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**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

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VIET NAM

ANNUAL REPORT TO THE WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION (WCPFC)

POHNPEI, FEDERATED STATES OF MICRONESIA
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PART1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

VIETNAMESE ANNUAL FISHERY REPORT DEPARTMENT OF CAPTURE FISHERIES AND RESOURCES PROTECTION DIRECTORATE OF FISHERIES MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT



Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April, 2009	No
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INTRODUCTION

Due to its long coastline, the sea is playing an important role in the lives of many Vietnamese, in terms of food security, job creation, income generation, poverty elimination and national economic growth. In the overall development of the country, the fisheries sector has thus become an important industry. The Exclusive Economic Zone (EEZ) is around one million km² in extent, of which approximately two thirds (around 700,000 km²) is continental shelf, including numerous islands and reefs.

The potential of the offshore fishery for tuna has long been recognized in the general development trend of fisheries sector as noted in the previous section. Interest in realizing this potential was initially generated by a resource survey utilizing longlines and gillnets in the early 1990s. The Government of Vietnam response to the previously slow growth in the offshore fishery was the development of a new modernization drive in 1997, the National Target Program on Offshore Fishing Development. It was designed to provide preferential loans for fishermen to upgrade their fleets, with the goal of creating a fleet of around 800 deep-sea fishing vessels which would exploit in the Vietnam's EEZ. This was also intended to relieve pressure on over-exploited inshore areas.

Tuna fisheries are one of the main intentions in this program due to huge values that these fisheries created in term of economic and livelihood values. There are three fisheries targeting tuna species which are being managed by WCPFC. These are longline, purse seine and gillnet fishery catching mainly bigeye, yellowfin and skipjack tuna. The longline fishery appears only in the three central provinces of Vietnam. In contrast, the gillnet and purse seine fisheries present in almost all coastal provinces and their catches are mainly skipjack tuna and by catch species such as shark, rays, mackerel, etc. Until now, tuna fisheries is still supposed the most significant fishery in Vietnam and according to national statistical data, annual total catch roundly estimated was 30-40 thousand tons (only for skipjack, bigeye and yellowfin tuna). However, the national catch statistical system is unreliable and thus from 2010 under the framework of West Pacific East Asia Oceanic Fisheries Management granted by GEF throughout WCPFC, Vietnam has been gradually improving its tuna fisheries data collection system for standard with WCPFC's requirements.

ANNUAL FISHERIES INFORMATION

A. FLEET STRUCTURE

Since the 1990s with development innovation of offshore fisheries by Vietnamese Government, total number of offshore fishing fleets has been increasing. However, these increases are stable after the 2000s because of fishing capacity management measures. For instance, the longline fishery rapidly developed in the 1990s but was stable with approximately 1000 units from 2007 to 2010. Similarly, numbers of vessels of gillnet and purse seine fisheries have not varied much during this period. On the other hand, it was noted that gillnet and

purse seine fisheries which are mentioned in this report are not only targeting tuna species but also catching other small pelagic species. Vietnam's vessel statistical system does not yet consider the separation of gear by target species (tuna or small pelagic). There was also a mixed category between normal gillnet catching small pelagic species and tuna gillnet catching skipjack tuna. The figures in Table 1 are an effort to split tuna gillnet and normal gillnet. Total vessels in the gillnet fishery estimated was 5,555 units and distributed in different capacity categories. However, there is a note that the small capacity boats (less than 50 HP), are not targeting tuna species; they are rarely catching tuna species.

