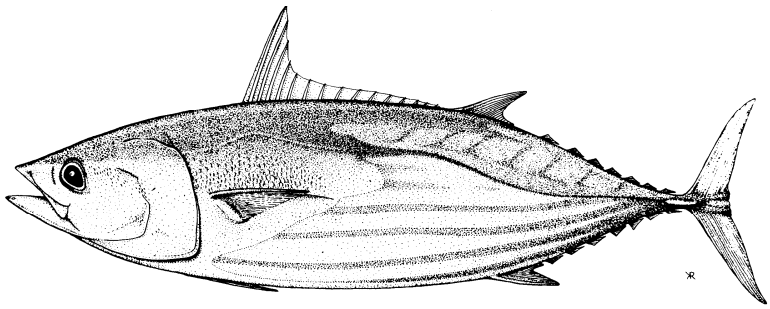
SECOND PHILIPPINES/WCPFC ANNUAL TUNA FISHERIES CATCH ESTIMATES REVIEW WORKSHOP

17-18 May 2010
BFAR offices, Manila, Philippines



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

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.

Furthermore, the 2008 bigeye catch estimate provided by the BAS for the Philippines domestic tuna fisheries was 35,141 t., of which an estimated 34,000 t. came from the surface fisheries alone. The Philippines surface fisheries bigeye catch for 2008 represents almost 50% of the WCPFC Conventional Area surface fisheries bigeye catch (which was 69,550 t. for purse seine, pole-and-line, troll and "other/unclassified" gears in 2008). The Fifth Regular Session of the WCPFC Scientific Committee (SC5) held in Vanuatu, 10-21 August 2009, reiterated its concerns on the uncertainty with the bigeye catch estimates from the Philippines domestic fisheries, particularly the potential effect this relatively large catch has on the regional bigeye stock assessments. Relatively high catch estimates of yellowfin tuna from the Philippines domestic fisheries are also provided by BAS and therefore of interest to the WCPFC/SPC.

In order to continue the work in resolving problems with the Philippines annual catch estimates, a two-day review workshop was convened 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.

2. REVIEW OF ANNUAL OCEANIC TUNA CATCH ESTIMATES

This main focus of the workshop was the review of Annual Catch estimates for the domestic Philippines fisheries for each GEAR TYPE. The following sections briefly cover the key points from each presentation and subsequent discussion, noting that more detailed information is available in each presentation (see APPENDIX 6 for a list of presentations) and the tables of agreed Annual Catch Estimates (see APPENDIX 7).

2.1 WCPFC Requirements for data & current issues with the Philippines annual catch estimates

The WCPFC representative provided an introductory presentation on the WCPFC requirements for scientific data and the current issues with the Philippines annual catch estimates, covering the following areas:

- Brief overview of WCPO fisheries by gear type
- Why we collect data from tuna fisheries including reasons why data collection, research and management must be conducted at the regional level
- The WCPFC member country data-reporting obligations (refer to http://www.wcpfc.int/doc/data-01/scientific-data-be-provided-commission-revised-wcpfc4-wcpfc6)
- A description of Annual catch estimates and why they are fundamental to the work of the WCPFC and member countries
- Current issues with Philippines domestic tuna data

The presentation concluded with a proposal for how this workshop would proceed in determining annual catch estimates. The ensuing discussion served to clarify the definition of annual catch estimates, which cover the national fleet and are produced cover the WCPFC Convention Area, not the catch in the home Exclusive Economic Zone; it was also noted that the annual catch estimates are fundamental to stock assessments and must cover the range of the stock and therefore must include the catches taken in archipelagic waters. There was some initial discussion on the need to address the problem of the Philippines bigeye catch as a matter of urgency. Representatives of the fishing industry requested the 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. It was noted that the Philippines fishery data continues to improve and this request was subsequently included in a workshop recommendation.

2.2 Overview of information used to prepare Annual tuna catch estimates in the Philippines

Mr Noel Barut, Director OIC, NFRDI (National Fisheries Research and Development Institute) provided an overview of data compiled by BFAR that are used in the preparation of Annual tuna catch estimates in the Philippines. The BFAR National Stock Assessment Programme (NSAP) covers the port sampling of key landing sites throughout the Philippines. A summary of species catch composition by gear for 2009 was presented, showing that purse seine, ringnet, hook-and-line and handline gears account for the majority of the oceanic tuna catch, respectively. BFAR also collects cannery data (since 2008) comprising the catch of foreign and domestic purse seine and domestic ring-net vessels. The 2009 cannery data have been provided for 6 out of

the 7 canneries based in the Philippines, with an estimate provided for the remaining two canneries (which are expected to provide their data in the coming month). The cannery data are broken down by foreign flag receipts (42%) and Philippine-flagged receipts (58%). The breakdown of the 2009 catch by species for the Philippine-flagged cannery receipts was SKJ (84%), YFT (14%) and BET (2%).

Purse seine logsheet data have also been collected from the domestically-based fleet since 2008. The coverage of logsheet data received and processed for 2009 was currently estimated to be about 50% (based on monthly vessel activity and the assumption that logsheets have been received from 52 of the estimates 102 vessels in the fleet). The percentage catch by species from the logsheet data was practically identical to the species composition from the cannery receipt data, which was very encouraging since they are two independent types of data. The catch by area from the logsheets was as follows : PNG (41%), Phil (18%), High seas (24%) and other areas (17%). Catches in the domestic EEZ during 2009 according to logsheets processed so far, indicate a higher proportion of SKJ in the overall catch compared to other areas.

