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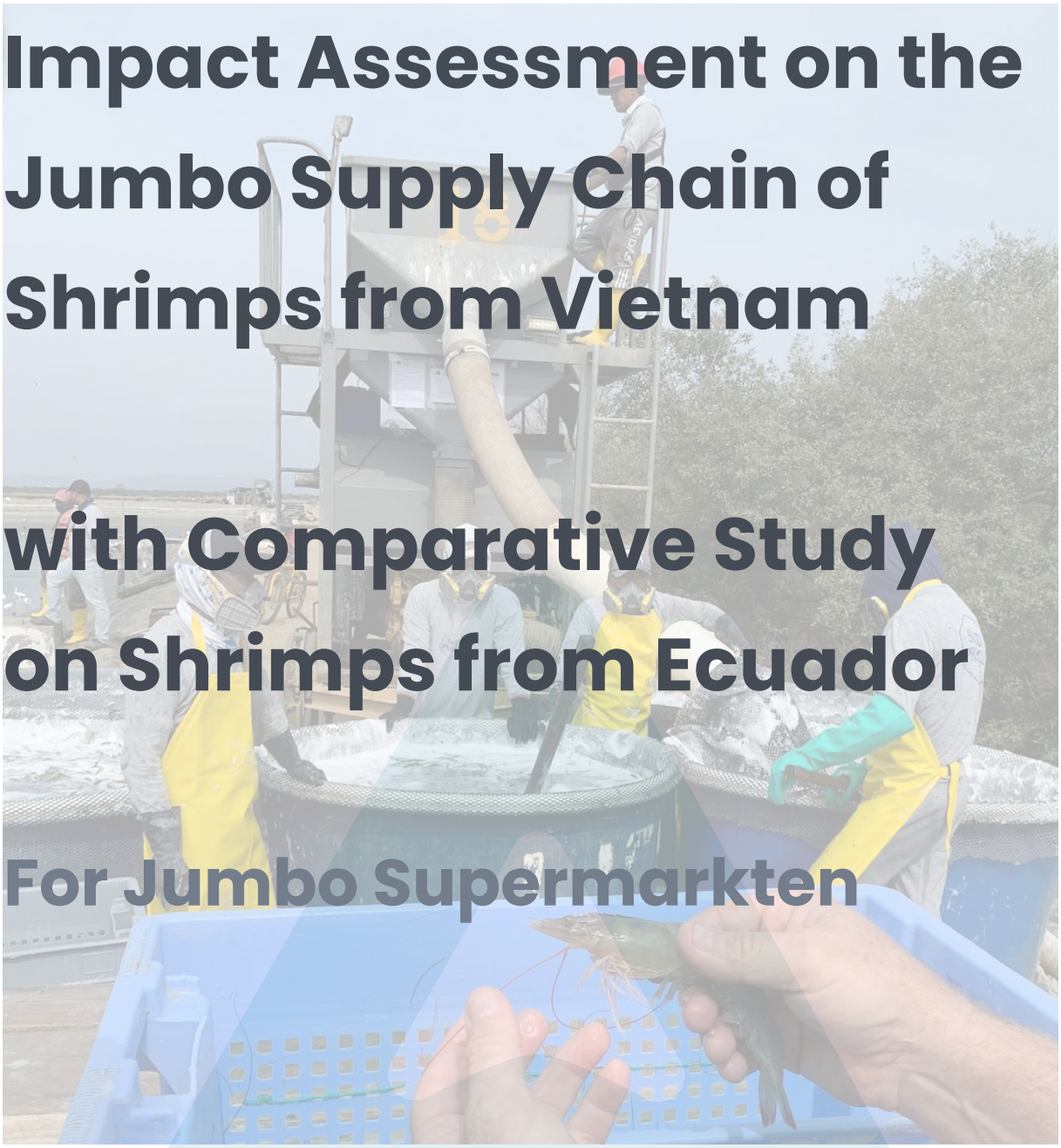
Impact Assessment on the Jumbo Supply Chain of Shrimps from Vietnam with Comparative Study on Shrimps from Ecuador



For Jumbo Supermarkten

ImpactBuying BV, December 2023

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Part 1: Introduction

1. Introduction

1.1 Objectives

Jumbo Supermarkten has been actively working to increase its understanding of the supply chains of selected products in the Jumbo assortment as part of its corporate due diligence process. It aims to improve its knowledge and reliable data to be able to manage supply chain risks and to reduce negative impact, and enhance positive impact.

In 2021, Jumbo conducted a risk analysis of its product assortment. The category of seafood products was identified as relatively high-risk. Within this category, aquaculture or farmed shrimps were rated with top priority to manage risks, for example risks resulting from:

1. Low wages, extensive working hours, and poor working conditions;
2. Land conversion, biodiversity loss (mangroves), water pollution, and treatment of shrimps;
3. Lack of traceability.

As a follow up, towards the end of 2022 Jumbo commissioned ImpactBuying to carry out an impact assessment on its farmed shrimp supply chain from Vietnam. Jumbo's first tier in this specific supply chain is Seafood Connection with its office in Urk, The Netherlands.

During the preparatory phase, Jumbo and Seafood Connection agreed to integrate a comparative study on alternative shrimp sources. This study focused on risks from the perspectives of human rights, community & consumer, the environment, and governance. This study included desk study comparing Vietnam with India and Ecuador as alternative sources.[1] Subsequently, sourcing shrimps from Ecuador was studied in more detail. Therefore, this report consists of two parts namely:

1. Impact assessment on Jumbo's current supply chain of shrimps from Vietnam;
2. A comparative study on shrimps from Ecuador.

Subsequently, the findings on shrimps from Vietnam and from Ecuador were used for a comparative study of the two countries of origin. This comparison led to practical recommendations to Jumbo. The findings and conclusions on Vietnam, Ecuador, and the comparison of these two shrimp sources are joined and summarised in this report.

ImpactBuying carried out this assignment. Two seafood companies currently supplying shrimps to Jumbo collaborated on it, namely Seafood Connection and Heiploeg.

This combined assignment had the following overall objective:

- Jumbo will have greater awareness of risks and the actual impact caused in the Vietnamese shrimp supply chain, and risks associated with shrimps from Ecuador as alternative source.

[1] Results of this desk study comparing Vietnam, India, and Ecuador as sourcing countries is available separately with Jumbo.

In line with Jumbo's due diligence process, this project addressed 8 core questions:

a. What does the shrimp industry in Vietnam and Ecuador look like in terms of risks?
b. How does the Vietnamese shrimp supply chain compare to the Ecuadorian, and what is the level of transparency in these supply chains?
c. What is the current impact that the shrimp industry has in Vietnam?
d. Do Jumbo supply chain actors cause or contribute to that impact; and if so, what is their (relative) attribution?
e. What is the irremediability, scale, and scope of that identified impact?
f. What are the root causes to that identified impact?
g. What activities are recommended to reduce negative impact and enhance positive impact?
h. What is the (relative) leverage of Jumbo to reduce negative and enhance positive impact?

The concluding actionable recommendations on how to reduce negative impact and to enhance positive impact can be used by Jumbo and its suppliers to create good supply practices (GSP). The assignment was performed in line with the UN Principles on Business and Human Rights as well as with the human rights impact assessment framework elaborated by Oxfam.

1.2 Scope

The product in scope for this assignment has been farmed shrimps; to be more specific, the white-leg shrimp (*Litopenaeus vannamei*) that is native to the tropical Eastern Pacific coast. This shrimp is matured in salt-water tanks before moving it to brackish water ponds for further growing.

The feed produced for shrimp farming forms an integral part of the supply chain. However, the shrimp feed was analysed for its environmental sustainability only.

The impact assessment focused on the actual impacts caused by Jumbo's supply of farmed shrimp from Vietnam, and the comparative study focused on risks associated with shrimps from Ecuador.

The impact and risks were taken from 4 different perspectives, namely 1. Human rights, 2. Communities & consumers, 3. Environment and animal welfare, and 4. Governance. This is the thematic or content scope. In fact, the below risk areas issues formed the starting point for this assessment and country comparison:

1. Human Rights: child labour, forced labour, discrimination & harassment, freedom of association & collective bargaining, gender equality & women's rights, occupational health & safety, wages & benefits, and working conditions.
2. Communities & Consumers: affected communities, and food safety for consumers.
3. Environment & Animal welfare: greenhouse gas emissions, pollution, water consumption, affected biodiversity & ecosystems, waste management, animal welfare, and animal slaughter methods.
4. Governance: lack of traceability, food fraud, and poor governance or corruption.

The geographical scope of the impact assessment has been limited to Vietnam. In 2022, around 85% of farmed shrimps sold in Jumbo stores originated from that country. Therefore, it made sense to focus the identification and assessment of actual impact in Jumbo's supply chain on Vietnam only.

For comparison with relevant alternative shrimp sources, ImpactBuying carried out desk research on shrimps from Vietnam, India, and Ecuador, resulting in a high-level comparative analysis. The results of this preliminary analysis were delivered to Jumbo separately. Subsequently, Ecuador was selected for further study including field visits, as this country has had the highest farmed shrimp exports for years in a row, and is considered to have good potential as a future sourcing country for Jumbo.

Quantitative tests or laboratory analysis have not been part of this assignment.

1.3 Research Team

The following ImpactBuying team carried out this impact assessment and feasibility study:

No.	Name	Position	Nationality
1.	Emily Belonje	Lead consultant	Dutch
2.	Rogier Verschoor	Senior consultant	Dutch
3.	Roos Vergeldt	Medior consultant	Dutch
4.	An Bui Nguyen Thu (sub-contracted)	Consultant (Vietnam)	Vietnamese
5.	Joe Pearce (sub-contracted)	Consultant (Vietnam)	British

Further details on the team's qualifications are provided in annex 1.

The impact assessment into Jumbo's supply chain from Vietnam through Seafood Connection involved site visits to the Seafood Connection suppliers carried out by Ms. An Bui Nguyen Thu of Fresh Studio in Vietnam. The Terms of Reference used for that sub-contracted part is given in the annexes.

This assignment was implemented by ImpactBuying. The team extends its warm thanks to Jumbo, Seafood Connection, Heiploeg, NTSF, Thuan Phuoc (THP), the Cámara Nacional de Acuacultura de Ecuador, Sustainable Shrimp Partnership, and several shrimp producing, processing and exporting companies from Ecuador for their openness and constructive collaboration, as well as to their managers, other employees, producers, labourers, people living in the production area, and stakeholders such as civil society organisations, workers' associations and women's groups. Without them, this assignment would not have been possible.

Views and opinions expressed in this report are those of the above research team, and do thus not necessarily reflect the views of Jumbo or any other company and party involved in this assignment.

Part 2: Impact Assessment on Jumbo's Supply Chain of Shrimps from Vietnam

2. Impact Assessment on Jumbo's Supply Chain of Shrimps from Vietnam

2.1 Methodology

The Impact Assessment was carried out over a period between January through December 2023. The sections below describe in detail the methodology used throughout this part of the project.

2.1.1 Research methodology

The research methodology for the Impact Assessment on Jumbo's current shrimp supply chain from Vietnam is presented in the diagram below.