Table 1. Number of Tuna Fishing Vessels in Vietnam by Fisheries and Capacity

Fisheries	Capacity (HP)	Year			
		2007	2008	2009	2010
Tuna longline	20<	0	145	2	N/A
	20 - < 50	104	41	36	54
	50- < 90	581	609	271	280
	90 - < 150	239	325	214	99
	150 - < 250	106	317	326	382
	250 - < 400	40	81	22	209
	> = 4000	27	31	31	7
Total		1097	1549	902	1031
Gillnet	20<	2026	4561	4573	2544
	20 - < 50	984	2066	1913	1642
	50- < 90	331	693	819	709
	90 - < 150	43	145	210	245
	150 - < 250	46	77	152	160
	250 - < 400	28	255	249	222
	> = 4000	1	14	23	33
Total		3459	7811	7939	5555
Purse seine	20<	0	22	32	48
	20 - < 50	104	155	84	110
	50- < 90	581	205	80	139
	90 - < 150	239	199	106	115
	150 - < 250	106	79	130	117
	250 - < 400	40	101	108	131
	> = 4000	27	3	0	5
Total		1097	764	540	665

B. ANNUAL TUNA CATCHES IN THE VIETNAM'S EEZ

Over the past some years, data collection system for Vietnamese tuna fisheries was insufficient and thus total catches of tuna and other related species were not available. Understanding of data gaps in tuna fisheries in Vietnam, WCPFC has provided an activity to recover missing catch data for tuna species over the past some years. Unfortunately, this activity has not been finished and thus there is no historical total catch data to be presented in this report. There is only information of the total catch in 2010 is available as indicated in the (Table 2). Moreover, total catch was also cross-checked from imported and exported tuna catches to raise the best estimates (see later section). Total catch of tuna species and tuna-like species in 2010 for the longline fishery was approximately 12,000 tons in Vietnam's EEZ (Table 2). A very high catch of Black marline can be unrealistic estimation. Catches of Black marline and Blue Marline species expected are the same in some regions of WCPFC convention area (Williams, SPC's expert, pers. communication). Therefore, there is a need to check if species identification skills of local enumerators are good enough for data collection in the future.

Table 2. Annual catch (mt) in the Vietnam's EEZ by species for the **LONGLINE fishery.**

Species	2006	2007	2008	2009	2010
YELLOWFIN	N/A	N/A	N/A	N/A	9,513
BIGEYE	N/A	N/A	N/A	N/A	2,441
BLUE MARLIN	N/A	N/A	N/A	N/A	230
BLACK MARLIN	N/A	N/A	N/A	N/A	1,793
ALBACORE	N/A	N/A	N/A	N/A	4
SWORDFISH	N/A	N/A	N/A	N/A	820

Since there is no Vietnam's vessels fishing in the convention areas and therefore there is no data to report.

There is also an intention of data collection implementation for gillnet and purse seine. A training workshop has been hold to review tuna longline fishery data collection in November 2010. During the training, protocols for purse seine and gillnet fisheries data collection were also introduced. However, due to nature of multi-species and multi-gear of the tuna purse seine and gillnet fisheries in Vietnam and thus there is a need to convene another training workshop for local enumerators and supervisors. Throughout this training, all protocols, data collection forms have been reviewed and reformed in order to suit with the purse seine and gillnet fisheries in Vietnam.

C. OTHER INFORMATION

1. West Pacific East Asian Oceanic Fisheries Management project (WPEA)

The activities to be carried out under the project will contribute towards objectives 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 project will (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.

During the implementation process in 2010, a series of training workshops for local enumerators and supervisors were convened in order to implement tuna data collection programs for longline fishery (logsheets, port sampling, and observer data). The training courses were carried out by both SPC's experts and local experts. Throughout these trainings, local supervisors and enumerators were gradually familiar with data collection works that was standardized by WCPFC/SPC's data collection manual. After the training courses, data collection activities have been implemented since September 2010 at three central provinces of Vietnam (Binh Dinh, Phu Yen and Khanh Hoa) where tuna longline fishery is the most development. An example of output results of the project is indicated in Figure 4 and Figure 5. However, initially activities of the WPEA OFM project only covered longline fishery data collection. Data types of port sampling, logsheets, unloading and observer have been collected. However, there is an intention to expand data collection for tuna gillnet and purse seine fisheries where tuna catch caught with a relative volume (mostly Skipjack tuna). On the other hand, TUFMAN database also installed and trained for DECAFIREP staffs in order to manage and control collected tuna fisheries data. All data collected from three provinces were already entered into TUFMAN database for further analysis and submission to SPC for regional stock assessments.

