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REPORT

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A close-up photograph of fresh fish, likely salmon, resting on a bed of crushed ice. The fish are arranged in a row, with their heads facing left. The background is a bright orange surface, possibly a display tray. The lighting is bright, highlighting the texture of the fish scales and the clarity of the ice.

## Seafood Supply Chain Risk in Hong Kong Supermarkets

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### Executive Summary

Seafood is an important source of protein and income for many millions of people around the world. The global production of seafood, either from wild catch or aquaculture fisheries, increased from 20 million tonnes in 1950 to 167 million tonnes in 2014. Of the total, about 146 million tonnes was used for human consumption<sup>1</sup>. The sustainability of fisheries is a highly significant factor in meeting today's demand and protecting natural resources for future generations.

Supermarkets source large quantities of seafood from around the world. As such they are one of the main influencers on the global supply chain for products from international fisheries. Consumers deserve to be able to trust that the seafood they purchase in Hong Kong supermarkets comes from responsible, sustainable sources. Supermarket chains in places as diverse as Japan, the US, Germany and South Africa have now embraced sustainability, adopting action plans to rid their stores of unsustainable seafood and thus build trust with their customers. Several recent examples demonstrate the ways in which supermarkets can adopt sustainable seafood policies. These include:

1. **Marks and Spencer (M&S):** This UK-based global chain partnered with WWF-UK in 2004 to develop a sustainability plan, which M&S then launched in 2007. The plan set out 100 commitments to help protect the environment. One of the company's pledges was aimed at protecting sea life and beaches. By 2014, more than 80 per cent of wild seafood sourced by M&S had been certified by the Marine Stewardship Council (MSC) as being sustainable seafood, with the remaining products covered by an improvement plan worked out with WWF. Then, by 2015, M&S had ensured that all farmed seafood was certified by the Aquaculture Stewardship Council (ASC) and assessed by WWF.
2. **Migros** has been co-operating with WWF-Switzerland since 2008. They have made a commitment that by 2020 they will either sell seafood with an eco-label (MSC or ASC), or only seafood listed in the "Green – Recommended" or "Yellow – Think Twice" categories in WWF's Seafood Guides.
3. **AEON** became Japan's first retailer to partner with WWF in 2014. The chain has initially committed to increase the proportion of ASC- and MSC- certified seafood that it sells from three per cent to 10 per cent by 2020.

Here in Hong Kong, a city often depicted as a seafood lover's paradise, our local supermarkets also have the potential to play a much more proactive role in bringing sustainable seafood to consumers. It is now time for major Hong Kong supermarkets to join the global movement and adopt sustainable business practices to ensure that the world's oceans remain healthy and able to provide a continuous supply of seafood into the future.

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<sup>1</sup> <http://www.fao.org/3/a-i5798e.pdf>

This finding is the result of in-depth research conducted by WWF-Hong Kong into the type of seafood products currently available in our local supermarkets. Using information gathered between July 2015 and September 2016, we surveyed 96 supermarkets out of the 1,129 total outlets (8.5% of all outlets) and some 657 seafood product samples, representing 231 non-duplicated records of four commonly-sold seafood products, namely shrimp, sea cucumber, frozen grouper, and basa.

We also surveyed local seafood supply chains, looking into seafood from 64 suppliers and 14 countries. The results present a clear picture of the state of seafood sustainability along these supply chains, while also illustrating the associated environmental, social and legal risks involved when supermarkets do not source their products sustainably. Using a strict set of criteria, the survey provides an indicative risk score for seafood which takes into account both the supermarket chain and the country of origin: the higher the risk, the greater the need for purchasers to look at how to improve the sustainable sourcing of various seafood products and consider discontinuing unsustainable or uncertified products.

The survey results are outlined in detail in this report: WWF-Hong Kong's *Seafood Supply Chain Risk in Hong Kong Supermarkets* released in October 2016. The results reveal that out of the 96 supermarkets visited, representing some 21 supermarket brands, many have not yet implemented sufficiently sustainable product sourcing policies. In fact, it can be said that some use practices that cause on-going damage to the world's ocean ecosystems.

Hong Kong's current seafood sourcing practices are concentrated in just **nine** supermarket groups. WWF-Hong Kong is now seeking their co-operation in terms of implementing more robust purchasing standards.

The results of the investigation show that no supermarket chain is "low risk", there is still room for improvement across the supermarket sector to lower these risk ratings and move away from practices sourcing any unsustainable seafood product. Practices that need to stop and require remedial action by Supermarket purchasing teams include any retailing of unsustainable seafood or globally threatened species, seafood linked to fisheries with poor labour practice and the presence of chemicals in some seafood samples, chemicals which are banned in some countries for health reasons.

The investigation findings indicate how Hong Kong supermarkets such as Moretide Investment and Dairy Farm Group are selling globally threatened species and seafood products associated with slavery. A risk matrix which ranked each supermarket chain in terms of their association with seafood linked to serious environmental, social and legal problems found that 11 were at high risk, and 10 were at medium risk.

The physical market survey revealed that some globally threatened species, such as Japanese eel and Golden threadfin bream, were being sold in some of the surveyed outlets. The results of chemical tests performed on some seafood samples taken from selected supermarket chains (Gourmet, PARKn Superstore and PARKn Frozen Store) revealed the presence of a metabolite of nitrofurazone<sup>2</sup> in Basa products, which in some countries and in certain concentrations can be considered carcinogenic.

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<sup>2</sup> Nitrofurazone is a kind of antibiotic and is possibly carcinogenic. It has been banned for aquaculture use in the US, Australia, the EU and China, but it has not been banned in Hong Kong.

The supermarkets in question have been made aware of these findings so that remedial action regarding their purchasing policies can be taken. It is important that all supermarkets improve their sustainable seafood sourcing efforts. These efforts must involve action to phase out threatened species and remove products linked to poor labour practices. WWF-Hong Kong will continue to follow up with the supermarkets involved in this survey.

WWF-Hong Kong is encouraging Hong Kong's supermarket sector to adopt best practices at every level. Supermarket management should establish action plans to progressively increase the percentage of sustainable seafood, phase out identified problematic products and increase their range of sustainable seafood products. Supermarkets in Hong Kong need to set targets to become completely sustainable as soon as practicable and thus reassure consumers that they can shop with confidence for properly-sourced seafood. These practices will also let the fishing and aquaculture industry supplying Hong Kong supermarkets know that our local supermarket chains are a market for sustainable products.

Through these investigations, WWF-Hong Kong aims to improve consumer awareness about this important subject and work with the supermarket sector to address the various issues related to responsible sourcing of seafood products.

## **Section A: Risk Matrix**

### **1. Project background and development of the risk matrix**

In 2007, WWF launched the “Seafood Choice Initiative” in Hong Kong. The initiative came in response to the depletion of marine resources and a growing awareness of the worldwide fisheries crisis. Scientific data pointed towards an ocean in crisis, and there was a clear need to begin monitoring the fishing industry and start pushing both the industry and society as a whole towards a new paradigm: only taking and consuming fish from sustainable stocks.

Soon after, WWF published our first Seafood Guide, placing popular seafood into three categories based on its sustainability: “Green – Recommended”, “Yellow – Think Twice” and “Red – Avoid”. In the ensuing years, WWF has continued to educate consumers about the importance of protecting our ocean resources. We have also begun working with the catering sector, including hotels, restaurants, clubhouses and fast food chains, encouraging them to source seafood from sustainable stocks.

While Hong Kong continues to enjoy a seemingly endless supply of seafood arriving from all over the world, few of us are aware of the effects that our huge appetite is having on the marine environment. The next phase of our Seafood Choice Initiative involves research into the city’s seafood supply chain, designed to make the connection between our seafood consumption and the sustainability of the world’s oceans. This stage also involves advocacy to drive behavioural change in the sustainable supply and purchasing practices of Hong Kong’s various wholesalers, retailers and consumers.

WWF-Hong Kong also seeks to engage the commercial sector, which is significantly large and mature enough to act together to positively implement sourcing policies which focus only on sustainable seafood. WWF aims to promote responsible purchasing standards and increase the supply of sustainable products in the local marketplace. In turn, this will then create a cascade effect, facilitating the supply of quality sustainable seafood to F&B outlets and ultimately, consumers.

This report seeks to persuade leading supermarket chains in Hong Kong to responsibly source only sustainable seafood products by gathering data on unsustainable seafood products in the supply chain, and highlighting the environmental, social and legal risks of continuing to source unsustainable seafood. The information provided in the report is intended to open a dialogue with the supermarket chains and educate consumers about how to make responsible, sustainable choices when making seafood purchases. The project was conducted in three phases, the overall objectives of which were as follows.

- Phase I: Carry out surveys in selected supermarkets to gather information on seafood products, looking at their source (wild caught or farmed), their country of origin and any processor or supplier information as shown on the package
- Phase II: Based on the information gathered in Phase I, undertake research on the environmental, social and legal issues relevant to the seafood species’ supply chain in major supermarket chains in Hong Kong. The aim was to quantitatively and qualitatively identify the issues involved in these supply chains and any associated risks faced by the supermarket chains.
- Phase III: Present the research findings to supermarkets and consumers to highlight the environmental, social and legal issues involved in the production or harvesting of selected seafood products (specifically shrimp, basa, frozen grouper, and sea cucumber) sourced by selected supermarket chains in order to build consumer awareness of these issues.

## 2. Study Scope

### 2.1 Supermarkets and brands

There are 21 supermarket brands in Hong Kong. These are owned by a total of nine groups or companies (Table 1). Together, these comprise the largest source of seafood sales in Hong Kong's food retail sector.

