



**The 2nd Regional Scientific and Technical Committee Meeting for
the SEAFDEC/UN Environment/GEF Project on Establishment and Operation of
a Regional System of Fisheries *Refugia* in the South China Sea and Gulf of Thailand**

21st – 23rd May 2019

Thansur Sokha Hotel, Kampot Province (Fisheries Refugia Site), Cambodia

FRIGATE TUNA DATA TRENDS IN THE WEST PHILIPPINE SEA

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I. Introduction

Tuna fishing is one of the major sector of the fishing industry in the country. Among the major tuna species caught in both coastal and offshore waters are the small tunas such as. frigate tuna, bullet tuna, eastern little tuna and the oceanic tuna namely skipjack tuna, yellowfin tuna and bigeye tuna. Catches of these tuna species varies from year to year. Purse seine, ringnet and handline are the major gears in catching tunas. Other gears used in catching tunas are, hook and line, multiple hook and line, troll line, drift gillnet, bottom set gillnet, danish seine, bagnet, etc. Roundscads and other small pelagic species are also caught by the gears mentioned above.

The fishing sector is classified into two categories namely, the commercial and municipal fishing sectors. The municipal fishing sector operates by using fishing boats less that 3 gross tonnage (GT) and operates within the municipal waters which is measured 15 km from the coastline at low tide while the commercial fishing sector operates by using more than 3 GT fishing vessels and are not allowed to fish within the municipal waters.

West Philippine Sea (WPS) is an important fishing ground for both the municipal and commercial fishing sectors of the coastal municipalities facing the WPS. This includes the provinces comprising the Administrative Regions of the country namely Regions 1 and 3 out of the 16 administrative Regions of the country

The Philippine Statistics Authority (PSA) is the official government agency that collects and publish the annual Philippine Fisheries Statistics. The data collected by the PSA is used for national account and planning purposes for the fisheries sector. The Bureau of Fisheries and Aquatic Resources (BFAR) through the National Stock Assessment Program (NSAP) also collect fisheries data to be used as basis in formulating policies and regulations for fisheries management.

II. Catch by Fishing Ground and Gear

In Region 1 or Ilocos Region, the fishing grounds are Northwest Philippine Sea-Ilocos Coast, WPS-Lingayen Gulf by the commercial fishing sector while the fishing vessels under the municipal fishing sector are fishing in the coastal or nearshore fishing grounds of the WPS and the inner portion of Lingayen Gulf.

In Region 3 or Central Luzon, the fishing ground is mainly the West Philippine Sea both for the commercial and municipal fishing sectors. The catch are unloaded in the three major landing centers namely: Subic Fishing Port, Subic, Zambales, Matalvis, Masinloc, Zambales and Misa, Sta. Cruz Zambales

III. Catch Trends

The data used in this report were taken from the report of the National Stock Assessment Program from Region 1 Ilocos Region and Region 3 Central Luzon. There were years and months that data were not available or no fishing operations done during those years and months.

- Ilocos Coast, Lingayen Gulf and West Philippine Sea

Data from the NSAP showed that catch varies from year to year, month to month and day to day in terms of volume and effort. The NSAP has a regular scheme in data collection in each of the identified landing centers. While there is a regular sampling days, this is dependent to the availability of funds and staff to conduct the scheduled sampling days.

The catch from the Ilocos coast are landed in the different landing centers in each of the municipalities bordering the Ilocos coast. This is also true to the catch from Lingayen Gulf and West Philippine Sea. The data available for this report are the catch from 2012 to 2016 for Ilocos Coast, Lingayen Gulf for years 2014 and 2015 and West Philippine Sea from 2014 to 2016.

The total catch from Ilocos Coast in 2012 was 429.23 mt and decline to 32.23 mt in 2013 and again increased to 461.55 mt and showed a decreased in 2015 and 2016 at 50.43 mt and 17.56 mt respectively. The recorded catch in Lingayen Gulf was for three years only. In 2013, the total catch was 398.1 mt, then no data was recorded in 2014, then followed by 8.15 mt in 2014 and 0.625 mt in 2015. There was no data in 2012 and 2013 in the West Philippine Sea while the catch in 2014 was recorded to be 0.221 mt and in 2015 at 0.625 mt and increased to 28 mt in 2016 (Annex 1).