During the ensuing discussion, it was noted that the number of active purse seine and ringnet vessels was an important piece of information for determining estimates of activity and annual catches, since the process of determining annual catch estimates through raising logsheet data needs an indication of the total number of active vessels. It was therefore recommended that a list of active vessels be compiled and used in future reviews of annual catch estimates (see Appendix 3).

A representative from the fishing industry (Mr. Bayani Fredeluces – SFFAII) provided a brief presentation of the landed catch from purse seine and ringnet vessels in General Santos City (GSC) during 2009. Based on the coverage of the data collected, the raised estimate was very similar to the estimates obtained from logsheets.

Mrs. Virginia Viloria from the Bureau of Agricultural Statistics (BAS) gave a brief presentation of the official Philippines tuna catch estimates for recent years. The 2009 bigeye catch estimate (now 5,731 t.) was recently revised downwards to a level which corresponded to the total bigeye catch estimate (for all gears) obtained from other sources (see Section 2.3 for more information). It was noted that this level was nearly a seven-fold drop from the 2008 BAS estimate, with estimates from 2005-2008 remaining high. It was also noted that the foreign-flagged catch (purse seine and longline) was included in the BAS catch estimates, so they need to be removed or at least footnoted so that the WCPFC requirements for annual catch estimates could be satisfied.

PFDA provided a presentation on the landings monitoring of the GSC markets. GSC Market 1 covers the handline landings and in 2009 totaled just under 7,000 t for all species. This level was a clear reduction on the landings in 2008 (12,680 t.) with less activity expended by this fleet due to poor fishing conditions. It was noted that the PFDA estimates prior to 2006 did not capture all handline landings since this was a period when significant landings were undertaken at private landing wharves, not covered by PFDA monitoring. GSC Market 2 caters for the landings of Ringnet vessels and small-scale craft delivering fresh fish with SKJ comprising 61% of the landings (~ 25,000 t in 2009) of a variety of tuna and small pelagic species. Market 3 mostly covers the ringnet gear and in 2009 landings totaled about 16,000 t, with 81% skipjack tuna. GSC Wharves 1 and 2 serve the large purse-seine unloadings and a delivery point to the GSC canneries. The total catch landed to the GSC wharves in 2009 was 70,000 t. and 20,000 t respectively. About 30% of the total landed catch at Markets 2 and 3 are destined for the canneries (70% of the catch is for local consumption).

2.3 Review of Philippines domestic fishery tuna catch estimates by Gear

The Workshop then reviewed each Philippines tuna fishery, one gear at a time, in an attempt to produce agreed catch estimates for 2009, and if possible, consider revisions for previous years. The workshop considered the data/information provided in the previous presentations and any accompanying information provided by participants. The outcome of this process was the production of tables of provisional catch estimates by gear, with accompanying notes to explain the decisions made in regards to the estimation process and sources of information (see Appendix 7). Participants noted that the reliability of the estimates ranged from reasonable (for the purse seine fishery) to very rough ball-park estimates (for the hook-and-line fishery), which was essentially related to the availability of data. The workshop acknowledged that there was considerable work to be done and that this was this start of a process requiring intercessional work to obtain more information to review in subsequent workshops. In summary, the establishment of the process was considered more important that the outcome in producing annual catch estimates at this stage.

The following sections contain the key points of the discussions and the outcomes for each gear type.

2.2.1. Purse seine

There are several key sources of data available for the purse seine fishery but none cover the catches completely. It was noted that the Philippines has an obligation to report the catches of their purse-seine fleets active throughout the WCPFC Convention Area, including those vessels based in Papua New Guinea, which has proven to be difficult in the past. Since estimates for the Philippines fleet based in Papua New Guinea are compiled by the PNG National Fisheries Authority, catches from this sub-component of the Philippines purse seine fleet active in the PNG waters must be separated out from the catches of the other Philippine purse seine vessels fishing based in the Philippines to avoid double-counting. It was acknowledged that without a master vessel list which indicated vessel activity each year and where the vessel was based, it would be difficult to reconcile which sub-fleet a vessel belonged to. To assist in the process of differentiating catches to avoiding double-counting, mutually-exclusive categories of fleets were suggested (see Appendix 4). The workshop acknowledged that once a master list of vessels was compiled and a better understanding of the fishing activities and bases used by these vessels was available, the categories in Appendix 4 may be revised and simplified. The workshop agreed to consider the information at hand over the 2-3 weeks following the workshop and agree on a plan for work in this area over the coming six months in the lead-up to the next workshop.

A product flow diagram, incorporating areas for improved data collection, was produced after the workshop which encapsulates the information provided for the Philippines purse-seine fisheries (see Appendix 8).

2.2.2. Ringnet

Some of the issues for the purse-seine fishery (e.g. sources of data and incomplete coverage) were relevant to the ringnet fishery. Ensuring that there wasn't double-counting between sources of data and having a good indication of the vessel activity (numbers and whether they were active) were important inputs to the annual catch estimate process.

A product flow diagram, incorporating areas for improved data collection, was produced after the workshop which encapsulates the information provided for the Philippines ring-net fisheries (see Appendix 9).

2.2.3. Large-fish Handline

The handline fishery catches in GSC are well covered by PFDA and NSAP monitoring, but there are other important landings sites elsewhere in the Philippines with significant catches, for example, Region 4B (Palawan) and Region 5 (Bicol). There were reports that the catches of large tuna in Mindoro could be as high as 4,000 t. in 2009, but these landing centers were currently not monitored at all, so suggested a priority area to investigate. It was also noted that the catch documentation scheme, established in this fishery in recent years, would provide another source of information to verify catches obtained from other types of data collection.