During each survey conducted in Phase I, photographs of the four selected seafood products were taken, and information about the products recorded, including – but not limited to – country of origin, sources, the species' Latin name, labels, and information about the processor and importer, including contact information.

| <b>Group name /company</b> | <b>Supermarket brand</b>   |
|----------------------------|--|
| CR Vanguard                | CR Vanguard  |
| AEON stores                | AEON, AEON Supermarket   |
| A.S. Watsons               | PARKnSHOP Frozen Store, PARKn Supermarket, PARKn Superstore, International, Taste, Fusion, Gourmet, Great, Supa Depa           |
| Dairy Farm                 | Wellcome Supermarket, Marketplace by Jasons, Oliver's the Delicatessen, ThreeSixty, Jasons, Food & Living, Wellcome Superstore |
| City Super Group           | Citysuper  |
| YATA Group                 | YATA Supermarket and YATA Department Store   |
| Moretide Investment Ltd    | Kai Bo   |
| DCH Group                  | DCH Deluxe and DCH Food Mart   |
| CEC                        | 759 store, 759 Frozen Food and 759 Supermarket   |

**Table 1 nine supermarket groups and their brands**

## 2.2 Selecting seafood species for the survey

During the initial few surveys, eight seafood types – shrimp<sup>3 4</sup>, eel<sup>5 6 7</sup>, basa<sup>8</sup>, grouper<sup>9 10</sup>, sea cucumber<sup>11 12</sup>, South African abalone<sup>13 14</sup>, toothfish<sup>15 16</sup> and fish maw<sup>17</sup> – were selected for various reasons. These included their prominence in news reports, their conservation status, sustainability issues, and any potential impacts on the environment, legality or society that could result from their sourcing.

However, preliminary research found fewer than 100 records of eel, South Africa abalone, toothfish and fish maw in supermarkets. The availability of these four seafood types was thus relatively low<sup>18</sup> in the supermarkets surveyed and they were eventually eliminated from the study. In the end, four types of seafood were selected, listed as follows:

### Shrimp (both farmed and wild caught, frozen and packaged)

Shrimp is ubiquitous in the Hong Kong seafood market and is a relatively common ingredient in the daily meals of many Hongkongers. Species include *Atypopenaeus stenodactylus*, *Metapenaeopsis barbata*, *M. palmensis*, *Parapenaeopsis tenella*, *Trachypenaeus curvirostris*, *Penaeus orientalis*, *P. vannamei* and *P. monodon*. However there are serious sustainability issues associated with both methods of harvesting shrimp, including the use of chemicals in shrimp farming and unregulated bottom trawling in wild caught shrimp fisheries.

Live shrimp is also available in most Hong Kong supermarkets. However, these shrimp often come with no information on the packaging regarding species, country of origin, source, or processor or distributor. Alternatively, frozen and packaged shrimp (see the pictures below) are popular in Hong Kong. These shrimp are readily available in supermarkets, and their packaging usually lists comparatively more information.

For the purposes of this report, “shrimp products” will refer to frozen and packaged shrimps (with or without heads, and either peel or unpeeled). The term excludes shrimp chips and other highly-processed shrimp products like wontons.

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<sup>3</sup> <http://www.foodsafetynews.com/2015/04/consumer-reports-tests-find-60-percent-of-frozen-shrimp-contaminated-with-bacteria/#.V1U0ovl96Uk>

<sup>4</sup> <http://www.theguardian.com/global-development/series/modern-day-slavery-in-focus+world/thailand>

<sup>5</sup> <http://www.iucnredlist.org/details/60344/0>

<sup>6</sup> <http://www.iucnredlist.org/details/166184/0>

<sup>7</sup> <http://www.nydailynews.com/news/world/chinese-smugglers-caught-stealing-million-baby-eels-article-1.2090474>

<sup>8</sup> <http://english.vietnamnet.vn/fms/business/135715/us-imposes-tough-standards-for-vietnam-s-food-imports.html>

<sup>9</sup> <http://www.theguardian.com/global/the-coral-triangle/2015/sep/25/wwf-worlds-richest-reef-system-could-soon-succumb-to-climate-change>

<sup>10</sup> <http://www.iucnredlist.org/details/43974/0>

<sup>11</sup> <http://www.iucnredlist.org/details/180373/0>

<sup>12</sup> [http://www.nytimes.com/2013/03/20/world/americas/quest-for-illegal-gain-at-the-sea-bottom-divides-fishing-communities.html?\\_r=0](http://www.nytimes.com/2013/03/20/world/americas/quest-for-illegal-gain-at-the-sea-bottom-divides-fishing-communities.html?_r=0)

<sup>13</sup> <http://www.cnbcafrica.com/news/southern-africa/2014/10/24/marine-fisheries-poaching/>

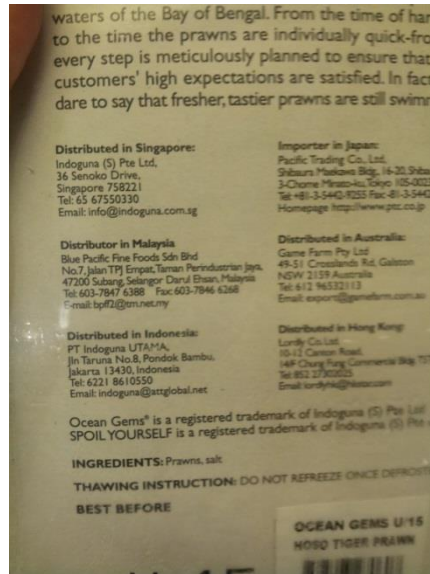
<sup>14</sup> <http://support.iucnredlist.org/species/south-african-abalone>

<sup>15</sup> <http://www.smh.com.au/national/last-catch-for-polar-toothfish-pirates-20150806-git43a.html>

<sup>16</sup> <http://www.abc.net.au/news/2015-11-09/sea-shepherd-prepares-second-mission-targeting-illegal-fishing/6924194>

<sup>17</sup> <http://www.dailymail.co.uk/news/article-2719960/Its-aquatic-cocaine-Mexican-smugglers-selling-FISH-BLADDERS-used-thousands-dollars.html>

<sup>18</sup> On average, each of these four types of seafood was only present in 14 out of these 27 brands of supermarkets with only 45 records.



### Groupers (both farmed and wild caught, frozen and packaged)

Hong Kong is a global consumption and trade hub for groupers. Almost all grouper species available in Hong Kong that have been assessed were found to be from unsustainable sources<sup>19</sup>, either wild capture or from aquaculture fisheries. As with the case of shrimp, in general in the live grouper trade there is relatively little information available regarding the species, country of origin, source (whether wild caught or farmed) and processor or distributor. While this study aims to explore the social, legal and environmental impacts of unsustainable seafood in the supply chain and Hong Kong supermarkets, the lack of information on live groupers make tracing the entire supply chain of these live fish extremely challenging, if not impossible. Therefore, this study necessarily study focuses on frozen grouper. For the purposes of this study, “grouper products” will refer to frozen and packaged groupers or their parts.

Notably, in recent years, has been an increased market availability of frozen and packaged groupers available in Hong Kong (see photo below). The packaging of these products often has information about the species and so on listed on it; this information being fundamental to tracing the products’ origins.

### Sea cucumber (mainly wild caught, and frozen and packaged)

Sea cucumber is often referred to as “ginseng of the sea”<sup>20</sup>, due to its perceived high value in food therapy treatments. Sea cucumber is also considered a healthy food as it is rich in protein, but low in fat and cholesterol<sup>21</sup>. As such, it is a popular seafood product in both the Hong Kong and China markets<sup>22</sup>.

<sup>19</sup> [http://awsassets.worldwildlife.org/downloads/wwf\\_2014booklet\\_eng\\_part1\\_2\\_0306\\_final.pdf](http://awsassets.worldwildlife.org/downloads/wwf_2014booklet_eng_part1_2_0306_final.pdf)

<sup>20</sup> <http://chinesefood.about.com/od/shoppingredients/p/seacucumber.htm>

<sup>21</sup> <http://www.itmonline.org/arts/seacucumber.htm>

<sup>22</sup> <https://www.edf.org/sites/default/files/content/chinasluxuryseafooddemand.pdf>



Today's chefs find it convenient to use frozen sea cucumbers for cooking<sup>23</sup>, meaning that these products are now readily available in Hong Kong's supermarkets; but this also means that sea cucumber's popularity and increasing market availability have led to a drastic drop in their wild population<sup>24</sup>. The brown sea cucumber, *Isostichopus fuscus*, found in coastal areas of Ecuador, the Galapagos Islands, Mexico and Peru has been listed in CITES Appendix III (which is the only species) since 2003<sup>25</sup> – the only species of sea cucumber to be listed – and is regarded as an endangered species<sup>26</sup>. The sea cucumber risk matrix is focused on the items that consumers can purchase in supermarkets, and dried sea cucumber is uncommon in these outlets. Therefore, for the purposes of this report, "sea cucumber products" will refer to frozen and packaged sea cucumber or their parts.

### Basa (mainly farmed, frozen and packaged)

The Basa, *Pangasius bocourti*, and Tra, *Pangasius hypophthalmus*, are species of catfish from the Pangasiidae family. For the sake of clarity, in this study, the term "basa" will be used to refer to both species. Basa is native to the Mekong and Chao Phraya river basins in Indochina, with Vietnam being one of the main export countries for this fish. The value of exported basa, now sold in 142 countries and territories, accounted for two per cent of Vietnam's GDP in 2014, according to Vietnam Plus<sup>27</sup>. There have been a number of scandals centring on basa farming<sup>28</sup>, including the use of chemicals, pollution discharge and contaminated farms<sup>29</sup>. In addition, most fish farms in Vietnam are located along the Mekong River and use its water, however the water of the Mekong is heavily polluted through the daily activities of factories, tourists and residents<sup>30</sup>.