2. National research programs

In 2010, there is a considerable positive sign for data collection of tuna fisheries in Vietnam. Ministry of Agriculture and Rural Development (MARD) was allocated a huge project to assess and investigate marine resources in Vietnamese waters with total budget for this program of nearly 10 million USD (a 5 year-project). The main aims of the program are to: (1) assess status of marine resources in Vietnamese waters, (2) provide management advices for fisheries managers and (3) provide scientific information for marine protected areas planning. The project is started from 2011 with high priority of the first year is to assess large pelagic species especially tuna and tuna-like species. Tuna fisheries data and information of will be collected using both fisheries independent and dependent data. Hopefully,

once all activities of the project have been conducted then many valuable outputs can be provided to regional stock assessments.

3. National statistical data collection system

In 2010, MARD has also assigned for Center for Fisheries Statistics and Informatics (under Directorate of Fisheries, MARD) to develop a Tuna Fisheries National Statistical Program. The main aims of the program are to develop a national tuna fisheries data collection system from central to local levels. This program will focus only the tuna fisheries in Vietnam to address big data gaps in current situation on Vietnam's fisheries management. Unfortunately, so far this program has not been implemented because of lack of comprehensive mechanisms among relevant government agencies.

4. WWF and WPEA OFM observer activities

In order to better understand the fishing activities of the tuna longline fishery that are including both target and non-target fish species, DECAFIREP has already called for interest of relevant stakeholders. Especially, WWF-Vietnam has paid a great attention to secure an observer program project that is funded by National Oceanic and Atmospheric Administration (NOAA). The observer program has been carried out since 2008 with total of 36 observer trips comprise of 4 stages:

- Stage 1: from December 2008 to January 2009 with 3 trips on board of Binh Dinh province
- Stage 2: from April 2009 to June 2009 with 10 trips on the fishing vessels of Binh Dinh and Phu Yen provinces.
- Stage 3: from March 2010 to May 2010 (6 trips with circle hook trials in Binh Dinh and Khanh Hoa provinces)
- Stage 4: from November 2010 to July 2011 (17 trips with trials of 50% circle hooks).

The observers were trained to collect fishery data on target species and bycatch species before they were on board. The data recorded include the fishing activities, catch number and weight, species identification, bycatch species and status (e.g. sea turtle, shark, ray...). In addition, percentages of tunas being hooked by circle hooks were recorded in order to estimate proportion of caught fishes with J hook or circle hooks.

On the other hand, also in 2010 under the WPEA OFM project, DECAFIREP together with Research Institute for Marine Fisheries has conducted 6 observer trips for tuna longline fishery. Moreover, under the financial supports of NOAA throughout WWF-Vietnam, WWF-Vietnam also contracted with part-time observers to carry out more another 7 observer trips. All data have already been submitted to SPC for data entry. Hopefully this data can be a good data source for cross-checking with other data collection programs such as logsheet and port sampling program to re-verify the data collection coverage rate in 2010 to estimate

total annual catch more accurately. However, because this is an initiative stage and thus there will be a need to change observer data collection protocols in the future (e.g. observer data collection forms to be similar with WCPFC's regional observer program (ROP).

5. Information on exported tuna statistic of Vietnam

In 2010, the tuna exportation has a year-on-year increase of 48.9 percent in volume and 60 percent in value (Figure 1). Only in 2010, Vietnam exported more than 83 thousand tons of tuna garnering nearly 300 million USD in total more than 90 exported destinations for the tuna products (

Figure 2). American market has been consuming with the highest volume with nearly 35% of total exported volumes and followed by EU markets with more than 21% in total.

