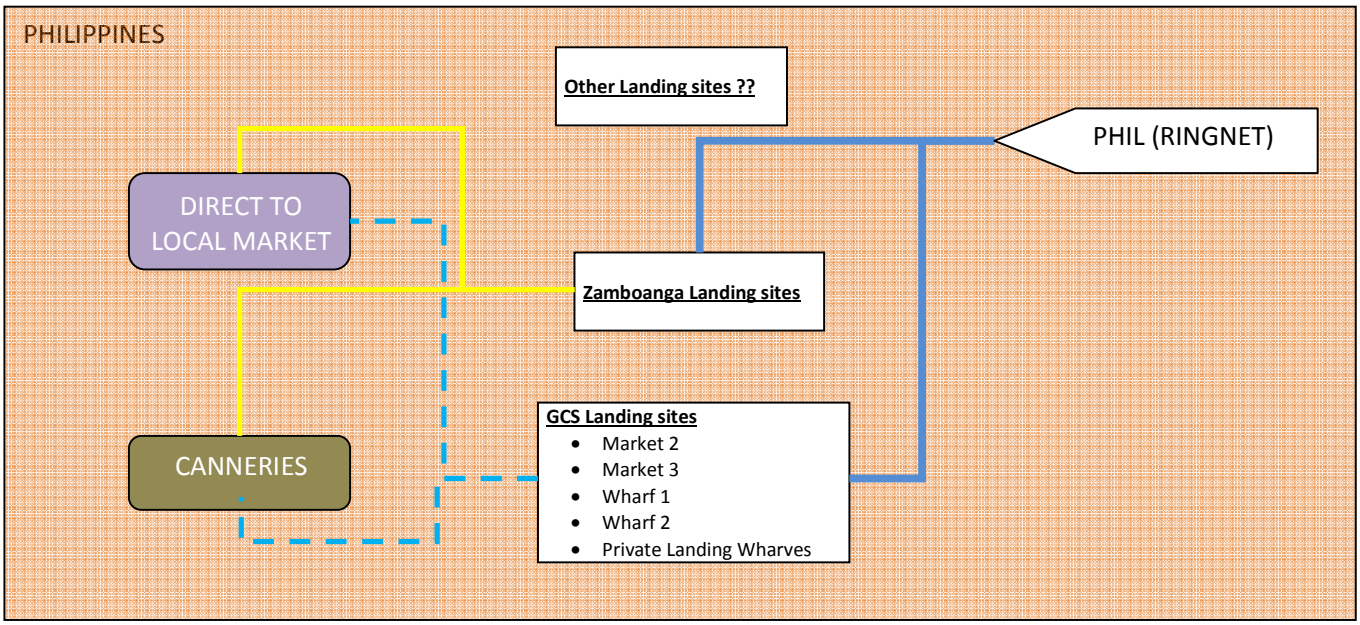
Landed catch from GSC

1. Purse-seine landings from a variety of sources may go to the following destinations
    a. Canneries based in Mindanao
        i. All foreign-fleet catch
        ii. 30% of the baby purse seine catch
        iii. 70% of the 'large' purse seiner catch
    b. Directly to the local market
        i. 70% of the baby purse seine catch
        ii. 30% of the 'large' purse seiner catch
2. Cannery receipts is the only method of monitoring the flow of catch after it has been landed

Landed catch from Carrier vessel (to landing sites)

1. Information on these catches are potentially available from the following sources -
    a. PFDA monitoring of GSC landing sites
    b. NSAP monitoring of Landing sites in the Philippines
    c. Data provided to SFFAII for vessels landing at GSC

APPENDIX 7 – Landed Catch flow diagram for RINGNET/BABY PURSE SEINE vessels



LEGEND

Catch from the Ringnet/"Baby" purse-seine vessels

1. Catches generally taken in Philippine waters only
2. What are the characteristics of vessels that fish in this fleet ?
    a. Typically Group seine operation
    b. (see other characteristics in APPENDIX 5)
3. Most of the catch comes from vessels offloading to GSC port (Markets 2 and 3)
4. What is the extent of the ringnet catch outside of Philippine waters ?
5. Catch from these vessels landed in the Philippines goes to …
    a. Philippines Canneries (30% ?)
    b. Direct to local market (70% ?)
6. Information on these catches are potentially available from the following sources -
    a. Cannery receipts in the Philippines
    b. PFDA monitoring of GSC landing sites
    c. NSAP monitoring of Landing sites in the Philippines
    d. Data provided to SFFAII for vessels landing at GSC

Landed catch from GSC

1. Ringnet/"baby" purse seine landings from a variety of sources may go to the following destinations
    a. 30% - Canneries based in Mindanao
    b. 70% - Directly to the local market
2. Cannery receipts is the only method of monitoring the flow of catch after it has been landed