



**Draft Options Paper
Highly Migratory Species Catch and Effort Limits
for the U.S. Pacific Island Territories**

**154th Council Meeting
June 25-29, 2012
Honolulu, HI**

I. Introduction

At its 148th meeting (Honolulu, June 2010), the Western Pacific Regional Fishery Management Council (Council) took final action to recommend an Amendment to its Fishery Ecosystem Plan for Pacific Pelagic Fisheries of the Western Pacific Region (PFEP) to do the following:

- 1) Establish annual longline bigeye tuna (hereafter, bigeye) catch limits of 2,000 mt for each of the U.S. Pacific Island Territories of American Samoa, Guam, and Commonwealth of the Northern Mariana Islands (collectively, Territories). This catch limit is consistent with and more conservative than what was agreed to for the Territories by the Western and Central Pacific Fisheries Commission (WCPFC), of which the US is a member and the Territories are Participating Territories;
- 2) Provide limited authority to the Territories to assign up to 750 mt per year of their proposed 2,000 mt annual longline bigeye catch limits through domestic charter arrangements or similar mechanisms with only US vessels permitted under the PFEP;
- 3) Establish domestic charter permit requirements and criteria for U.S. vessels operating under domestic charter arrangements or similar mechanisms to be further integrated with the Territory's domestic fleet by supporting fisheries development within the Territory.

The Council recommended this Amendment to limit bigeye longline harvests that may be attributed to the Territories, and to manage potential domestic charter arrangements to support responsible fisheries development in the Territories. Domestic chartering agreements would provide opportunity for the Territories to support responsible fisheries development through the use of closely monitored U.S. fishing vessels that could lead to local fisheries infrastructure development such as fish processing and cold storage facilities, longline fishing training, and the creation of multi-sector jobs from fish processing, construction, and ancillary businesses. In addition, supporting U.S. fisheries to supply U.S. markets may reduce negative transferred effects that could occur if US tuna production is replaced by less monitored and more environmentally harmful foreign fisheries.

Since U.S. longline fishermen based in Hawaii are subject to annual WCPO bigeye catch limits, which were reached in 2009, 2010, and 2011, there are incentives for these fishermen to seek agreements with the Territories to use Territorial catch limits and so as to be able to fish for

bigeye in the WCPO throughout the year. The Territories are subject to different and separate longline bigeye catch limits the US (i.e. Hawaii) under the WCPFC Conservation and Management Measure 2008-01. The potential ability for U.S. fishermen to have their catches assigned under a Territory's catch limit is an incentive for them to infuse capital and training into the Territories to support fisheries development. However, transmittal of the Amendment for Secretarial review and approval has been delayed due to continued reviews of the document between Council staff and NMFS PIRO.

In November 2011, Congress passed the FY2012 appropriations bill for the Department of Commerce that included Section 113 (See Appendix I). This legislation (hereafter, Section 113) provided American Samoa, Guam, and CNMI the authority to use, assign, allocate, and manage catch limits of highly migratory species (HMS) fish stocks, or fishing effort limits, agreed to by the WCPFC through arrangements with U.S. Vessels with PFEP permits. As such, Section 113 provides the Territories the authority to utilize catch and effort limits for any HMS stock managed by the WCPFC that are assigned to Territories by the WCPFC, with the requirement that such utilization is through arrangements with US vessels permitted under the PFEP. Therefore, Section 113 is broader than the Council's draft Amendment, as discussed above, because Sec 113 applies to any HMS stock and not just bigeye tuna.

In addition, Section 113 states that vessels under such arrangements are integral to the domestic fisheries of the U.S. Participating Territories provided that such arrangements shall impose no requirements regarding where such vessels must fish or land their catch and shall be funded by deposits to the Western Pacific Sustainable Fisheries Fund in support of fisheries development projects identified in a territory's Marine Conservation Plan (MCP). Thus, Section 113 establishes that vessels operating under such arrangements are integral if they contribute MCP funding to support responsible fisheries development in a Territory, whereas the Council's draft Amendment would establish more detailed criteria for vessels to meet in order to be considered integral to a Territory's domestic fishery (e.g. permits, landing requirements).

Section 113(c)(a) states that the legislation shall remain in effect until the earlier of December 31, 2012, or such time as a Council recommends an amendment to the PFEP, and implementing regulations, are approved and implemented by the Secretary of Commerce that authorize use, assignment, allocation, and management of catch limits of the HMS stocks, or fishing effort limits, established by the WCPFC and applicable to the Territories (See Appendix I).

The Council, at its 153 meeting (March 2012) directed staff take into account Section 113, as well as any related agreed to measures from the Eighth Regular Session of the WCPFC, to develop additional options related to Territory Bigeye Tuna Catch Limits and Responsible Fisheries Development for Council consideration at its 154th meeting.

II. Purpose and Need

The purpose of a PFEP Amendment is to establish the management framework to authorize use, assignment, allocation, and management of catch or effort limits of HMS stocks including bigeye tuna, established by the Western and Central Pacific Fisheries Commission and applicable to the Territories.

This management framework is needed for the following reasons. First, the Territories, as indicated in their MCPs, aspire to have diverse fisheries that support local jobs, ancillary businesses, and local food security. To fulfill these objectives, the Territories need mechanisms that will provide funding to responsibly develop their fisheries through infrastructure improvements, product development, and market access.

Second, the US seafood market for fresh and frozen tuna (non-canned) is being supplied increasingly with foreign imports. Foreign imported tuna is not caught with same level of controls and monitoring as US tuna fisheries managed under the PFEP, meaning US fisheries supplying US markets are believed to have a greater conservation benefit to protected species than foreign fisheries supplying the same market. The U.S. longline fishery operating around Hawaii is regulated under the PFEP and subject to catch monitoring of bigeye and yellowfin tuna, required to use protected species mitigation measures, and prohibited from shark fining. This cannot be said for the many foreign longline fisheries in the WCPO. Therefore, by providing a mechanism to utilize Territorial catch limits the U.S. longline fisheries may continue to supply the U.S. market with responsibly caught fish.

III. Management Options

The following table provides a summary of management options considered in this paper. More detailed descriptions of the management options are provided after the following table.

| Option | Description | Applicable to all HMS stocks or bigeye only | Additional Provisions |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | Maintain Existing Amendment Recommendation <ul style="list-style-type: none"> Proposes bigeye catch limit of 2,000mt for each Territory A Territory may assign up to 750 mt per year of proposed annual longline bigeye catch limits | Bigeye only | Domestic chartering requirements such as permits, landings, contributions to fisheries development |
| B | Develop an Amendment Consistent with Section 113 Language <ul style="list-style-type: none"> Recommend providing the Territories the authority to use, assign, allocate, and manage catch limits of highly migratory species (HMS) fish stocks, or fishing effort limits, agreed to by the WCPFC through arrangements with U.S. Vessels with PFEP permits | HMS stocks including bigeye | Vessels considered integral as long a payments are provided to support MCP fishery development projects |
| C | Develop an Amendment Consistent with Section 113 Language with additional Council oversight <ul style="list-style-type: none"> Recommend providing the Territories the authority to use, assign, allocate, | HMS stocks including bigeye | <ul style="list-style-type: none"> Vessels considered integral as long payments are provided to support MCP fishery development projects; |

| | | | |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | and manage catch limits of highly migratory species (HMS) fish stocks, or fishing effort limits, agreed to by the WCPFC through arrangements with U.S. Vessels with PFEP permits | | <ul style="list-style-type: none"> • Provides Council oversight to establish limits on assignable catch or effort limits |
| D | Hybrid of Option A and Option C | HMS stocks including bigeye | <ul style="list-style-type: none"> • Vessels considered integral as long payments are provided to support MCP fishery development projects • Provides Council oversight to establish limits on assignable catch or effort limits • Establishes 2,000 mt longline bigeye limits per Territory and 750 mt annual limits on assignable longline bigeye catches |

Option A: Maintain Existing Amendment Recommendation

The Council’s existing recommendation was focused on bigeye tuna and does not cover catch or effort limits for other HMS stocks provided by the WCPFC to the Territories.