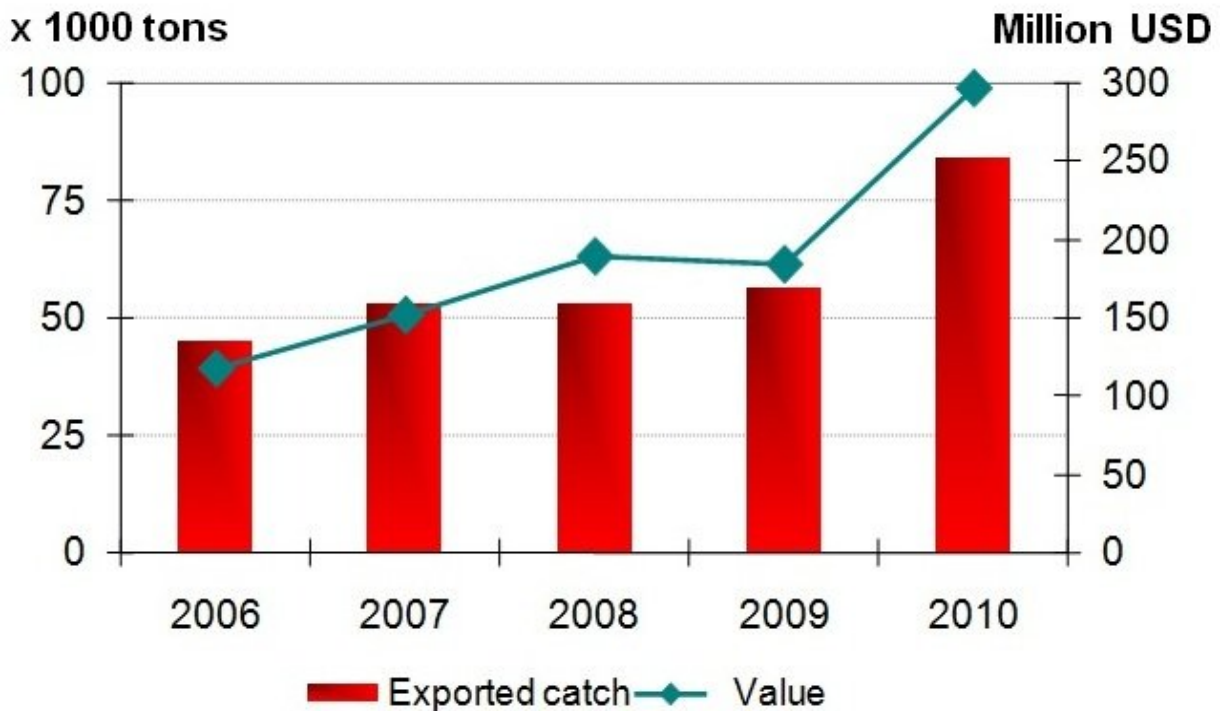


Figure 1. Total exported tuna products of Vietnam from 2006 to 2010 by volume and value (source: Vietnam Association of Seafood Exporters and Producers (VASEP), 2011).