The first step of the Impact Assessment on Vietnam consisted of desk research providing a broad overview on the country of Vietnam and its shrimp industry, known as the context analysis (2.2.1). These findings were cross-checked with other experts and stakeholders through (online) consultations.

Secondly, the broad context research was narrowed down to research the potential risks of the shrimp industry. The potential risks were found within the areas of human rights, communities and consumers, environment and animal welfare, and governance. These potential risks are identified and listed in the table in 2.2.2 and specify risks that require further in-depth investigation via the site visits.

Next, site visits took place at Jumbo's two suppliers NTSF and THP. Building on desk research and consultations, the actual positive and negative impact experienced in the supply chain was identified through field work. Hence, general information from desk research is narrowed down to the level of the actual supply chain impacts. Focus group discussions and personal interviews were conducted to identify the salient issues. Additionally, during this step a supply chain analysis was carried out mapping the chain structures and the activities involved.

Subsequently, the impact findings were validated with the companies involved and external stakeholders. Subsequently, the identified impact was assessed for irremediability, scale, scope, and their gender dimension. Also, impact drivers and root causes were analysed before arriving at the conclusions and recommendations.

Figure 1: Research methodology for the Impact Assessment in Vietnam

2.1.2 Locations of the site visits

For the impact assessment of Jumbo's current supply chain, Vietnamese production locations were visited. Nha Trang Seafood Company (NTSF) and Thuan Phouc Company (THP) supply Jumbo through its first-tier Seafood Connection (with offices in Vietnam and Netherlands).

For the site visits, a representative sample of 6 production locations were visited, including 2 farms and 1 processing plant of NTSF and THP each. Production locations were selected in distinct areas of the country (see map below). Both NTSF and THP have two processing plants; at the time of the assessment, one of the processing plants of NTSF (DL946) was closed for maintenance and upgrading.

These site visits were carried out by experienced consultants of Fresh Studio Vietnam to:

1. Thuan Phuoc (THP)
    a. Processing Company, Da Nang
    b. Thuan Phuoc Farm, Hue
    c. Thuan Phuoc Farm, Ba Tri, Ben Tre
2. Nha Trang Seafood Company (NTSF)
    a. Processing Company, Can Tho
    b. NTSF Duong Hoa Farm
    c. NTSF Thanh Giang Farm, Kien Giang

Figure 2: Production locations included in the impact assessment in Vietnam

2.1.3 Stakeholders

For the impact assessment of the Vietnam supply chain the following stakeholders have been interviewed to provide a multifaceted perspective on the shrimp industry.

No.	Company / organisation name	Type	Country
1.	IDH Sustainable Trade Initiative	Supply chain facilitator	Netherlands, Vietnam
2.	Seafood Connection	Seafood supplier	Netherlands, Vietnam
3.	Heiploeg	Seafood supplier	Netherlands
4.	Wageningen University	Research institution	Netherlands
5.	ASC	Certifying body	Netherlands
6.	Shrimp Welfare Project	Civil society organisation	UK, Vietnam, India
7.	Thuan Phuoc	Farms + processor	Vietnam
8.	NTSF	Farms + processor	Vietnam
9.	Vietnam Confederation of Labour	Workers' representation	Vietnam

For the impact assessment, the two companies supplying shrimps from Vietnam to Jumbo through Seafood Connection were visited, and various people were interviewed (in farms, processing plants, managers, common workers, labour union members etc.), as follows:

No.	Company name	Male	Female	Total
1.	Thuan Phuoc processing company	5	5	10
	2 Thuan Phuoc supplying farms	11	1	12
2.	NTSF processing company	5	5	10
	2 NTSF farms supplying farms	12	1	13
	Totals	33	12	45

2.2 Desk Research

2.2.1 Context analysis

The Socialist Republic of Vietnam is an elongated country in Southeast Asia with a historically strong fisheries sector; both in marine fishing and aquaculture. It is a relatively populous country with some 98 million inhabitants (2021) and with an annual population growth of 1%. The population comprises more than 50 recognised ethnic groups. Population is quite dispersed with particularly high densities in the South and in river deltas such as the Mekong and the Red River valley where a lot of people live from fishing and other seafood activities. Religion does not play a determining role in society.

Regarding social development, Vietnam ranks 121st out of 227 countries in terms of life expectancy with a remarkable gap between women and men (expected 74 and 68 years in favour of women). Family structures are commonly patriarchal, and households are often made up of 2, 3 or more generations. Vietnam has been known for its high female labour participation rate. Some 47% of the Vietnamese workforce concerns women. Also, women-owned businesses are abundant and do generally well. Despite these positive trends, women participate far less at managerial level or in supervisory jobs than their men. Additionally, there is a significant gender payment gap which can go up to 20%.

Until the 1920s, most Vietnamese people lived below the poverty line. After foreign occupation and the war, political and economic reform were established with strong focus on market liberalisation. From the early 1990s onwards, the poverty rate decreased prominently from around 60% to some 12% in 2011. Especially regions in the South benefitted from economic reform and growth.

Vietnam is a socialist state with a single-party political system (communist). The national army has a significant influence over political decision making. Freedom of expression, association, assembly, movement, religion, opinion, and speech may be formally guaranteed by law, their implementation in practise is rather disputable at times. In fact, criticising the government or police is not advisable.

Vietnam is amongst the most biodiverse regions in the world (ranked 16th globally). Thousands of endemic species are found in its wide range of ecosystems, including forests, mangroves, wetlands, and marine areas. As a result of intensive economic growth, such natural habitats have come under increasing pressure because of deforestation, urbanization, and intensification of agriculture.

The country's primary sector, including fisheries, accounts for some 12% of GDP. The export of coffee, rice, and shrimps are major contributors. The country has over 100,000 shrimp farms, mostly family businesses, which offer vital income and job opportunities. Vietnam holds a prominent position in the global shrimp trade coming third after India and Ecuador in terms of export value. The country plans to increase its overall shrimp farming areas to 750 thousand hectares by 2023/24, thereby pushing up its export volumes. The Vietnamese shrimp sector has significantly higher production costs than other countries like India and Ecuador. Another major challenge lies in controlling the use of antibiotics in export shrimp farming. Most shrimp farms in Vietnam are small-scale, low capital intensive, and run as individual family businesses, which makes it difficult to monitor and control farming methods.

Multi-Company Collective Bargaining Agreement (MCCBA) in the Vietnamese seafood sector

Recently, the Vietnamese seafood sector welcomed a new initiative: Multi-Company Collective Bargaining Agreements (MCCBA). This concerns a joint effort by the Vietnam General Confederation of Labour (VGCL), provincial trade unions, the Vietnam Sustainable Shrimp Alliance (VSSA), CNV International and IDH Sustainable Trade Initiative. (Currently, NTSF and THP are not part of such MCCBAs.)

The seafood industry in Vietnam has relatively good labour conditions. Still, work-related issues have been a growing concern. Now, the MCCBAs created a level-playing field amongst seafood companies with a clear set of decent labour conditions. Thousands of workers will benefit from them. For companies, they eliminate unfair competition when recruiting new employees and anticipate reduced rotation of experienced workers.

IDH Sustainable Trade Initiative introduced the aim of reaching a living wage for all workers through these MCCBAs, and worked out the living wage roadmap to be followed by companies to make that come true.

2.2.2 Potential impacts

Initial desk research was conducted on potential negative impact caused in Vietnam by the export supply chain of shrimps. The identification of potential impacts (or in other words: supply chain risks) covered the four risk areas in scope (see 1.2):

1. Human Rights: child labour, forced labour, discrimination & harassment, freedom of association & collective bargaining, gender equality & women's rights, occupational health & safety, decent wages & benefits, and working conditions.
2. Communities & Consumers: affected communities, and food safety for consumers.
3. Environment & Animal welfare: greenhouse gas emissions, pollution, water consumption, affected biodiversity & ecosystems, waste management, animal welfare, and animal slaughter methods.
4. Governance: lack of traceability, food fraud, and poor governance or corruption.

The below table presents the prioritised potential impacts (i.e. risks) associated with the shrimp supply chain from Vietnam as concluded from desk research.

Risk area	Reported risks	Explanation from desk research
Human Rights	Child Labour	Small-scale shrimp farmers may employ children
	Discrimination & Harassment	Harassment and discrimination of women may occur at processing plants
	Wages and Benefits	Wages may not meet livelihood requirements or living wage level Wage deductions may occur
	Working Conditions	Overtime hours, standing for long periods of time, lack of breaks may occur Poor working conditions and facilities may occur
Communities & Consumers	Affected Communities	Landlessness and indebtedness may increase due to pressure on land Deforestation of mangroves may occur affecting local communities
	Food Safety for Consumers	EU food safety systems reveal that shrimps from Vietnam get rejected with regularity due to residues of antibiotics
Environment & Animal Welfare	Pollution	Water effluent pollution, salt and antibiotic pollution may be disposed of into the environment and (ground) water sources
	Biodiversity & Ecosystems	Ecosystem and biodiversity loss may have occurred due to deforestation
	Animal Welfare	Eyestalk ablation of female shrimp at the hatcheries may occur Shrimp disease rates may be relatively high due to high stocking densities
Governance	Lack of traceability	Processors collecting shrimps from various small-scale farmers may complicate supply chain traceability Use of wild caught fish (by-catch marine fisheries) for feed production may not be traceable

2.2.3 Social Compliance Analysis

As part of the desk research, a social compliance analysis was conducted on the two Vietnamese suppliers to Jumbo through Seafood Connection: Nha Trang Seafood Company (NTSF), and Thuan Phouc Company (THP). From the analysis, it was concluded that NTSF and THP are both fully compliant with Vietnamese laws and international shrimp trade standards.

The most recent ETI-SMETA report on NTSF contained two minor non-conformities, which did not flag pressing impact issues for the assessment. Moreover, NTSF developed a Corrective Action Plan (CAP) meant to solve these minor issues before the next audit.

THP scored a B on its recent BSCI report which contained a number of minor non-conformities. Two of those were the lack of secured benefits for female employees during breastfeeding period, and the lack of specifications in labour contracts of selected workers. These non-conformities were indeed minor, and THP was given the task to solve these issues before the next audit.

The findings from these audits were cross-checked by the team through interviews with workers and other stakeholders. As a result, the team concluded that there are no reasons to doubt the social compliance of NTSF and THP.

2.3 Supply Chain Analysis

Jumbo buys shrimps through Seafood Connection, one of its first-tier seafood suppliers. For this supply to Jumbo, Seafood Connection sets out annual tenders with a pool of preselected shrimp suppliers (i.e. processing plants) in Vietnam. At the time of assessment, Seafood Connection sourced shrimps for Jumbo with NTSF and THP. Although Seafood Connection works with yearly tenders, NTSF and THP have been in the pool of Seafood Connection suppliers for 17 years and 4 years respectively.

Both NTSF and THP partially produce shrimps at their own farms, and partially procure shrimps from various external producers. These tend to be small-scale shrimp farmers. For Jumbo, all shrimps come from ASC certified farms.