- 1) Establish annual longline bigeye catch limits of 2,000 mt for the U.S. Pacific Island Territories of American Samoa, Guam, and Commonwealth of the Northern Mariana Islands;
- 2) Provide limited authority to the Territories to assign up to 750 mt per year of their annual longline bigeye catch limits through domestic charter arrangements or similar mechanisms with only U.S. vessels permitted under the FEP;
- 3) Establish domestic charter permit requirements and criteria for U.S. vessels operating under domestic charter arrangements or similar mechanisms to be further integrated with the Territory’s domestic fleet by supporting fisheries development within the Territory.

Criteria For U.S. Vessel(s):

- 1) Valid charter permit/license
 - a. Any vessel operating under Territory charter arrangement must obtain a Territory permit/license issued by the respective Territory
 - b. Any vessel operating under a domestic charter arrangement is required to have a valid charter permit issued by the NMFS PIRO Regional Administrator and must operate under applicable FEP regulations

- 2) Vessel(s)¹ must make at least 3 annual landings to offload catch in the ports of the chartering Territory, if adequate infrastructure is available (as determined by the chartering Territory) to make it commercially feasible
 - a. If 3 landings are not feasible in the first year of the arrangement due to lack of infrastructure, at least 3 landings shall be made in the second year of the arrangement
 - i. The remainder of landings must be made in U.S. ports
 - b. Reasonable increases in landings in the chartering Territory shall be made in subsequent years of the chartering arrangement
- 3) Vessel(s) that make landings in the ports of the Territory pursuant to # 2, must be serviced and or provisioned² in the chartering Territory when in port to offload catch
- 4) If a non-government commercial entity is chartering the vessel(s), that commercial entity must be legally registered to conduct business in the Territory
- 5) Chartered vessel(s) must provide benefits to the Territories to promote responsible fisheries development (Benefits must be consistent with a Territory's Marine Conservation Plan and shall include at least one of the following, and as determined by the chartering Territory)
 - a. Funding- deposit of funds into the Sustainable Fisheries Fund to be disbursed in accordance with MSA section 204.
 - b. Infrastructure development- provide for, or contribute to, infrastructure improvements identified in a Territory's MCP including projects such as cold storage facilities, fish processing facilities, and vessel docking and offloading areas.
 - c. Training- provide training activities that benefit residents in the Territories and that are consistent with responsible fisheries development including: fishing operations, fish handling, fish processing, fish wholesale and retail markets.
 - d. Employment- provides employment opportunities for residents of a Territory where they are employed in a position that directly involves fishing operations, observers, fish handling, processing, or marketing.

¹ If more than three vessels are operating under the same domestic charter arrangement and as part of one association, only three landings out of the total number of vessels need to occur in the Territory and not every vessel operating under the charter arrangement is required to make three landings per year in the Territory.

² Servicing and provisioning involves supplying fuel, bait, groceries, and other necessities to vessels while in port.

Option B: Recommend an Amendment Consistent with Section 113 Language

Under this option, the Council would recommend an Amendment to the PFEP to do the following:

- 1) Provide the Territories the authority to use, assign, allocate, and manage catch limits of highly migratory fish stocks, or fishing effort limits, established by the Western and Central Pacific Fisheries Commission through arrangements with US vessels permitted under the FEP ;
- 2) Establish that vessels under such arrangements are integral to the domestic fisheries of the U.S. Participating Territories provided that such arrangements shall impose no requirements regarding where such vessels must fish or land their catch and shall be funded by deposits to the Western Pacific Sustainable Fisheries Fund in support of fisheries development projects identified in a territory's Marine Conservation Plan

Option C: Recommend an Amendment Consistent with Section 113 Language with Provision for Council to Restrict Assignable Catch or Effort Limits

Under this option, the Council would recommend an Amendment to the PFEP to do the following:

- 1) Provide the Territories the authority to use, assign, allocate, and manage catch limits of highly migratory fish stocks, or fishing effort limits, established by the Western and Central Pacific Fisheries Commission through arrangements with US vessels permitted under the FEP ;
- 2) Establish that vessels under such arrangements are integral to the domestic fisheries of the U.S. Participating Territories provided that such arrangements shall impose no requirements regarding where such vessels must fish or land their catch and shall be funded by deposits to the Western Pacific Sustainable Fisheries Fund in support of fisheries development projects identified in a territory's Marine Conservation Plan
- 3) Establish that the use or assignment of catch or effort limits by a Territory will be subject to maximum annual limits, and any other terms or conditions, recommended by the Council and approved by the Secretary of Commerce.

This option reflects language consistent with Section 113, but also includes paragraph (3), which provides the Council with the ability to limit the amount of assignable catch by Territory, as well as include additional conditions, which is not provided in Section 113.

Option D: Hybrid of Option A (Existing Amendment Recommendation) and Option C

- 1) Provide the Territories the authority to use, assign, allocate, and manage catch limits of highly migratory fish stocks, or fishing effort limits, established by the Western and Central Pacific Fisheries Commission through arrangements with US vessels permitted under the FEP
 - i) Establish annual longline bigeye catch limits of 2,000 mt for each of the Territories;

- 2) Establish that vessels under such arrangements are integral to the domestic fisheries of the U.S. Participating Territories provided that such arrangements shall impose no requirements regarding where such vessels must fish or land their catch and shall be funded by deposits to the Western Pacific Sustainable Fisheries Fund in support of fisheries development projects identified in a territory's Marine Conservation Plan

- 3) Establish that the use or assignment of catch or effort limits by a Territory will be subject to maximum annual limits, and any other terms or conditions, recommended by the Council and approved by the Secretary of Commerce.
 - i) Establish that the Territories shall only assign up to 750 mt per year of their annual longline bigeye catch limits through arrangements with U.S. vessels permitted under the FEP;

IV. Pros and Cons of Management Options

Option A: Maintain Existing Amendment Recommendation

| Pros | Cons |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Limits potential bigeye tuna harvests by the Territories (2,000 mt) which is more conservative than what is provided under the WCPFC • Limits the amount of bigeye assignable under domestic charter arrangement to 750 mt per Territory, which is conservative. | <ul style="list-style-type: none"> • Domestic chartering is new concept in WPR and criteria developed by Council is much more complex than Section 113. • Existing arrangement between American Samoa and HLA is believed to be catch attribution arrangement rather than a domestic chartering arrangement; therefore, establishing criteria for something that is not occurring may be unwarranted. • Involves complex and potentially overly-burdensome criteria related to domestic chartering arrangements • Only applies to bigeye tuna and not other HMS stocks as provided under Section 113 |

Option B: Recommend an Amendment Consistent with Section 113 Language

| Pros | Cons |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Would implement a general framework under the PFEP whereby the Territories would be able to utilize and assign any WCPFC catch and effort limits provided to them (for all HMS stocks) under arrangements with PFEP permitted vessels. • Does not involve complex and potentially overly-burdensome criteria related to domestic chartering arrangements. • Does not provide the Council/NMFS with oversight of potential arrangements between Territories and PFEP permitted vessels, thus eliminating additional bureaucratic layers. | <ul style="list-style-type: none"> • Would not limit potential bigeye tuna harvests attributable to the Territories, which is contrary to conservation objectives. • Does not establish the Council recommended limit of 750 mt of bigeye assignable under a domestic charter arrangement, which was recommended in regards to bigeye stock status. • Does not provide the Council/NMFS with oversight of potential arrangements between Territories and PFEP permitted vessels. |

- May reduce potential benefits to Territories by eliminating landing requirements of bigeye within the Territories under domestic charter arrangements.

