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

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SAMOA

INDEPENDENT STATE OF SAMOA

ANNUAL REPORT TO THE COMMISSION

PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

JULY 2016

**FISHERIES DIVISION
MINISTRY OF AGRICULTURE AND FISHERIES
GOVERNMENT OF SAMOA**

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 2015	YES
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Abstract

The total estimated catch from the domestic longline fishing fleet operating in Samoa's EEZ for 2015 is around 1218 MT. The catches of albacore tuna accounts for around 68 percent of the total catch with yellowfin tuna at around twenty percent and bigeye tuna at around four percent. The albacore catch for 2015 is estimated at 840 MT, a slight improvement from 2014 while the catches of other main species including yellowfin, bigeye and brodbills are relatively stable. There is a new fish processing establishment in Samoa processing fresh chilled tuna and frozen for export.

There were ten foreign fishing vessels that were issued license to fish in Samoa's EEZ in 2015. There were no interactions with species of special interest reported except for sharks.

Logsheets continued to be the main source of fisheries data estimates with port sampling and VMS data used for verification.

Background

Samoa's tuna fishery is predominately tuna longline fishery with a small scale troll fishery targeting skipjack that operates few miles offshore. The tuna longline fishery targets South Pacific Albacore and is now comprised of foreign fishing vessels and domestic vessels. Total catches of the domestic fleet has continued to experience low levels compared to its previous five year average.

Ten foreign fishing vessels were issued fishing license to fish in Samoa's EEZ in 2015 under an access agreement that linked to an establishment of a fish processing facility on Samoa's shores. There is a similar arrangement that's currently being negotiated with a different partner and may increase the presence of foreign fishing vessels operating in Samoa's EEZ.

The winter months continue to provide relatively higher catches with June and July being the peak months. The domestic fishing fleet however continues to face financial hardship due to a prolong period of low albacore catches.

The average annual albacore catch of this fishery constitute around 70% of the total catch and most is exported frozen to canneries in American Samoa. Matured Bigeye and Yellowfin tuna are also an important component of the catch as they are exported fresh chilled to New Zealand and mainland United States.

Annual catch by species, gear in the WCPFC Convention Area

The total estimated catch from the domestic tuna longline fishing fleet operating in Samoa's EEZ for 2015 is around 1218 metric tons. The catches of albacore tuna accounts for over sixty eight percent of the total catch with yellowfin tuna at around twenty percent and bigeye tuna at around four percent. The broadbill catches and other pelagic made up the rest of the total tuna longline catch.

The albacore catch for 2015 is estimated at 840 metric tons. This is a slight increase of over 30 MT from last year's catch. The yellowfin tuna catch was estimated at 252 metric tons, a slight increase over 20 MT from the 2014 catch. The catches of bigeye tuna was estimated at the same level as with the 2015 catches at 48 MT.

Table 1: Annual catch estimates (in metric tons) of Samoa's long line fleet by primary species, in Samoa's EEZ, for years 2011-2015

SPECIES	2011	2012	2013	2014	2015
ALBACORE	1,415	2,038	1,642	808	840
BIGEYE TUNA	71	54	36	48	48
BLACK MARLIN	5	10	5	8	7
BLUE MARLIN	7	11	7	8	7
PACIFIC BLUEFIN	0.04	0.2		0	
SKIPJACK	51	27	14	15	20
STRIPED MARLIN	4	3	5	4	4
SWORDFISH	5	5	3	4	5
YELLOWFIN	395	234	330	231	252
TOTAL	1953	2383	2042	1126	1183

There were ten foreign longline fishing vessels that were issues license to fish in Samoa's EEZ for 2015. These licenses were issued under an fisheries access agreement with a foreign based fishing company. The catches from these fishing vessels are reported in table 2. Albacore tuna dominates the catch followed by yellowfin.

Table 2: Annual catch estimates (in metric tons) of Foreign long line fleet by primary species, for the WCPFC Convention Area, for years 2010-2014

SPECIES	2011	2012	2013	2014	2015
ALBACORE	0	0	0	0	219
BIGEYE TUNA	0	0	0	0	10
BLACK MARLIN	0	0	0	0	2
BLUE MARLIN	0	0	0	0	8
PACIFIC BLUEFIN	0	0	0	0	
SKIPJACK	0	0	0	0	21

STRIPED MARLIN	0	0	0	0	1
SWORDFISH	0	0	0	0	2
YELLOWFIN	0	0	0	0	64
TOTAL	0	0	0	0	327

Number of vessels by gear type, size (fleet structure)

The Samoan longline fleet operating in Samoa's EEZ ranges from over 12.5 meters to over 20.5 meters in length. Table 3 presents information on the particulars of each vessel category in which the Samoan fishing fleet is organized and apart from Class A, most of the vessels are under Class D. Two domestic longline vessels have not renewed their fishing license to fish in Samoa's EEZ and were tied up at the Fisheries wharf for the whole of 2015.