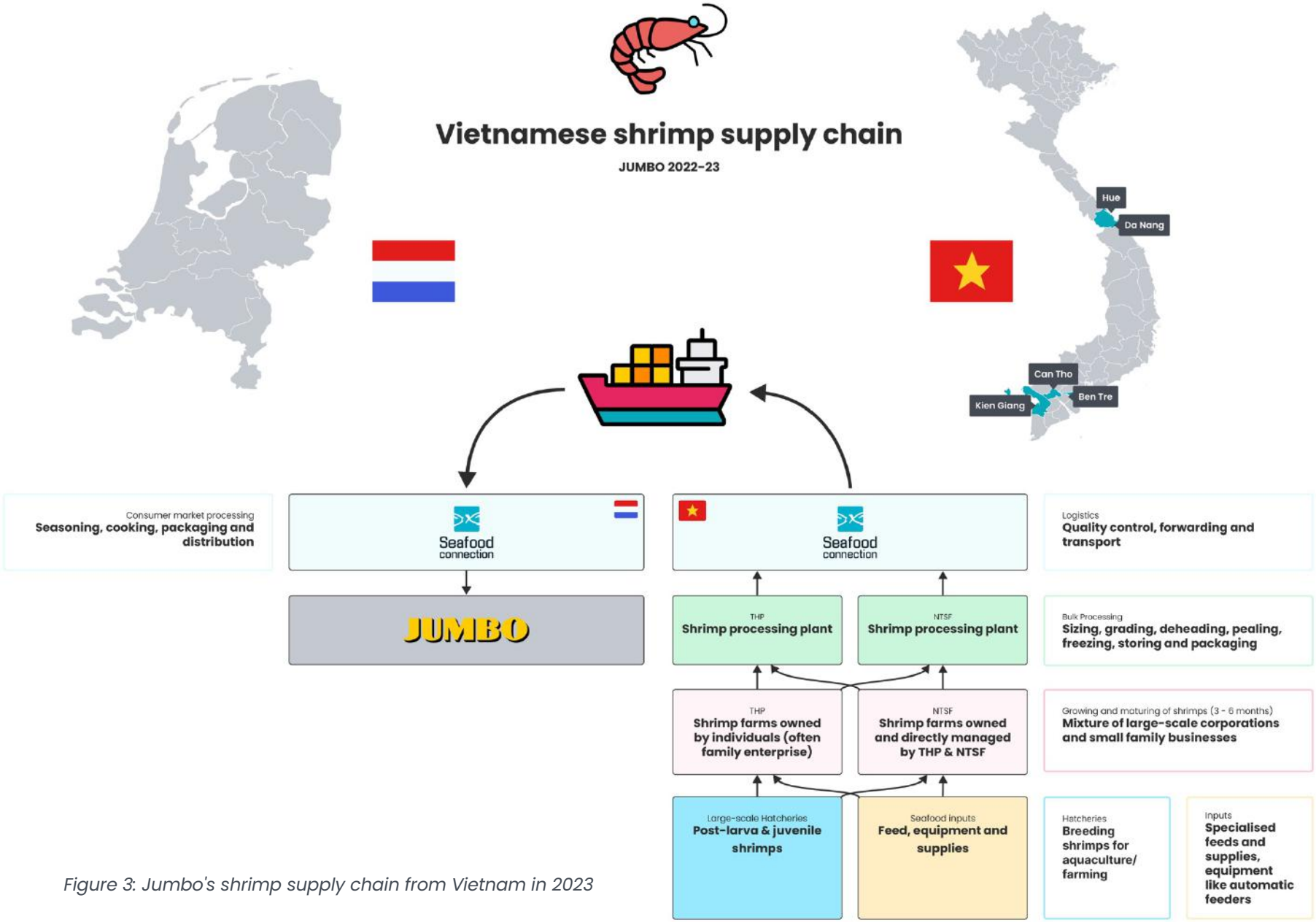

Figure 3: Jumbo's shrimp supply chain from Vietnam in 2023

2.4 Impact Assessment in Vietnam

This Impact Assessment section identifies and analyses the actual impact generated by Jumbo's shrimp suppliers from Vietnam: Nha Trang Seafood Company (NTSF) and Thuan Phouc Company (THP), through its first-tier company Seafood Connection. This section presents the information gathered from site visits at these companies, worker interviews, expert consultations, and discussions with company management, along with results from recent social compliance analysis and the earlier desk research.

2.4.1 Overview of the Vietnam Supply Chain of Shrimps

Feed Companies
The feed industry in Vietnam is dominated by 3 corporate companies: Charoen Pokphand (or CP; Thai food conglomerate), Cargill and Skretting (part of Nutreco). Feed accounts for approximately 50% of the costs of farming shrimp. The price of feed has been increasing over the past years in Vietnam.

Hatcheries
The production of export shrimps starts from the hatcheries. In Vietnam, shrimp larvae are produced in a few specialised, large-scale salt-water hatcheries. These hatcheries have several genetically selected reproductive shrimps in tanks that produce the larvae, which are collected and sent to other tanks. Once transported, shrimp larvae grow exponentially, and are provided with special feed, and kept in warm and shaded conditions. These specialised hatcheries sell shrimp larvae to farms such as NTSF and THP, as well as to small-scale farmers who place them in emptied and cleaned ponds.

NTSF and THP Shrimp Farms
Vietnam is known for its intensive shrimp farming with high efficiency per area of land or pond by having high stocking densities at the shrimp ponds. However, such high stocking densities of shrimps come with increased risk of the occurrence and spread of diseases. As such, the shrimp ponds are vulnerable to slow growth, elevated death rates, and spreading of contagious diseases. The efficiency of production and harvest volumes in small areas of land make shrimps an attractive crop for poorer farmers. Such small-scale farmers often have close association with a processing plant to ensure that their stock is sold in time at a decent price. NTSF and THP also source some 50% of their export volumes from small-scale farmers based on supplier contracts.

The shrimps are placed in ponds that are lined with plastic, and are covered with nets for birds and any other intrusion or pollution. Plastic lining is used in ponds to allow for easy disinfection after harvest. The ponds are covered with nets to protect from birds carrying shrimps from one pond to another, which can spread diseases, and to reduce the percolation of residues into the soil.

Farmers feed the shrimps and routinely monitor the animal and environmental conditions of the pond. Farm workers give larvae and young shrimps regular feedings whilst more mature shrimp are fed through automatic feeders twice a day. The shrimps take approximately 100 to 130 days to grow, however this can change depending on the export market requirements (e.g. sizes). All shrimps in a pond are harvested in one go, and immediately placed in ice for slaughtering. The ponds are then emptied, and the plastic lining is cleaned for the next group of shrimps to arrive.

At NTSF and THP, farm workers tend to come from nearby communities and do not stay at the farm sites nor require accommodation there. As ponds need to be constantly monitored, there is a regular rotation of workers with people working for 6 days in a row and have one day off.

Water for the shrimp ponds is sourced from the ocean or rivers as shrimps can live in water with a large range of salinities. Once the shrimps have been harvested, the water effluent from the ponds are treated and left for excess particles to settle before discharging into the natural environment. This is monitored by the Vietnamese government and is examined by auditors on the ASC standard.

NTSF and THP Processing Plants
NTSF and THP produce approximately 50% of their shrimps at their own farms and in addition they source some 50% from small-scale farmers in their surroundings so that they can live up to their delivery as agreed in the export tender contract. These small-scale farmers are also audited on ASC standard.

Under Vietnamese law, the two companies must guarantee proper representation of workers through the national system of centrally-controlled trade unions. This system has a fixed financial contribution of 1% of the monthly wage per worker to his/her corresponding trade union.

Workers at the processing plants work 6 days a week and no more than 60 hours per week. In case of overtime, this is paid at 150% of normal wage, and holidays are paid at 300% of normal wages as per law in Vietnam law. Workers often prefer to do overtime within company boundaries to receive extra payment.

Both NTSF and THP own 2 processing plants under their direct operational management. The harvested shrimps are transported in ice to the processing plants. Upon arrival, the shrimps are sized, and value addition activities may be carried out, such as de-heading or deshelling, which Vietnamese plants are specialised in. The shrimps are packed into small boxes and frozen to be shipped to Seafood Connection.

Depending on the final product and its presentation, Seafood Connection in The Netherlands conducts additional processing or value addition, before the shrimps are packaged in individual consumer-level packs under Jumbo private label, and get dispatched to Jumbo supermarkets.

2.4.2 Potential Impacts not identified at THP and NTSF

Section 2.2.2 gave prioritised potential impacts identified from desk research on shrimps from Vietnam. Subsequently, this impact assessment established that most of these potential impacts are currently not experienced nor felt in the two Vietnamese companies. To be more specific, the risk that were not found to be actual or not found to be experienced in the two supplying companies, were around:

- child labour
- discrimination & harassment
- occupational health & safety
- affected communities
- affected biodiversity & ecosystems
- traceability

Furthermore, the adverse impact resulting from the use of antibiotics was also not identified at THP.

2.4.3 Actual Impacts Identified at THP and NTSF

From the prioritised potential impacts given in section 2.2.2, the following actual impacts were identified and experienced by people or stakeholders at NTSF and/or THP:

Impact Areas	Impact Issues	NTSF Company	THP Company
Human Rights	Working Conditions	Processing plant working conditions involve monotonous work and long hours standing	Processing plant working conditions involve monotonous work and long hours standing
Human Rights Communities & Consumers	Wages and Benefits	Minimum wages, child-care allowances are paid, but total remuneration does not sustain a family livelihood	Minimum wages plus child-care, housing, transport, and attendance allowances are paid, but total remuneration does not sustain family livelihood
Communities & Consumers Environment & Animal Welfare	Food Safety	At times, antibiotics may be applied by some small-scale farmers in case of disease outbreaks in their ponds, thus contributing to more resistant bacteria in people and environment	*Not identified.*
Environment & Animal Welfare	Animal Welfare	Eyestalk ablation impairing animal welfare at hatcheries	Eyestalk ablation impairing animal welfare at hatcheries

The impact issues identified at NTSF and THP are interdisciplinary, thus forming part of more than one impact area (i.e. part of Human Rights as well as of Communities & Consumers, etc.).

NTSF and THP are rather similar companies with corresponding production systems. As a result, also the impacts identified at the companies are largely corresponding.

2.4.4 Impact Assessment

The table above gives the four main negative impact issues as identified during the impact assessment on Jumbo's shrimp supply chain from Vietnam. These impacts are visualized below.

Figure 4: The main negative impacts identified per impact area

In the following section, these four main impacts will be assessed in more detail in line with the UN Principles on Business and Human Rights (see the box below for definitions):

1. Core of the impact;
2. Attribution to the impact;
3. Scale, scope, irremediability and gender dimension of the impact;
4. Root causes of the impact.

Impact assessment definitions

Scale: How severe, grave, or serious is a particular impact on people, community, environment, and animals; how severe is the harm done?

Scope: How many people, communities, acres or other areas, water sources, forest cover, animals and biodiversity etc. are affected and experience the adverse impact; how widespread is the harm done?