This study will focus on the farming-related issues involved with basa products. According to the UN Food and Agriculture Organization's "Globefish", imports of frozen basa fillets by Singapore, Thailand, China, Malaysia, Taiwan, the Hong Kong SAR, India, Japan and the Republic of Korea have reached an approximate total of 65,000 tonnes<sup>31</sup>. In Vietnam, this species is widely farmed as the industry works to service this high demand<sup>32 33</sup>.

## 3. Phase 1 – Supermarket Survey

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<sup>23</sup> [http://www.hkjebn.com/en/mo/knowledge/frozen-sea-products?selected\\_redirect=1](http://www.hkjebn.com/en/mo/knowledge/frozen-sea-products?selected_redirect=1)

<sup>24</sup> <http://theconversation.com/sea-cucumbers-are-so-popular-in-asia-they-face-extinction-24011>

<sup>25</sup> [http://www.speciesplus.net/#/taxon\\_concepts/9244/legal](http://www.speciesplus.net/#/taxon_concepts/9244/legal)

<sup>26</sup> <http://www.iucnredlist.org/details/180373/0>

<sup>27</sup> <http://www.ibtimes.com/vietnams-basa-fish-industry-hopes-export-more-us-demand-eu-plunges-regional-1317971>

<sup>28</sup> <http://www.timescolonist.com/life/ask-eric-is-it-safe-to-eat-imported-basa-fish-1.87907>

<sup>29</sup> <https://www.youtube.com/watch?v=ldoVgveiZ00>

<sup>30</sup> <http://thediplomat.com/2015/12/away-from-sea-river-fishing-on-the-mekong/>

<sup>31</sup> <http://www.fao.org/in-action/globefish/market-reports/resource-detail/en/c/336904/>

<sup>32</sup> <http://fishbase.org/summary/292>

<sup>33</sup> <http://www.seafoodhealthfacts.org/description-top-commercial-seafood-items/pangasius>

## Sampling

Of the nine supermarket chains, the Dairy Farm Group was the largest by number of outlets, followed by AS Watsons (see Table 2). Given the large number of outlets, a sample strategy was developed based on cumulative analysis.

| Supermarket chain Group name | Supermarket brand  | Outlets surveyed | Total outlets | Percentage surveyed |
|------------------------------|--|------------------|---------------|---------------------|
| CR Vanguard                  | CR Vanguard  | 8                | 80            | 10                  |
| AEON stores                  | AEON & AEON Supermarket  | 2                | 13            | 15.38               |
| A.S. Watsons                 | PARKnSHOP frozen Store, PARKn Supermarket, PARKn Superstore, International, Taste, Fusion, Gourmet, Great, Supa Depa   | 26               | 304           | 8.55                |
| Dairy Farm                   | Wellcome Supermarket (Superstore), Marketplace by Jasons, Oliver's the Delicatessen, ThreeSixty, Jasons. Food & Living | 22               | 319           | 6.9                 |
| City Super Group             | City Super   | 2                | 4             | 50                  |
| YATA Group                   | YATA Supermarket and YATA Department Store   | 3                | 7             | 42.85               |
| Moretide Investment          | Kai Bo   | 9                | 91            | 9.89                |
| DCH Group                    | DCH Deluxe and DCH Food Mart   | 10               | 87            | 11.49               |
| CEC                          | 759 store, 759 Frozen Food and 759 Supermarket   | 14               | 224           | 6.54                |
|                              | TOTAL  | 96               | 1129          | 8.50                |

**Table 2: Number of surveyed outlets and total number of outlets**

## 4. Results

### 4.1 Distribution of seafood product records

Based on the above sampling methodology, across the 96 surveyed supermarkets, 657 seafood product records were obtained for the four target seafood types. Two-thirds of these records were shrimp products (See Figure 5). After eliminating duplicated seafood product records, the survey team had 231 records across all four seafood types (see Figure 6).

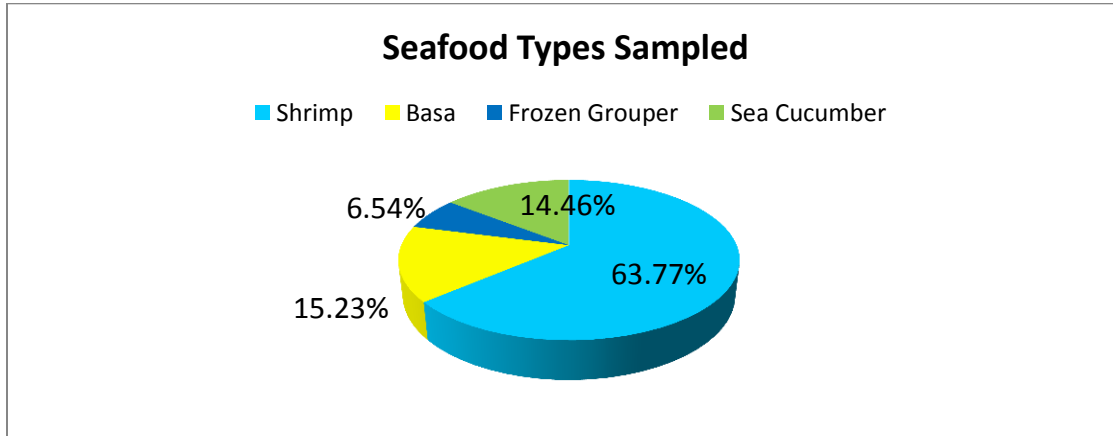


Figure 5: Composition of the four selected seafood types – 657 product records in total

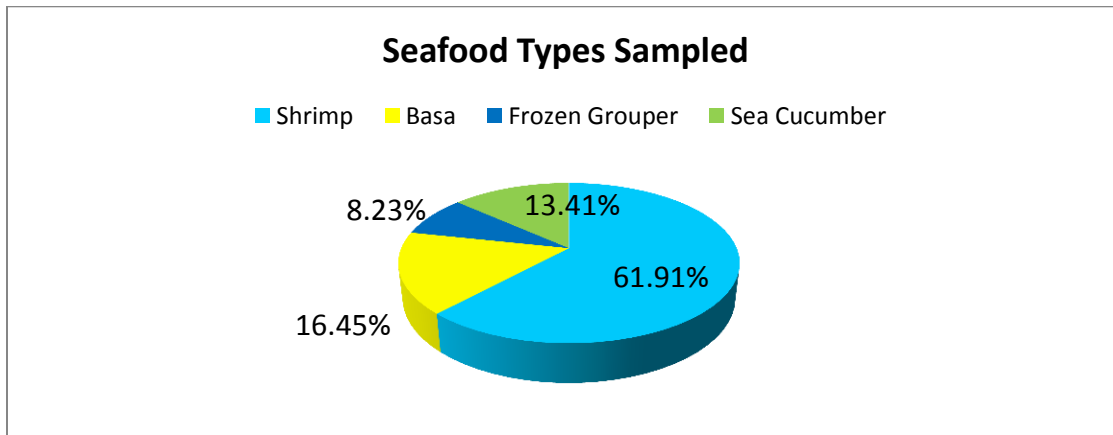
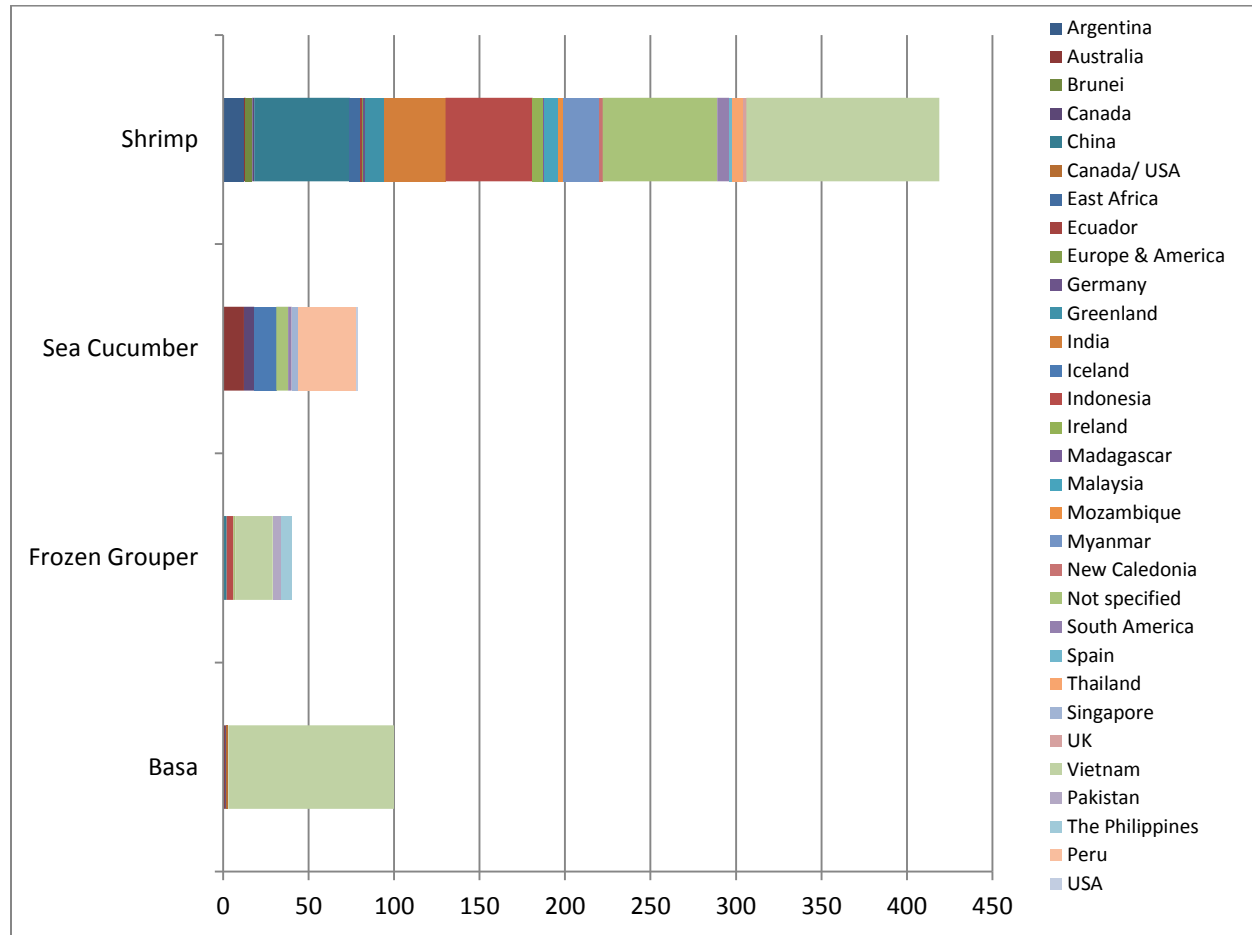