Option C: Recommend an Amendment Consistent with Section 113 Language with Provision for Council Oversight to Restrict Assignable Catch or Effort Limits

Pros

Cons

- | Pros | Cons |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Would implement a general framework under the PFEP whereby the Territories would be able to utilize and assign any WCPFC catch and effort limits provided to them (for all HMS stocks) under arrangements with PFEP permitted vessels. • Does not involve complex and potentially overly-burdensome criteria related to domestic chartering arrangements. • Would allow Council to place limits, or other conditions, on the amount of effort or catch that could be assigned by Territories in arrangements with PFEP permitted vessels to further limit overfishing, and supports international and domestic conservation objectives. | <ul style="list-style-type: none"> • Would not limit potential bigeye tuna harvests attributable to the Territories, which is contrary to conservation objectives. • Does not establish the Council recommended limit of 750 mt of bigeye assignable under a domestic charter arrangement, which was recommended in regards to bigeye stock status. • Would allow Council/NMFS to place limits, or other conditions, on the amount of effort or catch that could be assigned by Territories in arrangements with PFEP permitted vessels, thus adding layers of bureaucracy and oversight |

Option D: Hybrid of Existing Amendment Recommendation and Option C

| Pros | Cons |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Would implement a general framework under the PFEP whereby the Territories would be able to utilize and assign any WCPFC catch and effort limits provided to them (for all HMS stocks) under arrangements with PFEP permitted vessels.• Does not involve complex and potentially overly-burdensome criteria related to domestic chartering arrangements nor would establish additional permitting requirements..• Would allow Council to place limits, or other conditions, on the amount of effort or catch that could be assigned by Territories in arrangements with PFEP permitted vessels.• Limits potential bigeye tuna harvests by the Territories (2,000 mt) which is more conservative than what is provided under the WCPFC.• Limits the amount of bigeye assignable under domestic charter arrangement to 750 mt per Territory, which is conservative. | <ul style="list-style-type: none">• May reduce potential benefits to Territories by eliminating landing requirements of bigeye within the Territories under domestic charter arrangements. |

Appendix I- Consolidated and Further Continuing Appropriations Act, 2012

SEC. 113. (a) The U.S. Participating Territories of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean ("Commission") are each authorized to use, assign, allocate, and manage catch limits of highly migratory fish stocks, or fishing effort limits, agreed to by the Commission through arrangements with U. S. vessels with permits issued under the Pelagics Fishery Management Plan of the Western Pacific Region. Vessels under such arrangements are integral to the domestic fisheries of the U.S. Participating Territories provided that such arrangements shall impose no requirements regarding where such vessels must fish or land their catch and shall be funded by deposits to the Western Pacific Sustainable Fisheries Fund in support of fisheries development projects identified in a territory's Marine Conservation Plan and adopted pursuant to section 204 of the Magnuson-Stevens Fishery Conservation and Management Act. The Secretary of Commerce shall attribute catches made by vessels operating under such arrangements to the U.S. Participating Territories for the purposes of annual reporting to the Commission.

(b) The Western Pacific Fisheries Management Council- (1) is authorized to accept and deposit into the Western Pacific Sustainable Fisheries Fund funding for arrangements pursuant to subsection (a); (2) shall use amounts deposited under paragraph (1) that are attributable to a particular U.S. Participating Territory only for implementation of that Territory's Marine Conservation Plan. adopted pursuant to section 204 of the Magnuson-Stevens Fishery Conservation and Management Act; and (3) shall recommend an amendment to the Pelagics Fishery Management Plan for the Western Pacific Region, and associated regulations, to implement this section.

(c) Subsection (a) shall remain in effect until the earlier of December 31, 2012, or such time as (1) the Western Pacific Regional Fishery Management Council recommends an amendment to the Pelagics Fishery Management Plan for the Western Pacific Region, and implementing regulations, to the Secretary of Commerce that authorize use, assignment, allocation, and management of catch limits of highly migratory fish stocks, or fishing effort limits, established by the Commission and applicable to U.S. Participating Territories; (2) the Secretary of Commerce approves the amendment as recommended; and (3) such implementing regulations become effective.

Appendix II- Background Information on Bigeye Tuna and Council Recommended Amendment³

Bigeye Tuna

Bigeye tuna (hereafter, *bigeye*) is among the most highly valued fisheries in the Pacific due to its popularity for sushi and sashimi. It and other valuable pelagic species such as swordfish, yellowfin tuna, albacore tuna, mahimahi, ono (wahoo), pomfrets, moonfish (opah), and billfish are found in the U.S. Exclusive Economic Zone (EEZ) around the Territories and surrounding high seas. These species, as well as adult bigeye, are primarily targeted by longline vessels, but can also be caught with troll and handline methods. Juvenile bigeye are caught incidentally by purse seine vessels targeting skipjack and yellowfin tuna when fishing on fish aggregation devices (FADs), and caught in much smaller numbers by purse seine vessel when they fish on schools of fish unassociated with FADs. Because these species are considered highly migratory, conservation and management of them is subject to conservation and management measures adopted by the WCPFC and Inter-American Tropical Tuna Commission (IATTC) – the U.S. is a member of both commissions.

Bigeye Tuna Stock Status

In 2004, NMFS determined that Pacific-wide, bigeye tuna was experiencing overfishing (69 FR 78397) and requested the Council to take appropriate action to end overfishing. Pursuant to the MSA, the Council recommended Amended 14 to the Pelagics FMP that contained both domestic and international measures to address bigeye overfishing. NMFS approved Amendment 14's international management measures, but disapproved domestic management measures that would have required new federal permitting and data reporting requirements for Hawaii-based non-longline pelagic fisheries. NMFS felt that the recommended domestic permitting and reporting requirements would be duplicative with existing State of Hawaii regulations, but did agree to work jointly with NMFS Pacific Islands Science Center and the State of Hawaii to enhance the State's permitting and data collection program for small-boat commercial fisheries.

In 2005, the Council also established a control date of June 2, 2005 for domestic longline and purse seiners fishing under open access programs in U.S. EEZ waters in the Western Pacific region, including developing longline fisheries in Guam and CNMI. This control date would apply to vessels that are or may begin fishing under open-access programs and would not bind the Council to establishing limited access or other management programs for these fisheries, but it would notify current and prospective fishery participants that additional management measures may be taken by the Council for these fisheries. The implementation of a control date is in recognition of the fact that unlimited expansion of purse seining and longline fishing is untenable with the conservation of bigeye and yellowfin tuna.

³ This section was taken from Draft Amendment 20 to the Fishery Ecosystem Plan for Pacific Pelagic Fisheries of the Western Pacific Region: Bigeye Tuna Catch Limits and Responsible Fisheries Development for the U.S. Pacific Territories (May 2012).

Based on stock assessments conducted for the WCPFC and IATTC, NMFS has determined that the Pacific-wide bigeye tuna stock is still experiencing overfishing, but that it is not overfished nor approaching an overfished condition (NMFS 2012).

The 2011 assessment of WCPO bigeye, which uses a six-region, MULTIFAN-CL model, indicates that overfishing ratio of $F_{current}/F_{msy}$ is 1.46 (for the base model run) is occurring in the WCPO, but that the bigeye stock is not overfished (i.e., total biomass and spawning biomass greater than the associated MSY levels; Davies et al. 2011). However, two of the alternate models found that the spawning biomass to be less than the spawning biomass at MSY, indicating that bigeye tuna may be currently in an overfished state (Davies et al. 2011). Using 2006-2009 as the baseline, a 32 percent reduction in fishing mortality is needed eliminate overfishing in the WCPO.

