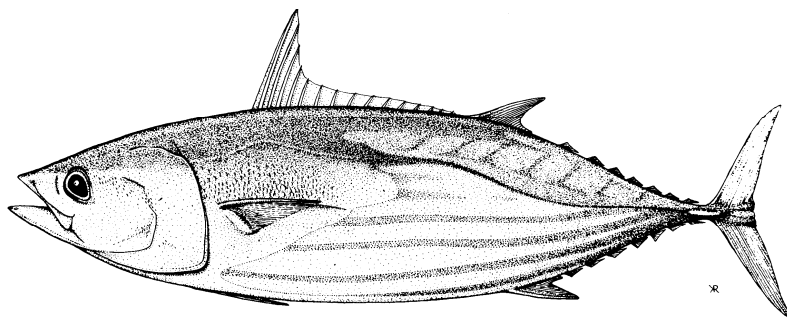




REPORT OF THE SECOND VIETNAM TUNA FISHERY
DATA COLLECTION WORKSHOP (VTFDC-2)

15-16 November 2010

Quy Nhon, Viet Nam



Western and Central Pacific Fisheries Commission
Pohnpei, Federated States of Micronesia
January 2011

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1. OPENING

For a number of years, the evolving tuna fisheries in Vietnam have been of interest to the Western and Central Pacific Fisheries Commission (WCPFC) given that the Vietnam tuna fisheries exploit the same tuna stocks as the other member countries of the WCPFC. The importance of the Vietnam tuna fisheries to the WCPFC and the involvement of Vietnam in the WCPFC process has been acknowledged with their inclusion in the 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 first Tuna Data Workshop was held in March 2010 and reviewed existing information and established a plan for the immediate implementation of data collection systems in the Vietnam tuna fisheries. (see [xxx web page link to VTFDC-1](#)).

The aims of this second workshop were to mainly (i) review progress in data collection in the longline fishery since the first workshop and (ii) review information obtained for the purse seine and gillnet fisheries in order to establish data collection systems for these fisheries in 2011. The second workshop was preceded with a study tour of 4-5 days travelling to the port and the fisheries offices of the three key provinces (Khanh Hoa, Phu Yen and Binh Dinh) where most of the tuna fishing fleets in Vietnam are based. As with the first workshop, the information obtained from the study tour contributed to other important information presented during the workshop.

This report contains a summary of presentations and discussions held during in VTFDC-2 workshop plenary, which was conducted over two days (15-16 November 2010), including recommendations from the workshop.

The Vice-Director of the Ministry of Agriculture and Rural Development (MARD-Binh Dinh), Mr Hao, provided an opening address. He thanked the various offices of MARD - DECAFIREP and SUB-DECAFIREPs for organising the meeting and the continued support of the WCPFC/SPC and GEF project. The longline fishery began in Vietnam in 1994 and is now a key fishery for the export of tuna. Over the past 15 years, tuna catches have increased with the 2010 catch at a level of around 3,500 t – 4,000 t. in the Binh Dinh Province alone. He noted that policies need to be developed for tuna fisheries to encourage investment for building vessels, technology transfer and tax benefits. However, there remain constraints and challenges in Vietnam, for example, data collection was just beginning for the longline fisheries only, and tuna catch estimates at the national level have yet to be determined. Also, fisheries management tends not take into account all stakeholders and there are yet to be any specific policies to protect the highly migratory species.

MARD are committed to the WPEA project and are looking at the long term to build capacity and cooperation to ensure the conservation and development of tuna fisheries in Vietnam. They have signed agreements with Dept. of Defense to facilitate the project, for example, to show fishers how to fill in logsheets and raise awareness with issues such as safety at sea. There is a strong need to cooperate with other stakeholders and

fishing associations with this project. Enhanced capacity and better data leads to more precision with the levels of the tuna stocks. A better understanding and cooperation with other countries of the WCPFC will allow us to establish responsible policies for the conservation and management of the tuna stock.

Mr Peter Williams provided an opening statement on behalf of the WCPFC. Establishing and then maintaining tuna fisheries data collection systems is acknowledged to be a long-term commitment and the WCPFC is encouraged by the progress and motivation in establishing data collection systems in Vietnam over the past year - however, there remains considerable work to do. Data collection is a continuous process which needs to be adequately resourced to ensure quality data are available to monitor the status of tuna stocks. The tuna fisheries data collection system in Vietnam will be fundamental to ensuring the sustainable exploitation of your tuna stocks since better information result in more informed decisions. As a Cooperating non-member of the WCPFC (CNM), Vietnam has certain obligations with respect to the collection and provision of data to ensure the sustainable exploitation of the shared stock of highly migratory tuna. In this respect, the WCPFC looks forward to the provision of data from Vietnam in the future.

Unfortunately, funding for this project was not forthcoming until September 2010, with apologies from the WCPFC. Despite the delays in funding, it was encouraging to see that activities generally commenced as planned. It was noted that the WCPFC are currently in discussions with the funding organization (GEF) in regards to a larger project to be conducted over a longer period, once this current three-year project terminates.

2. APPOINTMENT OF CHAIRPERSONS AND RAPORTEURS

Dr Antony Lewis was appointed chairman. Mr Peter Williams and Mr Phan Viet Anh were appointed rapporteurs.

3. ADOPTION OF THE AGENDA

The agenda proposed for the workshop was adopted as presented in APPENDIX I, but it was noted that if possible, future workshops should have specific items to discuss (i) progress on the establishment on tuna associations and (ii) review of annual catch estimates. The list of the participants can be found in APPENDIX II and a list of the working papers produced and used during the workshop can be found in APPENDIX III.

4. Review of progress on recommendations from VTFDC-1 workshop

The workshop initially considered the progress on recommendations from VTFDC-1 workshop, with a presentation provided by Vietnam National Tuna Coordinator (NTC), Mr. Viet Anh, with reference to Working Paper 1 (see [xxxx-WCPFC web page link](#)). The workshop acknowledged the good progress made establishing data collection in the tuna fishery over the previous six months.

