PROTECTIONS AGAINST TRAFFICKING IN PERSONS
Mapping the Seafood Supply Chain

Supply chain mapping allows a company to trace the chain of custody – and points of accountability – at all levels of production, from harvesting or procurement of raw materials, to processing and packaging, to final sale. The supply chain for each product – including growers, processors or manufacturers, suppliers, vendors, agents, traders – will be unique, so supply chain mapping should be conducted on a product by product (or service) basis. Identifying first tier or “direct” suppliers is a straightforward process, but it can be more challenging to identify the suppliers’ suppliers, and then their suppliers, comprising the second, third, and lower tiers of the supply chain.

In the context of fishing and seafood, this means being able to trace product back to the original vessel or farm that harvested the fish. For some companies, it may mean tracing the suppliers of key inputs as well, enabling companies to see where the fish used in fishmeal was caught and processed, for example.

Most seafood companies already conduct some version of supply chain or traceability mapping as part of commercial transactions or contracts and to comply with food safety regulations. In recent years, there has been an emphasis on product traceability as a means to combat illegal, unreported and unregulated (IUU) fishing. Unless companies are working in a vertically integrated supply chain, however, most seafood companies currently only have visibility into where their product came from or is going “one level up/one level down.” Comprehensive mapping of a seafood supply chain would enable a company to trace the product back to the original vessel or farm that harvested the fish – where risk of abuse is highest. Identifying sub-tier suppliers can help companies know where to focus their attention when they assess risk.

The seafood sector is characterized by complex supply chains. In fact, ‘chain’ is a slightly misleading term because the layers, including multiple levels of middlemen, can be so intricate and opaque as to more closely resemble a web. Fish and shellfish are harvested in open waters or raised via aquaculture in ponds, tanks, or bounded coastal waters. Some wild-caught fish may be transported from the catching vessel by transshipment vessel to market. After harvest, fish are sold via auction, broker or market system and then packed and transported to processing facilities or wholesalers.

Processors convert the fish to consumer products such as canned, frozen, or smoked products, and fillets or other fresh products. Some fish may pass through multiple levels of processing, while others, such as certain kinds of shellfish, are transported live. Wholesalers receive both processed products, as well as more minimally processed fresh fish, from both foreign and domestic sources. The wholesalers then distribute the products to retailers and restaurants, where they are purchased by consumers. Accurately mapping a supply chain requires an understanding of the roles of all of these different actors.

In addition to tracing the flow of product throughout the operation, companies should map the involvement of third-party labor providers or recruiters wherever it is relevant. In some cases, suppliers may hire their labor directly, but in many other contexts, third-party labor providers have their own complex chain of sending and receiving brokers.
At a minimum, supply chain mapping and information gathering requires companies to track basic profile information on their direct and indirect suppliers. A company with a detailed understanding of its supply chain can more accurately target more detailed risk assessments and interventions, thereby working to mitigate their risk of the worst labor abuses.

**Illegal, Unreported, and Unregulated (IUU) Fishing**

Illegal, unreported, and unregulated (IUU) fishing refers to all activities that happen outside the control of laws and regulations, including activities such as fishing without a license, fishing in a closed area, fishing with prohibited gear, fishing in excess of a quota, and fishing of prohibited species. IUU fishing is closely linked to human rights abuses on vessels as these vessels operate with little oversight. But while the presence of IUU fishing can be a proxy risk for human rights abuses in a supply chain, companies should not assume that there is complete overlap between IUU fishing and human trafficking risks. For example, a short haul vessel using gear that is not approved in a particular fishery likely has lower overall human trafficking risk than a long-haul vessel with a flag of convenience using at sea-transshipment against fishery regulations. The lack of transparency that accompanies IUU fishing can also inhibit supply chain traceability – if vessels are operating illegally, there are likely forgery implications for documentation such as catch certificates that are crucial for supply chain visibility.

For more information on IUU fishing, see:
- [Environmental Justice Foundation](http://ejfoundation.org/campaigns/oceans/item/ending-pirate-fishing#1);
- [National Oceanic and Atmospheric Administration](http://www.nmfs.noaa.gov/ia/iuu/iuu_overview.html);

**EXAMPLES OF ACTORS IN SEAFOOD SUPPLY CHAIN**

**Retail Buyers** - Supermarket chains as well as warehouse/club stores dominate the retail market for seafood, but the category also includes customer-facing seafood markets. Purchasing decisions are generally made at the regional or national level. Retailers may purchase directly from processors, importers, or seafood distributors.

**Foodservice Buyers** – These buyers include restaurants (including large regional and national chains), and health care and educational facilities. Foodservice buyers generally purchase from seafood distributors.

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Distributors/Wholesalers - These distributors provide products to retail and foodservice buyers. Distributors and wholesalers usually have their own refrigerated transportation which they use to deliver the product to the buyer. “Broadline distributors” sell a wide range of items, rather than specializing in seafood. Distributors/wholesalers purchase product from importers, processors and brokers. “Specialty seafood distributors” specialize in seafood and are more likely to incorporate fresh products, which they purchase from distributors including importers and processors.

Traders/Brokers - The terms ‘trader’ and ‘broker’ may be used interchangeably and they both act as middlemen in the seafood supply chain. After purchasing product, they sell it to a range of actors including exporters, importers and retailers. Brokers may sell product on behalf of a processing plant, helping them place goods with distributors or retailers. Both trader and brokers sell large volumes of product, usually measured by container and rarely take physical possession of the product. They are usually paid based on commission per amount of product sold.