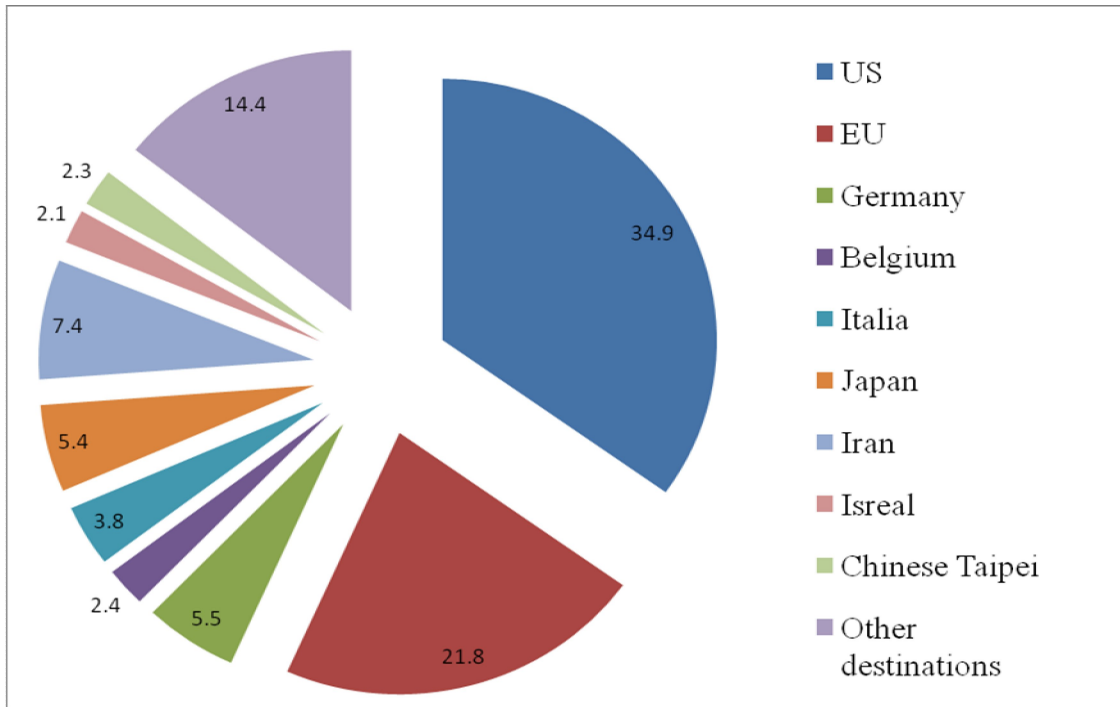


Figure 2. Total exported tuna products of Vietnam in 2010 categorized by destinations (source: VASEP, 2011).

6. Information on imported tuna amount of Vietnam

Total import volumes of tuna species imported into Vietnam are increasing throughout years from 2007 to now. In 2007-2008, this figure was only more than 30,000 tons but it was increased to more than 40.000 tons only within night first months of 2010 (Table 3). Main support sources were from Chinese Taipei with amount of approximately 18,000 tons for all tuna species. Other countries that contributed a relative volume of imported tuna raw material were Thailand and Philippines with around 10,000 tons (**Figure 3**).

Table 3. Total volumes of some main tuna species imported into Vietnam from 2007 to April 2011

Scientific name	Imported volumes (tons)				
	2007	2008	2009	Jan – Sep/2010	Sep/2010-Apr/2011 ¹
<i>Thunnus albacores</i> (YFT)	17,667.3	20,280.1	16,966.7	21,516.9	- Frozen tuna: 12,217.4 tons
<i>Thunnus alalunga</i> (ALB)	5,825.5	3,493.4	4,545.1	5,940.0	
<i>Katsuwonus pelamis</i> (SKJ)	11,031.0	9,106.0	19,029.0	19,099.0	
<i>Thunnus obesus</i> (BET)	65.7		34.3	146.6	- Canned tuna: 361.5 tons.
<i>Thunnus tonggol</i>			269.0		
<i>Auxis rochei</i>				110.5	
<i>Auxis thazard</i>				62.3	
Total	34,589.5	32,879.5	40,844.1	46,875.3	12,578.9

(Source: NAFIQAD - National Agro Forestry Fisheries Quality Assurance)