Figure 6: composition of the four selected seafood types – 231 non-duplicated product records

### 4.2 Seafood products country of origin

According to their labels, the 657 seafood products recorded were imported into Hong Kong from 32 different countries or territories (see Figure 7). However, 11 per cent of these did not have the country of origin listed on their labels. The largest source country was Vietnam (35.46%), accounting for 233 records. China (58 records, 8.8%) and Indonesia (55 records, 8.37%) were the second- and third-largest countries of origin respectively.



**Figure 7: Countries of origin of the four seafood types**

#### 4.4 Labelling

Sixteen of the surveyed supermarkets brands were found to be selling seafood products without a country of origin listed.

Of the eleven per cent of samples (n=75) where no country of origin was specified on the label, Kai Bo supermarket had the highest, with 26 samples (34.67%). They were followed by Wellcome (17.3%), PARKnSHOP (9.3%) and 759 (8%).

#### 4.5 Supplier / importer / distributor / packager

“Food importer” refers to a business which brings or causes to be brought any food into Hong Kong by land, sea or air.

“Food distributor” refers to a business whose principal activity is the wholesale supply of food in Hong Kong. This term also includes in general food producers (like fish or vegetables farmers or the fishing industry) and food manufacturers who supply their products by wholesale<sup>34</sup>.

“Packager” refers to a business which places products into containers, allowing these products to be sold<sup>35</sup>.

A “supplier” is a business which supplies goods and services to another organization<sup>36</sup>.

After examining the survey results, it was found that all seafood product records came from 64 suppliers from 14 countries or territories. Thirty-two, or 50 per cent, were Hong Kong suppliers, importers, distributors or packagers; followed by Vietnam (20.3%), Thailand (4.7%), Argentina (4.7%) and Singapore (4.7%). In cases where more than one supplier, importer, distributor or packager was noted on the package, the business closest to the potential origin of the seafood was recorded. For example, for a package of shrimp imported from Thailand and distributed in China, the business closest to the potential origin of the shrimp, i.e. Thailand, would be recorded.

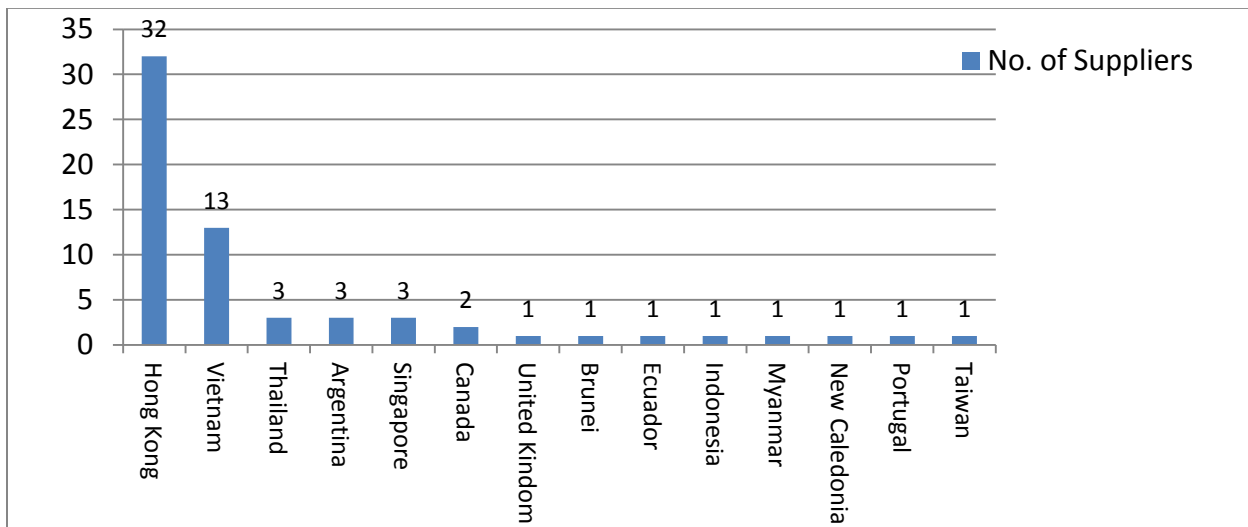


Figure 8: Composition of the reported supplier / importer / distributor / packager

<sup>34</sup> [http://www.cfs.gov.hk/english/whatsnew/whatsnew\\_fstr/FSO\\_registration.html](http://www.cfs.gov.hk/english/whatsnew/whatsnew_fstr/FSO_registration.html)

<sup>35</sup> <http://dictionary.cambridge.org/dictionary/english/packager>

<sup>36</sup> <http://www.accountingtools.com/supplier-definition>

## 5. Phase 2 – The Risk Matrix

A risk matrix-based approach was adopted when examining the environmental, social and legal risks involved in sourcing the four selected seafood types in the nine selected supermarket chains. The aim of this approach was to quantitatively examine and report the seafood sourcing risk profile of the supermarkets, ultimately providing them with scores and ranking them.

### 5.1 Methodology

#### 5.1.1 Information tracing

To create a more specific and accurate risk matrix on each of the suppliers of the seafood products in the study, the project team undertook further product tracing. This was particularly important given that for several of the product records, information regarding the country of origin was not printed on the packaging. For several of these records, the only location information given on the packaging was that of the Hong Kong-based distributors. The missing information was mainly traced through desktop research and through phone calls and emails to suppliers, importers, distributors and packagers as appropriate.

Nevertheless, several products still could not be traced. In these cases, broader country-level issues were considered, such as the destruction of mangroves caused by shrimp farming, instead of farm or fishery-specific risks.

#### 5.1.2 Risk matrix scoring by supplier

Each piece of information pertaining to a product was categorized as having legal, environmental and/or social risks.

A risk score was then assigned to a specific seafood product from a specific supplier from a specific country. These scores refer to the likelihood of a negative event, practice or issue being associated with the specific seafood product provided by the specific supplier sourced from a specific country.

The risk scores ranged from 1 to 3, rounded to the nearest 0.5, with a score of 1 representing low risk and 3 representing high risk. A negative news report (e.g. associating a specific company with poor labour practices) would provide an initial risk score of 3; while a positive news report (e.g. ASC certification of a seafood product) would provide an initial risk score of 1. These initial scores were further fine-tuned based on the following four factors:

**Recency:** *Whether the news or information described an issue reported in last one or two years, or whether the report occurred more than 10 years ago. If the information was old, a high risk score would be reduced.*

**Generalization:** *Whether the situation described was specific to a particular supplier, farm or fishery under investigation; or whether it was at the country level, meaning that it could not be specifically applied to all fishing or farming practices in that country, location or specific fishery. If the information was general information presented at the country level, a high risk score would be reduced.*

**Counter-measures:** Whether a specific company had taken quantifiable measures to reduce the impact or issue reported. Counter-measures which had third party-proven effectiveness would result in a high risk score being reduced.

**Reliability:** Whether the news or piece of information was reported by reputable and reliable sources such as global news agencies, government reports, academic reports and papers and so on. Sources with doubtful reliability would result in a high risk score being reduced.

All scores ranged from 1 to 3 in for each criterion and for the overall final average score. A score of 1 indicates low risk, while a score of 3 represents high risk. Quantitatively, the scores can be represented as follows:

|             |             |
|-------------|-------------|
| 1.00        | Low risk    |
| 1.01 – 2.00 | Medium risk |
| 2.01 – 3.00 | High risk   |

Below are a few examples of how the project team assigned risk score to a piece of news or information relating to a specific seafood product provided by a specific supplier or distributor and sourced from a specific country.