2.2.4. Longline

The Philippines have longline vessels listed on the WCPFC Vessel Record but information at hand suggested that these vessels were not active in the WCPFC Convention Area during 2009, so no annual catch should be attributed to this fleet.

2.2.5. Hook-and-line

The catch estimates from the comprehensive, small-scale "hook-and-line" fishery in the Philippines is the most problematic. There are potentially tens of thousands of vessels in this fishery spread throughout the Philippines and the task of monitoring this fishery to get representative estimates is currently impossible. The workshop therefore considered using the "Delphi" method by taking the consensus view of what the total tuna catch for 2009 might be according to the gathered experts, and then use the NSAP species composition data to breakdown the total tuna catch into estimates of skipjack, yellowfin and bigeye tuna (the results are contained in Table 7 of Appendix 7. The workshop acknowledged that catch estimates in previous years were probably too high and would therefore need revising (WCPFC/SPC would attempt to do this after the workshop). It was agreed that this fishery would need closer attention in the future and a recommendation was formulated to look at developing a proposal for future monitoring of this fishery.

2.2.6. Other small-scale gears

An attempt to estimate the catches of tuna from the other small scale gears was attempted during a workshop on NSAP data in the previous week and these estimates were accepted as the best available estimates (see Appendix 7).

2.4 Reconciliation with the BAS estimates

Table 11 in Appendix 7 provides a breakdown of the catch by gear according to the process undertaken in this workshop with the current 2009 BAS estimates. The notes accompanying this table show that, after removing the foreign-flagged catch landed in the Philippines from the BAS estimate, the difference was positive 75,000 t., which could be explained as the potential bias in the probability surveys due to very low coverage. BAS indicated that they plan to conduct a pilot frame survey of Region 11 in August 2010 using a revised Frame data collection form that better caters for the collection of key information from fisheries catching oceanic tunas.

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. BFAR provided two presentations on the progress in implementing these two data collection systems.

3.1 Progress with Logbook implementation

Logsheet data collection in the Philippines domestic tuna fisheries was established in 2008 after the creation of a Fisheries Administrative Order (FAO), although logsheets have also been provided to the WCPFC for 2004 in relation to requirements for reporting under the WCPFC CMM 2008-01. Logsheets should be submitted for the purse-seine and handline fishery, but the there have been very few provided for the Handline fishery to date. Purse-seine logsheet coverage for 2008 was 76 vessels (~60%), for 2009 to date, 52 vessels (~ 50%) and for 2010 to date, 22 vessels have provided logsheets. There are currently 190 registered purse-seine vessels but there are only about 100-120 considered active. It was noted that the recent El Nino conditions resulted in a sharp decline in the number of active vessels in the Handline fishery.

With logsheet coverage clearly not complete, the challenge was to obtain enough information to determine the actual vessel activity in the purse-seine fleet in order to raise the logsheet data to obtain a represent estimates of catch an effort. The compilation of a simple vessel list (see Appendix 5) which would show vessel activity was suggested and another suggestion was that all vessels should provide logsheets regardless of whether they were active in that month or not. Further thought and work in this area is expected in the coming months. One problem related to coverage is that vessels apply for a 3-year license and only get a renewal on submission of logsheets, so coverage is likely to be low in those year when license renewal does not fall. In any event, all participants agreed on the need to improve the provision of logsheets.

3.2 Progress with the National Observer Programme

The Philippines national observer programme has been established over the past two years and was the first observer programme to be audited by the WCPFC (ROP Coordinator) in early 2010. There have been 82 observers trained in three courses conducted by the WCPFC Secretariat; the national observer program uses the regional standard data collection forms used elsewhere in the WCPFC Convention Area tropical tuna fisheries. A Fisheries Administrative Order (FAO) was established specifically to cover the requirements and obligations related to the national observer programme. Funding for some activities will be covered by regular government contributions but a cost-recovery approach whereby the WCPFC contracts Philippine observers for some ROP distant-water longline trips is also being envisaged. A five-year plan will aim at 5% coverage of the Philippine purse seine fleet. It was noted that an observer database system was available through the WCPFC (the SPC-developed TUBS system) and a schedule for installation and training could be planned for 2011/2012, once the system had been sufficiently tested.

4. RECOMMENDATIONS AND WORKSHOP CLOSE

The workshop participants reviewed and agreed on a list of seven recommendations based on discussions made during the two days (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.

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 an annual basis in the short term to ensure the annual catch estimates for the Philippines are reliable. A suggestion was made by industry that, due to the importance of this work, the next review workshop should be conducted in six months (i.e. November 2010) and not in one year's time, which was tentatively accepted.

