RECOMMENDATIONS

1. 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 account for a significant proportion of the total Philippines domestic catch, but continue to be a cause for concern.
   a. BFAR will continue to improve tuna catch estimates from the Municipal fisheries by considering additional information from non-NSAP monitored sites which will be part of future NSAP Review meetings.
   b. 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.
   c. BFAR/NFRDI and WPCFC/SPC consider seeking funding and necessary resources for conducting studies in key regions of the Philippines along the same lines as the studies conducted in Region 4b in 2009 and Region 8 during 2011/2012.

2. The workshop recommended that BFAR/NFRDI and WPCFC/SPC compile a list of Philippines-flagged purse seine fleets into categories of sub-fleet at least three months before the next workshop which is to be used in the process to compile catch estimates (see ANNEX A). It was also suggested that lists of vessels by categories for previous years be compiled where possible.

3. BFAR/NFRDI and WPCFC/SPC will update the document describing the steps involved and responsibilities in compiling and providing data to be used in the catch estimation process. In particular, the following should be included:
   a. The table showing the breakdown of the Philippines-flagged purse seine fleets into categories of sub-fleet which is to be used to compile catch estimates. (see ANNEX A)
   b. A list of the Philippines-flagged purse seine vessels and an indication as to what category they belong to. This list should be used in the compilation of data.

This document should be distributed to all relevant stakeholders at least two months before the next workshop prepare for the estimation of 2012 catches, with all stakeholders, (BFAR, BAS, PFDA and Industry Associations/Representatives) expected to provide presentations of their estimates at future workshops. This document should be reviewed and updated each year to take into account any improvements in the process.

4. The workshop commended the work by the Industry in compiling and presenting information on 2011 purse seine and ringnet catches and acknowledged their important involvement in the catch estimation process. The workshop recommended the following enhancements to the compilation and presentation by Industry for future workshops:
a. The separation of the purse seine catches by categories shown in ANNEX A, and
b. Breakdown of total catch and number of vessels by fishing company.

5. The workshop recommended that BFAR and WCPFC/SPC investigate funding and resources to process the relevant information on Catch Documentation certificates that can be used for scientific purposes (e.g. individual fish weights).

6. The workshop recommended BFAR, NFRDI and WCPFC/SPC review the differences in species composition produced from different data sources (observer data, logbooks, NSAP, cannery data) and report these findings at the next workshop.

7. The workshop acknowledged the importance of tuna tagging data to the stock assessments and recommended WCPFC/SPC report on an agenda item dealing with the latest developments with tagging field-work, awareness raising and tag recovery issues in future workshops.

8. The workshop recommended that BFAR and NFRDI take over responsibility for compiling the information presented in future workshops into tables of catch estimates by GEAR and SPECIES for the participants to review, discuss and agree on. WCPFC/SPC will be requested to provide advice on this process where necessary.
### ANNEX A. Categories of Philippines-flagged PURSE SEINE fleet used for catch estimation

<table>
<thead>
<tr>
<th>Category of purse-seine catch</th>
<th>Landing Base</th>
<th>FLEET in the WCPFC estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Catch from Philippines-based vessels</td>
<td>Philippines</td>
<td>Philippine “domestic”</td>
</tr>
<tr>
<td>2. Catch from Philippines-flagged vessels based in PNG operating under bilateral access (e.g. TPJ)</td>
<td>PNG</td>
<td>Philippine “distant-water” [distinguish from “domestic”]</td>
</tr>
<tr>
<td>3. Catch from Philippines-flagged catcher vessels, based in PNG (bilateral access) landed into the Philippines (catch may arrive via carrier)</td>
<td>PNG (catcher) Philippines (carrier)</td>
<td>[do not include – counted in logsheets provided from 2. above]</td>
</tr>
<tr>
<td>4. Foreign-flagged catcher vessels, landed into Philippine ports (catch may arrive via carrier)</td>
<td>Philippines</td>
<td>FOREIGN-FLAG CATCH [do not include – counted elsewhere]</td>
</tr>
<tr>
<td>5. Catch from Philippines-flagged vessels operating under joint-venture fishing companies in PNG (RD Fishing in PNG and Frabelle (PNG) Corporation)</td>
<td>PNG</td>
<td>PNG purse seine catch - charter arrangement [do not include – counted elsewhere]</td>
</tr>
</tbody>
</table>