Irremediability: Can that impact be restored or repaired; can people or things affected be returned to their original status; or is there no appropriate remedy and will the damage be everlasting and will impact be experienced for time to come.

Gender dimension: Does the impact affect women and men equally? Can the impact change existing gender relations or inequality?

Positive Impact

NTSF and THP are important employers providing hundreds of workers with **permanent employment** at **decent labour conditions** that exceed the legal minimum.

NTSF employs 548 workers at its processing plant, and 144 workers between the 2 farms visited. THP employs 1404 workers at its processing plant, and 40 workers between the 2 farms visited. The workers obtain single year labour contracts for 2 consecutive years before obtaining a labour contract for indefinite period. The companies provide social, health and unemployment insurance in addition to several types of allowances such as for housing, transport, and childcare.

This employment has positive impact on workers and their families in the form of an increased sense of family income security. From interviews, workers demonstrate their appreciation for the jobs. Moreover, worker rotation is moderate which is seen as a confirmation of that appreciation.

At NTSF and THP processing plants, many (rural) women are hired, thereby increasing women's personal development opportunities, and contributing in general to gender equality.

Negative Impact

As stated, both NTSF and THP comply with international standards and national legislation. Still, this impact assessment identified some areas of negative impact that require attention when sourcing shrimps.

Working conditions at processing plants involve monotonous work and long hours standing

At NTSF and THP workers are expected to stand for up to 8 hours a day closely alongside each other at processing tables. This is a general characteristic of the fisheries industry and is regulated by the Vietnamese Ministry of Labour, which endorses that workers stand throughout the work shift and that they are often exposed to cold water and wet working environments. Workers have an hour-long paid break from working activities. NTSF and THP apply two breaks in the morning and afternoon, to ensure that workers take rest. Workers mainly perform monotonous activities such as washing, de-heading, peeling, deveining, freezing, packing, and storing. Workers are paid extra based on the weight of shrimp they process, so they are motivated to work at a fast pace. The monotonous work and long-standing hours have an impact on workers; it causes fatigue, physical discomfort, and joint pains in back and legs with the workers.

NTSF and THP directly cause this impact on workers at their processing plants as they are the direct employers and responsible for the working conditions.

Impact: Working conditions at processing plants involve monotonous work and long hours standing				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				
Gender Equality				

The general working conditions at the processing plants are decent. However, the type of work requires that workers stand for long hours and perform monotonous activities. Despite adherence to Ministry of Labour regulation, the impact is experienced by workers. This impact is expected to have negative consequences in the long run to workers' health. The scale of this impact is considered low.

The impact is affecting the majority of workers on the processing lines at the plants, where most of the workers in the companies are employed. Thus, the scope of this impact is moderate.

The impact is remediable. For, if the workplace is improved (e.g. by providing high-working stools or chairs) to lessen the strenuous conditions, the impact would be reduced, and long-term effects may not occur and get avoided for the future.

The impact is expected to affect women and men equally. The overall rating for gender equality is low. However, the workers involved are mostly women, which entails that they are more affected than men.

The root cause of the long hours standing lies in the workplace arrangement with processing tables and standing positions around them. The root cause of the monotonous work lies in the specialisation of labour, making it more productive and efficient to a company if one person specialises in one particular task.

Minimum wages are paid, but do not sustain a family livelihood

The assessment confirms that both NTSF and THP pay their workers at least the legal minimum wage plus additional benefits. Many workers at their processing plants earn a piece rate wage, which guarantees the minimum wage and is topped up based on the weight of shrimps processed by the person. Workers also receive a yearly bonus of 1 month's wage on Tet holiday. Both companies provide a child-care allowance for children up to 6 years old: between 10,000 to 20,000 VND (0.4 to 0,8 Euro) for each day worked per month.

THP pays its regular full-time workers a housing allowance up to 250,000 VND (9.5 Euro) per month and a monthly attendance allowance of some 600,000 VND (22 euro) if the worker involved did not report absent.

Workers indicated during interviews that more than 1 family member needs to have a full-time job in order to sustain the family, which implies that one income is not enough for family livelihood. Apparently, a typical worker family indeed has at least two people working to reach an adequate income covering the basic costs. Workers indicated that over the recent past the costs of housing and education for their children have increased well beyond the level of their individual incomes. Despite having decent jobs at NTSF and THP, working with commitment and full attendance, regular workers now worry that they can no longer pay for these basic family needs. The eagerness to do overtime and earn more money in that way, further demonstrates this negative impact on workers.

NTSF and THP cause this impact as they are the direct employers, and they determine and decide on the salaries and additional financial benefits to workers. However, the increasing costs of education and housing are obviously determining external root causes to this impact.

NTSF and THP pay workers at least the legal minimum wage and provide additional allowances as per national law. Then, workers can make overtime hours on voluntary basis which are paid as per national law as well. Both companies provide the opportunity to workers to earn more than the legal minimum by offering piece rate work. The gap between current wages and the living wage level is not known since a proper living wage calculation was not performed under this assignment. As such, it is difficult to determine the scale of the impact felt by workers. From interviews, it was concluded that workers consider it common that wages are below the family livelihood level, and that the impact to them is low.

Impact: Minimum wages are paid, but do not sustain a family livelihood				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				
Gender equality				

This impact touches the majority of regular workers in both companies, from the farms to the processing plants. Therefore, the scope of this impact is moderate to serious. Management staff and other workers in higher positions may experience this impact less because of their higher salaries.

The impact is remediable, as both companies can take actions to remediate the impact by changing their wage structure and/or by providing additional benefits.

At both companies, there was equal pay for equal work, or gender equality on wages and benefit. This wage impact affects women and men equally, and thus the rating for gender equality is low.

Antibiotics applied by small-scale farmers contributing to resistant bacteria (applicable to NTSF only)

NTSF produces shrimps in its own farms and sources a part of its export shrimps from external farmers. This is common in Vietnam. Such external sources consist of a diverse group of small-scale shrimp farms run as family businesses. Due to high stocking density in ponds, the risk of diseases is relatively high. When small-scale farmers are confronted with disease in their farms, they see their family income at immediate risk. In such cases, some farmers apply antibiotics as a last resort to save their crop and family income.

NTSF and Seafood Connection Vietnam have strict protocols and measures in place to prevent this impact from occurring in their supply chains as much as possible. This comes at considerable cost.

Still, late 2023, the ASC certificate of one of the NTSF processing plants was suspended due to detection of antibiotics residues in a shipment headed for the UK (not through Seafood Connection).

NTSF indirectly contributes to this impact by sourcing from shrimp farmers that at times apply antibiotics.

The scale of this impact is considered moderate. The impact resulting from antibiotics use is twofold. First of all, antibiotics disrupt the aquatic ecosystems around shrimp farms. Secondly, antibiotics residues in impact the health of shrimp consumers (and the general public as a whole) as it contributes to allergic reactions, and it creates more resistance of bacteria to antibiotics.

The scope of the impact is low. For, sampling before departure and upon arrival is frequent, and only few batches originating from small-scale farmers are found to have antibiotics residues, and are then rejected.

The impact of long-term exposure of antibiotics in the aquatic environment and the antibiotics resistance of bacteria are clearly irremediable. However, whether such irremediable consequences are caused by shrimp farmers is some extent disputable. Therefore, the irremediability is rated here as moderate.

Impact: Antibiotics applied by small-scale farmers contributing to resistant bacteria				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				
Gender equality	N.a.			

This impact is irrespective of gender and does not have a specific effect on gender equality.

The root cause of this impact is twofold. First, the use of antibiotics is associated with the farming approach in Vietnam: with small ponds, high stocking density farming, high susceptibility to diseases in ponds, and farmers with low financial buffer capacity and high dependency on their standing crop for family income. As a result, at times some small-scale farmers appear to use antibiotics in case of disease outbreaks as a last resort to save their crop and income. Secondly, the use of antibiotics had been promoted until recently to shrimp farmers as a positive measure to manage disease outbreaks. For long, information on negative consequences to nature and consumers had not been shared.

Eyestalk ablation impairing animal welfare at hatcheries

Eyestalk ablation is a practice of harming the eyestalk of female shrimps used for reproduction, where a reproductive gland is located, to induce enhanced reproductive maturation. The practise is debated. It is known for accelerating a female shrimp's reproductive cycle and making her laying eggs quicker. However, the practice has undesirable effects on the shrimps and larvae. Hatcheries in Vietnam tend to practise this method, but the attitude towards it has been changing in the direction of halting it.

NTSF and THP indirectly contribute to this impact as they buy shrimps from hatcheries that use this practise.

In terms of scale, eyestalk ablation harms the welfare of female shrimps that are used for reproduction, and it can also affect her offspring. The ablation induces stress to the female shrimps. The mortality rate of these shrimp tends to increase significantly while the egg quality deteriorates. The scale of the impact is thus scored as moderate.

The scope of eyestalk ablation is limited to the female shrimps at hatcheries. In fact, out of the total count of shrimps produced, a minor number of shrimps undergo ablation. Yet, the practise is widely used by Vietnamese hatcheries. All in all, the scope of this impact is rated as moderate.

Eyestalk ablation is irremediable after it was carried out on shrimps. However, hatcheries have indicated that they can eliminate the practise with proper planning, a higher female-to-male ratio, and specific reproductive conditions. Thus, the practise as such is remediable. However, Vietnamese hatcheries appear to have had limited success so far.[2] Overall, the irremediability of this impact is moderate.

Impact: Eyestalk ablation impairing animal welfare at hatcheries				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				
Gender equality	N.a.			

[2] NTSF collaborated with a hatchery on trials of reproduction without eyestalk ablation, but results were not promising.

The root cause of eyestalk ablation lies in the export market pressure to produce shrimps at high productivity and financial efficiency. Eyestalk ablation is a practice used by hatcheries to produce more shrimp larvae per female shrimp over a given period. Scientific reports have shown that from a technical perspective, eyestalk ablation is an unnecessary practice and can be avoided under alternative reproductive conditions. Yet, the required technical expertise may often be lacking.

2.4.5 Leverage for mitigating impact

As final buyer, Jumbo has certain leverage over its shrimp supply chain partners towards mitigating the negative impact identified. Jumbo buys shrimps through its first-tier, Seafood Connection. On its turn, Seafood Connection sets out annual tenders with suppliers in Vietnam. It has long-standing relationships with both NTSF and THP. These relationships may give Jumbo through Seafood Connection the required leverage towards impact mitigation. On the other hand, the export volumes bought by Jumbo and global market demand reduce that leverage. Now, to avoid and mitigate negative impact, Jumbo may need to negotiate integrating clear impact criteria, and may consider joining hands with like-minded buyers.

2.5 Conclusions

As part of a yearly tender framework contract with Seafood Connection, NTSF and THP in Vietnam produce and process white-legged shrimps. The shrimps are partly produced in their own farms and are partly sourced from diverse small-scale farmers. The processing plants are owned and managed by NTSF and THP. The frozen Shrimps are exported by Seafood Connection in Vietnam to The Netherlands for further processing and storage by Seafood Connection, before they are supplied to Jumbo stores.