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

APPENDIX 1 – AGENDA

SECOND PHILIPPINES/WCPFC ANNUAL TUNA FISHERIES CATCH ESTIMATES REVIEW WORKSHOP

17 - 18 May 2010
BFAR 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 WCPFC Requirements for data & current issues with the Philippines annual catch estimates
- 4.2. Update on the process to produce annual oceanic tuna catch estimates in the Philippines
- 4.3. Review of Philippines domestic fishery tuna Catch Estimates by Gear
  - 4.3.1. Purse seine fishery
  - 4.3.2. Ring-net fishery
  - 4.3.3. Large-tuna handline fishery
  - 4.3.4. Longline fishery
  - 4.3.5. Troll and other small-fish hook-and-line fisheries
  - 4.3.6. Small-scale encircling nets fisheries

5. OTHER TYPES OF FISHERY DATA

- 5.1. Progress with Logbook implementation
- 5.2. Progress with National Observer Programme

6. Recommendations and Workshop Close

APPENDIX 2 – LIST OF PARTICIPANTS

SECOND PHILIPPINES/WCPFC ANNUAL TUNA FISHERIES CATCH ESTIMATES REVIEW WORKSHOP

17 - 18 May 2010
BFAR Conference Room
Quezon City, Philippines

List of Participants

Benjamin Tabios, Jr.	- BFAR – CO (Asst. Dir. – Admin. Services)
Alma Dickson	- BFAR – CO
Noel Barut	- BFAR/NFRDI
Arsenio Bañares	- BFAR – CO
Peter Erick Cadapan	- BFAR – CO
Maria Africa Mendrino	- BFAR – CO
Elaine Garvilles	- BFAR/NFRDI
Desiderio Ayanan	- BFAR/NFRDI
Macmod Mamalangkap	- BFAR-ARMM
Rosario Segundina Gaerlan	- BFAR – Region 1 (ARD)
Emmanuel Asis	- BFAR – Region 4B (RD)
Virginia Olaño	- BFAR – Region 5
Jun Albaladejo	- BFAR – Region 8 (RD)
Lea Tumabiene	- BFAR – Region 8
Virgilio Alforque	- BFAR – Region 9 (RD)
George Campeon	- BFAR – Region 11 (RD)
Ambutong Pautong	- BFAR – Region 12 (ARD)
Rodolfo Paz, Jr.	- PFDA – Quezon City (Asst. Gen Manager)
Miguel Lamberte	- PFDA – General Santos City
Samuel Resma	- MinDA, Davao City
Estella de Ocampo	- BAS
Cynthia Vallesteros	- BAS
Virginia Viloria	- BAS
Bayani Fredeluces	- SFFAII
Jeffrey Ariel	- RD Fishing Inc.
Romil Laluna	- RD Fishing Inc.
Dexter Teng	- TSPMI
Eduardo Esteban	- TPJ Fishing
Jose Ingles	- WWF
Peter Williams	- WCPFC/SPC

APPENDIX 3 – Workshop recommendations

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 two years. **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.

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.

3. **BFAR** were asked to produce a list of all Philippine purse seine vessels so that the relevant category of fleet could be assigned to each vessel (according to APPENDIX 4). This exercise would ensure there would be no ambiguity when determining the catch estimates by category of fleet. **Industry** and the **WCPFC/SPC** would provide assistance where necessary. The template for Vessel list is described in APPENDIX 5.

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 landings of Philippine-flagged vessels based in other Pacific Island countries under charter arrangements (e.g. PNG – Category #5 fleet) should also be excluded since they are counted elsewhere. Where this was not possible (e.g. BAS), their estimates should include a note indicating that foreign-flagged catches were included and the amount of catch that represented.

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. 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. BAS and BFAR will also endeavour to improve tuna catch estimates from the Municipal fisheries based on suggestions provided in recent studies/workshops.

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 2010.

APPENDIX 4 – Philippine fishery purse seine fleet categories

Category of purse-seine catch	Landing Base	FLEET in the WCPFC estimates
1. Catch from Philippines vessels landing their catch in the Philippines. These vessels may catch tuna in the Philippines EEZ, the high seas or other Pacific island countries. The logsheet data will differentiate the proportion of the annual catch estimate taken in each area.	Philippines	**Philippine "domestically-based"**
2. Catch from Philippines-flagged vessels landing their catch in Pacific Island countries (e.g. based in PNG operating under bilateral access (e.g. TPJ)	PNG	**Philippine "PIC-based"** [distinguish from "domestically-based"]
3. Catch from Philippines-flagged catcher vessels, based in PNG **landed** into the Philippines (catch may arrive via carrier)	PNG (catcher) Philippines (carrier)	[do not include – counted in logsheets provided from 2. above]
4. Foreign-flagged catcher vessels, landed into Philippine ports (catch may arrive via carrier)	Philippines	**FOREIGN-FLAG CATCH** [do not include – counted elsewhere]
5. Catch from Philippines-flagged vessels operating under joint-venture fishing companies in PNG (RD Fishing in PNG and Frabelle (PNG) Corporation)	PNG	**PNG purse seine catch - charter arrangement** [do not include – counted elsewhere]

APPENDIX 5 – Philippine purse-seine vessel list template

Information required from Philippines domestic purse-seine vessels on an annual basis

2009 Activities															
Vessel information				FISHING THIS MONTH (Y/N/?)											
Name	GRT	Company	Fleet Category	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

APPENDIX 6 – LIST OF PRESENTATIONS

- WCPFC data requirements and current issues with the Philippines catch data
- Summary of NSAP data collected in 2009
- Summary of BAS estimates for 2000-2009
- Summary of information collected at General Santos City Fish port by PFDA
- Summary of 2009 Catch Report in GSC by SFFAII
- The Philippines National Observer Programme
- Status of Philippines logbook data collection 2008-2010
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APPENDIX 7 –Provisional Annual catch estimates tables