During the ensuing discussion, the following points were noted and where relevant, incorporated into the recommendations from this workshop:

- The template for Annual catch estimates provided in Working Paper 1 - Appendix 3 does not highlight the fundamental requirement that for a breakdown by GEAR TYPE. Annual catch estimates must be provided to the WCPFC broken down BY GEAR and SPECIES.
- The Vietnam National Fisheries Report (Part 1 of the Annual Report) was provided for WCPFC Scientific Committee meeting in August 2010 (SC6), but PART 2 of the Annual Report was not prepared for the WCPFC Technical and Compliance Committee meeting (TCC6) in October 2010.
- Annual catch estimates should be provided from the point the fishery started, so the goal over the longer term is to reconstruct the annual catch estimates for the longline fishery from 1994. However,

it was noted that there was no data collection prior to 2000, so it will not be possible to provide an annual catch estimate for these years unless very rough estimates based on vessel numbers, exports and expected catch levels can be determined.

- The preparation of annual catch estimates continues to be a difficult task and it is still not possible to produce catch estimates BY GEAR and SPECIES for each PROVINCE at this stage. Annual catch estimates are fundamental and it may therefore be necessary to convene a dedicated workshop in Vietnam to produce historical annual catch estimates to ensure that estimates can be provided to WCPFC to fulfill Vietnam's data reporting obligations as a WCPFC CNM, and thereby their fishery be recognized in this region. All stakeholders need to be involved but this was not yet the case in Vietnam and hopefully this will occur in the future. The deadline for the submission of annual catch estimates for 2010 is 30th April 2011 and the workshop was reminded of the recommendation for Vietnam to submit an annual catch estimate prior to this date.
- The data compiled for the data inventory, produce by the Research Institute for Marine Fisheries (RIMF) have been estimated and are not precise values based on comprehensive data collection. For example, in Binh Dinh, the fisheries report rough estimates of catch in weight only due the to lack of logbook data and fishing port authorities are only concerned with vessel numbers not catch.
- RIMF were apparently awaiting the provision of funds from World Wildlife Fund (WWF) to proceed with the production of the tuna fishery profiles and review their findings. The status of the provision of funds for this work was not clear.
- It was acknowledged that the unloading process for the purse-seine vessels was similar to the gillnet fisheries, which was described using a flowchart provided in Working Paper 2. However, the catch taken by gillnet vessels is sorted on-board, while the catch taken by purse seine vessels is not sorted, so data collection protocols will be different for these two gear types and a separate flow-chart for the purse seine fisheries will need to be produced.
- It was acknowledged that the data collection procedures manuals will need to be continually updated to take into account the updates and elaboration of protocols/procedures.
- While progress had been made in species identification, more assistance will be required for both small and large tuna.
- The implementation of a logbook system is acknowledged to be a long-term process and that awareness-raising, highlighting the need for collecting this information, needs to be conveyed to all stakeholders as a continuous, priority activity. The example of Japan was raised, where logbooks have been collected for more than 50 years but there is still the need to go to ports to show fishermen how to collect logsheet data. The continual process of promoting logbook data collection should include, as a key activity, the need to assure fishers that the confidentiality of their fishing activities will be maintained.
- In Khanh Hoa, regulations require that logbooks are provided for vessels > 50 CV and that smaller vessels (20-50 CV) are not required to submit logbooks. Vessels targeting tunas are usually large, so will be required to submit logbooks. In other countries of the region, it is also seen as impractical to require small vessels to compile and provide logbooks. So far, the implementation of the tuna-specific logbooks in the three provinces had progressed better than the wider national project for EU IUU certification, but coverage was still very low. The roadmap for implementation of the tuna-fisheries logbooks was as follows : (i) from 1st January 2011 for vessels greater than 90 CV, and (ii) second stage, 1st January 2013 for vessels in the category 20-90 CV.
- It was noted that the frequency of gillnet landings per month in Khanh Hoa was low. There are 250 gillnet vessels registered to this province, but during the fishing season, they relocate and land their catch in other provinces (i.e. landings of these vessels are covered by other provinces). The purse seine landings per month only include those that target tuna (fishing in the day) and not those taking small pelagics (i.e. night fishing).
- Stakeholder awareness will be a key activity in the future, in particular, cooperation with buyers. The initiative of developing a memorandum of understanding (MOU) with buyers for collecting data in the Binh Dinh province could be used in the other provinces.

5. Review of data collection in the **LONGLINE** fishery

The workshop proceeded to review the progress in data collection in the longline fishery of each Province over the past six months.

5.1 *Longline Data collection in Binh Dinh Province*

Ms Hai Binh provided a presentation on longline data collection in the Binh Dinh Province, with the details translated and provided in Working Paper 3 (see xxx web site). The key points of the presentation are summarized below.

The Defense Department is responsible for the issuance and collection of logsheets through their battery defence stations and this initiative has proven very successful. To facilitate the collection of landings data, site agreements (MOUs) have been established with nine buyers so far. Enumerators go to buyers to complete the recording of the landings and sampling data. The site agreements with the buyers cost a total of 500,000VD/month (which equates to about (\$25/month or \$250/month). A comment was made on whether this was sustainable.

There have been problems with filling of logbooks – the fishers have never done this in the past and are not used to doing this work. However, they have plans to guide the fishermen to fill in the information correctly. Some buyers are reluctant to their catch, hence the need to establish agreements to provide an incentive. There will be a need to provide the buyers with species id guides since they need to distinguish species correctly. One problem to resolve with landings data is that some buyers only deal with fish for export from a vessel and do not record the bycatch, which is bought by other buyers, which also should be considered for a site agreement. Better cooperation with buyers is a fundamental objective in establishing and maintaining port sampling. Port sampling can't be undertaken according to the original guidelines since only tuna can be accessed – the other species that remain on-board cannot be accessed due to religious beliefs preventing the enumerators from measuring the bycatch species.