### Scoring by supplier – example 1

Bon hams (international) food co. is a Hong Kong distributor of basa from Vietnam and shrimp from China and Vietnam.

| Supplier risk: Bon hams (international) food co.  | Environment | Social              | Legal               |
|---|-------------|---------------------|---------------------|
| Inaccurate labelling: the company address printed on packaging samples was checked and identified as a Japanese restaurant called Gyoubee Shuhan Shokuhin, which is now closed. |             | 2.00                |                     |
| False business name: the company is not registered in the Hong Kong Companies Registry or at the Hong Kong Business Registrations Office  |             | 3.00                | 3.00                |
| No import / distributor license: as a distributor of seafood, Bon hams should have an import / distributor license issued by the Centre for Food Safety                         |             | 3.00                | 3.00                |
| Average   | -           | 2.67<br>(High risk) | 3.00<br>(High risk) |

**Table 3: Example of assigning a risk score to Bon hams (international) food co.**

In this case, the “false business name” and “lack of import / distributor license” criteria were both scored in the “social” and “legal” columns, as these issues touch on both areas. These issues not only violate the Company Registry Ordinance and the Food Safety Ordinance; consumers are also unable to identify whether the seafood products purchased from this supplier are from the sustainable source or not. These ordinances provide general protection for food purchasers, and violations result in offences being committed in connection with the sale of unfit food and adulterated food, the composition and labelling of food, food hygiene; and resulting in the seizure and destruction of unfit food<sup>37</sup>.

After being entered into the risk matrix, an overall average risk score is then calculated. Bon hams (international) food co. is distributing and selling basa and shrimp products that are regarded as high risk in terms of legal and social issues. As such, the company’s overall score is 2.84 – making it high risk.

### Scoring by supplier – example 2

Cuulong Fish Joint Stock Company is an ASC certified basa farm and exporter in Vietnam.

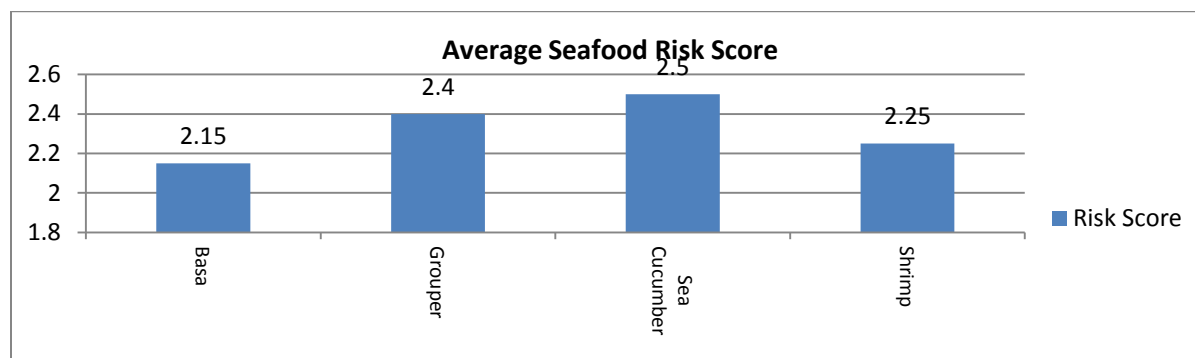
| Supplier risk: Cuulong Fish Joint Stock Company                     | Environment     | Social             | Legal           |
|---|-----------------|--------------------|-----------------|
| DL number (DL 370) printed on packaging – good product traceability |                 | 1.00               |                 |
| Expired eco-label certificates on website <sup>38</sup>             |                 | 2.00               |                 |
| Has ASC certificate   | 1.00            | 1.00               | 1.00            |
| Average   | 1.00 (Low risk) | 1.33 (Medium risk) | 1.00 (Low risk) |

**Table 4: Example of assigning a risk score to an ASC supplier**

The overall average risk score of the Cuulong Fish Joint Stock Company is 1.11 – making it medium risk.

#### 5.1.3 Analysis of scores by product

Figure 9 lists the average risk scores of the four seafood products. All sea cucumber (2.50) and grouper (2.40), shrimp (2.25) and basa (2.15) yielded high risk scores.



**Figure 9: Average seafood risk score**

<sup>37</sup> [http://www.cfs.gov.hk/english/food\\_leg/food\\_leg.html](http://www.cfs.gov.hk/english/food_leg/food_leg.html)

<sup>38</sup> <http://www.cfish.com/index.php?act=change&code=certificates>



#### 5.1.4 Identification of high risk suppliers and countries

Table 5, highlights the top five average risk scores of suppliers and includes information about their respective source countries and supermarkets. The listed suppliers and countries provide insights that proved useful in Phase 3 of the study. Vietnam, responsible for 35% of the supply of the selected seafood products, was identified as the most high risk supplier country, followed by Thailand (15%), China and Indonesia (10% each).

| Seafood type    | Basa                                 | Grouper                  | Sea cucumber                      | Shrimp                                |
|-----------------|--------------------------------------|--------------------------|-----------------------------------|---------------------------------------|
| First Supplier  | PACSC<br>2.25<br>Vietnam             | FVID<br>2.75<br>Vietnam  | EVEAS<br>2.67<br>USA              | CPFPC<br>2.80<br>Thailand             |
| Supermarket     | CR Vanguard                          | YATA                     | AEON                              | PARKn Shop<br>Superstore,<br>Wellcome |
| Second Supplier | BONHA<br>2.13<br>Vietnam             | ASWAT<br>2.63<br>China   | KAIBO<br>2.39<br>Australia        | BONHA<br>2.68<br>China                |
| Supermarket     | CR Vanguard                          | International            | Kai Bo                            | CR Vanguard                           |
| Third Supplier  | ASWAT<br>2.03<br>Vietnam             | SWMHK<br>2.50<br>Vietnam | PAOHW<br>2.33<br>Mexico           | TFiFL<br>2.60<br>Thailand             |
| Supermarket     | International<br>Supa Depa,<br>Taste | Wellcome                 | Fusion, Gourmet,<br>International | AEON                                  |
| Fourth Supplier | TUMCL<br>2.02<br>Thailand            | YATAD<br>2.22<br>Vietnam | 759ST<br>2.33<br>Canada           | PDJAY<br>2.58<br>Indonesia            |
| Supermarket     | AEON                                 | YATA                     | 759                               | Wellcome,                             |

|                |                          |                            |                         |   |
|----------------|--------------------------|----------------------------|-------------------------|---|
|                |                          |                            |                         | Jasons,<br>Marketplace by<br>Jasons,<br>Oliver's the<br>Delicatessen,<br>ThreeSixty<br>PARKn Shop |
| Fifth Supplier | SWMHK<br>1.98<br>Vietnam | ABFFP<br>2.11<br>Indonesia | DAHCH<br>2.21<br>Mexico | MARFS<br>2.58<br>Malaysia   |
| Supermarket    | CitySuper                | 759                        | DCH                     | Supa Depa,<br>International<br><br>Gourmet, PARKn<br>Shop   |

**Table 5: Top five high risk suppliers of the four seafood types**

Figure 10 displays the average risk scores of seafood for different countries of origin. The table also identifies the top high risk countries. Of the 25 countries listed, the highest score was Thailand, at 2.75, followed by China (2.66) and Mexico (2.57). Canada, Ecuador, Pakistan and the USA shared fourth place with a score of 2.50. In terms of the number of high-risk suppliers, Vietnam was the largest, with a risk score of 2.40, China came second and Indonesia third, scoring 2.40 and 2.41 respectively.