Table 1. A comparison of 2009 PURSE-SEINE catch estimates from different sources

2009 Philippine PURSE SEINE tuna catch estimates								
FLEET	Source of estimate	SKJ		YFT		BET		TOTAL
		MT	%	MT	%	MT	%	MT
PHILIPPINES DOMESTICALLY-BASED CATEGORY #1	Cannery receipts + industry estimates + NSAP estimates	123,736	84%	21,381	14%	2,663	2%	147,780
	Logsheets (Raised)	70,875	84%	11,885	14%	1,240	1%	84,000
	Industry	69,432	92%	5,716	8%	500	1%	75,648
	NSAP data	22,952	82%	4,485	16%	624	2%	28,061
PHILIPPINE "PIC-BASED" CATEGORY #2	Logsheets to PNG/NFA	45,930	64%	22,960	32%	2,527	4%	71,417
FOREIGN CATEGORY #3 and #4	Cannery receipts - Foreign flag	54,663	84%	9,013	14%	1,597	2%	65,273

Notes

1 The best estimate for the Philippine domestically-based purse seine fleet in 2009, taking into account all sources of data, is 147,780 mt. This estimate has been determined in the following manner:

The cannery receipts for Philippines domestically-based purse seine vessels only (63,226 t.) was augmented by an estimated 30,000 t. coverng the two canneries that did not provide data.

The cannery receipts include an estimated 30% of catch from the GSC baby-purse seine fleet, which has been estimated to be 75,648 t. by industry. The balance (70% = 52,954 t.) for the baby-purse-seine fleet catch represents that part of their catch sold at the GSC wet markets (Markets 2 and 3) - this estimate was confirmed when comparing to PFDA data. The balance of catch not destined to the cannery has been added.

An estimated 1,600 t. landed by purse seine vessels based at Subic was added.

2 The estimate according to LOGSHEET data was obtained by considering a coverage of ~50% based on missing logsheets (only 52 out of 102 vessels providing logsheets). However, the coverage of logsheets is biased to the baby-purse-seine fleet and the larger purse seine vessels are not well covered so this estimate will be lower than reality. A process which raises the logsheet data according to the two subcomponents of this fleet (baby-purse seine and larger vessels) needs to be applied.

3 The INDUSTRY estimate only covers the GSC-based baby purse-seine vessels and was determined from a catch (18,912 t.) which represented 25% coverage. It was noted that 30% of the total baby-purse-seine catch goes to the cannery.

4 The NSAP estimate only covers the fish port landing centre.

5 The "PIC-based" Philippine fleet catch was determined by raising logsheet data (Coverage of logsheets = 60%). This fleet excludes RD Fishing and Frabelle (PNG) Corp. vessels which are considered to operate under a charter arrangement to PNG.

6 The cannery receipts from foreign fleet catch and Phil-flag catch from carriers loaded in PNG are treated in one category termed FOREIGN and are not included in any of the Philippine estimates. The latter fleet is already included in the estimate determined for the Philippine "PIC-based" fleet (i.e. from logsheets).

Table 2. Annual catch estimates for the Philippines domestically-based PURSE SEINE fleet (Category #1)

Year	SKJ		YFT		BET		TOTAL
	MT	%	MT	%	MT	%	MT
2000	69,409	71%	23,088	24%	5,513	6%	98,010
2001	65,920	72%	21,776	24%	3,423	4%	91,119
2002	83,355	82%	16,650	16%	1,105	1%	101,110
2003	99,013	77%	26,550	21%	2,436	2%	127,999
2004	99,502	76%	28,744	22%	3,193	2%	131,439
2005	91,372	68%	36,280	27%	6,719	5%	134,371
2006	97,724	66%	44,420	30%	5,923	4%	148,067
2007	128,178	75%	39,308	23%	3,418	2%	170,904
2008	146,527	75%	43,787	23%	3,762	2%	194,076
2009	123,736	84%	21,381	14%	2,663	2%	147,780

Notes

1 The best estimate for the Philippine domestically-based purse seine fleet in 2009, taking into account all sources of data, is 147,780 mt. This estimate has been determined in the following manner:

The cannery receipts for Philippines domestically-based purse seine vessels only (63,226 t.) was augmented by an estimated 30,000 t. coverng the two canneries that did not provide data.

The cannery receipts include an estimated 30% of catch from the GSC baby-purse seine fleet, which has been estimated to be 75,648 t. by industry. The balance (70% = 52,954 t.) for the baby-purse-seine fleet catch represents that part of their catch sold at the GSC wet markets (Markets 2 and 3) - this estimate was confirmed when comparing to PFDA data. The balance of catch not destined to the cannery has been added.

An estimated 1,600 t. landed by purse seine vessels based at Subic was added.

2 The difference in species composition from Cannery data, logsheets and the NSAP data collection was only 1-2% for 2009.

3 Catch estimates cover fishing in Philippines EEZ, high seas and PNG waters.

Table 3. A comparison of RINGNET catch estimates from different sources

2009 Philippine RINGNET tuna catch estimates							
	SKJ		YFT		BET		TOTAL
Source of estimate	MT	%	MT	%	MT	%	MT
Cannery receipts	29,944	97%	952	3%	56	0%	30,952
NSAP data	18,153	80%	4,467	20%	177	1%	22,796
Industry estimate	29,862	80%	7,347	20%	291	1%	37,500

Notes

1 The best estimate for the ringnet fleet in 2009 was considered to be 35,000-40,000 t by industry, mostly from GSC, but acknowledge there may be minor catches elsewhere. Total catch was distributed to catch by species using NSAP species composition data.

2 The NSAP estimate covers NSAP landing centres and an estimate from non-NSAP landing centers in some regions.

3 The Cannery receipts estimate considers that the 7,738 t. received into canneries for 2009 is only 25% of total Ringnet landings.