The sampling for species/size composition data typically takes 1.5-2 hours per vessel. It was reiterated that sampling only needs representative coverage – no need for high coverage, only do what is practically possible. However, landings data coverage should be as high as possible using the information collected by the buyers. Problem in completing the forms as they come from developed countries – difficulty in Vietnam. Not necessarily the case, since they are used elsewhere throughout the under-developed countries in the Pacific.

The resources are currently insufficient to cover the goals of data collection proposed in the first workshop, so review of the coverage of data collection need to be reviewed to ensure it can be practically achieved.

5.2 *Longline Data collection in Phu Yen Province*

Unfortunately, the representative from Phu Yen was unavailable to provide a presentation but the following key points were taken from the information available in Working Paper 4.

- Data collection began in July/August 2010 with advanced funding provided from the project;
- To date, there are three enumerators recruited who have collected 279 landings data and 118 species/size composition samples;
- There have been similar problems in Phu Yen as experienced in other provinces, for example, some buyers are not providing data, some captains do not want fish measured and the provision of completed logbooks is very low;
- Logbooks have been distributed and awareness-raising workshops have been conducted with some success

5.3 *Longline Data collection in Khanh Hoa Province*

Mr. En provided a presentation on the longline data collection in the Khanh Hoa province. The key points of the presentation follow:

- Prior to starting data collection, initial contact was made with the vessel owners and buyers to explain the objectives of the project.
- There are currently 97 fishing vessels that facilitate the activities of the enumerators
- They plan to organize a stakeholders meeting in Ho Ro to get feedback on the implementation of data collection.
- They plan to contract managing board of fishing port to collect the data and also communicate with buyers to ensure they record the weight of tuna according to the project's objectives.
- There are two ports designated for sampling activities (Hon Ro and Da Bac/Canh Ranh) but current only three enumerators only.
- There have been problems in recording the logbook but they have established a team to provide guidance in completing logbooks at three stations which has been very effective.
- The main difficulty with the implementation of port sampling is that it is perceived to be related to 'taboos' – fishers consider that if the fish are measured and they don't catch fish the next time, then the sampling may be the reason.
- They also have problems with species identification of BET and YFT tuna.
- They are not yet in high season (begins in December) so most of the points above are recommendations only at this stage and need to be evaluated after several months of full activity.

5.4 *Summary of information collected in tuna longline fishery*

Mr. Viet Anh provided a presentation summarizing the information collected to date in the Vietnamese tuna fisheries. The ensuing discussion noted the points already raised in the presentations for each province, and the following key points of Mr Viet Anh's presentation:

- Data collection was acknowledged to be a long-term commitment.
- The provision of logsheets forms from vessels so far has been low but it was the low season. The logsheets forms had been delivered to vessels but they are still out to, sea so expect to get further submissions when these vessels come in to land.
- Species identification (BET and YFT) for small and large requires more work, but this work should also extend to billfish species as well. Species identification of shark was also an important commitment in the future.
- Compliance issues with buyers/processing companies sometimes not permitting sampling to proceed.
- Difficulties with the availability of some enumerators since they also need to cover other tasks at Sub-DECAFIREP offices (human resources issue).
- Incorrect measuring equipment have been used (i.e. calipers are not being used and thus it can cause errors in measurement)
- It has been difficult to collect all species landed since different parts of the catch are landed and sold at different landing sites.
- The data already collected from the longline fishery in Binh Dinh were provided for review, and in general, the data quality, completeness and the attention to protocol look very good.

5.5 *Plan for continuation of data collection in LONGLINE fishery*

The meeting then considered the problems in longline data collection to date with a view to coming up with a revised plan for ongoing data collection in the longline fisheries. The output from this discussion, with

relevant decisions, has been incorporated into the recommendations from this workshop (Appendix 4) and the plan for data collection coverage (see Appendix 5).

The key points raised in the discussion have been organised into the following sections.

5.5.1 Cooperation with Buyers

In Binh Dinh, one major problem was how to get cooperation with the to provide the necessary information. The best way to do this was considered to be raising awareness of the buyer – if they do not cooperate then they do not give you the correct information. Also the use of legal framework was suggested, the buyer needs to comply otherwise a fine could be considered. Another suggestion which was implemented was to continue paying the allowance to the buyers for the compilation and provision of data. The legal requirement would put more responsibility on the buyers, thereby removing the pressure on the enumerators. Perhaps a national legal framework should be considered.

In Tam Quan, the buyers are generally cooperative, but they have a different motivation for recording catch – they are only interested in total catch and not catch by species, and since enumerators can't collect all detailed landings, this presents a problem when trying to achieve the objectives of the project.

In Phu Yen, they have been able to collect 100% landings data in low season but perceive this to be a problem in the high season.

A general discussion of the coverage of landings data ensued and given the problems with resources to collect data at this stage of the project, the workshop agreed on a revised coverage rate of 50% for landings data. At least one province suggested they will attempt to continue for 100% coverage with the help of buyers, but noted that this will be possible for tuna but bycatch recording will be more difficult to achieve.

5.5.2 Dealing with By-catch

It was noted that the long-term goal in the data collection was to ensure the entire landings by species is recorded. The workshop acknowledged the difficulties in obtaining the landed catch of bycatch species, but noted that the enumerator should be recording bycatch landed from the vessel they sample which can be raised using the landings data to get an estimate for each bycatch species. The presence of striped marlin in the catch landed from gillnet vessels was a good example of the need for the enumerator to carefully monitor bycatch in the sampling process.

5.5.4 Port Sampling data

The problems in measuring fish were highlighted. Some captains do not allow length measurements and access to undersized tuna, as well as bycatch, was difficult. It was therefore recommended that all efforts should be made to measure undersize tunas, but where not possible, then the numbers of small-sized tuna should be taken. The use of tape measures was strongly discouraged and the construction of calipers as soon as possible was recommended.

5.5.5 Longline data collection protocols

Several proposals for setting the coverage of landings and sampling data collection were discussed and the workshop agreed on coverage and protocol which is described in the recommendations (Appendix 4).