Both NTSF and THP are compliant to the national legislation as well as to international standards (like ASC as required by Jumbo). NTSF and THP have been supplying Seafood Connection for multiple years.

NTSF and THP apply highly intensive and efficient shrimp farming techniques per productive area with very high stocking density (of shrimps per m3). This entails that less space is required for shrimp farming.

The shrimp supply chain from Vietnam has positive impact on people, since hatcheries, feed factories, farms, processing companies, and other linked businesses, provide employment at decent conditions to numerous people. They generate stable family incomes and provide working conditions well beyond the legal minimum. The processing plants provide employment to women in particular.

Negative impact found at NTSF and THP with regard to working conditions at processing plants is directly linked to the nature of the work involved (i.e. monotonous work and long hours standing), and corresponds to what is generally expected when sourcing farmed shrimps from Vietnam or similar countries of origin.

The use of antibiotics at small-scale farms is a recurring issue related to shrimps from Vietnam. RASFF data reveal that antibiotics residues are found with certain regularity on shrimps from Vietnam before entering the EU market. At times small-scale shrimp farmers appear to use antibiotics so as to save their crop and family income. In fact, late 2023 the ASC certificate of a NTSF processing plant was suspended due to the detection of antibiotics residues in an export shipment (to the UK; not through Seafood Connection).

Eyestalk ablation is a common practise at Vietnamese hatcheries, which relates to their high efficiency farming goals. A few large-scale hatcheries basically supply larvae to shrimp farms in the country.

The above conclusions are summarised in the visual below.

Figure 5: Summary of main impact in Jumbo's shrimp supply chain from Vietnam

Part 3: Study on Shrimps from Ecuador

3. Study on Shrimps from Ecuador

3.1 Shrimp sourcing alternatives

The risk analysis carried out on Jumbo assortment in 2021, revealed that farmed shrimps were associated with relatively high risks of negative impact that required attentive risk management.

When the impact assessment was initiated on Jumbo's current shrimp supply from Vietnam, a study on alternative sources was commissioned simultaneously. With the results, Jumbo would be better able to consider its sourcing options, and would be prepared if negative impact in Vietnam got confirmed. Initial desk research focused on India and Ecuador as optional sourcing countries. Research concluded that supply chain risks in India would not be lower than in Vietnam. Subsequently, the review focused in detail on Ecuadorian shrimps.

In contrast to the assessment of actual impact identified in Jumbo's supply chain from Vietnam, the study on alternative sourcing gives the anticipated risks if shrimps (hypothetically) were to be sourced for Jumbo from Ecuador. Apart from desk research, these risks were derived from consultations and field visits.

This study has been conducted from the same 4 perspectives as the impact assessment: from the angles of 1. human rights, 2. communities & consumers, 3. environment & animal welfare, and 4. governance. In other words, the technical, financial, and commercial feasibility perspectives have not been included.

3.1.1 Study methodology

The methodology applied for the implementation of the comparative study can be best summarised and illustrated by figure 6 below.

The first step studying the shrimp supply chain from Ecuador consisted of desk research providing a broad overview on the country of Ecuador and context analysis of its shrimp industry. Ample reports, research documents and company experiences were used. The findings were then cross-checked with the Ecuador Chamber of Aquaculture, the Sustainable Shrimp Partnership, technical experts, scientists, and other relevant stakeholders through (online) consultations.

Secondly, the broad context analysis was narrowed down to identify potential risks associated with shrimp export supply chains in Ecuador. Such risks were identified using the 4 above-mentioned perspectives (of 1. human rights, 2. communities & consumers, 3. environment & animal welfare, and 4. supply chain governance). The list of identified potential risks formed the basis for further in-depth investigation through consultations and site visits in Ecuador.

These site visits covered a range of shrimp related institutions, companies and civil society organisations in Ecuador. Building on the desk research and consultations, the interviews, observations and direct field experiences during the site visits provided more detailed information on the potential risks and whether they could occur in the Ecuadorian shrimp sector.

Figure 6: Methodology for studying the shrimp supply chain from Ecuador

3.1.2 Locations of Ecuador site visits

For this study, 16 shrimp production locations were selected and visited, thus ensuring a comprehensive overview of the shrimp export sector in Ecuador. The locations included 2 hatcheries, 2 feed companies, a farm implement supplier, 5 large shrimp producers (with both ocean and river shore farms; with inland, river delta, and island farms), 1 small-scale farm, 5 large processors and 1 relatively small (and somewhat lower capital intensive) processing plant. Please see map and overview of the stakeholders visited below.

Four of these Ecuadorean companies already had a standing trade relationship with Heiploeg, for export to The Netherlands. Seafood Connection had an emerging commercial relationship with one Ecuadorian exporter. However, at the time of writing, such Ecuadorian shrimps were not (yet) supplied to Jumbo.

Figure 7: Locations visited in Ecuador

3.1.3 Stakeholders

The stakeholders visited and interviewed during this study in Ecuador are listed in the table below.

No.	Company / organisation name	Type	Country
1.	IDH Sustainable Trade Initiative	Supply chain facilitator	Netherlands
2.	Seafood Connection	Seafood supplier	Netherlands
3.	Heiploeg	Seafood supplier	Netherlands, Ecuador
4.	Wageningen University	Research institution	Netherlands
5.	ASC	Certifying body	Netherlands
6.	Shrimp Welfare Project	Civil society organisation	UK, Vietnam, India
7.	Cámara Nacional de Acuacultura	National Aquaculture Chamber	Ecuador
8.	Sustainable Shrimp Partnership SSP	Supply chain facilitator	Ecuador
9.	Skretting / Nutreco	Seafood fish producer	Ecuador
10.	Quevedo	Automatic feeders (a.o.)	Ecuador
11.	Biogemar	Hatchery, Santa Elena	Ecuador
12.	Santa Priscila	Hatchery, Santa Elena	Ecuador
13.	Almar / Produmar	Farms + processor	Ecuador
14.	Omarsa	Farms + processor	Ecuador
15.	Promarisco / Pescanova	Farms + processor	Ecuador
16.	Empagran	Farms + processor	Ecuador
17.	Camatorvi	Farms + processor	Ecuador
18.	CostaMarket	Small-scale farm, El Oro	Ecuador
19.	MarEcuador	Small processor, Machala, El Oro	Ecuador
20.	Sambito	NGO / service provider	Ecuador
21.	ESPOL	Polytechnical School	Ecuador

3.2 Desk Research

3.2.1 Context Analysis Shrimps from Ecuador

The republic of Ecuador is situated on the West coast of Latin America, on the equator, in between Colombia and Peru. The country is amongst the smaller countries on the continent and is home to some 18 million people. This population is predominantly of mixed descent (*mestizos/as*) and the majority is of catholic religion. Indigenous groups form around 15% of the total population.

Regarding social development, around 25% of Ecuadorian people are found to be living in poverty and the country ranked 93rd on the Countries Human Development Index by the United Nations in 2021 while its direct neighbouring countries did slightly better. Ecuador's gender development index shows a relatively good score, but still the economic inequality between men and women is evident; women participate significantly less in formal employment and political decision-making than men.

Ecuador has an economy that is strongly dominated by primary sectors of mining, agriculture, and fishing. Apart from oil and minerals (gold, silver, copper), Ecuador's exports comprise principally basic agricultural and fishery products like bananas, farmed shrimps, coffee, cocoa, and flowers. While Ecuador earns well on the export of crude oil and derived products, the country generates more than 80% of its electricity through hydropower projects. As a result, the frozen shrimp export as a sector with a high electricity use has a significantly lower carbon footprint in Ecuador than in countries that use fossil fuels for their electricity.

For a long time, Ecuador was known as one of the safest countries in Latin America. The Freedom House considers the country to be a fair and free democracy with regular elections, stable state institutions, and good governance. However, the sense of national safety, security, and administration has deteriorated over the past few years due to increased drug trafficking (cocaine) from Latin American countries through the ports of Puerto Bolivar and Guayaquíl, which entails armed gang violence, brutal theft, and kidnappings.

Ecuador has 3 distinct mainland regions (Amazon Rainforest, Andean highlands, cloud forest) plus the Galapagos Islands and mangrove coastal areas which make it a true biodiversity hotspot. Unlike many countries, it stopped massive deforestation soon. Ever since, the deforestation control has been strict and effective, also in coastal and mangrove areas. The establishment of shrimp farms certainly led to the clearing of mangroves up to the 1960/70s, but this deforestation was brought down drastically soon after.

Ecuador is part of the tropical Eastern Pacific coast which is the natural habitat of the white-legged shrimp. Currently, it has some 2,800 shrimp farms with a total of over 200,000 hectares of ponds. Most companies are medium- to large-scale, and over the past 10 years many small-scale farms have been closed down. In fact, the sector shows a tendency of concentration and increased business scale. This coincides with rising levels of professionalisation, technification and automation which require economies of scale.

Globally, Ecuador comes second, after India, in terms of shrimp export value. For long, the dominant export destination was China with the USA coming in second. The national shrimp sector strives to become less dependent on China as dominant importer, and works towards the diversification of exports. Generally, shrimp farming in Ecuador follows natural production systems: the stocking density is low, disease and failure rates are low; crop duration is relatively short, as farms can be harvested 3 to 4 times a year.

Keeping close to nature and original shrimp habitats, induced quite a natural interest in environmental sustainability at many shrimp companies. Furthermore, the serious outbreak of white-spot disease in the country in 1999, has had such a devastating effect on the sector, that it still influences business decisions. Many companies that are operational today, internalised environmental sustainability in their business conduct and governance. Leading companies initiated the Sustainable Shrimp Partnership (SSP) where sustainability requirements are just as important as regular financial business goals (see text box below).

Shrimp farming companies tend to have state-of-the-art online pond monitoring systems in place for continuous crop control and highly professional farm management. Also, the use of automatic feeders is widespread. Based on audio from underwater sensors, these feeders distribute the feed only when and where shrimps want to eat. With feed being the largest cost component in shrimp farming, this way of feeding is a cost-effective farm investment. Moreover, the use of these feeders has improved the water quality in shrimp ponds. As such, Ecuador indeed counts with several factors providing the shrimp sector a competitive edge in global exports.

Sustainable Shrimp Partnership (SSP) www.sustainableshrimppartnership.org

In 2018, a group of leading shrimp producers and exporters in collaboration with the National Aquaculture Chamber of Commerce started the Sustainable Shrimp Partnership (SSP) with the aim to drive the change towards sustainability in the shrimp industry. SSP members go way beyond basic ASC certification, and set themselves high standards of accountability, supply chain transparency, inclusiveness, and progressive leadership. The partnership contributes to the production of safe proteins in balance with natural resources, environment, social surroundings, and human rights. Sustainability indicators are constantly being monitored using IBM Food Trust blockchain, which also proves the shrimps to be 100% free from antibiotics. SSP has been collaborates with IDH and works on living wage calculations for workers of its members.

3.2.2 Potential risks shrimps from Ecuador

Initial desk research prior to the site visits led to a list of potential risks associated to shrimp sourcing from Ecuador. From existing reports, research documents and expert experience, a number of potential risks were identified per impact perspective (human rights, communities & consumers, environment & animal welfare, and supply chain governance) as below.