Figure 1 shows the base case model run used by Davies et al. (2011) to represent the temporal trend in annual bigeye stock status, relative to biomass at MSY and fishing mortality at MSY reference points. While Figure 23 shows the bigeye stock to be experiencing overfishing and not overfished, other model runs indicate that stock is overfished. Recent estimates of MSY for bigeye in WCPO is 74,993 mt (Davies et al. 2011) and 81,350 mt for the EPO (Aires de Silva and Maunder 2008).

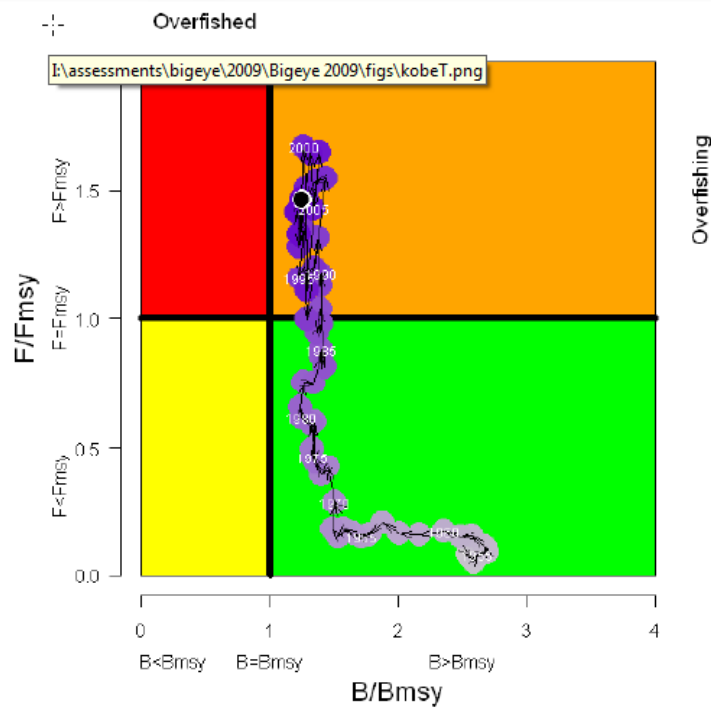


Figure 1: Temporal trend in annual stock status, relative to BMSY (x-axis) and FMSY (y-axis) reference points, for the model period (1952–2009)

Note: The white circle represents the average for the period 2006-09 and the black dot represents the 2009 value.
Source: Davis et al. 2011

The greatest fishery impact to the WCPO stock is in the equatorial region (approximately 90% of fishing mortality occurs within 10 degrees north and south of the equator), while the temperate regions are estimated to be moderately exploited (see Figure 2). The 2011 WCPO bigeye stock

assessment indicates that the purse seine fishery and the domestic Indonesian/Philippine purse seine and handline fishery are currently having a greater impact to the bigeye stock than the longline fishery. Furthermore, because the purse seine fishery takes primarily juvenile bigeye, the fishery has been reducing the maximum sustainable yield of the stock since the 1980's, when the purse seine fishery began fishing on FADs (see Figure 3). The 2011 WCPO stock assessment concludes that bigeye MSY would be greater if mortality of small fish were reduced which would allow greater overall yields to be sustainably obtained.

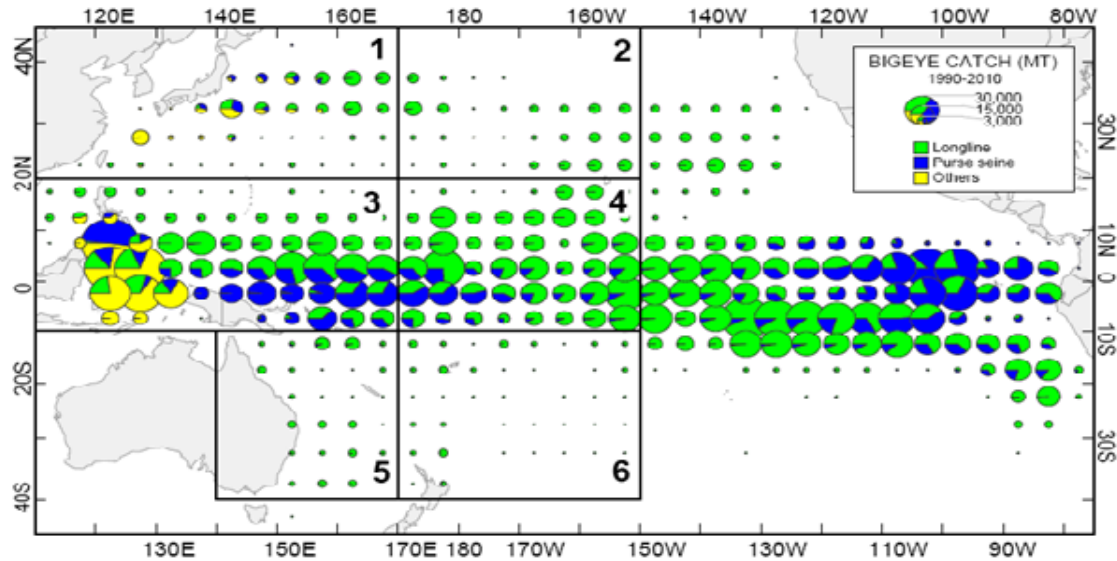


Figure 2: Distribution of cumulative bigeye tuna catch from 1990-2010 by 10 degree squares of latitude and longitude and fishing gear

Note: The six-region spatial stratification used in stock assessment for the WCP-CA is shown. Bigeye longline catches in the Eastern Pacific may not be fully covered.

Source: Williams, P. and P. Terawasi. 2011. WCPFC-SC7-2011/GN WP-1.

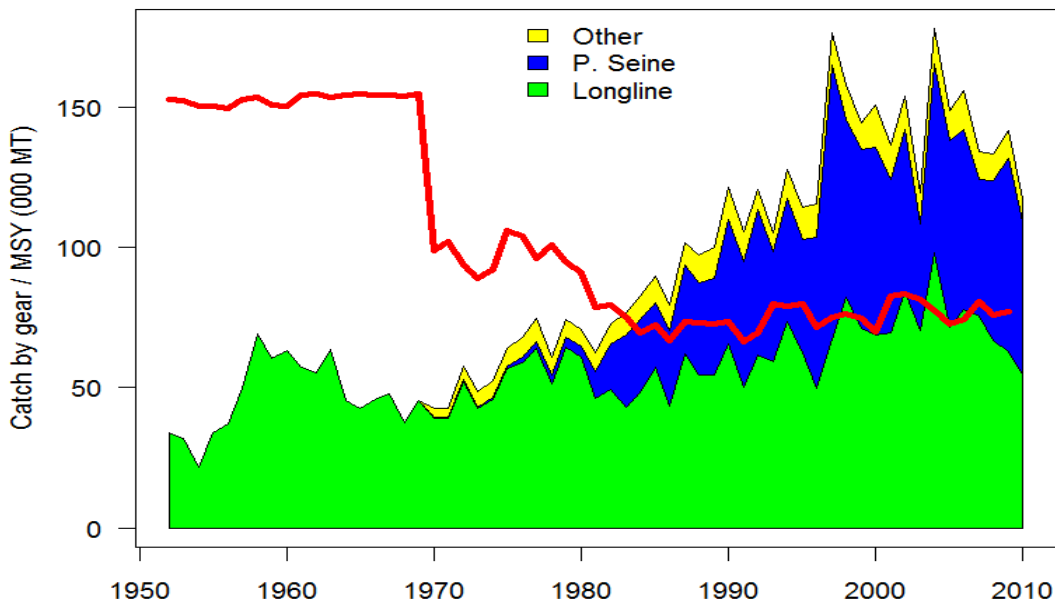


Figure 3: History of the annual estimates of *MSY* and *FMSY* (compared with annual catch split into three sectors

Source: Davies et al. 2011

WCPO Bigeye Tuna Fisheries

Longline bigeye catches in the WCPO have fluctuated between 70,000–98,000 mt since 1999, but the 2010 catch (58,324 mt–54% of total WCPO bigeye catch) is the lowest since 1996 (see Figure 6). The provisional WCPO purse seine bigeye catch for 2010 was estimated to be 43,389 mt (40%) which is lower than the highest on record, taken in 2008 (50,469 mt) (see Figure 6). The estimated purse-seine catch of bigeye tuna is probably higher than indicated because logsheet-reported catch from associated schools contain a significant amount of yellowfin and bigeye tuna misreported as skipjack tuna (Williams and Terawasi, 2011). The WCPO pole-and-line fishery has generally accounted for between 2,800–6,700 mt (3-5%) of bigeye catch annually over the past decade (see Figure 6). The "other" category, representing various gears in the Philippine, Indonesian and Japanese domestic fisheries, has accounted for an estimated 4,000–8,000 mt (3–4% of the total WCP–CA bigeye catch) in recent years (see Figure 6; Williams and Terawasi, 2011).