Seafood Processors - Processors play a number of roles, and there may be multiple levels of processing. Some processors (often referred to as primary processors) may head, gut and clean fish before selling to a downstream buyer, including additional processors. Some primary processing may take place on board large scale vessel. Other processors (often referred to as secondary processors) may conduct more extensive processing such as canning or processing fish into consumer-convenient forms such as fish sticks or skinless, boneless individual portions. Processors (particularly primary processors) may be vertically integrated with fishing vessels or aquaculture farms. Primary processors may also buy fish from traders, brokers, or other middlemen. After initial processing, primary processors sell the product and arrange for transportation to the buyer. Secondary processors also procure fish from middlemen, as well as from primary processors directly. Processors “take title” of purchased fish – that is, they own it until it is sold to a buyer. Some processing plants may also create fishmeal, which is reintegrated in the seafood supply chain as feed for aquaculture farms.

Importers - Importers bring product into a receiving country, purchasing from international suppliers. Secondary processors, wholesalers, and traders/brokers may act as importers. Large end purchasers such as restaurant or supermarket chains may also import from suppliers in foreign countries.

Exporters - After purchasing a seafood product, often product that has been through processing, exporters sell to international buyers. Any intermediary in the seafood supply chain may export to a secondary country; For example, processing companies may act as exporters.

Auction - Auctions sell fish from vessels, confirm compliance with sanitary laws and sell to brokers/traders or processors.
Ports - Product traceability on land begins when fish enter ports. However, landing documents can be falsified if the port state does not tightly maintain compliance with legal documentation requirements. Further, ports have significant leverage to inspect ships while they are in port. Ports with lower levels of inspection and law enforcement may provide an opportunity for vessels operating outside the law, and allow potential abusive practices of workers to escape detection.

Transshipment - Transshipment is the offloading of fish from the original capture vessel to a transport vessel, which then carries the product to port. Transshipment at sea means that the transfer is outside of the jurisdiction of port state officials. Transshipments allow vessels to avoid entering ports for longer periods of time, increasing the vulnerability of workers on board to abuse. Further, product from many vessels can be mixed on board transshipment vessels. Some large transshipment vessels also have on-board processing facilities.

Commercial vessel - Commercial vessels harvest wild caught fish. Larger vessels may have capabilities on board for cold storage and primary fish processing. Commercial vessels employ workers, sometimes recruited via labor broker.

Small scale vessel - Small scale vessels harvest wild caught fish. Due to smaller size and lack of storage facilities, such vessels are likely to make shorter journeys. Small scale vessels employ workers but are more likely than commercial vessels to recruit workers directly.

Aquaculture/fish farms - Aquaculture, including fish farms, feed, grow and harvest fish which is then sold to a middleman. Farms may hire workers directly or through a labor broker.

Labor broker/Labor contractors/Third party labor suppliers - Third party labor providers provide workers, often migrants, to vessels, docks, processors and farms. They play a legitimate role in job placement, closing the gap between potential workers and their employers. They may range from large manpower agency firms to informal brokers, sometime as casual as a single agent working on a dock with relationships to boat captains. Verité’s research has found that the widespread global system of labor brokerage is often opaque and largely lacking in accountability. The debt and deception that brokers often introduce to the hiring and recruitment process can create vulnerabilities to forced labor and trafficking for workers. In the Thai seafood sector specifically, fishing vessel workers are often recruited through informal channels of vessel operators in contact with a network of mostly unregulated labor brokers. Workers may be promised high wages or jobs in other sectors. Recruiters operate in sending villages in countries including Burma, Indonesia and Cambodia, and operate in Thailand as well for migrant workers who have already crossed the border. For more information on the link between labor brokers and forced labor, see: http://www.verite.org/helpwanted.
It is especially important to note places in a supply chain where visibility is lost due to significant product aggregation and co-mingling, such as in sea transshipments, cold storage facilities, markets/auctions, processing plants, and distributors/exporters.

**SAMPLE SEAFOOD SUPPLY CHAIN MAPS**

Sample Fishing Supply Chain
Sample Shrimp Supply Chain

Labor supply  Product flow
SUPPLIER PROFILE INFORMATION TO GATHER

In addition to tracing the flow of product through the supply chain, mapping activities present an opportunity to collect profile information from suppliers than can be useful in the risk assessment described in Tool 4. Note that these are also aligned with key data elements described in Tool 5. For seafood sector suppliers, this information might include:

“Land-Based” Supplier Profile Information
- Supplier name
- Supplier address
- Type of Product
- Number of workers employed
- Number of workers hired via labor brokers
- Seasonality of production

“Vessel-based” Supplier Profile Information
- Supplier
  - Company name and contact information
  - Vessel name
  - Vessel license number
  - Unique Vessel Identification
  - Flag state
- Captain
  - Captain name
  - Captain license number
  - Captain identification number
  - Captain nationality
- Recruiter/Labor Broker (where possible, link labor recruiters to individual workers contracted)
  - Name of each recruiter used
  - Contact information
  - Nationality
  - Nationality of workers provided
  - License number
- Worker Profile
  - Worker name;
  - Worker ID/passport number/work permit number;
  - Does worker have appropriate documentation (yes/no);
PROTECTIONS AGAINST TRAFFICKING IN PERSONS
Mapping the Seafood Supply Chain

- Worker nationality;
- Worker date of birth;
- Port of embarkation;
- Length of employment with current captain/employer

- Operations
  - Type of product supplied
  - Size of vessel
  - Gear used on vessel
  - Typical number of workers hired
  - Seasonality of production
  - Duration of typical voyage
  - Use of transshipment at sea

SOURCES OF INFORMATION FOR SEAFOOD SUPPLY CHAIN MAPPING AND PROFILE DEVELOPMENT

- Supplier self-assessments/self-reporting
- Supplier interviews
- Supplier site visits/audits (documents, records)
- Receipts, purchase orders, landing certificates