The following table presents the prioritised risks identified from desk research on Ecuador.

Risk area	Reported risk	Explanation from desk research
Human Rights	Discrimination & Harassment	Harassment of women at processing plants may occur out of "machismo"
	Wages and Benefits	Wages may not meet living wage level
	Working Conditions	Standing for long periods of time, monotonous work
Communities & Consumers	Affected Communities	Deforestation of mangroves may have reduced fish stock to communities
Environment & Animal Welfare	Biodiversity & Ecosystems	Deforestation of mangroves may have led to ecosystem and biodiversity loss
	Animal Welfare	Eyestalk ablation of female shrimps may occur at hatcheries
Governance	Lack of traceability	Lack of traceability of marine feed ingredients (wild caught fish)

3.3 Findings on Supply Chain of Shrimps from Ecuador

3.3.1 Ecuador supply chain of shrimps

Labour laws in Ecuador are extensive and directly linked to the 55 fundamental and technical ILO conventions ratified by the country. The legal context ("Código de Trabajo") is well-tailored to the protection of workers, both in farms and companies further down the supply chain. Ecuador has had left-wing and labour-oriented national governments which has entailed the installation of relatively solid and attractive wages and working conditions as compared to other countries. What is more, these labour laws and regulations are being properly monitored by national authorities and sectoral agencies. Particularly the export sectors, such as shrimps and other seafood, are closely monitored and scrutinised. Given this legal context, companies broadly adhere to these laws and regulations.

Environmental laws and regulations are also comprehensive, strict, and well enforced in Ecuador. In addition to due attention to and active monitoring on forests, water resources and biodiversity, the marine resources, mangroves, and river deltas are explicitly covered and actively protected ("Ley de Gestión Ambiental"). Destruction and pollution of natural resources is part of criminal law in the country and is implemented as such. In fact, the cutting of a mangrove tree can lead to imprisonment (which has proven not to be an empty threat and is carried out, independent of the background of the person involved).

The shrimp farming and export sector originated in the 1960s in Ecuador. Early 1990s, the sector had created a lot of traction at national level in terms of use of natural resources, employment, export revenues, income generation etc. As a result, companies from hatcheries, farms, exporters, and their conglomerates joined hands and founded a country- and sector-wide organisation: "la Cámara Nacional de Acuacultura" (CNA).

The CNA forms the independent chambers for deliberation within the seafood sector, and for negotiation with authorities or relevant agencies. From its start, shrimp companies have constituted the vast majority of members in CNA, which corresponds with the export volumes and revenues originating from this sector in national seafood as a whole. CNA has played an important role introducing sustainable production practises to the shrimp sector. Currently, it also hosts the Sustainable Shrimp Partnership.

In line with the rather labour-oriented laws and regulations in the country, labour conditions at the shrimp hatcheries, farms and processing plants are relatively favourable to workers. Outsourcing of labour is strictly forbidden, therefore both permanent and temporary workers are directly employed and individually contracted with full social security coverage (and registered online with the Ministry of Labour) without intermediaries, like labour providers or temporary work agencies.

Working overtime at a regular or structural basis is forbidden as well. Yet, many workers see this as a lost opportunity of earning some extra family income. The Ministry of Worker Relations encourages workers in important economic sectors, in particular export sectors like shrimps, to establish and run collective organisations at the company level, such as worker associations, labourer cooperatives or works councils. Opposed to the banana sector, the rate of trade unionisation in the shrimp sector is rather low. In shrimp hatcheries, farms and processing plants, works councils are primarily used.

With regard to the average remuneration in the Ecuadorian shrimp sector, the legal minimum wage in 2023 was US$ 450 which corresponds to 92% of the living wage benchmark for Ecuador of US$ 489 (Global Living

Wage Coalition 2023). A living wage consists of three components, namely the wage, in-kind benefits, and contractual bonuses. Quite a few in-kind benefits are standardised working conditions, like free lunches, commute transport, and company clothing. As contractual bonuses, by national law all companies pay a 13th month (around Christmas) and also a 14th month (paid around Semana Santa). Moreover, by law all companies are obliged to share and distribute 15% of their yearly financial profits amongst their workers (10% equally distributed; 5% distributed based on family size). At shrimp farms where workers need to stay on farm (ranging from 10 days on farm and 4 days off, up to 20 days on farm and 8 days off), workers are provided with free boarding, lodging and transport. In processing plants, the workers are offered piece rate payments to top up their daily wage. All in all, workers in the shrimp sector have a total remuneration that is either very close to or beyond the living wage level.

Over the past few years, the security situation in Ecuador has changed dramatically. Drug trafficking has gone up drastically; drugs produced in Colombia and Peru are increasingly being shipped out of Ecuador, namely mainly through the big banana port of Puerto Bolivar and to a lesser extent through Guayaquíl (the port from where shrimps are exported). This drug trafficking has major and far-reaching implications to the Ecuadorian society (gang violence, criminality, armed robbery etc.) and its economy. The country's export sectors are affected, including the shrimp companies. Overall security costs have sky-rocketed and are now the main cost component after shrimp feed. Every now and then, shrimp transports from farms to processing plants are attacked and robbed, at times ready-to-export containers loads get hijacked, and there are threats to the lives of people (or their family members) at higher positions in companies.

Now, section 3.2.2 gave the potential risks associated with shrimps from Ecuador based on desk research. These risks were investigated more in-depth and through site visits. Subsequently, it was established that the following risks are not prevalent in Ecuador:

- discrimination & harassment of women due to "machismo";
- affected communities due to deforestation and loss of mangroves;
- affected biodiversity & ecosystems due to deforestation and loss of mangroves;
- traceability of marine fish ingredients into shrimp feed.

Although it is not denied that gender discrimination exists in Ecuador and that women are harassed out of macho behaviour for being women, the national labour laws and regulations on gender equality are strict and duly implemented, especially at export companies. Workers at shrimp farms are mainly men, whereas workers in processing plants are predominantly women. The work atmosphere at farms and plants is distinct. Most processing plants have some women in management positions and take specific action to prevent gender discrimination. Women in several Latin American countries have acquired considerable gender awareness and assertiveness. Consequently, they have been addressing potential discrimination and harassment, also at the workplace. This has reduced the incidence of the "machismo" based risk.

The deforestation in coastal and river areas in Ecuador has taken place in the 1960s and 1970s. In this period, mangroves were damaged and lost. This affected the local communities and the natural environment at that time. Soon after, a strong sense of forest protection with complementary law enforcement (including using satellite images) stopped deforestation and adverse effects on communities and biodiversity. At the moment, the risk of further deforestation by shrimp companies is considered negligible.

Ecuador strongly protects its marine fish grounds and authorities closely monitor the total caught volumes and species that are brought to shore. This implies that fish (and shrimp) feed industry in Ecuador, unlike in other countries, hardly has supply of wild caught fish as feed ingredient (meal and oil). In fact, leading producers produce shrimp feed with alternative ingredients such as meal and oil derived from insects.

Community development

http://vinculacion.espol.edu.ec/e-esfuerzos-con-el-grupo-almar-para-potenciar-el-empoderamiento-femenino-e

Since 2017, the Grupo Almar company has been collaborating with the ESPOL Polytechnical school in a joint community development programme providing technical training to people living near Almar shrimp farms (both workers and non-workers). In particular, women have been supported and coached. Several of them started small businesses (in textiles, food processing, decorations; reducing dependency on shrimp activities). ESPOL found that the training programme has contributed greatly to the economic empowerment of women. Furthermore, it has increased the collaboration and mutual trust between company and people in the area.

3.3.2 Risks associated with shrimps from Ecuador

This section describes the risks that were identified in relation to the Ecuadorian shrimp supply chain.

The total remuneration of shrimp workers is expected to be very close to or beyond the living wage level. However the monthly income required to have a decent living was estimated in 2023 to be US$ 724 (Global Living Wage Coalition). This is 150% of the living wage. This implies that one wage earner is not enough for a family to reach a decent living. On a monthly basis, a family needs another US$ 235 as regular income to have a decent livelihood. Single-headed families (i.e. often female-headed families) struggle to have any additional income and struggle to make ends meet every month. Young families face similar difficulties, especially in urban centres where processing plants are and where life is expensive. With high inflation and increased security costs, the number of processing plant workers who cannot secure a decent living from their regular wage is likely to go up. This is an apparent risk.

The characteristics of the work in shrimp processing plants entails long periods of monotonous work in standing position around crowded working tables. Instead of circulating workers to different tasks and positions, out of productivity perspective workers tend to do the same task at the same position. There is obviously a risk that these working conditions lead to fatigue and discomfort to workers.

Sector organisations and hatcheries base their reproduction methods on research findings showing that eyestalk ablation hampers the health of the females involved which affects the volumes and quality of the offspring. Is was found that with more detailed planning of reproduction instead of ablation, the volumes and quality of the eggs and larvae were improved. However, not all hatcheries do without this practise. Consequently, the risk of eyestalk ablation cannot be completely ruled out when sourcing from Ecuador.

Apart from the inland shrimp farms, Ecuador has many shrimp farms in the estuaries around Guayaquíl and El Oro. These farms may be tucked in the mangroves on isolated islands. The nature of these farms imply that workers are required to stay on farm for extended periods (from 10 days on and 4 days off, up to

20 days on and 8 days off). Such farms have seen armed robberies by criminal gangs, usually with inside help. As a result, farms stepped up their worker selection, but they found themselves forced to limit the communication of workers. As such, some farms now require the workers to hand in their mobile phones for when they are on farm. Obviously, workers feel even more isolated and disconnected when they cannot have their phones. A few affected farms installed a central communication system, so that workers could at least communicate with their families and friends. This is a risk specific to Ecuador, that has come up recently, and applies to isolated island shrimp farms that communication if it could help criminals.

3.4 Conclusions

The shrimp supply chain in Ecuador provides a good deal of employment at decent conditions thus having positive impact to the lives of numerous rural (farms) and urban (processing plants) families. From the perspective of human rights, the findings reveal that there are risks associated with shrimps from Ecuador are low. In general, wages and working conditions in the sector are good, stable, and attractive. The nature of the work in processing plants entails monotonous work and long hours standing, but the risk of adverse impact is apparently low. Still, though workers have a remuneration around living wage level, one income may not be sufficient in urban centres to sustain a family livelihood. Especially one-headed families and other vulnerable households face the risk of not reaching a decent living for extended periods of time.

Recently, the security situation in Ecuador has deteriorated. Also shrimp companies experience serious incidents like armed robbery, hijacks, and crop theft. In response, companies have shot up their security measures. At isolated island farms, this may include that workers are not allowed to use their mobile phones, and can only communicate through a central system. This is an apparent risk.

From consumer & communities' perspective, the study found that the risk of antibiotics application in shrimp farming, and the risk of antibiotics residues in consumer products are negligible. Then, communities may have been affected in the early years of the sector's development, but (especially after the outbreak of the white-spot disease) this impact was notably halted, and currently this risk is marginal.