Table 4. Annual catch estimates for the Philippines RINGNET fleet

	SKJ		YFT		BET		TOTAL
Year	MT	%	MT	%	MT	%	MT
2000	10,019	74%	3,148	23%	457	3%	13,624
2001	9,654	76%	2,727	22%	285	2%	12,666
2002	12,023	86%	1,995	14%	37	0%	14,055
2003	13,541	76%	3,866	22%	385	2%	17,792
2004	13,399	73%	4,560	25%	311	2%	18,270
2005	12,363	66%	5,979	32%	336	2%	18,678
2006	13,623	66%	6,175	30%	823	4%	20,621
2007	16,629	69%	6,652	28%	713	3%	23,994
2008	17,761	67%	8,421	32%	322	1%	26,504
2009	29,862	80%	7,347	20%	291	1%	37,500

Notes

1 The best estimate for the ringnet fleet in 2009 was considered to be 35,000-40,000 t by industry, mostly from GSC, but acknowledge there may be minor catches elsewhere. Total catch distributed to catch by species using NSAP species composition data.

Table 5. A comparison of HANDLINE catch estimates from different sources

2009 Philippine Large-tuna HANDLINE tuna catch estimates							
Source of estimate	SKJ		YFT		BET		TOTAL
	MT	%	MT	%	MT	%	MT
NSAP data	102	1%	7,768	95%	330	4%	8,200
PFDA							6,200

Notes

1 The best estimate for the large-tuna HANDLINE in 2009 was sourced from NSAP monitored sites (primarily GSC) but also considering those other sites with Handline fleets that are not monitored by NSAP where possible.

2 Large-tuna Handline catches are monitored by NSAP in GSC, Region 4B (Puerto Princessa), Region 5 and Region 8.

3 It was uncertain whether handline vessels landing in Davao, with their catch trucked to GSC, are covered in PFDA/NSAP monitoring. It was uncertain what extent this catch represented.

4 Catches of large tuna from Handline activities have been reported in Mindoro but are not included here. The extent of these catches is currently not known but could be as high as 4,000 t.

5 The reduction is 2009 in catch corresponds to the observed reduction in activity by this fleet during 2009. Also, vessel numbers in GSC have progressively dropped from 2,500-3,000 large vessels in 2005 to around 1,000 vessels in 2009.

Table 6. Annual catch estimates for the Philippines HANDLINE fleet

	SKJ		YFT		BET		TOTAL
Year	MT	%	MT	%	MT	%	MT
2000	0	0%	9,454	95%	510	5%	9,964
2001	0	0%	8,914	96%	349	4%	9,263
2002	0	0%	9,943	97%	336	3%	10,279
2003	0	0%	12,540	96%	472	4%	13,012
2004	0	0%	13,099	98%	263	2%	13,362
2005	0	0%	12,990	95%	670	5%	13,660
2006	0	0%	14,498	96%	555	4%	15,053
2007	0	0%	16,853	97%	521	3%	17,374
2008	0	0%	15,712	96%	637	4%	16,349
2009	102	1%	7,768	95%	330	4%	8,200

Notes

1 The best estimate for the large-tuna HANDLINE in 2009 was sourced from NSAP monitored sites (primarily GSC) but also considering those other sites with Handline fleets that are not monitored by NSAP where possible.

2 It was uncertain whether handline vessels landing in Davao, with their catch trucked to GSC, are covered in PFDA/NSAP monitoring. It was uncertain what extent this catch represented.

3 Catches of large tuna from Handline activities have been reported in Mindoro but are not included here. The extent of these catches is currently not known but could be as high as 4,000 t.

4 The reduction is 2009 in catch corresponds to the observed reduction in activity by this fleet during 2009. Also, vessel numbers in GSC have progressively dropped from 2,500-3,000 large vessels in 2005 to around 1,000 vessels in 2009.

Table 7. A comparison of HOOK-AND-LINE catch estimates from different sources

2009 Philippine HOOK-AND-LINE tuna catch estimates							
Source of estimate	SKJ		YFT		BET		TOTAL
	MT	%	MT	%	MT	%	MT
NSAP data	*23,899*	34%	*43,172*	62%	*2,929*	4%	70,000

Notes

1 The 2009 estimate for total tuna catch has been arbitrarily set at 70,000 t. based on the advice of key experts, acknowledging that while this fishery is widespread throughout the Philippines, the extent of tuna catch is not known. NSAP data for 2009 has been used to determine the species composition.

2 The catch estimates for this fishery present the most uncertaintity and will therefore need the most attention in the future.

Table 8. Annual catch estimates for the Philippines HOOK-AND-LINE fleet

	SKJ		YFT		BET		TOTAL
Year	MT	%	MT	%	MT	%	MT
2000	28,887	39%	41,991	56%	3,951	5%	74,829
2001	27,005	39%	38,904	56%	3,659	5%	69,568
2002	27,516	36%	45,406	59%	4,274	6%	77,196
2003	34,527	35%	57,763	59%	5,436	6%	97,726
2004	35,830	36%	58,974	59%	5,548	6%	100,352
2005	48,217	47%	51,295	50%	3,078	3%	102,590
2006	53,132	47%	56,524	50%	3,391	3%	113,047
2007	61,327	47%	65,241	50%	3,914	3%	130,482
2008	61,327	47%	65,241	50%	3,914	3%	130,482
2009	23,899	34%	43,172	62%	2,929	4%	70,000

Notes

1 The 2009 estimate for total tuna catch has been arbitrarily set at 70,000 t. based on the advice of key experts, acknowledging that while this fishery is widespread throughout the Philippines, the extent of tuna catch is not known. NSAP data for 2009 has been used to determine the species composition.