5.5.6 Logbooks

There have been some positive signs with the logbook implementation despite the low coverage of submissions at this stage. Several minor problems with the logbooks were discussed. The form is too small and DECAFIREP will look into improving the format in general. There was some confusion on the need to report the days in transit. The recording of the days in transit is not a strict WCPFC requirement but was requested by member countries for compliance purposes. If Vietnam does not see any use for collecting this information then this requirement can be omitted. Another problem to overcome was the use of local names which might cover more than one species. However, the use of the scientific name, without species guides might be equally confusing.

5.5.7 Resources

The past months conducting data collection has provided Sub-DECAFIREP offices with a better understanding of the resources required, and they were now in a better position to match resources to work required. Their conclusion was that there were probably not enough funds available to cover the required coverage suggested in the last workshop (e.g. 100% landings coverage using buyer information).

In Binh Dinh, they were currently in the low season, so 100% coverage of landings with 50 vessels sampled for size/species composition was possible. In determining coverage of sampling vessels for size data, the decision to target a number of fish is better and will enable a better calculation of human resources. If there is a limitation on funds, then there was a suggestion to possibly reduce the target for the number of fish to measure. It was noted that monitoring the longline fisheries was perceived to be easier than the gillnet and purse-seine fisheries and it was not clear how resources could be used with the limited funding in project for data collection, especially since there was a need to share the money with the buyers for their work, for example. It was suggested there was a need to possibly review the distribution of funds to improve the conditions of enumerators.

6. Review of data collection in the GILLNET and PURSE-SEINE fisheries

6.1 Base information available from GILLNET and PURSE-SEINE fishery

Key information to be used in the discussions, the design and planning of data collection in the gillnet and purse-seine fisheries had been compiled prior to the workshop and included in Working Papers 1 and 2.

Mr Anh provided a presentation on the plan for Tuna Fisheries Management in Vietnam which included base information available from the gillnet and purse seine fisheries; the details of his presentation are provided in Working Paper 5 (see xxx web site).

The key points of his presentation were:

- In the past, RIMF assessments focused on determining biomass and maximum sustainable yield, which has included skipjack and yellowfin/bigeye tuna.
- Existing management measures in Vietnam cover the minimum catch size for *Auxis thazard* and *Euthynnus affinis*, regulations of minimum mesh size in the gillnet and purse seine fisheries and prohibiting the catch of species according to CITES, e.g. dolphin/whale.
- In regards to the structure of tuna fisheries management, there are no clear rules at this stage (“open access”). An objective was needed for management - since tuna are a highly migratory species, Vietnam has an obligation to be involved/cooperate with Tuna RFMO and therefore, the WCPFC will be assisting Vietnam develop a tuna management plan as an important activity in the WPEA project. It was noted that the development of a management plan will need to take into account both economic

development and social needs/issues. The plan will need to take into account environmental/ecological issues, a sound monitoring (data collection) system, potential IUU issues and how to implement output controls (e.g. quotas), since input controls would not be considered in tuna management in Vietnam.

Suggestions were made to compile a compendium of regulations (national, provision and community level) when developing the tuna management plan, or simply for reference for processes such as this workshop. A breakdown of vessel numbers by gear from other provinces was also needed when considering this activity.

In regards to monitoring the gillnet and purse seine fisheries, it was noted that available resources could not cover the estimated 20,000 gillnet and 4,000 purse seine vessels. However, only a small proportion of the these vessels target the oceanic tuna species (e.g. skipjack tuna), for example, certain purse seine vessels target tuna during the day while others target small pelagic at night.

A long discussion ensued on the description and potential use of the FAO method to collect data and estimate catches from the Vietnam tuna fisheries. The FAO method had been adopted and used widely in Vietnam, but had yet to produce reliable estimates of the oceanic tuna species by gear. While the FAO method is clearly appropriate for some fisheries in Vietnam, the requirements for tuna stock assessments demand higher resolution in the data and data collection systems that are consistent across the region and the FAO method, using existing resources, would not provide the precision in the data required for tuna stock assessments and accurate estimates of species catch by gear.

6.2 *Plan for establishing data collection in the GILLNET and PURSE SEINE fisheries*

Draft guidelines/protocols for data collection in the Gillnet fishery were developed and presented (see Working Paper 6). The meeting considered the suggested protocols in the short time that was available and the output from this discussion, with relevant decisions, was incorporated into the recommendations (Appendix 4), the plan for data collection coverage (Appendix 5), and the revision to the draft guidelines/protocols for data collection in the Gillnet fishery (Working Paper 6). There was no time to develop guidelines for the purse seine fishery, but there was an understanding that the protocol would be similar to the gillnet fishery and any differences would be captured in the recommendations at this stage. The next workshop would endeavour to develop separate guidelines/protocols for the purse seine fishery data collection.

The workshop acknowledged that data collection in the gillnet and purse seine fisheries was to be conducted under a trial basis over the coming months and that the next workshop would review any problems and modifications that may have been required to the guidelines/protocols.

7. Progress with plan for observer data collection

Mr. Minh from RIMF provided a presentation of the progress with the plan for observer data collection. At this stage, the plan is to cover the longline fishery only. In the past observer trips have mainly been carried out together with national projects and there is no national observer programme as yet. There is no legal framework and therefore it is hard to convince vessels to take observers. To date, observer data have been only used for independent and separate assessments.

The 2010 WPEA work plan required 6 observer trips to obtain data for cross checking with other data sources but this was not possible. The observer data already collected and now held by RIMF would be useful for the WPEA project. It was noted that the RIMF observer data collected forms do not cover all of the fields in the WCFCPC Regional Observer Programme (ROP) minimum standards but that there were no obligations to

collect all of the WCPFC fields since the trips conducted by Vietnamese vessels do not appear to be defined as ROP trips. There is not enough funds available in the WPEA Annual Work Plan budget for 2011 to do six observer trips, so the workshop agreed on covering 5 observer trips in 2011.