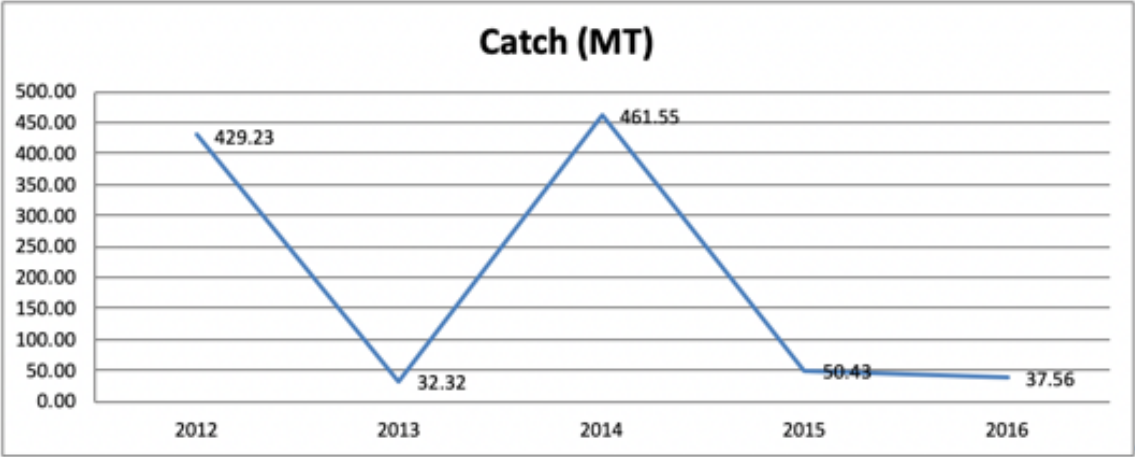
There are three major landing centers in Region 3 Central Luzon facing the West Philippine Sea, namely: Sta. Cruz, Zambales, Masinloc, Zambales, the fisheries refugia project site and Subic, Zambales where both commercial and municipal fishing vessels are unloading their catch as there is a fishing port provided by the municipality. The data available for this report are from 2011 to 2017 in Sta Cruz, 2010 to 2017 in Masinloc, 1999 to 2001 then 2010 to 2017 in Subic.

In Sta. Cruz, the data was observed to be 1174.02 mt in 2011 then declined in 2012 (913.5 mt) increased in 2013 (1005.28 mt) and 2014 ((1594.47 mt) and showed a declining trend from 2015 to 2017 (Annex 2). In Masinloc, the highest catch recorded was 1,340.54 mt in 2010. In 2011 the catch recorded was only 87.12 mt. There was no catch recorded in 2012. In 2013, the catch was recorded at 24.6 mt then increased in 2014 (544.36 mt) and decreased in 2015 (494.4 mt) and again increased in 2016 (831 mt) and decreased to 452.64 mt in 2017. In Subic, the catch from 1999 to 2001 was recorded at 77.28 mt, 135.66 mt and 30.73 mt respectively. From 2010 the catch are as follows: 2010-3,035 mt, 2011-2,581.96 mt and in 2012-183.4 mt. There was no catch recorded in 2013. The recorded catch in 2014 was 7.20 mt, then in 2015 and 2016, 58.64 mt and in 2017 33.24 mt (Annex 2).

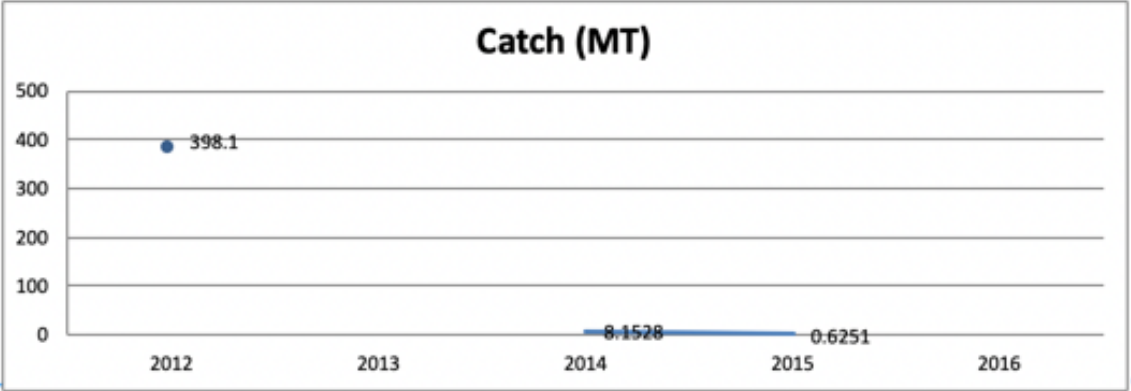
Annexes 3 and 4 present the years and months used for this report with catch observed/recorded. There were several years observed to have no catch recorded as well as months without catch recorded. In some instances, there was only a month catch in a year used in this report.