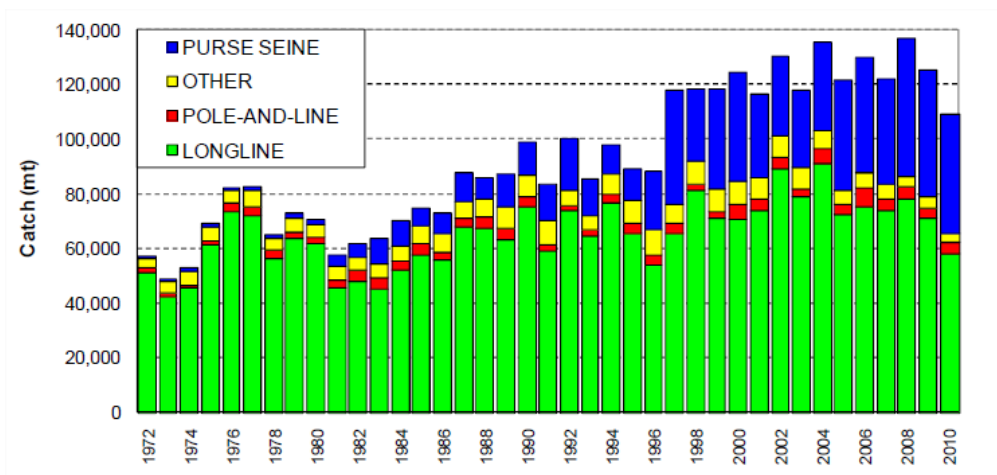


Figure 4: Total annual catch of bigeye tuna from the WCP-CA by fishing method, 1952-2010

Source: Williams and Terawasi 2011

The increase in longline bigeye catches the early 2000's is attributable to Chinese-Taipei longline fleet that fishes in the eastern equatorial region of the WCPO. The Chinese-Taipei fleet switched from targeting albacore to targeting bigeye, where in the 1990's its bigeye landings were less than 2,000 mt, and in 2004, its bigeye landings were 20,992 mt (See Table 1). China also has increased its longline catches of bigeye tuna, whereby in the 2001 it reported catches of 2,227 mt and in 2003 reported bigeye catches over 8,000 mt.

Western and Central Pacific Fisheries Commission

To address the overfishing of bigeye in the Western and Central Pacific Ocean (WCPO), the WCPFC agreed in 2008 on: “Conservation and Management Measure for Bigeye and Yellowfin Tuna in the Western and Central Pacific Ocean” (CMM 2008-01) with the overall objective to reduce fishing mortality on bigeye tuna by 30 percent in the WCPO in the three year period from 2009-2011. CMM 2008-01 had provisions applicable to purse seine, longline, and other fisheries operating in the WCPO. Under CMM 2008-01, the purse seine fisheries were subject to a two month FAD closure in 2009, and a three month FAD closure in 2010 and 2011. Longline fisheries that caught more than 2,000 mt of bigeye in 2004 were to reduce their longline catches by 10% from their 2004 catch in each of the years 2009, 2010, and 2011, for a total 30 % reduction in catch. However, CMM 2008-01 also provided that fresh fish longline bigeye fisheries landing less than 5,000 mt of bigeye per year, only need to reduce longline bigeye catch by 10% of the 2001-2004 average, or in the case of the U.S. only the 2004 level. Under CMM 2008-01, 2004 is the baseline year for the U.S. WCPO longline limit, because the Hawaii longline fishery was significantly restricted from 2001-2004 due to closures resultant from environmental litigation related to sea turtle interactions. China’s longline bigeye catches were also to remain at 2004 levels, as opposed to the average catch between 2001-2004, pending an arrangement on how to attribute Chinese catch taken as part of domestic fisheries of Pacific Island Countries. Using the 2004 baseline, China’s 2008-2011 was identified in CMM 2008-01 to be 9,314 mt.⁴

Table 1: Reported longline catches (mt) of bigeye in the WCPO, by flag

| CCM | 2001 | 2002 | 2003 | 2004 | Av. 2001-2004 | CMM 2008-01 Attach. F | CMM 2008-01 (Curr.) | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2010 (excl. SIDs) | CMM 2008-01 2010 limits |
|---------------------------|--------|--------|--------|--------|---------------|-----------------------|---------------------|--------|--------|--------|--------|--------|--------|-------------------|-------------------------|
| AMERICAN SAMOA | 75 | 196 | 242 | 227 | 185 | 185 | | 134 | 181 | 218 | 132 | 249 | 491 | | |
| AUSTRALIA | 1,307 | 1,002 | 1,024 | 892 | 1,056 | 1,056 | 2,000 | 791 | 499 | 1,008 | 1,027 | 726 | 458 | 458 | 2,000 |
| BELIZE | 1,322 | 812 | 782 | 297 | 803 | 803 | 803 | 425 | 254 | 158 | 89 | 43 | 89 | 89 | 803 |
| CHINA | 2,227 | 2,312 | 8,965 | 11,748 | 6,313 | 9,314 | 11,748 | 7,520 | 13,378 | 10,535 | 10,798 | 15,289 | 13,924 | 13,924 | 11,748 |
| CHINESE TAIPEI | 12,435 | 16,645 | 14,429 | 20,992 | 16,125 | 15,854 | 16,125 | 15,498 | 14,295 | 14,760 | 15,229 | 13,319 | 11,552 | 11,552 | 12,900 |
| COOK ISLANDS | 1 | 56 | 204 | 394 | 164 | 164 | | 220 | 166 | 238 | 292 | 217 | 192 | | |
| EUROPEAN UNION | 0 | 0 | 0 | 42 | 11 | 11 | 2,000 | 17 | 62 | 62 | 77 | 46 | 15 | 15 | 2,000 |
| FSM | 651 | 759 | 656 | 542 | 652 | 652 | | 182 | 172 | 1,395 | 970 | 1,395 | 899 | | |
| FIJI | 662 | 853 | 889 | 1,254 | 915 | 915 | | 423 | 771 | 556 | 671 | 689 | 532 | | |
| FRANCE (FRENCH POLYNESIA) | 745 | 649 | 439 | 502 | 584 | 584 | | 606 | 498 | 478 | 490 | 587 | 436 | | |
| FRANCE (NEW CALEDONIA) | 128 | 189 | 142 | 90 | 137 | 137 | | 76 | 35 | 53 | 63 | 51 | 44 | | |
| INDONESIA | 942 | 1,470 | 2,168 | 2,192 | 1,693 | 8,413 | 2,192 | 2,202 | 3,011 | 1,993 | 6,704 | 4,000 | 1,221 | 1,221 | 2,000 |
| JAPAN | 27,466 | 29,574 | 26,110 | 29,248 | 28,100 | 28,100 | | 23,021 | 25,695 | 26,076 | 19,534 | 16,650 | 14,565 | 14,565 | 22,480 |
| KIRIBATI | 0 | 0 | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 44 | 0 | 3 | | |
| MARSHALL ISLANDS | 0 | 0 | 0 | 1 | 0 | 0 | | 0 | 0 | 3 | 375 | 381 | 257 | | |
| NAURU | 6 | 3 | 10 | 0 | 5 | 5 | | 0 | 0 | 0 | 0 | 0 | 0 | | |
| NEW ZEALAND | 481 | 201 | 204 | 177 | 266 | 266 | 2,000 | 175 | 177 | 213 | 133 | 253 | 191 | 191 | 2,000 |
| NIUE | 0 | 0 | 0 | 0 | 0 | 0 | | 10 | 22 | 18 | 1 | 10 | 4 | | |
| PALAU | 21 | 1 | 1 | 7 | 8 | 8 | | 0 | 0 | 0 | 0 | 0 | 0 | | |
| PAPUA NEW GUINEA | 240 | 318 | 390 | 399 | 337 | 335 | | 237 | 216 | 111 | 201 | 128 | 39 | | |
| PHILIPPINES | 59 | 59 | 59 | 59 | 59 | 343 | 2,000 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 2,000 |
| REPUBLIC OF KOREA | 22,172 | 28,533 | 17,151 | 17,941 | 21,449 | 21,499 | 21,449 | 15,622 | 12,489 | 10,054 | 17,001 | 15,231 | 13,862 | 13,862 | 17,159 |
| SAMOA | 185 | 137 | 110 | 104 | 134 | 134 | | 64 | 128 | 101 | 106 | 117 | 108 | | |
| SENEGAL | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 3 | 2 | 0 | 0 | 0 | 0 | |
| SOLOMON ISLANDS | 187 | 401 | 385 | 294 | 317 | 476 | | 3 | 0 | 0 | 0 | 0 | 412 | | |
| TONGA | 191 | 215 | 94 | 40 | 135 | 135 | | 125 | 117 | 129 | 81 | 38 | 24 | | |
| USA | 2,418 | 4,396 | 3,618 | 4,181 | 3,653 | 4,181 | 4,181 | 4,462 | 4,381 | 5,381 | 4,649 | 3,741 | 3,576 | 3,576 | 3,763 |
| VANUATU | 17 | 396 | 841 | 1,862 | 779 | 779 | | 1,558 | 1,651 | 2,122 | 860 | 1,300 | 2,060 | | |
| VIETNAM | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 2,441 | | |
| Total | 73,938 | 89,177 | 78,914 | 93,485 | 83,879 | 94,349 | 92,598 | 78,430 | 78,250 | 75,723 | 79,586 | 74,519 | 67,394 | 59,452 | 78,853 |