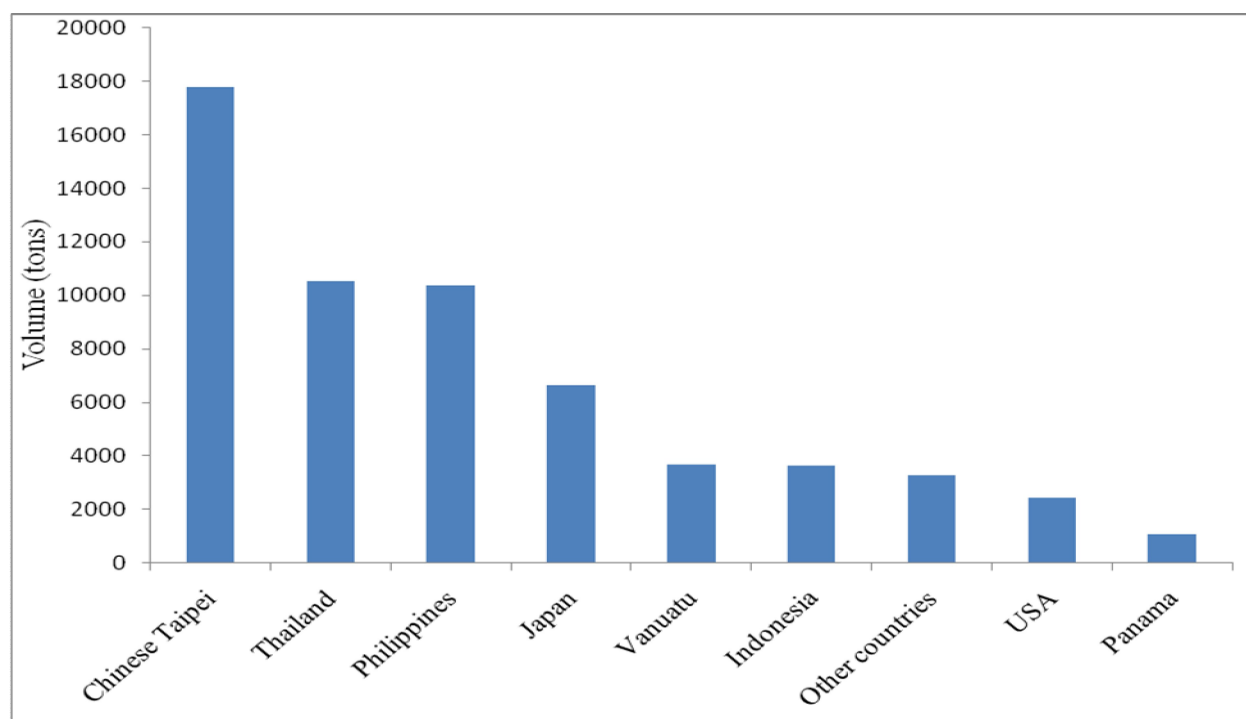


Figure 3. Total volume of tuna species imported into Vietnam from January 2010 to April 2011.

¹ After September 2010, there is a change on responsible agencies for statistic of the raw tuna material imported into Vietnam. Since then Department of Veterinary, MARD is the responsible agency for this statistical data type.