There were ten foreign longline fishing vessels fishing in Samoa's EEZ in 2015 with eight flagged to Vanuatu and one each to Cook Island and Kiribati.

Table 3 : Number of Samoan vessels, by gear and size category, active in Samoa's EEZ from 2011 - 2015

GROSS REGISTERED TONNAGE	CLASS	LENGTH (m)	FISHING METHOD	2011	2012	2013	2014	2015
0-10	A ¹	Up to 11	Longline and Troll	35	23	27	29	42
0-10	B	> 11-12.5	Longline	1	1	0	0	0
	C	>12.5-15	Longline	3	2	2	2	1
	D	>15-20.5	Longline	5	8	8	7	6
50-200	E	>20.5	Longline	2	2	2	4	4

Table 4 : Number of Foreign longline fishing vessels, operating in Samoa's EEZ in 2015

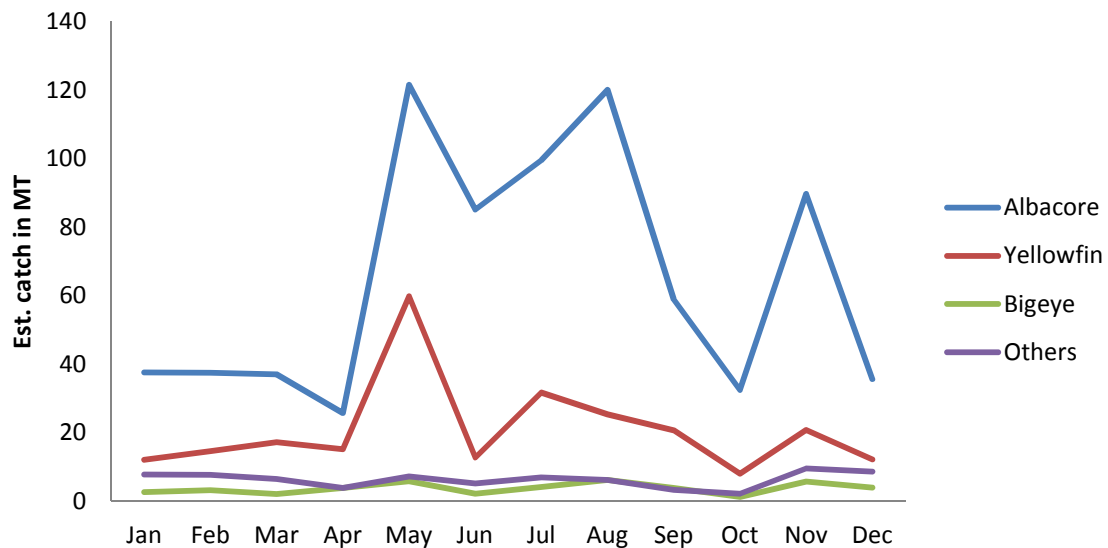
GROSS REGISTERED TONNAGE	Flag	2011	2012	2013	2014	2015
50-200	Cook Islands	0	0	0	0	1
	Vanuatu	0	0	0	0	8
	Kiribati	0	0	0	0	1

¹ This vessel Class is made up of Alia fishing vessels only and their operational range is between six to nine miles offshore from the coast. These vessels are un-decked and have outboard motors and their operations are small scale (artisanal) but is considered very important for livelihoods and food security in Samoa.

Fishing patterns (catch by time/area)

The distribution of Samoa's longline catch is limited within Samoa's EEZ, which approximately falls within a 5° lat 5° long grid. As illustrated in Figure 1, albacore catches increase during the winter months (May-August) and peaks again in November. Catches of bigeye tuna and other pelagics are relatively stable throughout the year

Figure 1: Catch trends for key tuna species caught by Samoa's domestic fleet in Samoa's EEZ for 2015.



Estimated catches of non-targeted species

Non-targeted species comprised around 3% of the total longline catch in 2015. At around 35 MT in total weight, the catch has decreased by around 30% from 2014 levels. Wahoo and Dolphin fish continues to dominate the catch of non targeted species and both are selling at good prices at local markets and restaurants. A variety of species were also caught including moonfish and pomfret.

Table 5: Annual estimated catches (mt) of non-target, associated and dependent species, including sharks, by the longline fleet operating in Samoa's EEZ, in the WCPFC Convection Area, for years 2011-2015

NON TARGETED SPECIES	2011	2012	2013	2014	2015
BIGEYE THRESHER SHARK (<i>Alopiassupercilius</i>)	0.01			-	0
BLUE SHARK (<i>Prionaceglauca</i>)	0.24	0.83	0.35	0.51	1.1
DOGTOOTH TUNA (<i>Gymnosarda unicolor</i>)					0