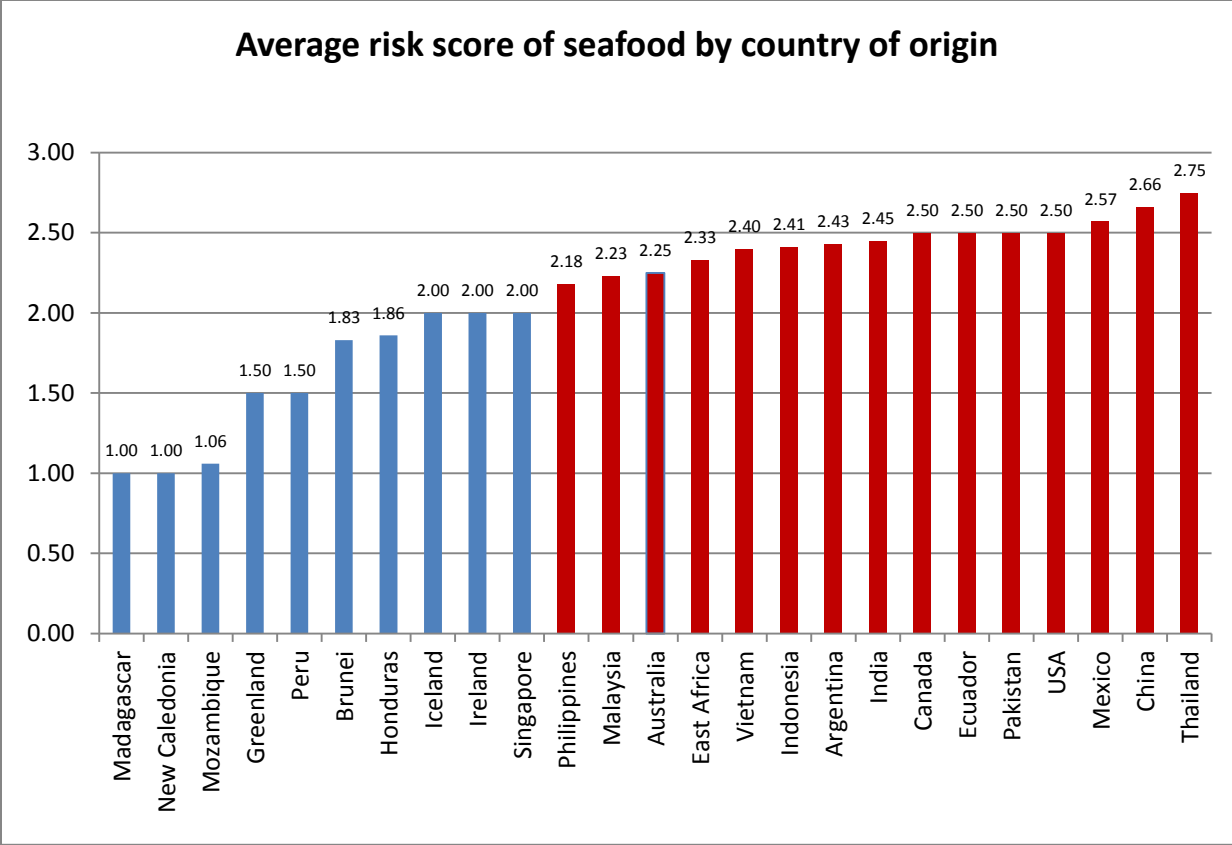


Figure 10: Average risk scores across four seafood products by country of origin

5.1.5 Key issues identified in the risk matrix

Use of chemicals

A number of suppliers were recorded in the risk matrix as having a high risk of social issues due to their use of chemicals or antibiotics, including nitrofurans, malachite green and crystal violet. Further background research into the use of chemical and antibiotics in the farming of seafood, particularly shrimp<sup>39 40 41</sup> and basa<sup>42</sup>, found that these practices are not uncommon and may be both widespread and commonplace in some locations. Therefore, it is likely that the cases available online and reported for the suppliers listed below represent only the “tip of the iceberg” for these seafood products, these suppliers, and the industry as a whole in these countries.

| EXPORTER/MANUFACTURER NAME | Country of Origin | Chemical issue |
|----------------------------|-------------------|----------------|
|                            |                   |                |

<sup>39</sup> <http://www.shrimpalliance.com/2015-record-year-for-fda-refusals-of-shrimp-contaminated-with-banned-antibiotics/>  
<sup>40</sup> <http://www.seafoodsource.com/news/food-safety-health/fda-rejects-record-number-of-shrimp-products-due-to-antibiotics>  
<sup>41</sup> <https://www.undercurrentnews.com/2015/07/07/chinese-aquaculture-company-plans-investment-in-eastern-russia-2-61/>  
<sup>42</sup> <http://www.shrimpalliance.com/news-alert-safety-issues-with-vietnamese-seafood-persist/>

|  |          |   |
|--|----------|---|
| Anh Nguyen Son Co. Ltd                         | Vietnam  | In March 2015, frozen basa exported to the Czech Republic was found to contain traces of the Czech-banned chemical nitrofurazone <sup>43</sup>  |
| Cuu Long Fish Joint Stock Company              | Vietnam  | In 2011, shrimp products from this company were found to contain fluoroquinolonesin by the Canadian Food Inspection Agency (CFIA) Mandatory Inspection List <sup>44</sup>   |
| Dai Thanh Seafoods                             | Vietnam  | In 2009, shrimp products from this company were found to contain fluoroquinolonesin by the Canadian Food Inspection Agency (CFIA) Mandatory Inspection List <sup>45</sup>   |
| Cafatex Corporation                            | Vietnam  | In April 2011, frozen shrimp were found to contain trifluralin, in violation of Japan's Food Sanitation Law <sup>46</sup><br><br>Also in September 2015, Nguyen Van Kich, the chairman of CAFAT, who admitted the use of antibiotics is still widespread in Vietnam despite government efforts to promote new farming techniques, was quoted in an interview with Reuters as saying that farmed shrimp and fish would be unlikely to survive without medicine <sup>47</sup> |
| Guangdong Jinhang Foods Co Ltd                 | China    | In 2010, the company was restricted from importing fish, fish products and non-fish products into Russia by Russian authorities due to the discovery of excessive volumes of mesophilic aerobic and facultative anaerobic microorganisms in products coming from their plants <sup>48</sup>   |
| Zhanjiang Guolian Aquatic Development Co., Ltd | China    | According to Import Alert 16-131 from the FDA, three batches of shrimp products were banned between July and November 2015. Fluoroquinolones and nitrofurans were found in the company's products <sup>49</sup>   |
| Tai Foong International Ltd.                   | Thailand | In 2014, Tai Foong International Ltd. was found to have hazardous chemicals in its frozen cooked shrimp by the Canadian Food Inspection Agency <sup>50</sup>  |

**Table 6: Examples of suppliers identified with chemical / antibiotic issues**

<sup>43</sup> <http://www.nase-voda.cz/veterinari-naridili-trhu-stahnout-zavadne-pangase-vietnamu/>

<sup>44</sup> <http://www.shrimpalliance.com/new/wp-content/uploads/2011/10/10-5-11-letter-to-FDA-re-Vietnamese-Seafood-Imports1.pdf>

<sup>45</sup> <http://www.shrimpalliance.com/new/wp-content/uploads/2012/04/Veterinary-Drug-Residue-Findings.pdf>

<sup>46</sup> <http://www.shrimpalliance.com/new/wp-content/uploads/2012/04/Veterinary-Drug-Residue-Findings.pdf>

<sup>47</sup> <http://www.reuters.com/article/us-usa-trade-shrimp-insight-idUSKCN0RF0E120150915>

<sup>48</sup> <http://www.megafishnet.com/news//20044.html>

<sup>49</sup> [http://www.accessdata.fda.gov/cms\\_ia/importalert\\_33.html](http://www.accessdata.fda.gov/cms_ia/importalert_33.html)

<sup>50</sup> <http://www.inspection.gc.ca/about-the-cfia/accountability/compliance-and-enforcement/disposed-food-products/2014-15-q2/eng/1416948847841/1416949061261>

*Species of conservation concern*

Another an extremely important issue is the use of IUCN Red List Threatened or Endangered species on in seafood products. In the risk matrix, two out of 95 sea cucumber samples were identified as being Endangered species - *Isostichopus fuscus* (Brown Sea Cucumber)<sup>51</sup>. These were supplied by Pao Hwa Trading Company Limited. Use of a threatened species issue scores a 3 on the risk matrix the in environmental column.



Five out of 43 grouper records were identified as a Near Threatened species – *Epinephelus diacanthus* (Spinycheek Grouper). These were identified in supermarkets in the A.S. Watons Group (HK) Limited, which scored a 2.5 in the environmental aspect.