From the animal welfare angle, the study concluded that in Ecuador the practise of eyestalk ablation is widely understood to be fully dispensable with a proper hatchery planning, and to have negative effects on the shrimp offspring. However, the risk of sourcing shrimps produced with eyestalk ablation practise is negligible, but cannot be ruled out.

From the perspective of environmental sustainability, the business attitude and governance are well geared to long-term shrimp production within the boundaries of ecosystems and natural environment. Obviously, clear national laws and firm enforcement by authorities facilitate the environmental protection and application of sound production techniques. Still, in the early years of the sector's development, mangroves and biodiversity may have been adversely affected, but these days this risk is also marginal.

All in all, the supply chain risks associated with sourcing shrimps from Ecuador are limited. The study indicates that specific risk monitoring is required on the working conditions at isolated island farms, and eyestalk ablation remains an issue to keep well in mind while procuring from the country. This makes Ecuador a recommended alternative country of origin to source shrimps for Jumbo.

The above conclusions on potential positive impact and risks associated with shrimps from Ecuador are summarised in the figure below.

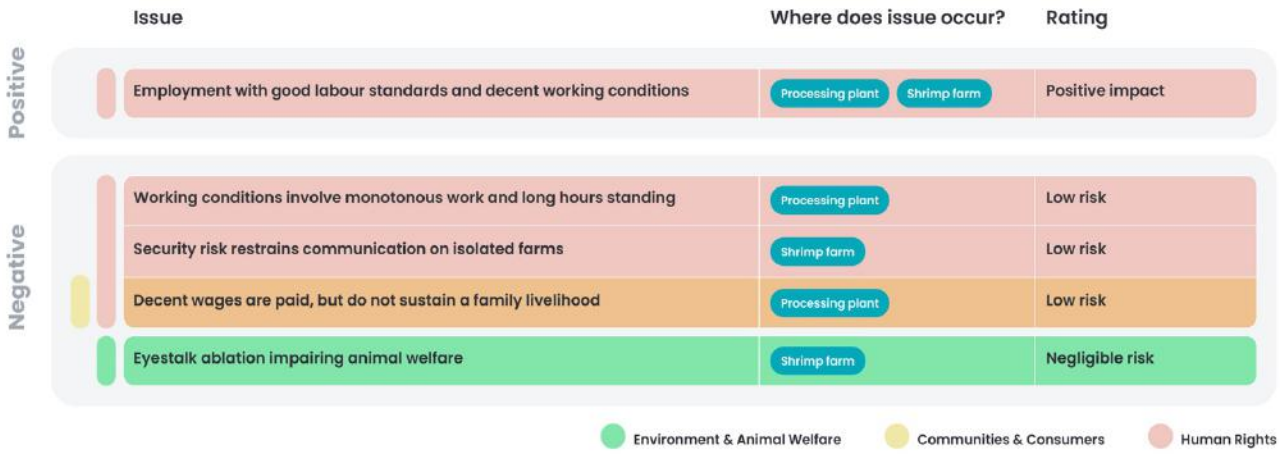

Figure 8: Summary of anticipated positive impact and risks associated with shrimps from Ecuador

Part 4:

Comparative Study Vietnam and Ecuador

4. Comparative Study Vietnam and Ecuador

Jumbo Supermarkten has been actively working to improve its knowledge and required data to be able to reduce any negative impact from its current shrimp supply chain from Vietnam. The company-wide risk analysis in 2021 earmarked the products of farmed shrimps to have top priority to manage potential impact. Consequently, Jumbo assigned an impact assessment on its shrimps from Vietnam, and at the same time assigned a study on shrimps from Ecuador as an alternative source. This section compares the impact identified in Vietnam with the anticipated risks when sourcing from Ecuador.

4.1 Comparative Analysis Shrimps from Vietnam and Ecuador

This paragraph identifies the similarities and differences found between Vietnamese and Ecuadorian shrimp supply chains.

Topic	Shrimps from Vietnam	Shrimps from Ecuador
Freedom of association	National law requires proper representation of workers through the national system of centrally-controlled trade unions.	National law requires proper representation of workers; unionisation rate is low in the sector, but companies have elected works councils.
Farming approach	Vietnam has the highest efficiency of farming shrimp per area by having a high stocking density. The pond size is relatively small.	The production areas go up to 100 times larger than that of Vietnamese farms; the large ponds allow for low stocking density.
	Shrimp ponds are lined with plastic for easy cleaning between harvests. Nets cover the top of the ponds to prevent birds and any other intrusion or pollution.	Farmers and biodiversity have mutually beneficial relations. After harvest, various birds clean the ponds of snails and other “pests”. In addition, the sun disinfects the ponds.
	The farming approach of high stocking density enables small-scale farmers to produce shrimps for export.	High land-, technology- and capital intensity induce a strong concentration and dominance by large companies (also farm workers need to be well educated and trained, which is costly).
	Various productive technology is applied by THP and NTSF including automatic feeders and environmental monitors. However, there is not a strong dependence on technology.	The shrimp sector (from hatcheries and farms through processors) is highly sophisticated and technology intensive; specialised reproduction laboratories, feed research, automatic sonar feeders, advanced environmental monitors in ponds, control rooms are all common practises. Farm workers require technical background.
Location of farms	Shrimp farms of NTSF and THP are located close to nearby communities, thus workers at the ponds arrange their own transport and do not require accommodation.	Companies have many farms located far away from urban centres or in isolated island areas. Such farms provide transport and accommoda-tion for workers to stay on farm when required.

Topic	Shrimps from Vietnam	Shrimps from Ecuador
Protection of mangroves	The shrimp farms of NTSF and THP are not located close to mangroves, and therefore do not affect the condition of mangrove habitats.	Many farms neighbour mangrove habitats, but they are strongly protected by national laws and monitored via satellite imagery.
Security situation	Security at shrimp farms and/or processing plants is not an issue in Vietnam.	Security has become a major determining issue and the second highest cost component to many shrimp companies in Ecuador.

4.2 Comparative Analysis of Impact

This paragraph compares the actual impact experienced in the Jumbo supply chain from Vietnam with main risks identified by the team associated with the shrimp sector in Ecuador.

Positive Impact	Shrimps from Vietnam	Shrimps from Ecuador
Decent employment	The Vietnamese shrimp sector is an important employer; NTSF and THP hire in total 545 and 2371 workers respectively, the majority of which are women. Working conditions are decent and meet national legislation and international standards.	The Ecuadorian shrimp sector is an important employer as well, with most workers being women employed in processing plants. Working conditions are decent and meet national legislation and international standards. Labour laws and conditions are relatively attractive and protective to workers.

Negative Impact	Shrimps from Vietnam	Shrimps from Ecuador
Working conditions at processing plants: long hours standing & monotonous work	Workers at NTSF and THP processing plants conduct monotonous activities and are standing long hours on the same position. NTSF and THP provide (lunch) breaks in addition to 2 short breaks.	Similarly, processing plant workers in Ecuador conduct monotonous activities and are standing long hours on the same position. Companies in Ecuador provide (lunch) breaks; additional breaks are determined jointly by managers and works councils.
Wages meet legal minimum but one income is not enough to sustain a family livelihood	Wages meet the national legal minimum. Piece rate remuneration is offered providing the option to earn more than the daily wage, but also entailing increased work pressure.	Wages meet the national legal minimum and are at or above the living wage level. Piece rate remuneration is offered providing the option to earn more than the daily wage, but also entailing increased work pressure.

Negative Impact	Shrimps from Vietnam	Shrimps from Ecuador
	Workers receive several benefits and bonuses, like a 13th month wage, transport and childcare allowance. Broadly, the legal minimum wage plus some additional income does not sustain a family livelihood and worker families need multiple sources of income.	Workers receive several benefits and bonuses, such as a 13th and 14th month wage, 15% profit sharing, free transport and accommodation. Broadly, the prevailing decent wages plus piece rate payment, benefits and bonuses do not sustain a family livelihood, especially in urban areas where the processing plants are, and thus worker families need multiple sources of income.
Antibiotics applied by small-scale farmers in case of disease outbreaks, contributing to more resistant bacteria	Late 2023, the ASC certificate of a NTSF processing plant was suspended due to detection of antibiotics residues in a shipment (not through Seafood Connection). The use of probiotics to upkeep a healthy production area has become more and more a common practise.	Antibiotics residues have not been found for many years on Ecuadorian shrimps. The farming approach minimizes the risk of diseases and any need to use antibiotics. Instead, the use of probiotics to upkeep a healthy production area is common ground. SSP members offer blockchain ensured antibiotics-free shrimps for export.
Eyestalk ablation impairing animal welfare at hatcheries	Eyestalk ablation is a practice widely occurring at hatcheries in Vietnam. With the new GlobalGAP standard banning the ablation, pilot projects have been carried out reproducing shrimps without the practise.	Eyestalk ablation is a practice that has been mostly abandoned by hatcheries in Ecuador. Several hatcheries have practical experience reproducing shrimps without the practise; it does require more detailed planning and a higher female-to-male ratio in the reproduction tanks.

Shrimp companies in both Vietnam and Ecuador comply with respective minimum legal requirements and provide additional benefits. However, the legal context and labour standards are more beneficial to workers in Ecuador than in Vietnam.

The conclusions from the impact assessment on shrimps from Vietnam, from the study on shrimps from Ecuador, and from the comparison between these two countries of origin, were brought together for the development of practical recommendations to Jumbo and its shrimp suppliers. These recommendations are given in the next section.

Part 5: Recommendations

5. Recommendations

This assignment with impact assessment on shrimps from Vietnam, and a comparative study on shrimps from Ecuador, has been carried out for Jumbo to identify and assess the actual impact in its Vietnamese supply chain, and compare this with the anticipated risks if it were to source shrimps from Ecuador.

The findings strengthen Jumbo's internal due diligence process and enhance its understanding of actual and potential impact, and its possible actions avoiding, reducing and/or mitigating the negative impact. Moreover, the findings enable Jumbo to be prepared if it decides to go for alternative sourcing of shrimps.

Jumbo is recommended to take action in reducing the negative impact and enhance positive impact in their current shrimp supply chain with NTSF and THP. Moreover, if Jumbo intends to diversify its supply of shrimps, it is recommended to consider Ecuador favourably as long as anticipated risks are duly managed through procurement agreements and/or codes of conduct.

Below, a set of practical recommendations resulting from this assignment is given.

5.1 Recommendations to Jumbo and its suppliers

Based on the above, the following recommendations are provided to Jumbo and its supply chain partners to reduce negative impact, and to enhance positive impact related to its shrimp supplies from Vietnam.

1. Collaborate in multistakeholder initiatives for improved worker conditions

The Multi-Company Collective Bargaining Agreements (MCCBAs) have been introduced in Vietnam as a sector-wide initiative addressing working conditions and labour standards. This MCCBA is supported by the national seafood trade union, government and IDH Sustainable Trade Initiative. Collectively, issues are analysed and solved; required improvements are taken up as shared responsibilities.

Now, Jumbo is recommended to encourage NTSF, THP and Seafood Connection Vietnam to join this MCCBA, thereby improving the working conditions and benefits to the shrimp workers involved.