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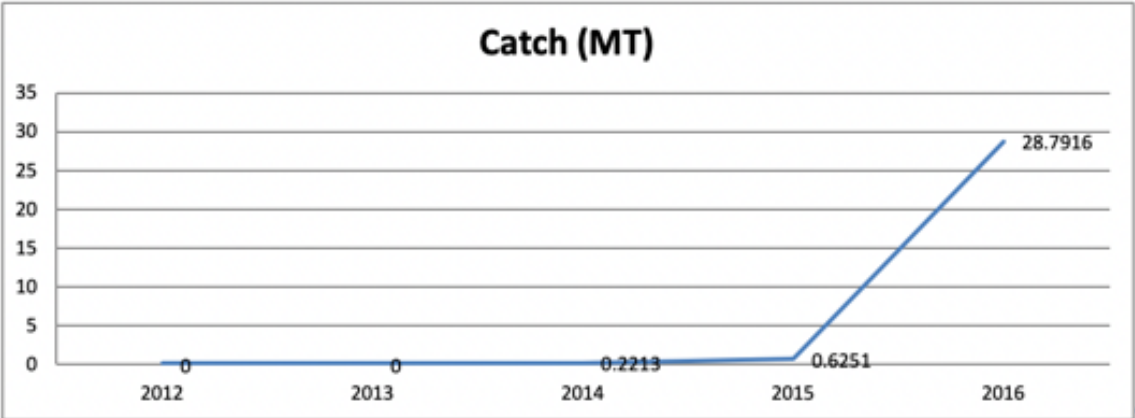
Annex 1: Region 1 Catch trend