<sup>51</sup> <http://www.iucnredlist.org/details/180373/0>

Overview of risk scores for the nine supermarket chains

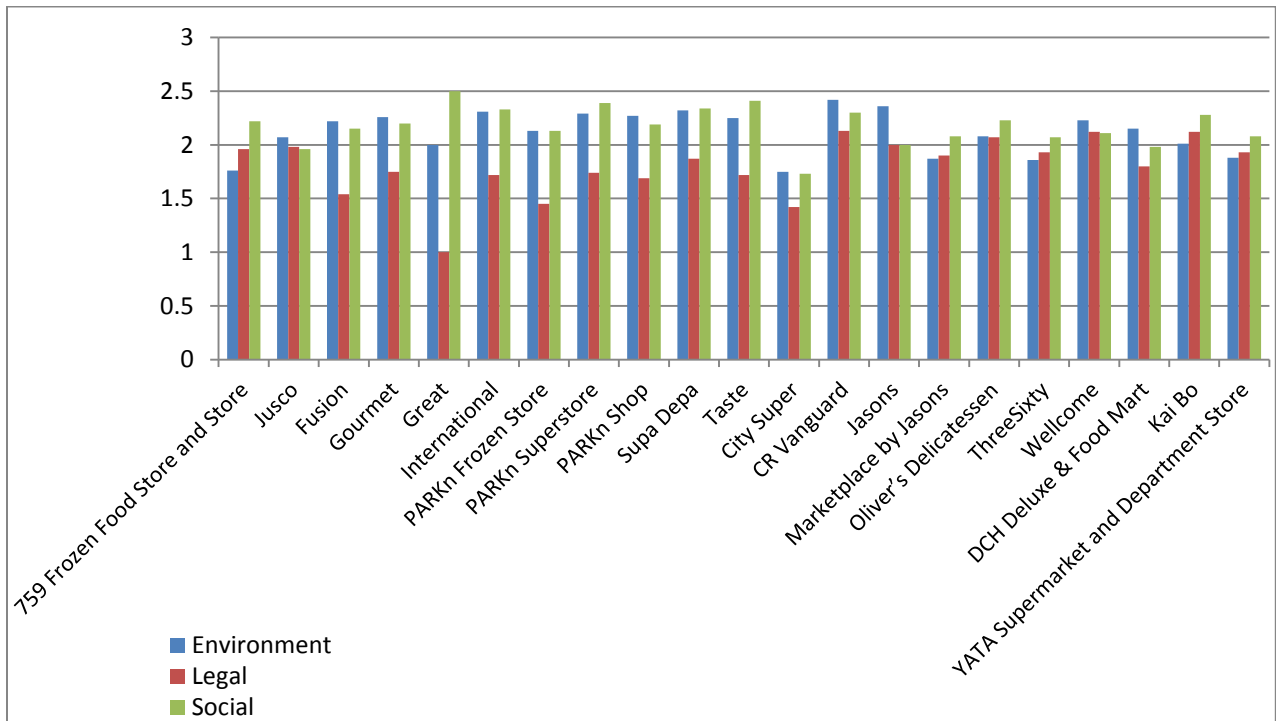
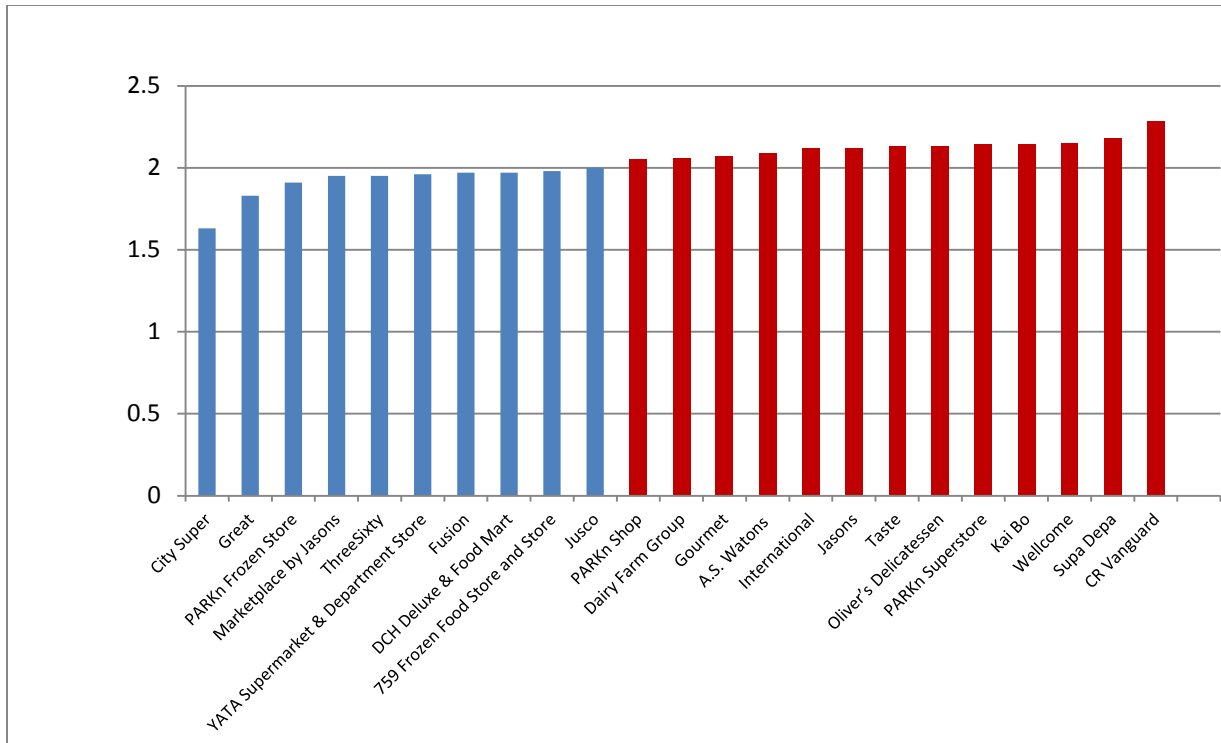


Figure 11: Overview of risk scores for the nine supermarket chains in each column



**Figure 12: Overall risk scores for the nine supermarket chains**

According to the risk matrix, all the supermarket brands were rated as high risk or medium risk. Figure 11 displays the risk scores of the different supermarket brands and sub-brands in each of the three columns. Vanguard’s environmental risk was 2.42 (high risk) – the highest score of all in any parameter. CR Vanguard also had the highest overall risk of all supermarkets investigated in this study. Notably, even for supermarkets with a medium overall risk score, the supermarket brands and sub-brands all experience licensing and traceability issues (falling into the legal and social risk categories respectively) with their suppliers. This is an issue of serious concern, particularly as it relates to food safety

**Section Shanti: Introduction to the Phase 3 surveys**

The risk matrix results helped to identify the chemicals used in farmed shrimp and basa products as well as threatened species being sold for consumption. In order to build up a robust body of evidence for this supermarket investigation, WWF-Hong Kong conducted chemical tests on targeted seafood products and made records of threatened species being sold in all surveyed supermarket chains.

Over the past couple of years, numerous media stories and NGO publications have turned the spotlight on human trafficking, in particular the forced and bonded labour practices inherent in Thailand’s fishing fleets and seafood processing plants. Several reports also disclosed abusive practices along the supply chains of Charoen Pokphand (CP) Foods and the Thai Union Group. The slavery product market surveys conducted in Phase 3 provide valuable and helpful insights into how Hong Kong supermarkets can easily be linked to intolerable human rights violations.

The results of these surveys provide considerable evidence and are useful tools in spurring Hong Kong supermarkets to set up sustainable seafood procurement policies to ensure that both the workers along their supply chain and the environment are protected.

## **Section B: Chemical Testing**

Given that wild seafood production is nearing its final limit, aquaculture practices have been expanding rapidly as suppliers work to meet the ever-increasing demand for seafood around the world. However, intensive aquaculture practices have led to growing problems with bacterial diseases, chemicals being released and unregulated water discharge.

The results of the risk matrix indicate relatively higher social and environmental risks from shrimp products originating in Vietnam and China and from basa products from Vietnam. These risks are associated with the use of chemicals such as malachite green, crystal violet and nitrofurazone. After communicating with university experts and representatives from SGS – an inspection, verification, testing and certification company – it is clear that the use of chemicals is common to many aquaculture practices in Southeast Asia. This study's risk matrix identified that fluoroquinolones and enrofloxacin (which is grouped under fluoroquinolones) were recorded in products from both Vietnamese and Chinese suppliers.

Antibiotics have also become a subject of increasing public concern. According to the UN's FAO, uses of certain antibiotics in food-producing animals can lead to antibiotic resistance in intestinal bacteria. This resistance can then be transmitted to the general population, causing treatment-resistant illnesses<sup>52</sup>.

The logic employed by the project team was that chemical tests on farmed Vietnamese and Chinese shrimp and basa from Vietnam could potentially yield positive results. These results would then provide solid evidence for further engagement work.

### **Methodology**

- The risk matrix identified the likelihood that chemicals or antibiotics<sup>53</sup> could be used in basa from Vietnam and shrimp from China and Vietnam.
- 41 samples of basa from Vietnam and shrimp from both China and Vietnam were purchased from 27 outlets between April and September 2016.
- Outlets were chosen based on the availability of this product, as recorded in the market survey performed in Phase I. If more than one product came from the same source, the one with higher market share was purchased.
- In order to equitably perform chemical or antibiotic tests on products from all the supermarket brands, if the supermarket brand did not carry Chinese shrimp, or Vietnamese basa or shrimp, any shrimp or basa product that was available and had the highest market share within that supermarket brand was selected for the test.
- Samples were tested for malachite green, crystal violet, nitrofurazone, fluoroquinolones, DDT and formaldehyde. Based on desktop research and via professional opinion, these were the most prevalent chemicals / antibiotics identified in risk matrix.

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<sup>52</sup> <http://www.fao.org/3/a-a0282e.pdf>

<sup>53</sup> "Antibiotics are drugs of natural or synthetic origin that have the capacity to kill or to inhibit the growth of micro-organisms. Antibiotics that are sufficiently non-toxic to the host are used as chemotherapeutic agents in the treatment of infectious diseases of humans, animals and plants. They have long been present in the environment and have played a crucial role in the battle between man and microbe".  
<http://www.fao.org/3/a-a0282e.pdf>



The following table presents the samples of the chemical tests

|                          | Basa -<br>Vietnam | Shrimp-<br>China | Shrimp-<br>Indonesia | Shrimp-<br>Vietnam |
|--------------------------|-------------------|------------------|----------------------|--------------------|
| International            | √ √ √             | √                |                      | √                  |
| PARKn<br>Superstore      | √ √               | √                |                      | √                  |
| Kai Bo                   | √                 | √                |                      |                    |
| YATA                     | √ √               |                  |                      | √                  |
| Taste                    | √ √ √             | √                |                      | √                  |
| CitySuper                | √                 |                  |                      |                    |
| DCH Food                 | √                 |                  |                      |                    |
| Fusion                   | √ √               |                  |                      |                    |
| Gourmet                  | √ √ √             |                  |                      |                    |
| Marketplace<br>by Jasons | √                 |                  |                      |                    |
| PARKnShop                | √ √ √             |                  |                      |                    |
| ThreeSixty               | √                 |                  |                      |                    |
| Wellcome                 | √                 |                  |                      |                    |
| Supa Depa                | √ √               |                  |                      | √                  |
| CR Vanguard              |                   |                  |                      | √                  |
| 759                      |                   |                  |                      | √                  |
| AEON                     |                   | √                |                      |                    |
| PARKn<br>Frozen          | √                 |                  |                      |                    |
| Oliver's                 |                   |                  | √                    |                    |
| Jasons                   |                   |                  |                      | √                  |

- 27 selected outlets, covering 100% major supermarket groups, were identified to purchase a total of 41 seafood samples of shrimp from Vietnam, China and basa from Vietnam three samples (7.31% among all samples) purchased from AS Watson Group were found to contain nitrofurans
- Gourmet (Way Shine Vietnam Basa) : 1.07 ppb
- PARKn Superstore (Way Shine Vietnam Basa) : 1.27 ppb
- PARKn Frozen Store (Way Shine Vietnam Basa) : 0.31 ppb

## **Section C: Threatened Species Survey**

The IUCN Red List of Threatened Species provides information and analysis on the status, trends and threats of 76,000 species to various species of plants and animals, in order to inform and catalyze action on biodiversity conservation. Species listed as “Critically Endangered”, “Endangered” and “Vulnerable” on the IUCN Red List are also collectively referred to as “Threatened” species<sup>54</sup>.