8. Provincial profiles

In regards to the Vietnam tuna fisheries profiles, Mr. Minh from RIMF indicated that the money from WWF to undertake this work was not yet forthcoming. However, the WCPFC has provided funds for to specifically produce the profiles which can now proceed without the WWF funding (which was for stakeholder meetings only). It was hoped that this important activity can be accomplished before the next workshop. RIMF has already completed the basis of the work required, and what remains should merely be an extension of what was done previously, using the template recommended by the first workshop.

9. Other data collection and management issues

9.1 Tuna Tag recoveries

There has been good progress reported on tag recovery publicity and meetings but no tags have been provided as yet. There were reports of tag recoveries during the last workshop (i.e. recoveries in Phu Yen) but none of these tags have since been forthcoming. The stakeholders (fishers and buyers) appear to be well aware of the need to report tag recoveries and the reward system. It was noted that the effort in recent months was much appreciate effort made but perhaps has now come too late as most recoveries were more likely last year and early this year. However, the awareness raising was an invaluable exercise that will no doubt pay dividends in future tagging in the vicinity of the South China Sea. There may still be skipjack recoveries, but far less than would have been the case last year. The recoveries of yellowfin and bigeye tuna will be ongoing. It was noted that there have already been several tag recoveries in the SCS by Philippine vessels, so expect that tag recoveries would be coming in with Vietnamese vessels. There will be some tagging in 2011, but this will occur in PNG waters and so Vietnamese fisheries recoveries from these releases are not expected. At this stage the Pacific Tuna Tagging project has account for more than 260,000 releases with 41,000 recoveries.

9.2 Data Management

The management of the data was briefly discussed and it was agreed that the DECAFIREP office would be responsible for entering data into the database system in the short-medium term. WCPFC/SPC will provide assistance in supplying the database system and training (scheduled visit planned for 1st Quarter 2011). Since the data collection system to be implemented in Vietnam is closely aligned to systems used in other Pacific-Island members of the WCPFC, the database system developed for the SPC member countries can be used in Vietnam with minimal modification.

9.3 Annual catch estimates

Dr Lewis presented provisional annual catch estimates determined from information gathered on previous visits, augmented with information obtained during the field trip immediately prior to this workshop (see Appendix 6). While these estimates are probably the most reliable estimates available by gear and species, it was noted that a significant task will be to review all available data and information to ensure estimates are provided to the WCPFC by April 30th 2011, as highlighted in Recommendation 1 (see Appendix 4). At this stage, the total tuna catch for the three main provinces is estimated to be around 35,000 t. and close to 50,000 t for all of Vietnam.

10. Recommendations from the workshop

Based on discussions during the workshop, twelve (12) recommendations were developed and agreed by participants to guide the work required in the coming year (see APPENDIX 4). In drafting the recommendations for WPEA OFM data collection activities, the workshop recognized that the project needs to take steps during the course of the project to ensure its sustainability, to build capacity at all levels of planned activity, to disseminate information and outcomes from the project and maximize collaboration and cooperation with all relevant Government and industry agencies

11. CLOSE

The next review workshop has been tentatively set for June 2011, which will correspond to the peak fishing season. The next workshop will be held in one of the three central provinces.

Dr Lewis thanked the organizers of the workshop, in particular Mr Phan Viet Anh and staff of DECAFIREP and Ms Hai Binh and the staff of the Binh Dinh SUB-DECAFIREP office for hosting the workshop. He also thanked the directors and staff of the three SUB-DECAFIREP provincial offices (Khaoh Hoa, Phu Yen, Binh Dinh) who hosted the field visits to ports of unloading during the previous week. Appreciation was extended to the WCPFC and the funding agency for the WPEA OFM project – GEF, and the other funding agencies involved in Vietnams tuna fisheries in the past (WWF, NOAA and the Netherlands government). The meeting was closed with a round of applause and followed by a very pleasant dinner hosted by the Binh Dinh SUB-DECAFIREP.

APPENDIX 1. VTFDC-2 Agenda



**West Pacific East Asia Oceanic Fisheries
Management
Second Vietnam Tuna Fisheries Data
Collection Workshop (VTFDC-2)**

15 – 16 November , 2010
Binh Dinh Province, Vietnam



AGENDA

TIME	CONTENTS	FACILITATOR / PRESENTER
DAY 1 0800-0830 0830-0900	1. OPENING 1.1. Registration 1.2. Introduction of participants 1.3. Election of Chairman and Rapporteurs 1.4. Adoption of the Agenda 1.5. Opening address and objectives of the workshop	DECAFIREP
DAY 1 0900-1000	2. REVIEW OF PROGRESS WITH RECOMMENDATIONS FROM VTFDC-1 A quick review of progress of recommendations from first workshop, which will mostly identify which agenda item that each recommendation will be addressed in more detail or quickly indicate the progress achieved to date.	Vietnam NTC (Paper to be provided WP1)
DAY 1 1100-1630	3. REVIEW OF DATA COLLECTION IN THE LONGLINE FISHERY 3.1. Port Sampling data collection system 3.2. Landings data collection system 3.3. Logsheets data collection system 3.4. Data Management (Quality Control, provision of data, Database systems, etc.) 3.5. Summary of information collected to date 3.6. Further implementation plan	NTC and provincial reps. (Background Paper to be provided – WP2)
DAY 2 0830-1000	4. PLAN FOR IMPLEMENTATION OF DATA COLLECTION IN THE PURSE SEINE FISHERY 2. 3. 4. 4.1. Review of base information on purse seine fishery 4.2. Proposal for Purse seine data collection system 4.3. Planned implementation of data collection in the Purse-seine fishery 4.4. Data Management Issues	NTDC (background paper - WP2)
DAY 2 1030-1230	5. PLAN FOR IMPLEMENTATION OF DATA COLLECTION IN THE GILLNET FISHERY 1. 2. 3. 4. 5. 5.1. Review of base information on Gillnet fishery 5.2. Proposal for Gillnet data collection system 5.3. Planned implementation of data collection in the Gillnet fishery 5.4. Data Management Issues	NTDC (background paper – WP2)
DAY 2	6. PROGRESS WITH PLAN FOR IMPLEMENTATION OF AN	RIMF

