**THE PROBLEM**

Seafood fraud is the practice of misleading consumers about their seafood in order to increase profits. 40% of the fish sold is mislabeled. By possibly not knowing what they eat, individuals may unwillingly consume harmful chemicals, mercury or antibiotics. Individuals buy fish which makes it hard to determine if what is bought is actually what it is. There is a big issue in the supply chain and the authenticity of the fish sold. The issue resides in the supply chain where there is a lack of authentication of the fish being sold.

**HOW THIS IS HAPPENING**

Transshipping: Seafood products are exported through several countries to avoid tariffs and duties

At sea-transfers: occurs when illegal fisheries transfer their catch onto cargo ships carrying legitimate seafood products

Seafood information gets mislabeled to sneak illegal products into the supply chain

Seafood Substitution: filleted fish is hard to identify and some fishers substitute low-value species for more expensive ones

**GOVERNMENT REGULATIONS**

**HIGH-INTENSITY**

Whole Foods is a market leader for the quality of the fish they sell by having a partnership with the Marine Stewardship Council (MSC). It is the largest certification program for sustainable fisheries. They have a program that requires boat to store traceability as well as they ensure that their suppliers do not use antibiotics, pesticides or growth hormones. They also focus on not selling any fish that may show traces of methylmercury. They even inform their consumers about the importance of choosing adequately the fish one eats.

**RECOMMENDATIONS**

DNA testing is a practice that could be more widespread in the supply chain of any business to ensure that the products they sell is actually what they claim. Businesses could buy whole fish and then filet it themselves as it is much harder to commit fraud when the fish is bought whole than when only the filet is bought. Business should provide more labeling than required by the CFIA which is very loose with regulations to ensure good fish quality to consumers.

Consumers need to be informed about the risks of consuming mislabeled fish as it is still fairly unknown to the general population.

Supermarkets should provide guidelines to ensure that consumers make informed decisions when purchasing seafood products. Blockchain technology like OpenSC provides a way to track the fish from the catch to the consumer and share this information through the use of QR codes to provide an open supply chain.

**MARKETPLACE RESPONSE**

**LOW-INTENSITY**

Walmart is a partner of the Sustainable Fisheries Partnership (SFP) that focuses on producing seafood sustainably but does not take any supplementary practices to ensure the quality of the fish sold.

**MEDIUM-INTENSITY**

Metro has a policy on the traceability of the fish they sell, they provide the scientific name for each species, the provenance as well as the type of capture. Also, since 2013 they have introduced a DNA testing program to confirm that the information of the supplier is true.

**HEALTH ISSUES**

**HARMFUL FISH**

Fish that are harmful to the human body are used as replacements for more expensive fish. Escorial is a fish that is frequently labelled as White Tuna and referred to as the laxative of the sea as consumption causes gastrointestinal pain such as diarrhea, vomiting and nausea.

**FARmed FISH**

Farmed fish is sold as being wild fish. About 40% of farmed salmon is sold as “wild caught.” Unwillingly consuming farmed fish could lead to the risk of eating chemicals, drug residue and antibiotics.

**TOXINS**

There exists an array of toxins that can be transmitted through the consumption of fish. These include but are not limited to mercury, ciguatera and scombroid poisoning. Each of these pose a serious threat to human health. This occurs particularly when people unwillingly consume reef fish.