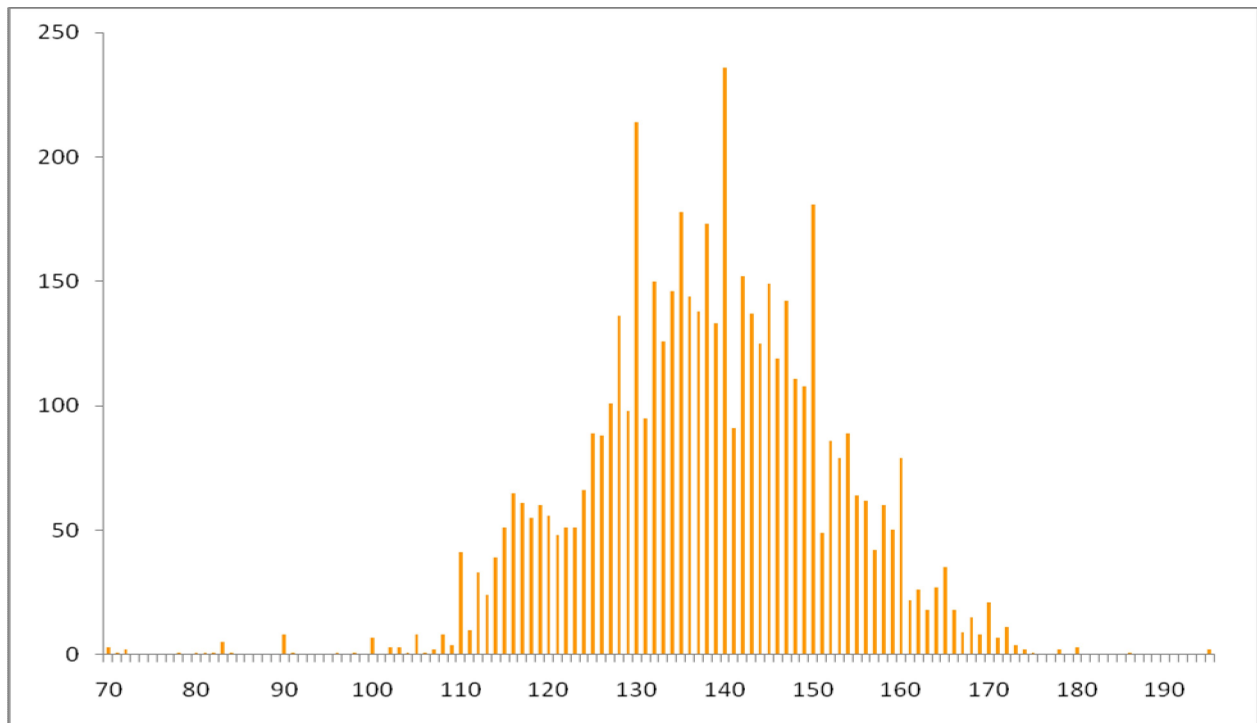


Figure 4. Size composition of YELLOWFIN TUNA sampled from Vietnamese longline vessels, July-December 2010 (N=5,227). (Source: WPEA OFM project).

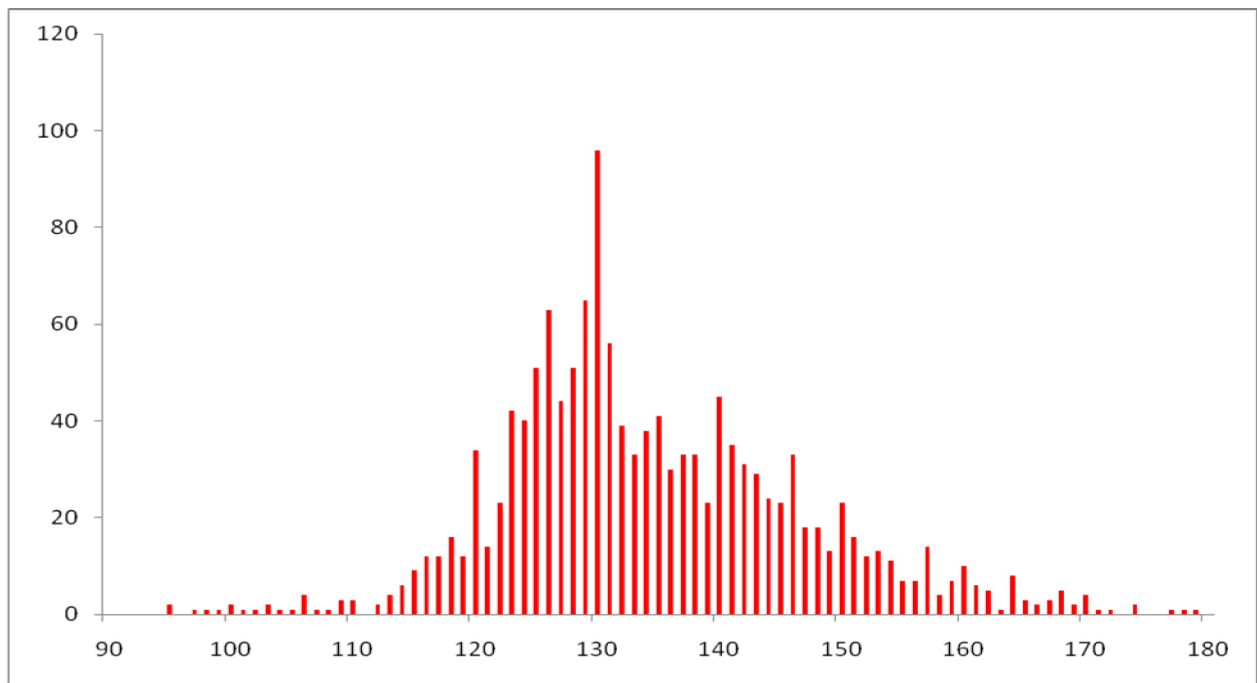


Figure 5. Size composition of BIGEYE TUNA sampled from Vietnamese longline vessels, July-December 2010 (N=1,386) (source: WPEA OFM project).