TIME	CONTENTS	FACILITATOR / PRESENTER
1330-1430	OBSERVER PROGRAMME	
DAY 2 1430-1500	7. OTHER MATTERS 7.1. Review of progress with provincial profiles 7.2. Tag recovery issues	Chair
DAY 2 1500-1630	8. RECOMMENDATIONS AND CLOSE OF WORKSHOP	Chair

APPENDIX 2. List of Participants



**West Pacific East Asia
Oceanic Fisheries Management**

**SECOND VIETNAM TUNA FISHERIES
DATA WORKSHOP**

**15 – 16 November, 2010, Quy Nhon,
Vietnam**



LIST OF PARTICIPANTS

No	Title	Fist name	Last name	Position	Oganization	Contact details
1	Mr	Hao	Nguyen Van	Vice Director	Department of Agriculture and Rural Development	
1	Mr	En	Khac Nguyen	Head of Capture Fisheries Management Division	Sub - DECAFIREP Khanh Hoa	Tel:(+ 84) 90 880 3434 Email: vokhacen11963@gmail.com
2	Mr	Ban	Le Tan	Director	Sub - DECAFIREP Khanh Hoa	
3	Mr	An	Pham Van	Enumerator	Sub - DECAFIREP Phu Yen	
4	Mr	Hao	Pham Huu	Vice Director	DARD in Binh Dinh	
5	Ms	Thi	Mai Kim	Director	Sub- DECAFIREP Binh Dinh	
6	Ms	Binh	Nguyen Hai	Head of Resources Management Division (local supervisor)	Sub- DECAFIREP Binh Dinh	Email: nguyen.haibinh63@gmail.com
7	Mr	Lam	Nguyen Duy	Head of Capture Fisheries Management Division	Sub- DECAFIREP Binh Dinh	
8	Mr	Hung	Le Van	Staff	Sub- DECAFIREP Binh Dinh	
9	Mr	An	Nguyen Ly	Staff - Enumerator	Sub- DECAFIREP Binh Dinh	
10	Mr	Hai	Nguyen Thanh	Staff - Enumerator	Sub- DECAFIREP Binh Dinh	
11	Mr	Tien	Nguyen Van	Staff	Sub- DECAFIREP Binh Dinh	
12	Mr	Bich	Le Van	Staff	Sub- DECAFIREP Binh Dinh	
13	Mr	Duong	Tran Kim	Staff	Sub- DECAFIREP Binh Dinh	
14	Mr	Thu	Nguyen Thi Thanh	Staff	Sub- DECAFIREP Binh Dinh	
15	Mr	Minh	Nguyen Van	Staff	Research of Institute Marine Fisheries	
16	Mr	Anh	Nguyen Quoc	Deputy Director of Capture fisheries Division	DECAFIREP	
17	Mr	Anh	Pham Viet	Staff	DECAFIREP	
18	Mr	Hung	Pham	Staff	DECAFIREP	10, Nguyen Cong Hoan, Ba Dinh, Ha Noi. Tel: + 84 983 804 039, Email: hungfam83@yahoo.com
19	Ms	Anh	Nguyet Dang	Staff	DECAFIREP	
20	Prof.	Paul	Van Zwieten		Wageningen University	
21	Mr	Peter	Williams		WCPFC/SPC	
22	Dr	Antony	Lewis		WCPFC	
23	Dr	Ziro	Suzuki		WCPFC	
24	Mr	Michel	Trudelle		Helveta	

APPENDIX 3. List of VTFDC-2 Working papers

WP 1	Progress with recommendations from VTFDC-1	
WP 2	Background information on tuna fishery landings in Vietnamese ports	
WP 3	Summary of tuna data collection for longline fishery in Binh Dinh	
WP 4	Summary of tuna data collection for longline fishery in Phu Yen	
WP 5	Tuna Fisheries Management in Vietnam	
WP 6	Protocol for data collection in the Gillnet fishery (draft)	

APPENDIX 4. Recommendations from VTFDC-2

SECOND VIETNAM TUNA FISHERY DATA COLLECTION WORKSHOP (VTFDC-2)

Quy Nhon, Vietnam
15–16 November 2010

RECOMMENDATIONS

In drafting the following recommendations for WPEA OFM data collection activities, the workshop recognized that the project needs to take steps during the course of the project to ensure its sustainability, to build capacity at all levels of planned activity, to disseminate information and outcomes from the project and maximize collaboration and cooperation with all relevant Government and industry agencies.

Responsibility for undertaking the work involved in each recommendation has been highlighted (bold/underlined).

1. **Provisional annual tuna catch estimates**

The provision of annual catch estimates is a fundamental reporting obligation for members, cooperating non-members and participating countries and territories (CCMs) of the WCPFC. The workshop identified information that might be used to compile annual tuna catch estimates in Viet Nam. The workshop recommended that provisional historical annual oceanic tuna¹ catch estimates for the Vietnam longline, purse seine and gillnet fisheries be determined by **DECAFIREP** and submitted by the WPEA Project National Tuna Coordinator (NTC) to the WCPFC Secretariat prior to April 30 2011.

2. **Estimation of coverage rate and annual catch**

The Workshop acknowledged the information made available on annual catch estimates and coverage rates and recommended that **DECAFIREP** continue to provide updates of the following information on an **annual basis**:

- (i) A register of active vessels targeting oceanic tuna (longline, large-mesh purse-seine and gillnet vessels²) for each of the three central Provinces.
- (ii) Summary of the extent and patterns of activity (number of trips) of multi-gear vessels, and investigation of the extent of reliance on carrier vessels by gear, and
- (iii) Tabulation of the monthly frequency of landings by port and gear (for the longline, large-mesh purse-seine and large-mesh gillnet vessels only).

3. **Provincial profiles**

The Workshop noted that the oceanic tuna fishery profiles for each of the three Central provinces (Khanh Hoa, Phu Yen and Binh Dinh) have yet to be provided, but are expected to be completed by **RIMF** according to the agreed template by **January 2011**. Subject to additional funding, stakeholder workshops will be conducted at all three provinces to verify, complete and share the information compiled in the profiles.