2 The catch estimates for this fishery present the most uncertaintity and will therefore need the most attention in the future.

Table 9. A comparison of OTHER GEARS catch estimates from different sources

2009 Philippine OTHER GEARS tuna catch estimates								
GEAR	Source of estimate	SKJ		YFT		BET		TOTAL
		MT	%	MT	%	MT	%	MT
DRIFT GILLNET	NSAP data	249	70%	98	28%	9	2%	356
TROLL	NSAP data	225	69%	96	29%	6	2%	327
TUNA DRIFT LL	NSAP data	154	52%	144	48%	0	0%	298
MULTIPLE HOOK-AND-LINE	NSAP data	727	52%	988	48%	0	0%	1,716
OTHER GEARS TOTAL	NSAP data	1,355	52%	1,327	48%	15	0%	2,697

Notes

1 Estimate covers NSAP landing centres and an estimate from non-NSAP landing centers in some regions.

Table 10. Annual catch estimates for the Philippines OTHER GEARS

Year	SKJ		YFT		BET		TOTAL
	MT	%	MT	%	MT	%	MT
2000	575	28%	1,333	66%	125	6%	2,033
2001	538	28%	1,236	65%	117	6%	1,891
2002	538	26%	1,420	68%	140	7%	2,098
2003	668	25%	1,798	68%	190	7%	2,656
2004	704	26%	1,849	68%	174	6%	2,727
2005	836	30%	1,775	64%	167	6%	2,778
2006	922	30%	1,956	64%	184	6%	3,062
2007	1,064	30%	2,257	64%	213	6%	3,534
2008	1,110	12%	7,915	86%	210	2%	9,235
2009	1,355	50%	1,327	49%	15	1%	2,697

Notes

1 Estimate covers NSAP landing centres and an estimate from non-NSAP landing centers in

2 The high catch of yellowfin tuna in 2008 needs to be reviewed.

Table 11. Reconciliation of 2009 tuna catch estimates by gear with the 2009 BAS total tuna catch

Workshop Outcome		
Domestically-based Fleets	2009 total tuna catch	BAS total tuna estimate
Purse seine	147,780	409,697 [1]
Ringnet	37,500	65,273 [2]
Handline	8,200	2,900 [3]
Hook-and-line	70,000	
Drift Gillnet	356	
Mult. Hook-and-line	1,716	
Troll	327	
Tuna Drift LL	298	
	266,177 [5]	341,524
		75,347 [4]

Notes

1 BAS 2009 estimate of tuna catch: SKJ-251,418 t.; YFT-152,548 t.; BET-5,731 t. (61% : 37% : 2%)

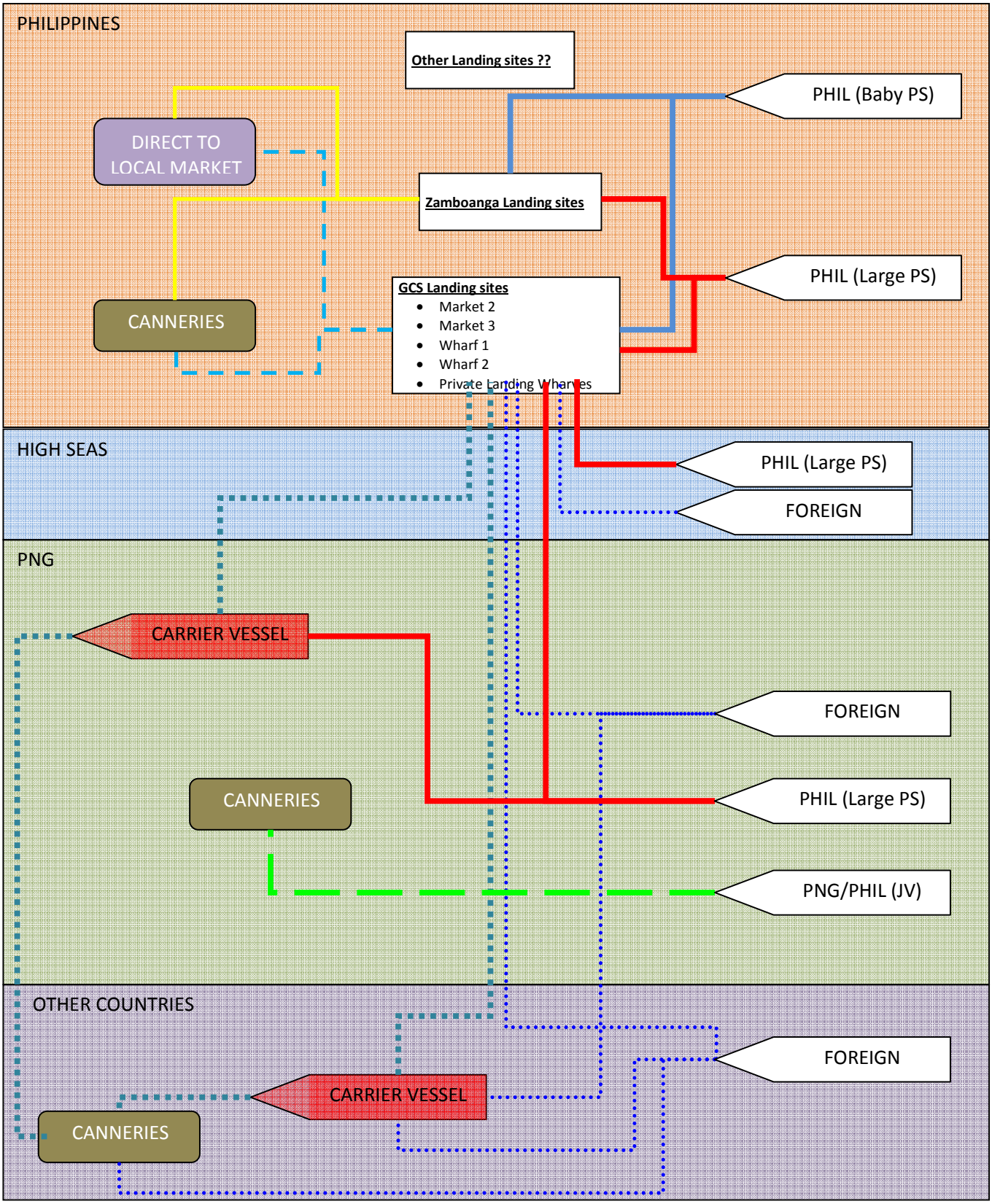
2 BAS includes the landings of foreign flag purse seine and Phil. Flag based in PNG in their estimates, but these should be excluded.