Source: WCPFC8-2011-IP-11 Rev. 1.

⁴ CMM 2008-01

In 2012, the WCPFC adopted an interim measure to extend the majority of the provisions CMM 2008-01. This measure maintains the longline catch limits established in CMM 2008-01 for 2012, with an exception for China, which was allowed to increase its annual longline bigeye limit from 9,314 mt to 11,748 mt (see Figure 5). The 2012 measure also maintains the 3 month purse seine FAD closure in the WCPO from July-September. The WCPFC is expected to adopt a new tropical tuna conservation and management measure at its 9th Regular meeting in December 2012.

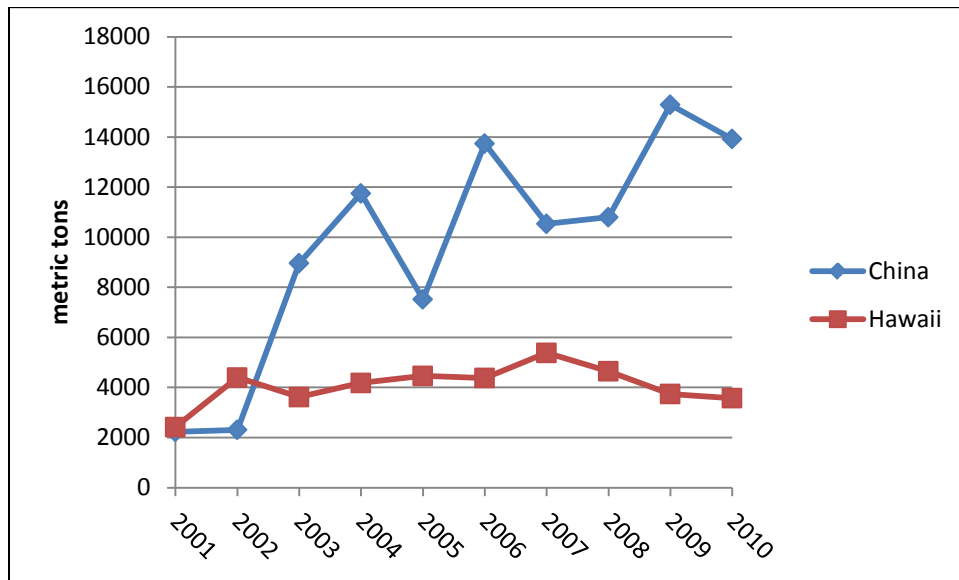


Figure 5: Trend in WCPO longline bigeye catches by Hawaii longline vessel and China-flagged longline vessels, 2001-2010.

Source: WCPFC8-2011-IP-11 Rev. 1.

US Territories and Responsible Fisheries Development

The Territories, which are grouped with the Small Island Developing States (SIDS) under Article 30 of the WCPFC convention, were provided separate and different longline bigeye catch limits under CMM 2008-01.⁵ First, the Territories are each provided an annual catch limit of 2,000 mt of bigeye in years 2009, 2010 and 2011.⁶ These catch limits are independent of the catch limit otherwise applicable to the U.S. and reportable to the WCPFC on an annual basis.⁷ Second, the annual bigeye tuna catch limits do not apply to the Territories if they are undertaking responsible development of their domestic fisheries.⁸ Similar to bigeye, the Territories and SIDS are not

⁵ Language is consistently applied in WCPFC conservation and management measures that such measures shall not prejudice the legitimate rights and obligations of Small Island Developing State and Participating Territories in the Convention Area who may wish to pursue responsible fisheries development

⁶ Paragraph 32 of CMM 2008-01. These limits were maintained for 2012.

⁷ The annual U.S. WCPO longline bigeye catch limit, as established by CMM 2008-01, is 3,763 mt (74 FR 63999).

⁸ Paragraph 34 of CMM 2008-01. These limits were maintained for 2012.

subject to WCPO catch or effort limits for pelagic species such as swordfish, yellowfin tuna, and albacore tuna if they are undertaking responsible fisheries development.

Within the WCPFC, there is no definition of what it means to be undertaking responsible fisheries development. From the Council's perspective, responsible fisheries development involves enhancing fisheries infrastructure, promoting fishing capacity that corresponds to the sustainability of the harvested resource and associated ecosystem, reducing underutilization and prevent overcapacity, increasing the selectivity of fishing gear and fishing efficiency, and ensuring appropriate monitoring, control, and surveillance of fishing activities.

The Territories are interested in responsibly developing fisheries (e.g. pelagic longline and troll/handline) for bigeye and other pelagic species, but existing barriers such as a lack of vessel capacity, transportation, infrastructure, and access to markets have been limiting factors (AECOS 1984; ASEAC 2002; Miller 2001; Bartram and Kaneko 2009). Examples of projects that would serve to enhance fisheries development are found in the Marine Conservation Plans (MCPs) of the Territories, which have been approved by the Secretary of Commerce pursuant to Section 204(e)(4) of the MSA. Under the Council's Pelagics FEP, requirements already exist for fisheries in the Territories for monitoring and control of fishing vessels including logbooks, VMS, observers, spatial management, gear identification, and measures to reduce protected species interactions.