¹ Skipjack, yellowfin and bigeye tuna

² Distinction should be made to only those vessels catching oceanic tuna (skipjack, yellowfin and bigeye tuna) as target catch

4. Data inventory

The workshop noted the progress in developing the Data Inventory, coordinated by **DECAFIREP**. The completed inventory should be provided to the WCPFC Secretariat by the WPEA Project NTC prior to **June 2011** for consideration at the WPEA Project Steering Committee during the 7th Scientific Committee. The key elements of the inventory will be (i) source of data, (ii) type of data, (iii) temporal and spatial resolution, (iv) time periods covered, (v) availability and (vi) media (e.g. electronic, hard-copy). This work would eventually consider available oceanic tuna fishery data from all coastal provinces taking oceanic tunas, but initially from the three central provinces and building from the provincial profiles.

5. LONGLINE Landings Data Collection

The workshop noted the good progress made in implementing data collection in the longline fishery, but acknowledged the need for further improvements. The workshop noted that data collection systems continually evolve, requiring review and subsequent modification due to changing circumstances in the fishery and the available resources to collect data.

In regards to the protocols for longline landings data collection, the following specific issues were identified for further work in the coming year:

- Due to limited resources, the workshop agreed to modify the protocols for longline landings data collection, to be implemented by **DECAFIREP** and **SUB-DECAFIREP** offices:
 - Total number of landings per month (100%)
 - Total landings data collection form (**150 landings/month**)
 - Enumerators size/species composition sampling (**30 landings/month**)
 - All tuna to be measured, including small-sized tuna where possible
 - Other species may also be measured, if this is possible and resources and access permit
 - The modification in the protocols acknowledges the current resources are lacking and that the coverage would normally be increased if more resources became available.
- Refer to APPENDIX 5 in the workshop report which provides more information on the breakdown of target coverage by Province and landing site.
- **DECAFIREP**, with assistance from **WCPFC/SPC**, will make the necessary changes to the manuals for data collection forms, protocols, implementation strategies resulting from the decisions of the workshop and distribute to workshop participants prior to **January 31st 2011**.
- **DECAFIREP** will arrange any supplementary training of enumerators, enumerator supervisors and stakeholder awareness that may be necessary as a result of changes in the protocol.
- **DECAFIREP** to make available calipers (and measuring boards, where applicable) to all enumerators.

6. GILLNET and PURSE-SEINE Data Collection

The workshop noted the information provided for on-board storage and the unloading procedures from gillnet and purse seine vessels which was used to prepare a draft protocol for sampling these gear types. The draft protocols would be implemented in the coming year, noting that they would evolve after continual review as a result of changing circumstances in the fishery and the available resources to collect data.

In regards to the protocols for purse seine and gillnet landings data collection, the following specific issues were identified for further work in the coming year:

- Due to limited resources, the workshop agreed to modify the protocols for purse-seine and gillnet landings data collection, to be implemented by **DECAFIREP** and **SUB-DECAFIREP** offices:
 - Total number of landings per month (**100%**)
 - Total landings data collection form (**150 PS and GN landings/month**)
 - Enumerators size/species composition sampling (**30 landings/month**)
 - GN : a target of at least 100 SKJ per landing, and any YFT and BET
 - PS : a target of at least 100 tuna [SKJ, YFT, BET]
 - 2 enumerators per province responsible for covering PS and GN landings in that province.
 - The modification in the protocols acknowledges the current resources are lacking and that the coverage would normally be increased if more resources became available.
- Refer to APPENDIX 5 in the workshop report which provides more information on the breakdown of target coverage by Province and landing site.
- **DECAFIREP**, with assistance from **WCPFC/SPC**, will make the necessary changes to the manuals for data collection forms, protocols, implementation strategies resulting from the decisions of the workshop and distribute to workshop participants prior to **January 31st 2011**.
- **DECAFIREP** will arrange a workshop to train enumerators, enumerator supervisors and stakeholder awareness that may be necessary as a result of changes in the protocol. **WCPFC** will identify and provide the funding required to conduct this workshop which is planned for early 2011. It was noted that total landings data collection from the buyers can commence as soon as the data collection forms have been reviewed and made available, but sampling will not be able to start until the training workshop was undertaken.
- **DECAFIREP** to make available calipers and measuring boards to all enumerators.

7. **Information available from BUYERS**

The Workshop acknowledged the important information collected by BUYERS at the point of landing the catch.

- (i) The cooperation of the buyers in providing species catch data for the Total landings form is critical. **SUB-DECAFIREP** should continue to request that **BUYERS** provide complete information, and provide a better breakdown of catch by species.
- (ii) **DECAFIREP and SUB-DECAFIREP** should investigate the current legal framework (that requires buyers to cooperate) to determine how to better enforce the collection of information from buyers.
- (iii) In the longer term, **DECAFIREP and SUB-DECAFIREP** should work towards obtaining data through buyers using MOUs, incentives, and the legal framework, with an ideal target of 100% coverage.
- (iv) **SUB-DECAFIREP Enumerators** will liaise with **CAPTAINS** and **BUYERS** to have access to measure the undersize tunas from the longline landings only, but where this is not possible then the numbers of small-sized tuna by species should be taken.
- (v) **DECAFIREP and Sub-DECAFIREP** will continue to investigate potential sources of information collected by port authorities, buyers, processors and other stakeholders involved in the unloading process in order to enhance the total landings data collection.

8. SPECIES IDENTIFICATION

The workshop noted that some improvements in species identification may be necessary. **WCPFC/SPC** will provide enumerators with more information that will allow easier distinction of yellowfin and bigeye tuna, billfish, shark and other species in the LONGLINE, PURSE-SEINE and GILLNET fisheries. **SUB-DECAFIREP Enumerators** will use all means available to them for identifying the longline tuna catch (e.g. notch in caudal fork, general body shape, black lines on finlets, relative size of eye, appearance of liver, etc.).

