

**FFA**

29 OCTOBER 2021

Agenda Item:	4
Paper Number:	FFC120-WP.02
Title:	Updated IUU Fishing Quantification Study Report

Summary:

In 2016, the first attempt at quantifying the volume and value of IUU fishing in the Pacific Islands region was completed (based on data from 2010–2015). That study estimated an annual IUU volume during the study period of 306,440t, with an ex-vessel value of \$616.11m. Nevertheless, the authors noted that the data and information underlying many of the estimates were highly uncertain and that the outputs should be seen as a ‘first cut’.

In order to examine changes to the nature and extent of IUU fishing since that time, FFA commissioned a ‘2020 update’ of the study, covering the years 2017-2019. The objective was to undertake an ‘apples vs apples’ update, taking into account the latest information. The 2020 update has now been completed and estimates annual IUU volume of 192,186t (90% ci; 183,809t to 200,884t) with an ex-vessel value of \$333.49m (\$312.24m and \$358.17m). The 2020 estimates represent a substantial reduction on the 2016 ‘first cut’ estimates, with the largest changes in IUU volume driven by changes in the information available to quantify some risks.

While better information was available to quantify some risks (e.g. unloading coverage of longline fleets in FFA member ports improved considerably between the 2016 and 2020 studies), uncertainty around many of the estimates remains high. To that end, the 2020 estimates should be seen as the next evolution in an ongoing effort to refine approaches to quantify the nature and scale of IUU fishing in the region.

Recommendations:

The Committee is invited to :

- i. **Note** the outcomes of the ‘2020 Update’ of the IUU Quantification; and
- ii. **Consider** the main messages and priorities in the context of future MCS development priorities.
- iii. **Direct** the Secretariat to take account of the IUU mitigation priorities identified in the study in the annual work plan and the implementation of the RMCSS.

Introduction

1. The first attempt at quantifying the value and volume of IUU fishing in tuna fisheries within the Pacific Islands region was undertaken in 2016 using data from 2010-2015. That study estimated the total volume of product either harvested or transhipped involving IUU activity in Pacific tuna fisheries was 306,440t, with an ex-vessel value of \$616.11m. Nevertheless, the authors noted that the data and information underlying many of the estimates were highly uncertain and that the outputs should be seen as a 'first cut'.

2. In order to assess changes in the nature and extent of IUU fishing since that time, a '2020 update' of the original estimates was commissioned as part of the Global Environment Facility-funded Pacific Islands Oceanic Fisheries Management Project II (OFMP II). Broadly, the aim was to undertake an 'apples vs apples' update of the original estimates, using a consistent methodology and taking into account the latest available information. The study period covered the years 2017-2019.

Key Issues

3. The 2020 Update to the IUU quantification study has now been completed. The study estimates total annual volume of product either harvested or transhipped involving IUU activity in Pacific tuna fisheries during the 2017-19 period was 192,186t, with 90% confidence that the actual figure lies within a range of 183,809t to 200,884t. Based on the expected species composition and markets, the ex-vessel value of the best estimate figure is \$333.49m. The 90% confidence range is between \$312.24m and \$358.17m. For context, the estimated IUU volume figure is around 6.5% of the total WCPFC Convention Area (WCPFC-CA) catch in 2019.

4. Amongst the four categories of risk examined, the largest contribution to the overall IUU volume was made by misreporting, accounting for 89% of the total volume. Importantly, much of this volume was driven by misreporting and misidentifying target species in the purse seine sector for which challenges exist in making accurate estimates of catch at sea. The various types of unlicensed fishing collectively accounted for 5% of overall estimated IUU volume, while non-compliance with license conditions and post-harvest offences accounted for 3% each.

5. Of the three main sectors assessed, estimated volume of IUU product was highest in the purse seine sector, accounting for 72% of overall volume. Nevertheless, much of the estimated volume in this sector was driven by estimates for misreporting for which mechanisms exist (through 100% observer coverage) to correct any errors in catch reports and, given the nature of access arrangements under the VDS, it is likely that economic rents associated with any misreporting would be captured anyway. This result should be seen in that context. The tropical longline and southern longline sectors accounted for 21% and 7% of the overall volume respectively.

6. Importantly, the period covered by the study (2017-2019) preceded any COVID-19 related impacts on MCS and IUU activity in the region.

Analysis and findings

7. Apart from the headline volume and value estimates, there are a number of key messages arising from the analysis:

- i. **The reduction in estimates since 2016 is positive, but should be seen in context** - The overall volume and value of IUU estimated in this 2020 update are a substantial reduction on those from 2016. Broadly, this is a very positive result for the region and its MCS efforts, but should be seen in context. The 2016 estimates were a 'first cut' with highly uncertain data across a number of key risk areas. On that basis, estimates were kept deliberately broad to

account for high levels of uncertainty. For the 2020 study, new information became available to estimate some risks – most notably illegal transshipping and longline misreporting – while information previously used to quantify risks for the 2016 study were not available for the current study period. Broadly, it was these changes in the information base that produced the biggest overall changes in volume and value estimates. In addition, incorporating one new risk (exceeding effort limits) and removing another (unauthorised landing of catch in foreign ports) together with changes in fishing effort, catch rates and fish price also influenced overall estimates. In practice, the 2020 estimates should be seen as the next evolution in an ongoing process to refine approaches to quantify the nature and scale of IUU in the Pacific region.