Ilocos coast catch trend

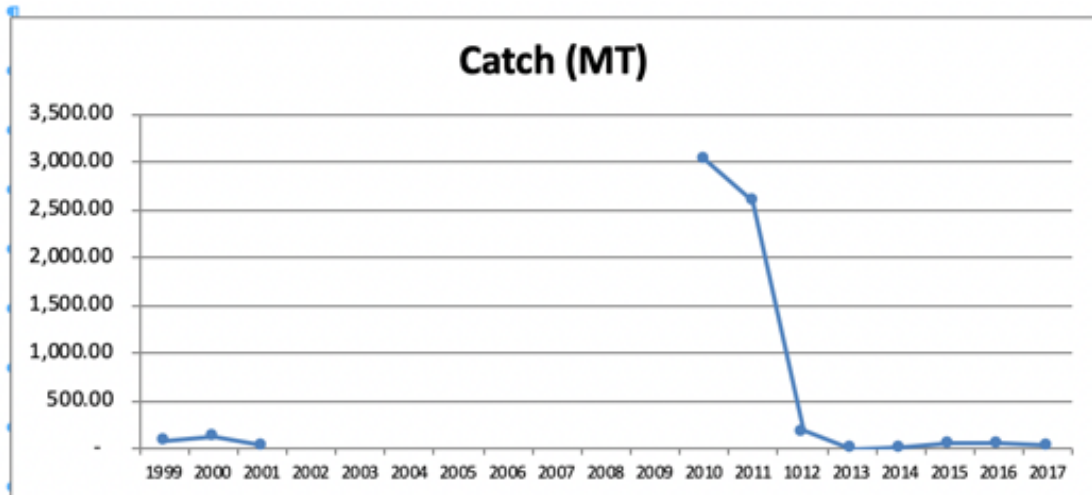


Lingayen Gulf catch trend

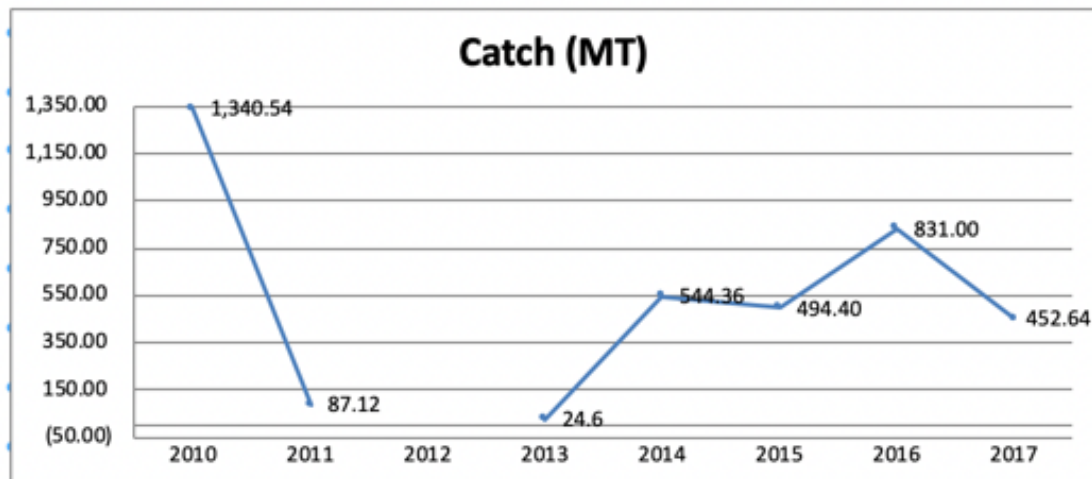


WPS etc catch trend

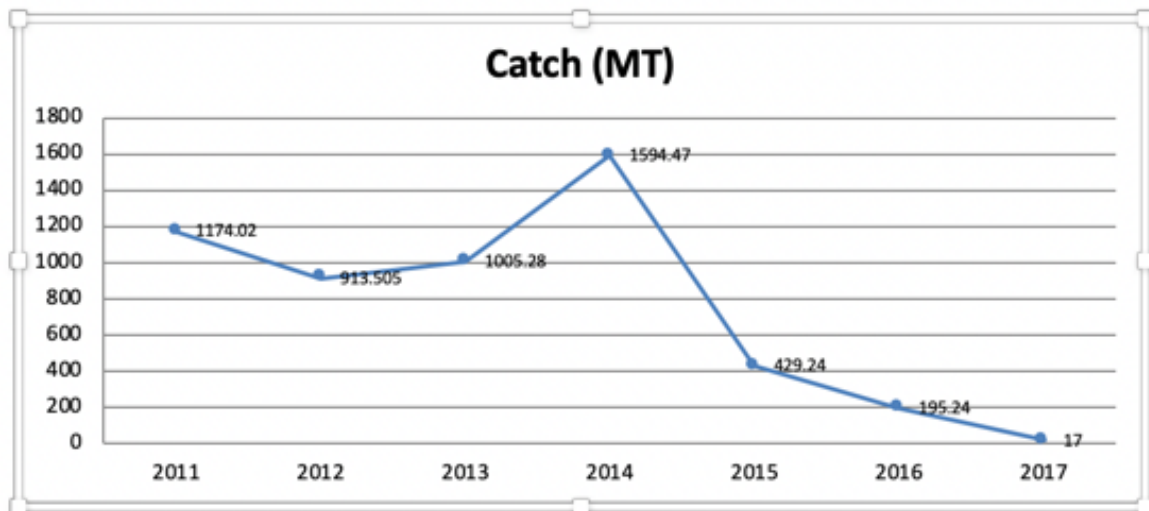
Annex 2: Catch (mt) trend of frigate tuna in Region 3 Central Luzon



A. Subic, Zambales



B. Masinloc, Zambales



C. Sta. Cruz, Zambales

Annex 3: Region 3 summary of Years and months with fishing operations (by landing Center)

	Subic, Zambales		Masinloc, Zambales		Masinloc, Zmbales	
YEAR	Months with data	Months w/o data	Months with data	Months w/o data	Months	Months w/o data
1999	3,4	10				
2000	4,6,7,10,11,12	6				
2001	3,5,6	9				
2002-2009						
2010	8,9,10,11,12	7	1,4,6,10,11,12	6		
2011	1	11	1,5,	10	1,6,7,8,9,10,11,12	4
2012	5,6,7	9			1,2,5,6	8
2013			5	11	5,9,10,11,12	7
2014	5	11	3,5,6,7,8,9,10,11,12	3	1,4,5,6,7,8,11	5
2015	5,6	2	1,2,3,4,5,6,8,9,10,11,12	2	5,7,8,9,	8
2016			1,2,3,4,5,6,8,9,10,11,12	1	5,6,9,12	8
2017	5	11	1,2,3,4,6,7,8,9,10,11,12	1	10	

Source: NSAP Region 3

Annex 4: Region 1 summary of Years and months with fishing operations (by Fishing Ground)

	West Philippine Sea – Ilocos Coast, Lingayen Gulf		Lingayen Gulf		Ilocos Coast, Northwest Philippine Sea	
YEAR	Months	Months w/o data	Months	Months w/o data	Months	Months w/o data
2012			1,2,3	9	5,7,10,12	8
2013					3,4,5,6,7,	7
2014	6	11	6,7	10	6,7	10
2015	2	11	2	11		
2016	1	11				

Source: NSAP Region 1