

## Intern Summary

**Name:** Laurie Starr

**University:** Dalhousie University

**Duration of internship/ Thesis Research with MDPI:** July and August 2016

**Internship/Thesis Research title:** Chain of Custody Intern

### Introduction:

The purpose of this internship was to conduct a gap analysis on an existing tuna processing plant by comparing its current practices and how it aligned with the principles of the Marine Stewardship Council's (MSC) Chain of Custody (CoC) standard. The MSC CoC is one of the three pillars that, when combined, allow a fishery to bear the MSC label on their final product, and become "MSC certified". MSC-certified product is particularly desirable in the western market due to an increased demand from buyers for sustainably sourced seafood. This was a valuable exercise for the processing plant being analysed, as it was about to undergo an audit by a CoC auditor.

Another component of this internship was to develop a pair of tools that MDPI could use for current and future partners to outline (1) an overview of the supply chain and what kind of compliance documentation was necessary within each node (i.e. fishermen, suppliers, processors, and market) and (2) recommendations on changes that should be made within the supply chain in order to better comply with the MSC CoC.

### Internship Objectives:

- Conduct a gap analysis between various Indonesian supply chains (vertically integrated and disaggregated) and the MSC CoC Standard
- Based on the analysis, develop an action plan for remediation
- Develop a user-friendly generic report per supply chain type for distribution
- Develop a presentation tool/training module to distribute findings and recommendations

### Methods:

In order to complete this, the approach was two-fold. The first aspect was a paper review of the relevant literature such as existing national and international laws and regulations and MSC documents. The second aspect was conducting practical field work. To do this, a supply chain from a vertically integrated tuna handline fishery was followed in North Maluku. This path led from the processing plant through the

## Intern Summary

suppliers, and down to the fishermen. Five villages were visited, which enabled interviews with four suppliers and five focus groups with the fishermen they purchase from. When possible, local transportation and fisheries government offices were visited. Questions reflected themes like, the relationship that the local fishermen have with the government, what kind of licencing or registration do they possess, where and how they fish, and whether the motivation behind obtaining documentation was driven by a demand from the industry or a stipulation by the government.

### **Results:**

*Please note that the results of the gap analysis are confidential.*

All other information that was gathered during this time was compiled together to produce a generalized Indonesian supply chain map (Figure 1). At each node of the map there is an icon representing the type of documentation that is needed, given different variables (i.e. the size of your vessel or the role you play in the supply chain) When the icon is clicked, it will lead to a list of the various documents (Figure 2). Each item on the list is also hyperlinked to be able to send the user to an example of what that specific document looks like and other relevant information pertaining to that document. The MSC CoC recommendation tool manifested itself in the form of a question tree. This question tree was based off of the five principles that make up the MSC CoC. Depending on how different actors in the supply chain answer the questions in the tree, they will be led to different recommendations or changes they should make, in order to better comply with the MSC CoC. The result is an interactive PDF document.

## Intern Summary

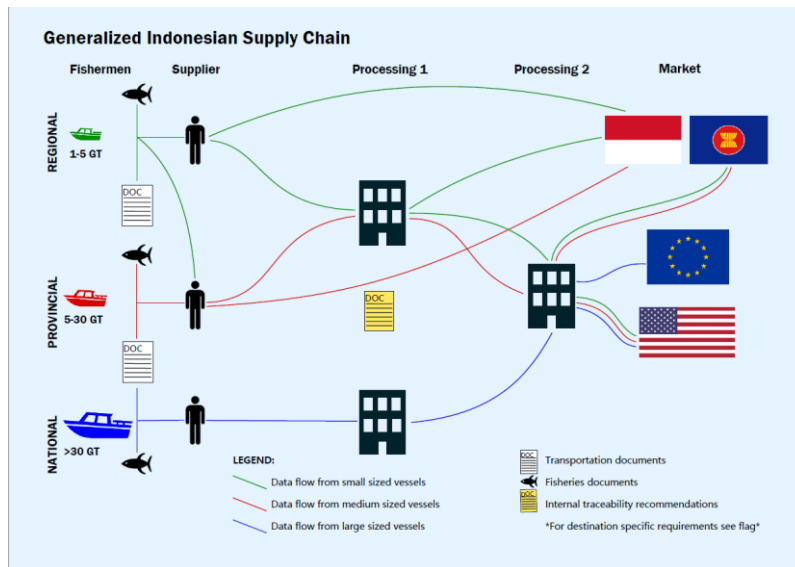




Figure 1: The homepage of the generalized supply chain. Icons have been explained in the legend. When clicked they will take the user to the relevant list, as seen in Figure 2.