- ii. **Cooperation works** - While IUU fishing in its various guises will require ongoing attention from FFA members, there is little doubt that the MCS measures FFA members and their partners/regional secretariats have implemented over recent decades have had a profound impact on both the nature and volume of IUU fishing in the region. Cooperative regional MCS measures have substantially strengthened the MCS environment across all member zones compared to individual members acting alone.
- iii. **Estimates continue to be dominated by the licensed fleet** - A key outcome of the 2016 study was that estimates of IUU volume and value were dominated by the licensed fleet. The 2020 update shows a similar pattern with unlicensed fishing accounting for only 5% of overall IUU activity.
- iv. **Unlicensed fishing remains an issue at the margins** - unlicensed fishing continued to be an issue at the margins, both figuratively and literally.
- v. **Priorities for strengthening MCS measures are in the longline sectors** – Of the two main gear types operating in the Pacific Islands region, the purse seine fleet is subject to comparatively very strong MCS arrangements including 100% observer coverage, a requirement to tranship in port and a requirement for e-reporting under the Parties to the Nauru Agreement's (PNA) Vessel Days Scheme (VDS). In contrast, MCS arrangements in place for the longline sector are weaker with lower observer coverage, a far higher proportion of effort on the high seas, and a higher proportion of the catch transhipped at sea which limits opportunities for port State MCS measures. Particular focus should be on strengthening measures to monitor and validate catch both on longline vessels and as it moves through the supply chain.
- vi. **Estimates of illegal transshipping have come down, but monitoring and control remain a work in progress** - The availability of WCPFC Transshipment Declaration information together with the Global Fishing Watch (GFW) Automatic Identification System (AIS) dataset has provided considerably better information on the scope for unauthorised transshipment than was available to the 2016 study. Broadly, this has led to a substantial reduction in overall estimates of volume and value. Nevertheless, important areas of uncertainty remain in the at sea transshipment component of the longline supply chain and monitoring and control remain a work in progress. In particular, improvements are required to strengthen the implementation of the observer program such that information provided by vessels on the volume and species composition of fish transhipped can be validated against independent observer estimates.
- vii. **'IUU' is not straightforward** – while the formal definition of 'IUU fishing' in the IPOA-IUU is relatively clear in theory, applying it for the purposes of quantifying its nature and extent presents a range of practical challenges. In addition to the inevitable uncertainties in the underlying data, resolving what should, and shouldn't, be considered in estimates frequently

requires judgements that can have a large impact on overall volume and value figures. The extent to which misreporting and misidentification in the purse seine sector should be considered 'unreported' is a good case in point.

- viii. **Ex-vessel value is not a good indicator of actual loss to FFA members** – this is because the full value of the catch is not returned to coastal states under normal circumstances (only a proportion of total revenue is, typically through access fees). A better benchmark of revenue forgone by Pacific Island countries is likely to be the rent generated by vessels from IUU activity, however even then the nature of access arrangements such as the VDS mean that economic rents associated with many IUU activities (e.g. misreporting) are likely to be captured anyway. Taking into account estimates of profitability during the study period in the purse seine and longline sectors, as well as the likelihood that rents associated with some risks (notably misreporting in the purse seine sector) are likely to be captured through the VDS, the study estimates the rent associated with ex-vessel IUU value to be \$43.18m. This is a considerable reduction on the 2016 estimate (\$152.67m), but the study notes may still overestimate the actual loss. More accurate estimates would require additional analysis of the unique circumstances of each IUU risk.

Priorities

8. The study concluded that the main priorities for strengthening MCS are in the longline sectors across both the tropical tuna and southern longline fisheries.
9. The key priority was noted as a need to continue to strengthen catch monitoring/validation throughout supply chain a range of possible measures including greater use of analytical tools to cross-verify logsheet reporting and active follow up of discrepancies, increased observer coverage and utilisation of electronic monitoring and a focus on the roll out of Catch Documentation Schemes (CDS).
10. There is also a need to strengthen transshipment monitoring and control and building capacity to independently validate transshipment declarations and activity. This includes a focus on better monitoring of offloading vessels, both in port and at sea and promoting electronic monitoring or 100% observer coverage as a condition of high seas transshipment?
11. FFA members need to be proactive in review of CMM 09 – 06 on transshipment and properly define the application of 'impractical' in allowing for high seas transshipment for longline vessels and promoting longline transshipment in designated ports and the associated enforcement of measures to validate transshipment reporting and records.
12. The study confirms that the purse seine sector is generally subject to strong MCS and the main needs are to ensure good systems are in place to validate catch composition and that effective control of FAD usage and registration and tracking in place.
13. The study also confirmed the important priority of ensuring that systems were in place across the region to ensure the ongoing and enhanced monitoring and analysis of key metrics in support of more ore real-time analysis of key risks and trends. This will require systematic collection, analysis and understanding of MCS data is support of the MCS continuous improvement framework agreed at FFC110.
14. The Quantification of IUU Fishing in the Pacific Islands Region - a 2020 Update Study Report is attached for Members' reference. This report is classified under the ISMS policy as **"GREEN -**

Shared with FFA Members but is not to be shared in public forums” until the report is officially launched and made public in the coming weeks.