American Samoa

In American Samoa, there is a longline fishery that primarily targets albacore in the EEZ to sell (frozen) to the local cannery⁹. In 2002, the Council recommended a limited entry program for the American Samoa longline fishery and in 2005, NMFS implemented the permitting system. The longline fishery in American Samoa experienced a rapid increase in participation in the late 1990's that has since declined, and also shifted from primarily as small-vessel (less than 50 ft) fishery to a large vessel (over 50ft) fishery. For example, in 2000, there were approximately 65 small longline vessels active in American Samoa, but in 2009 and 2010, only one of 28 active longline vessels in American Samoa was a small vessel. Some of larger vessels that fish out of American Samoa also hold Hawaii longline limited entry permits and fish for bigeye out of Hawaii during certain periods of the year. The American Samoa-based longline fleet catches approximately 200-400 mt of bigeye per year, which has been reported to the WCPFC by NMFS. American Samoa is facing significant economic challenges from recent events. First, the long-based Pago Pago cannery, Chicken of the Sea, which employed approximately 2,000 people closed on September 29, 2009. Second, a devastating tsunami hit American Samoa on September 30, 2009, the day after Chicken of the Sea closed, which destroyed approximately 20 local vessels and a newly constructed fish processing facility. Third, the other long-based cannery in Pago Pago, Star-Kist, laid-off approximately 800 employees of its 1,600 employees in 2010, citing American Samoa wage standards as reducing Starkist's competitiveness with Thailand canneries.¹⁰

⁹ Currently, Starkist operates a cannery in American Samoa. TriMarine has announced it will begin tuna canning operations at the facility, which was previously occupied by Chicken of the Sea, in 2012.

¹⁰ In 2012, Starkist employment in American Samoa has return to pre-2010 levels at around 1,700. Starkist at one time employed over 3,000 workers in American Samoa.

The American Samoa-based U.S. longline fleet relies on the cannery as its only market, but due to the cannery's tenuous future in American Samoa, there is a need to responsibly diversify this fishery and facilitate revival of the once active small vessel fleet. The development of a sustainable and multifaceted fishery sector could help reduce the economic impacts facing American Samoa. In 2011, Tri Marine began fresh fish export operations for tuna and bill under a subsidiary partnership called Samoa Tuna Processors at the facility previously occupied by Chicken of the Sea. Samoa Tuna Processors is planning to begin conducting tuna canning operations in 2013 or 2014.

American Samoa seafood marketing potentials were assessed by TEC, Inc. (2007). Three scenarios for new development directions identified by TEC represent points along a spectrum of possible futures for American Samoa's longline fishery. New Direction 1 emphasizes the potential for fresh export, particularly of high quality bigeye tuna, via air cargo to Hawaii and other US markets. New Direction 2 emphasizes processing pelagic species (e.g. swordfish) into value-added products for freezing and export via ocean cargo. New Direction 3 emphasizes close cooperation through a longline fishermen's association or cooperative to process and market canned or pouched albacore products in overseas markets under an American Samoa brand. In 2009, a preliminary responsible fisheries development plan was completed for the American Samoa longline fishery, and in that plan, all three directions were found to be components of responsible fisheries development, but also dependent on several projects to overcome existing barriers (Bartram and Kaneko 2009).¹¹ Existing barriers include limited air freight, lack of fish processing and cold storage facilities, limited longline vessel dockage in Pago Pago Harbor, fish handling and HACCP training, and product development.

Commonwealth of Northern Mariana Islands

CNMI has 50-100 small pelagic and bottomfishing vessels. In 2009, an emerging longline fishery began operating out of CNMI with two vessels targeting bigeye, yellowfin tuna, and other pelagic species. In the 1980's, CNMI used to be the base of several U.S. purse seine vessels, but those operations ceased in that decade. CNMI's local tourism market coupled with its close proximity to Guam and large Asian markets make responsible fisheries development a key area for economic growth. Fisheries development needs for CNMI include longline vessel capacity, large vessel docking space, fish processing and cold storage facilities, fish handling and HACCP training, and marketing development. According to Governor Fitial in his 2010 state of the Commonwealth report to the CNMI legislature, the CNMI economy is in severe disarray.¹² Governor Fitial mentioned in his report that the predicted effect of the U.S. federalization of CNMI minimum wage rates and travel visa requirements would result in a loss of about 44 percent of CNMI's total gross domestic product, 60 percent of its jobs, and 45 percent of its real personal income by 2015. He also stated the CNMI is now experiencing these adverse economic effects were that are projected by 2015.¹³

¹¹ See <http://www.wpcouncil.org/pelagic-fisheriestoday.html>

¹² <http://pidp.eastwestcenter.org/pireport/2011/January/01-03-03.htm>

¹³ Ibid.

Guam

Guam currently has hundreds of small scale fishing vessels that troll for pelagics and bottomfish using handline methods. There is one recently FEP permitted longline vessel on Guam, but it is currently inactive. Guam also used to homeport several U.S. purse seine vessels, but that ceased in the late 1980's. Due to its strategic location and regional air service hub, Guam also used to be a principal transshipment port for many foreign longline vessels, but the numbers of foreign vessels port calls to Guam has significantly decreased over recent years. The decline in foreign port calls is believed to be linked to the U.S. Shark Finning Prohibition Act and landing agreements between foreign vessels and neighboring Pacific Island Countries that restrict foreign vessels landing in Guam. Due to its history as a transshipment port, Guam does have cold storage facilities, but is lacking fish processing facilities. A fisheries development need in Guam is local capital for purchasing or leasing larger vessels that could allow local Guam fishermen to participate in larger scale, offshore tuna fisheries. Guam is close to large Asian markets, serviced by daily from flights to and from Honolulu, and has an expanding local population and markets related to tourism and the U.S. military buildup.

Responsible Fisheries Development and Bigeye Tuna Stock Status

Responsible fisheries development involves establishing appropriate catch limits for species subject overfishing (e.g. bigeye). The Territories have been provided separate and different longline bigeye catch limits under CMM 2008-01, specially 2,000 mt per year, or if conducting responsible fisheries development, than bigeye longline catches are unlimited. Without catch limits for the Territories, there is potential for unrestricted bigeye catches attributable to the Territories if fishing is increased over current levels. This would be contrary to MSA management objectives to end overfishing of bigeye tuna.

Establishing 2,000 mt annual catch limits for each of the three Territories does not mean that an additional 6,000 mt bigeye would be caught. The Council restricted the total amount a Territory could annually assign under a domestic charter arrangement(s) to 750 mt out of its 2,000 mt annual bigeye catch limit. Because Hawaii is the largest U.S. market in the region, and interest in Territory domestic charter arrangements has come from Hawaii longline vessels, the Council predicts that the majority of fishing under Territory domestic charter fishing arrangements will likely occur on the high seas adjacent to the U.S. EEZ of the Hawaii Archipelago (Region 2). The range of bigeye harvests as result of the proposed action is between 750 mt and 2,250 mt, as the each of the Territories are limited in the amount of bigeye they could assign under a domestic charter arrangement to 750mt per year. It is believed that this amount of additional bigeye mortality will have a negligible impact on the status of the bigeye stock for the following reasons:

- 1) Bigeye is considered a Pacific-wide stock, but separated into two management areas: the WCPO managed by the WCPFC, and the EPO managed by the IATTC. Within these management areas, several regions are identified for the purposes of the spatially disaggregated stock assessments. The area where fishing is expected to occur under the proposed action is in north-central Pacific Ocean. Primarily, this area is within Region 2 of the WCPO bigeye tuna stock assessment, and is where fishing mortality on bigeye is

significantly lower than along the equator. Therefore, any increases in fishing in this area would have a proportionately lower impact to bigeye fishing mortality than compared to other regions with much higher fishing pressure.¹⁴ In other words, the effect of the proposed action on the status of bigeye is negligible in terms of fishing mortality, as the largest impact to the WCPO bigeye stock occurs in the equatorial regions (See Figure 7).