 Department of Transportation documentation vessels under 7 GT:

1. [Sertifikat Kesempurnaan](#)
2. [Pas Kecil](#)
  - 2.1 [Surat Tukang](#)
  - 2.2 [Surat Keterangan Kepemilikan](#)
  - 2.3 [ID card](#)

 Department of Transportation documentation vessels over 7 GT:

1. [Surat Ukur](#)
  - 1.1 [Recommendation from KPP](#)
  - 1.2 [Surat Tukang](#)
  - 1.3 [Surat Keterangan Kepemilikan](#)
  - 1.4 [ID card](#)
  - 1.5 [Vessel photo](#)
  - 1.6 [NPWP \(tax number\)](#)
  - 1.7 [Surat Keterangan Persetujuan Penggunaan Nama Kapal](#)
2. [Gross Acte](#)
3. [Pas Besar](#)
4. [Surat Kelaikan dan Pengawasan Kapal Penangkap Ikan](#)
5. [Physical check](#)

[back to supply chain](#)

Figure 2: Example of list of documentation that would be necessary towards achieving compliance. Specific items are hyperlinked to lead the user towards an example of what that document looks like.

## Intern Summary

### **Discussion and conclusions:**

The results and conclusions of this internship are somewhat preliminary. Due to the short duration of the internship both the compliance map and the question tree can be expanded upon. However, based on the information that was gathered and available data, several observations can be made.

Firstly, it is clear that the motivation for MSC CoC certification is exclusively a top-down driven initiative. While not inherently negative, it can put the industry in a vulnerable position, should those higher up in the decision making process lose motivation. To this end, it is important to emphasize the potential for CoC certification throughout the supply chain (i.e. here, potential = market opportunities). It was also clear that motivation towards achieving compliance and following national regulations was motivated by the industry and its increased demand for traceable, legal fish rather than by the government and their attempt to implement laws. This was made even more evident when several of the villages visited did not have a local government office or jurisdictional governing body, generating huge difficulty in obtaining the correct documentation should fishermen or suppliers desire to acquire it.

In other cases, where there was a government presence, the local community often spoke of a negative and somewhat corrupt relationship with the government and made efforts not to interact with them. In the rare circumstances when there was an attempt to obtain documentation for fishermen and suppliers, the government was inconsistent among different villages. In some instances, the turnaround time between application and receiving of documentation was two weeks, whereas in other circumstances suppliers had been waiting years. While a good relationship between the local community and the associated government is not a necessity in achieving MSC CoC certification, it is an immense help in ensuring a faster timeline in the process. Additionally, establishing a physical location in which one can apply for documentation is beneficial.

While there is still much work to be done towards achieving perfect compliance and traceability in the tuna handline fishery, the current initiatives are inarguably, a good start. This project emphasized the complex nature of fisheries management, particularly in an island nation such as Indonesia.

## Intern Summary

### Follow-up steps for MDPI:

- Complete the compliance map such that it includes details on what is necessary to ship to the EU
- Complete the compliance map such that information pertaining to larger vessels is included
- Complete the compliance map such that copies/examples of all necessary documents is included
- Complete the questions tree such that the first three nodes also have associated question trees and recommendations
- Ensure that the recommendations from the results of the question tree are specific enough to enact changes
- Expand both types of documents to outline discrepancies between different fishing regions
- Expand both types of documents to understand how changes can be made in two types of supply chains (i.e. vertically integrated and disaggregated)



Discussing with enumerators and supply chain actors in North Maluku