9. Logbook data collection system

The workshop noted the importance of recent initiatives in establishing a logbook data collection system in Vietnam, in particular the increased incentives for logbook reporting in response to measures introduced by EU to address IUU fishing.

The workshop noted the problems in implementing the tuna fishery logbooks during 2010. Logbooks had been distributed to vessels, but only a few logsheets had been submitted to the SUB-DECAFIREP offices to date. It was noted that logbook implementation is a long-term process and that gradual improvement in the provision of logsheets should be expected. The workshop recommended that **DECAFIREP and SUB-DECAFIREP** offices continue their efforts to implement logsheets, which in the short term should concentrate on,

- (i) Priority implementation of logsheets for vessels more than 90 HP/CV;
- (ii) Raising awareness with stakeholders through dedicated meetings/training sessions and provision of guides/instructions describing how to complete the logbook.

10. Vietnam tuna fisheries Observer Programme

The workshop acknowledged the difficulties in conducting any observer activity during 2010 due to the late provision of GEF WPEA funds. The Workshop recommended that **DECAFIREP** conduct the six observer trips, originally planned for 2010, during 2011 (i.e. carry over these trips to 2011). However, it was noted that the available funds will only cover 5 observer trips for 2011.

11. Tuna tagging

The Workshop acknowledged the work DECAFIREP and Sub-DECAFIREP had done in awareness-raising and publicity on Pacific Tuna Tagging Project (PTTP) over the past six months. The workshop noted the need for **DECAFIREP and Sub-DECAFIREP** offices to continue the process of raising awareness of the PTTP in Vietnam and encouraged the return of tags at the Provincial level.

12. Project Information dissemination

The workshop noted the progress made to date and encouraged **DECAFIREP and Sub-DECAFIREP** offices to continue dissemination of information from the project to the general public (particularly at the provincial level) using various media, dedicated web pages and through community-based communication, and make available all information in Vietnamese.

APPENDIX 5. Proposed coverage of data collection, by Province and gear

	LANDINGS (HIGH SEASON)			TOTAL LANDINGS DATA			SIZE/SPECIES SAMPLING			Sampling Resources to be allocated
	LL	PS	GN	LL	PS	GN	LL	PS	GN	
BINH DINH										
QUY NOHN	0	300	50							2 enumerators
DE GI	0	100	100							
TAM QUAN BAC	300	50	40							2 enumerators
BINH DINH	300	450	190	150	105	45	30	21	9	
KHANH HOA										
HON RO	20	7	160							2 x 2 enumerators
DA BAC C. RANH	15	15	15							
KHANH HOA	35	22	175	35	17	133	30	3	27	
PHU YEN										
PHURONG 6	182	0	0							2 enumerators
PHURONG PHU DONG	198	1	11							
TIEN CHAU	77	0	0							2 enumerators
THON PHU LURONG	0	25	0							
THON PHU THO 3	0	89	0							
THON PHU THO 2	0	0	115							
THON 5, XA AN NINH DONG	0	0	10							
PHU YEN	457	115	136	150	69	81	30	14	16	
All provinces	792	587	501	335	191	259	90	38	52	

Notes

1. Two teams of 2 enumerators have been allocated to sampling in each province. One team is responsible for Longline landings and the other team is responsible for PS and GN landings.
2. Based on data collection to date, one team of (two) enumerators can collect data from buyers on total landings (i.e. Catch by species landed) from about 150 vessel landings in one month (this equates to about 50% coverage in Tam Quan high season). Therefore obtaining information on total landings from the buyers has been set a target of 150 landings as a maximum value. At sites where landings are not high, every effort will be made to get as many landings/buyers data as possible up to
3. One team of enumerators will cover the collection of buyers data from up to a maximum combined 150 PS and GN landings. The estimated proportion of PS and GN landings for buyers total landings data in each province has been included in the Table above and has been determined from the relative frequency of landings per
4. The target number of LL and PS+GN landings that are to be sampled from species/size composition is 30 / month, according to enumerator activities to date.
5. Suggestions for how the enumerator teams should be allocated landing sites has been included in Table above, but it is left up to each sub-DECAFIREP office to decide how resources are to be allocated to best cover the work required.
6. If more funding/resources become available, then these levels or target coverage will be revised.

APPENDIX 6. Provisional annual catch estimates for the Central Provinces

PROVISIONAL ANNUAL CATCH ESTIMATE FOR CENTRAL PROVINCES, BASED ON VESSEL NUMBERS AND PRODUCTION DATA

Province	Longline	Purse seine	Gillnet	TOTAL
Phu Yen	4,500 (519 vessels)	5,000 ² (220)	6,000 ⁵ (200)	15,500
Binh Dinh	3,430 (704)	7,500 ³ (40-60)	1,200 ⁶ (60)	12,130
Khan Hoa	2,000 ¹ (105)	600 ⁴ (20)	5,000 ⁷ (828)	7,600
	9,930 (1327)	13,100 (300)	12,200 (1088)	35,230

- 1 Assume 6t per year, based on per-vessel catch in other provinces (6 trips X 1 tonne/trip)
670 vessels in Tuan study include inshore vessels < 20hp; catch estimate from En
- 2 Assume 40t per year average oceanic tunas, with only half of vessels fishing for tuna
- 3 Assume 30t per year average oceanic tunas; est. of 10,000t small tunas per year (p/s and gillnet)
with 60% SJ
- 4 Assume 30t per year average oceanic tunas
- 5 Assume 200 oceanic vessels fishing for oceanic tuna with est catch 6000t
- 6 Assume 20 t oceanic tunas /yr, with most vessels fishing for tuna
- 7 Assume 25t/yr with 25% of vessels fishing for tuna

Province	Longline	Purse seine	Gillnet	TOTAL
Ba Ria Vung Tau	2,000 (large vessels)	3,000 (skipjack)		5,000
North Central (Da Nang, Quang Nam, Quang Ngai)	All gears (longline, p/seine, gillnet)			6,000
South Central (Ninh Thuan, Binh Thuan)	All gears (longline, p/seine, gillnet)			3,000
				14,000
TOTAL VIETNAM				49,230