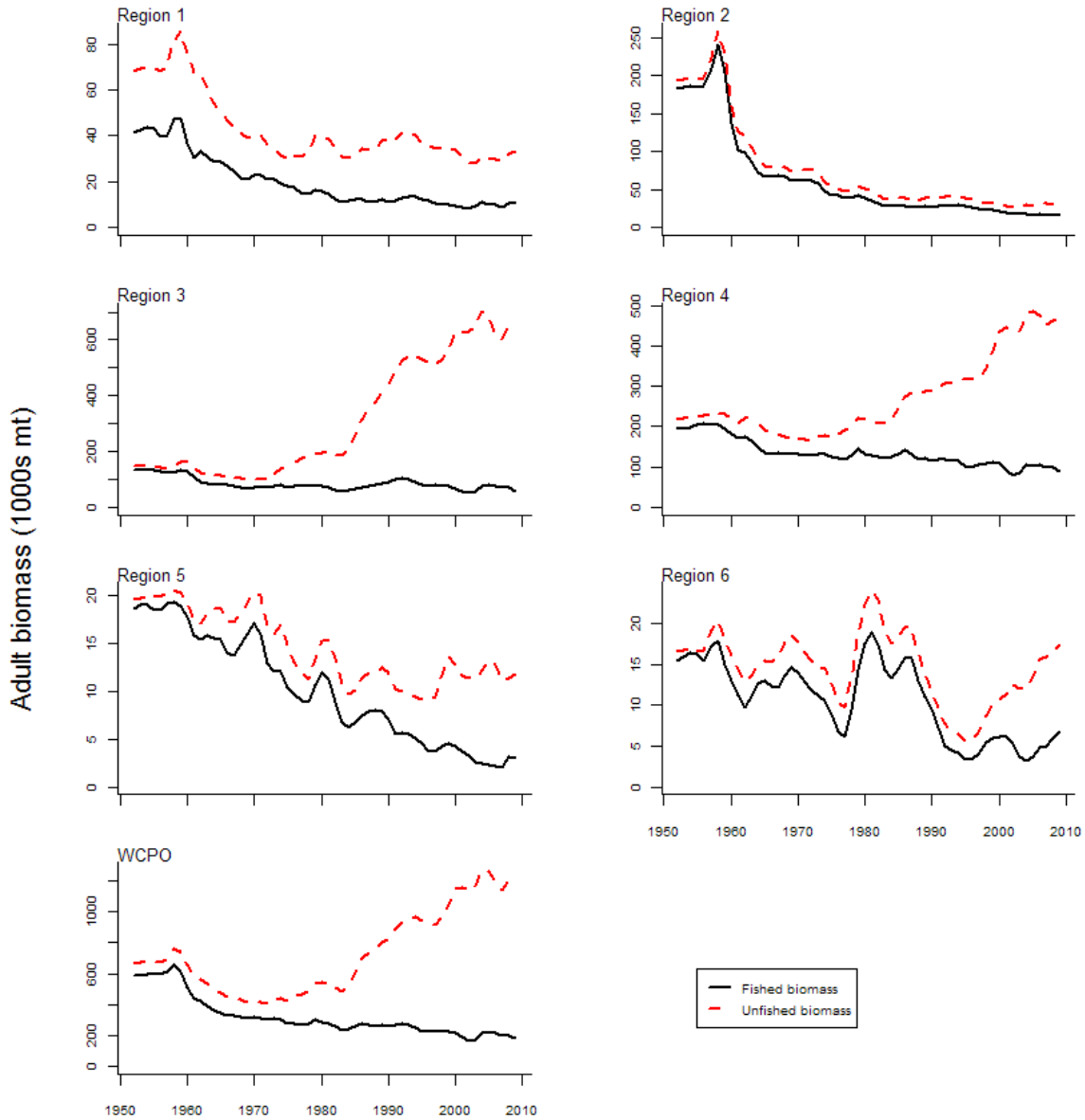


Figure 7: Comparison of the estimated adult biomass trajectories (lower heavy lines) with biomass trajectories that would have occurred in the absence of fishing (upper dashed lines) for each region and for the WCPO (base case model).

Source: Hoyle et al. 2010.

¹⁴ The north-central Pacific Ocean includes Region 2 and the northern third of Region 4 which are statistical areas used in the spatially disaggregated WCPO bigeye stock assessment.

2) Supporting fisheries development in the Territories is important to develop sustainable and responsible longline fisheries to fill U.S. markets. For the last decade, the US production of tuna has been less than foreign imports of tuna, with the balance increasing in recent years.

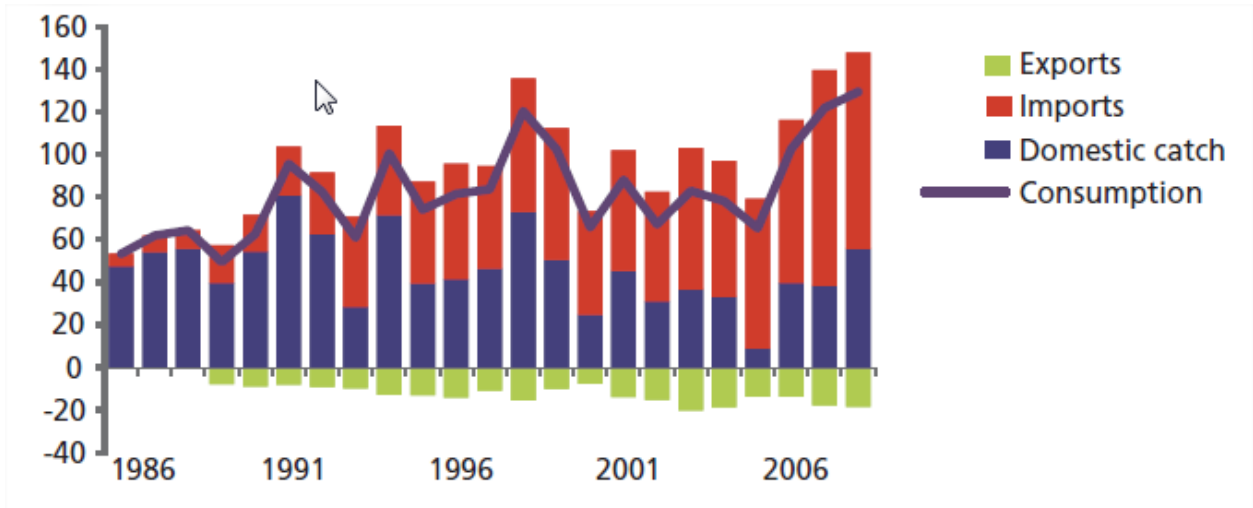


Figure 8: Domestic US catch, foreign import, and export (in thousand tons) of fresh and frozen tuna other than for canning purposes, 1986-2008

Source: Miyake et al. 2010

The issue of transferred effects is also important in the discussion of impacts to target and non-target species. The Hawaii market for fresh and frozen tuna is substantial and cannot be satisfied with the current amount of domestic landings. The strict regulation of the annual catch limits for the Hawaii-based longline fleet has left the Hawaii market wide open for foreign imports. If the Hawaii based longline fishery reaches its annual catch limit by the fall in any one year and is prohibited in fishing in the WCPO, it is believed that foreign imports will supply the market demand in Hawaii. The effect of strictly regulating the Hawaii based longline fleet is expected to represent the same or more amount of fishing for bigeye by foreign interest to satisfy the Hawaii market. Because foreign longline fisheries are less monitored and less regulated than U.S. longline fisheries, the proposed action would maintain or increase the supply of highly regulated bigeye into the Hawaii market. This could reduce the amount of less monitored, less environmentally friendly, foreign imported fish to the Hawaii market.