3 BAS includes the landings of foreign-flag longline catch landed at Davao, but these should be excluded.

4 Shortfall in catch compared to overall BAS estimate explained as possible bias in the probability surveys due to very low coverage.

5 Estimate of catch by species: SKJ-178,955 t.; YFT-80,995 t.; BET-6,226 t. (67% : 31% : 2%)

APPENDIX 8 – Landed Catch flow diagram for 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 the "baby" Philippines purse-seine vessels

1. Catches taken in Philippine waters only by small vessels
2. What are the characteristics of vessels that fish in this fleet ?
   a. < 200 GRT ?
   b. Manual winch ?
3. Vessels offload to GSC ports (Markets 2 and 3) only (??)
4. Catch from these vessels landed in the Philippines (from catcher or carrier vessels) goes to …
   a. Philippines Canneries (30% ?)
   b. Direct to local market (70% ?)
5. Information on these catches are potentially available from the following sources -
   a. Logsheets provided to BFAR (Philippines-based vessels)
   b. Cannery receipts in the Philippines
   c. PFDA monitoring of GSC landing sites
   d. NSAP monitoring of Landing sites in the Philippines
   e. 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

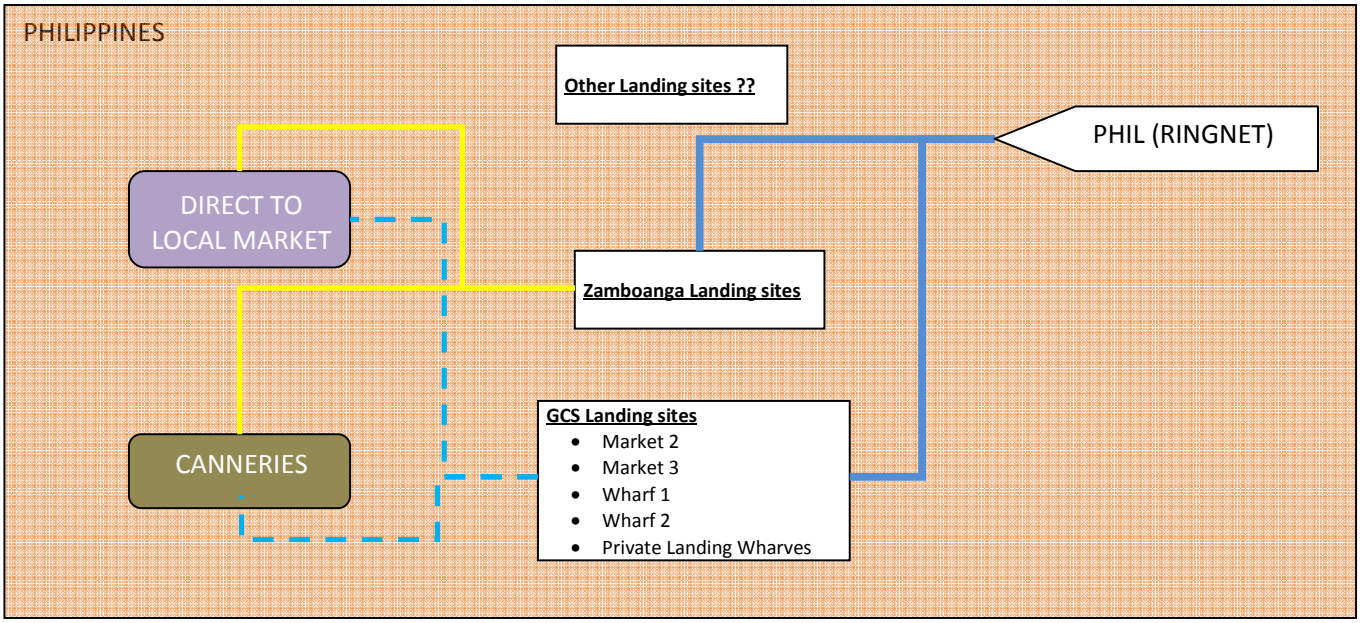
Landed catch from GSC

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 9 – Landed Catch flow diagram for RINGNET vessels



LEGEND

Catch from the Rngnet purse-seine vessels

1. Catches taken in Philippine waters only
2. What are the characteristics of vessels that fish in this fleet ?
    a. < 200 GRT ?
    b. Manual winch ?
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 GSC ?
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 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