DOLPHINFISH (<i>Coryphaenahippurus</i>)	20.70	35.59	31.50	20.5	9.2
GREAT BARRACUDA (<i>Sphyraena barracuda</i>)	3.40	3.80	0.57	0.68	.65
LONGNOSE LANCET FISH (<i>Alepisaurusferox</i>)	0.18				0
MAKO SHARK	0.03	0.09	0.18	0.07	.25
MOONFISH (<i>Lamprisguttatus</i>)	5.01	1.65	0.63	1.0	.04
OCEANIC WHITETIP (<i>Carcharhinuslongimanus</i>)	0.24		0.12	-	0
OILFISH (<i>Ruvettuspretiosus</i>)	0.04	0.47	0.06	0.09	.35
OPHA					1.3
POMFRET	0.99	0.69	0.21	0.23	.14
RAINBOW RUNNER (<i>Elagatisbipinnulata</i>)		0.08			0
SAILFISH (<i>Istiophorusplatypterus</i>)		1.90	0.79	1.6	1.77
SHARK	0.43	0.08		0.11	0.22
SHORTBILL SPEARFISH (<i>Tetrapturusangustirostris</i>)	1.65	0.07		0.4	0.31
SICKLE POMFRET					0.11
SILKY SHARK (<i>Carcharhinusfalciformis</i>)		0.09	0.24	0.08	0.08
SOUTHERN BLUEFIN TUNA (<i>Thunnusmaccoyii</i>)			0.01	-	0
SUNFISH (<i>Ranzanialaervis</i>)		0.09			0.02
THRESHER SHARKS					0.05
TUNA				7.4	0.65
WAHOO (<i>Acanthocybiumsolandri</i>)	43.80	33.72	26.38	18.6	19.3
TOTAL	76.72	79.15	61.05	50.97	35.54

There were no species of special interest (turtles, sea birds and dolphins) except for shark species (reported in table 5) reported from log sheets.

The estimates of oceanic whitetip and silky shark releases and their status upon release are presented in table 6. The estimates are from a very low coverage of observer data.

Table 6: Observed status of silky shark and oceanic white tip shark caught by Samoa's longline fleet in 2015 from 4 observer trips.

	Observed		Estimated	
	Number of Release	Status upon release	Number of Release	Status upon release
Silky Shark	6	5 alive, 1 dead	261	216 alive, 43 dead
Oceanic Whitetip	8	7 alive, 1 dead	348	304 alive, 43 dead

Development/Trends in the Fishery

The Samoa domestic longline fishery generally continues to experience low catches although there was a slight increase in 2015. Recent catches are still below the longterm average (2002 – 2012) and two domestic commercial longliners are tied up due to uneconomical issues of fishing operations. There is however an improve situation compared to 2014.

A new fish processing plant was established in 2015 bringing in Samoa foreign fishing vessels. There were ten foreign fishing vessels that were issued foreign fishing license to fish in Samoa's EEZ in 2015. These vessels together with nine more foreign fishing vessels, all of them fishes elsewhere in the convention area and supplies the newly established fish processing plant.

There is also a similar arrangement that is currently being negotiated for another fish processing plant to be established in Samoa bringing in more foreign fishing vessels to be based in Samoa.

Disposal of catch

Total exports in 2015 have increased by over 200% from 2014 levels. This was directly due to the new processing plant that was established in 2015 processing additional catch from foreign fishing vessels. Over half of the total exports go to the canneries in American Samoa as frozen tuna while the rest is exported fresh chilled to mostly Japan and the United States.

Table 7: Volume in (MT) of Samoa's frozen and fresh chilled fish exports from 2011 to 2015

EXPORT TYPE	2011	2012	2013	2014	2015
FROZEN	1,229	1,777	1,435	730	1587
FRESH CHILLED	100	49	7	1.9	639
TOTAL	1,329	1,826	1,441	732	2226

Research Activities

Samoa continues to work with SPC for the provision of tuna biological samples from tuna caught in Samoa's EEZ by Samoa's domestic fleet. These biological samples will be analyzed by SPC and is part of a project to strengthen our understanding amongst other things, on the movement and distribution of tuna species. A biological sampling training was carried out by SPC for port samplers, observers and Fisheries staff in Samoa and equipments and materials required for the collection and storing of biological samples have already being supplied.

Data Collection System

Catch Log sheets and port sampling data continues to provide information on catch and effort as well as size data on tuna caught in Samoa's EEZ. The forms used for the collection of these data and information are regional forms used by SPC and FFA members. The information and data collected are entered into the TUFMAN database where the data is processed and stored. Work to strengthen the observer programme is now being carried out as some of the domestic fleet has shown interest in testing their fishing operation in the high seas.

There was hundred percent coverage achieved for log sheets from the domestic longline fishing fleet operating in Samoa's EEZ as shown in Table 7. Log sheets provide information on operational catch and effort data for all species caught in Samoa's EEZ from both the domestic and foreign Longline fleet. Port Sampling data provides information on size data while observer data is mostly used to understand interaction of the fishery with the environment. Port sampling and observer data are also use for verification of log sheet data.

Table 8: Coverage of catch and effort and size data for all species caught in Samoa's EEZ in 2015

	No. of fishing trips	No. Collected/conducted	Coverage (%)
Log sheets	174	174	100
Port Sampling	174	25	14
observer	174	4	2