While Hong Kong is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), local obligations “The Protection of Endangered Species of Animals and Plants Ordinance, Cap. 586” to regulate the products included in the convention. It is a regulation to restrict the international trade in species by including them into one of its three appendices. But Hong Kong does not currently have any legislation to regulate the trade of other species that are threatened.

Based on the findings of risk matrix, *Isostichopus fuscus* (Brown sea cucumber) was identified as “Endangered” in IUCN and included in CITES Appendix III<sup>55</sup>; *Plectropomus areolatus* (Squaretail coral trout) was listed as “Vulnerable” in IUCN.

Due to the huge demand for shark fin and shark related products; WWF Hong Kong has tracked these products in some supermarkets outlets. However there are some “unknown” shark fins or shark related products that are sold in the supermarkets which may possibly be 8 shark species that were listed in CITES Appendix II<sup>56</sup>.

With only a few seafood species are protected by international conventions, more species are threatened with extinction. Through the threatened species survey, the most popular “threatened species” and the number of threatened species among each supermarket brands could be identified.

### Methodology

- Surveyor visited up to 200 outlets (visited number of outlets depend of cumulative curve) and record IUCN Threatened species with photo of the product from April to June 2016
- Threatened species are those listed as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) by the IUCN

### Key findings

- Survey conducted in 144 randomly selected outlets, covering 100% major supermarket groups, to determine number of IUCN Threatened species present in any of the seafood products in major supermarket groups, including live, frozen, chilled and canned products. These identified species include Japanese eels (100% of supermarket groups), golden threadfin bream (89% of supermarket groups), bluefin tuna (33% of supermarket groups)

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<sup>54</sup> <http://www.iucnredlist.org/about>

<sup>55</sup>

[http://checklist.cites.org/#/en/search/output\\_layout=alphabetical&level\\_of\\_listing=0&show\\_synonyms=1&show\\_author=1&show\\_english=1&show\\_spanish=1&show\\_french=1&scientific\\_name=Isostichopus+fuscus&page=1&per\\_page=20](http://checklist.cites.org/#/en/search/output_layout=alphabetical&level_of_listing=0&show_synonyms=1&show_author=1&show_english=1&show_spanish=1&show_french=1&scientific_name=Isostichopus+fuscus&page=1&per_page=20)

<sup>56</sup> [https://apps.wwf.org.hk/file/SharkReport/wwf\\_riskybusiness\\_report\\_eng.pdf](https://apps.wwf.org.hk/file/SharkReport/wwf_riskybusiness_report_eng.pdf)

|                     | <b>No. of IUCN Threatened species</b> | <b>IUCN Threatened species</b>   |
|---------------------|---------------------------------------|--|
| Dairy Farm          | 4                                     | Golden threadfin bream, Japanese eel, bluefin tuna, squaretail coral grouper |
| AEON                | 3                                     | Bluefin tuna, golden threadfin bream, Japanese eel                           |
| CitySuper           | 3                                     | Japanese eel, golden threadfin bream, Japanese spiky sea cucumber            |
| Yata                | 3                                     | Bluefin tuna, Japanese eel, golden threadfin bream                           |
| AS Watson           | 2                                     | Japanese eel, golden threadfin bream   |
| 759                 | 2                                     | Japanese eel, golden threadfin bream   |
| DCH                 | 2                                     | Golden threadfin bream, Japanese eel   |
| CR Vanguard         | 2                                     | Golden threadfin bream, Japanese eel   |
| Moretide Investment | 1                                     | Japanese eel   |

- The top 2 Threatened species in surveyed supermarket brands are golden threadfin bream, and Japanese eel
- There are seafood products which could not be identified on spot but are very likely to comprise Threatened species, e.g. dried seahorse, shark fin or shark cartilage
- Identified bluefin tuna products in YATA, AEON, Marketplace by Jasons and Oliver's

## **Section D: Slavery<sup>57</sup> products survey**

To satisfy consumer insatiable demand for cheap seafood, the industry maximizes catch volumes at expense of environmental security and human dignity. According to the International Labour Organization (ILO), workers in the fishing industry are especially vulnerable to abuse. Long working hours, exploitation, abuse of workers and human trafficking are common in Thai fishing industry<sup>58</sup>. Media coverage and NGOs have focused on forced labor and other human rights abuses issues in CP Foods<sup>59, 60, 61</sup> and Thai Union Group<sup>62, 63</sup>.

Implications in human rights abuses and forced labor have brought reputational, social and legal risks on Thai Union and CP. There are lawsuits filed in United States accuses Thai Union Group and its US subsidiaries of selling products to consumers from a supply chain that contains slave labor<sup>64, 65</sup>.

“Exacting profits from exploiting people will often go hand in hand with illegal, unsustainable and unregulated industries” stated by US Secretary of State John Kerry<sup>66</sup>. Supermarkets are Hong Kong major buyers and sellers of Thailand seafood, so they should start to look at the sustainability of their seafood products. Consumers deserve to know how the products they purchase were made; otherwise supermarkets and consumers may be unintentionally to support illegal activities at source countries.

### **Methodology**

- According to the investigations or publications from Guardian<sup>67</sup>, Associated Press<sup>68</sup>, Environmental Justice Foundation<sup>69</sup> and Greenpeace<sup>70</sup>, Charoen Pokphand (CP) Foods and Thai Union Group are connected to slavery issues
- Recorded CP shrimp and shrimp processed products and Thai Union (includes John West, B&F, Petit Navire and Sealect Snackit) tuna products with photos
- Survey conducted in 89 randomly selected outlets, covering 7.9% of all major supermarket outlets from 2015 to Jan 2016, to determine the availability of seafood product brands with known association with slavery issues. Total of 78% of surveyed major supermarket groups have at least one of these seafood product brands.

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<sup>57</sup> A UN Protocol has expanded the traditional definition of slavery, considering trafficking in persons as to be a form of contemporary slavery that does not necessarily entail “ownership” or “buying and selling” — as required under the traditional concept of slavery— but rather one that is based on undue influence, control and exploitation.

<sup>58</sup> <http://www.ilo.org/dyn/migpractice/docs/184/Fishing.pdf>

<sup>59</sup> <https://www.theguardian.com/global-development/2014/jun/12/carrefour-stops-buying-prawns-cp-foods-slavery-revelations>

<sup>60</sup> <https://www.theguardian.com/global-development/2014/jul/30/supermarkets-thailand-prawn-slavery-seafood>

<sup>61</sup> <http://ejfoundation.org/sites/default/files/public/EJF-Thailand-Seafood-Slaves-low-res.pdf>

<sup>62</sup> <https://www.ft.com/content/46ac33f8-9dcf-11e5-8ce1-f6219b685d74>

<sup>63</sup> <http://www.abc.net.au/news/2015-12-15/major-australian-supermarkets-implicated-in-child-labour/7031350>

<sup>64</sup> <http://www.aquafeed.com/read-article.php?id=6179/Lawsuit-accuses-Thai-Union-of-selling-US-consumers-seafood-from-supply-chain-using-slave-labor//news-brief-article/6179&sectionid=1&typeid=25>

<sup>65</sup> <https://business-humanrights.org/en/nestl%C3%A9-faces-new-lawsuit-in-california-court-alleging-use-of-fish-sourced-from-thai-company-using-slave-labour>

<sup>66</sup> <http://www.state.gov/secretary/remarks/2014/06/228083.htm>

<sup>67</sup> <https://www.theguardian.com/global-development/2014/jun/10/sp-migrant-workers-new-life-enslaved-thai-fishing>

<sup>68</sup> <http://www.ap.org/explore/seafood-from-slaves/>

<sup>69</sup> <http://ejfoundation.org/sites/default/files/public/EJF-Thailand-Seafood-Slaves-low-res.pdf>

<sup>70</sup> [http://www.greenpeace.org/seasia/th/Global/seasia/2015/png1/Supply-chained\\_EN.pdf](http://www.greenpeace.org/seasia/th/Global/seasia/2015/png1/Supply-chained_EN.pdf)

## Key findings

- Nearly all retailers are involved in Thai Union tuna or/ and CP shrimp slavery issues
- 759 : no CP shrimp , Thai Union tuna products
- DCH : no CP shrimp , Thai Union tuna products
- YATA : no Thai Union tuna products
- Total of 78% of surveyed major supermarket groups have at least one of these seafood product brands.

|                     | CP Shrimp Products <sup>71, 72</sup> | Thai Union Tuna Products <sup>73</sup> |
|---------------------|--------------------------------------|--|
| AS Watson           | Selling                              | Selling                                |
| AEON                | Selling                              | Selling                                |
| CitySuper           | Selling                              | Selling                                |
| CR Vanguard         | Selling                              | Selling                                |
| Dairy Farm          | Selling                              | Selling                                |
| Moretide Investment | Selling                              | Selling                                |
| YATA                | Selling                              | Not available                          |
| 759                 | Not available                        | Not available                          |
| DCH                 | Not available                        | Not available                          |

END

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<sup>71</sup> <http://ejfoundation.org/sites/default/files/public/EJF-Thailand-Seafood-Slaves-low-res.pdf>

<sup>72</sup> <https://www.theguardian.com/global-development/2015/aug/19/costco-cp-foods-lawsuit-alleged-slavery-prawn-supply-chain>

<sup>73</sup> <http://tuna.greenpeace.org/en-CA/info/slave-labour/>