2. Calculate the living wage gap of workers

The assessment concluded that workers receive at least the legal minimum wage with additional benefits, but that they still cannot sustain their families at a decent livelihood level. The team did not analyse this wage issue in detail, and did not calculate the potential living wage gap of workers in Jumbo's supply chain from Vietnam. The IDH Sustainable Trade Initiative has been working on a long-term project promoting sustainable aquaculture in Vietnam, with a focus on providing a living wage to workers.

Now, Jumbo is recommended to collaborate with IDH and establish the living wage gap at NTSF, THP and Seafood Connection Vietnam. As a next step, Jumbo can identify the steps to reduce the negative impact of a living wage gap, and work towards total worker remuneration that sustains a decent family livelihood.

3. Test seating options for workers at the processing plants

To mitigate the impact from long-hours standing on workers' health and comfort in processing plants, seating options can be tested.

Jumbo is recommended to encourage NTSF and THP to try out a few options, including leaning seats or high stools, so as to allow processing plant workers to change body positions and rest while working.

4. Reduce the risk of antibiotics through alternative sourcing

The use of antibiotics by small-scale farmers has a negative impact on people and natural environment, and remains a real risk when sourcing shrimps from Vietnam. This risk stems from the intensive farming techniques in small ponds with high stocking density and susceptibility to diseases, and the sourcing of shrimps from various farmers (complicating physical traceability and feeding the anonymity of supply).

Jumbo is recommended to diversify their shrimp supply by sourcing from alternative countries of origin where antibiotics are not used, like Ecuador.[3]

5. Include a halt on eyestalk ablation in Jumbo's Code of Conduct

Jumbo is encouraged to take action to eliminate shrimp eyestalk ablation in its supply chain from Vietnam. Due to the secretive nature of this practise, eyestalk ablation is difficult to monitor and control.

Jumbo is recommended to include a halt on eyestalk ablation in its Code of Conduct. Subsequently, Jumbo can encourage NTSF and THP to run trials on shrimp stock without eyestalk ablation being applied.

6. Increase sourcing from Ecuador

The shrimp production practises applied in Ecuador are completely distinct from the Vietnamese system which implies that antibiotics are not needed, and that eyestalk ablation has been mostly abandoned.

Over the past decades, Ecuadorian shrimps have not been rejected from the EU market due to antibiotics residues. Ecuadorian farms are close to the natural shrimp habitats and have environmentally sound production techniques. The stocking density is low; harvesting cycle pressure is low; farms are large-scale with advanced levels of technification for sustainable pond management.

In conclusion, Jumbo is recommended to source increasing shrimp volumes from Ecuador, which would:

- reduce its overall risk of antibiotics residues in shrimps;
- increase the overall labour standards provided and social responsibility in its shrimp supply chains;
- increase the overall level of environmental sustainability and animal welfare in its shrimp supply chains.

[3] Shrimp production systems in Honduras and Venezuela are very similar, if not identical, to those in Ecuador.

When sourcing from Ecuador, one needs to be prepared for risks that are anticipated. So, when setting up alternative sourcing from Ecuador, Jumbo and its suppliers must bear in mind that the eyestalk ablation practise remains a minor risk that cannot be ruled out, and that the deteriorated security situation may adversely affect companies and induce restrictive conditions to their farm workers. On the positive side, processing plants in Ecuador use mostly hydropower generated energy with low carbon footprint.

Furthermore, when sourcing from Ecuador, Jumbo and its suppliers are recommended to consider the unique positioning of the Sustainable Shrimp Partnership. With ASC as basic minimum, SSP members set the sustainability bar significantly higher than national laws and ASC standard. Environmental and social indicators are 24/7 closely and transparently monitored applying blockchain technology (IBM Food Trust). As such, indicators are tracked and reported on amongst others: water quality, biodiversity, animal stress, free-swimming, mangroves, worker feedback, and surrounding communities being adversely affected.

6. Annexes

6.1 The Research Team

Curriculum Vitae - Emily Belonje

Name: Emily Belonje
Date of birth: 20-02-2000
Nationality: Dutch
Specialized in: Impact assessments in international supply chains, due diligence for responsible business conduct, risk analyses

Introduction:
Emily is an Impact Consultant and Project Manager at ImpactBuying, striving to create a sustainable world for people and the environment. She has a background in interdisciplinary sustainability, excelling in research and data collection skills. Emily is focused on identifying potential and actual risks/impacts and providing recommendations to create positive change in the world.

Professional experience		
August 2021 – onwards	Impact Consultant/Project Manager - ImpactBuying	Human rights/environmental Impact Assessments, risk analyses, due diligence training, ESG legislation analyses
October – December 2020	Geographic Information Systems Analyst - Climate Adaptation Services	Climate change hazards, risk models, trainings
June – August 2020	Marine Ecology & Conservation researcher - Archipelagos	Researcher invasive species, conservation action plans
January 2018 – August 2019	Research Assistant – Leiden University	Researcher food waste

Education		
August 2018 – July 2021	Leiden University College – The Hague	Bachelor of Sciences (Earth, Energy and Sustainability)
August 2020 – January 2021	Vrije University Amsterdam	Minor in Geographical Information Systems

Languages:
- English
- Dutch
- Spanish
- Thai

Consultancy assignments carried out in:
- Impact Assessment; Fruit and Vegetables (Morocco), Tea (India)
- Development of the ImpactBuying Country and Product Risk Tool
- Environmental & Social Code of Conduct Analysis
- Benchmarking and Analysis of ESG Certification Schemes
- ESG Legislation Analyses
- Development of Due Diligence E-Learnings

Curriculum vitae – Rogier Verschoor

Name: Rogier Jacob Dirk Verschoor
Date of birth: 07 – 06 - 1971
Nationality: Dutch
Specialized in: Impact assessments in international supply chains, due diligence for responsible business conduct

Introduction:

Creating valuable impact in agri-chains has been the driving force throughout Verschoor's professional life. He is committed to enabling people to make a decent livelihood from viable business while creating positive social and ecological impact at the same time. He works from entrepreneurial spirit, is result oriented and has a strong natural sense for social equity and gender equality. Verschoor is an international economist with broad experience. He has ample hands-on experience in global supply chains and due diligence processes uniting people with diverging interests around shared impact goals.

Professional experience		
Aug 2021 – onwards	Impact consultant ImpactBuying	Impact assessments with focus on improving human rights situation like gender, living wage, living income, migrant workers, grievances
Sep 2015 – onwards	Owner/consultant 4Value Consultancy,	Creating valuable impact in agri-chains
Aug 2017 – Aug 2021	Advisor Oxfam Novib	Social impact assessments, living income, blockcha for value chain development
Sep 2013 – Aug 2015	Sourcing manager Fair Trade Original	Sustainable sourcing of coffee, cocoa, juice, honey & olive oil
Oct 1995 – Sep 2013	Amongst others FNV, UN-APCTT, Ministry of Foreign Affairs, SNV	Consultancy experience in various jobs

Education		
1989 – 1995	Erasmus University Rotterdam, the Netherlands	Master's in Development Economics Thesis: 'The rural poverty trap and degradation of natural resources in India'

Languages:

- Dutch
- English
- Spanish

Consultancy assignments carried out in:

- Egypt, Ethiopia, Ghana, Kenya, Malawi, Morocco, Namibia, Nigeria, Somaliland, South Africa, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe
- Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Nepal, Malaysia, Myanmar, Pakistan, The Philippines, Sri Lanka, Thailand, Vietnam
- Argentina, Chili, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua and Perú
- Italy and Spain

Curriculum Vitae - Roos Vergeldt

Name: Roos Vergeldt
Date of birth: 10-06-1998
Nationality: Dutch
Specialized in: Impact assessments in international supply chains, living wage and support on human rights related topics

Introduction:
Roos is a driven consultant who has made it her mission to create better livelihoods for the people who need it the most. She has a background in international agriculture, specialised on smallholder farming in East-Africa. This motivated her to become a consultant and trainer focusing on social and environmentally impact.

Currently, Roos is an Impact Consultant and team lead of the Consultancy & Academy unit within ImpactBuying.

Professional experience		
February 2021 – onwards	Impact Consultant & Team lead Consultancy and Academy – ImpactBuying	Due diligence training, living wage training, impact assessments, project management in human rights action projects
May 2022 – December 2022	Interim CSR manager – Jumbo Supermarkets	Interim CSR manager for social and animal welfare related topics
September 2020 – February 2021	Project Manager in team Africa – Delphy B.V.	Project support in inception phase of RVO project 'Innovating the Ugandan Potato Value Chain'
February 2020 – June 2020	Researcher – Delphy B.V.	Research on the market and supply chain of tomato, bell pepper, strawberries, cucumber and cannabis in North America
August 2018 – July 2019	Project Manager in Kigali, Rwanda – Holland Greentech	Market and supply chain research for several crops, training of smallholder farmers and project management

Education		
September 2016 - February 2021	HAS University of Applied Sciences s' Hertogenbosch	International Food & Agribusiness Bachelor in Business Administration

Languages:
- Dutch
- English
- German

Consultancy assignments carried out:
- Impact project on coffee
- Closing the living wage gap project in roses
- Human rights impact assessment on coffee, processed tomatoes, and shrimps
- Living wage training and consultancy
- Due diligence training
- Risk analysis

Curriculum Vitae – An Nguyen Thu Bui

Personal information

Family name	Nguyen Thu Bui
First names	An
Date of birth	7 June 1996
Sex	Female
Nationality	Vietnamese

Profile

An is a valued member of the Fresh Studio Aquaculture department, currently working as an Aquaculture Consultant. She has a MSc in Aquaculture from Ghent University, Belgium and a BSc in Aquaculture from CanTho University, Vietnam. During her studies, An also took part in the training program at Kasetsart University, Thailand and an exchange program at National Taiwan Ocean University, Taiwan.
Seven years of learning and training have widened her knowledge and helped her gain various skills in conducting aquaculture practices. An has a strong research skill as she participated in some research on thesustainability of polyculture of seaweed and aquatic animals.
Within Fresh Studio® An is responsible to help the aquaculture department grow its activities in the field ofresearch, aquaculture production and consulting services. She works with colleagues and the local networkto gather and analyze information on the market in Vietnam in our projects and support the expansion of our aquaculture production with our international partners.

Education

Institution	Ghent University, Belgium
Graduation date	2021
Degree	MSc Aquaculture
Institution	Can Tho University
Graduation date	2019
Degree	BSc Aquaculture

Languages

Language	Level
Vietnamese	Native
English	Fluent

Current position

Name	Fresh Studio Innovations Asia Co., Ltd.
Position	Aquaculture Consultant

Professional experience record

Date:	September 2022 – until now
Location:	Can Tho, Vietnam
Company:	Fresh Studio Innovations Asia Co., Ltd.
Position:	Aquaculture Consultant
Description:	Fresh Studio® is an international consulting, research & development company active within the agriculture sector. Responsible to help the aquaculture department grow its activities in the field of research, aquaculture production and consulting services. Responsible for aquaculture production data collection and analysis. Engaging with external stakeholders within the aquaculture industry.

6.2 Terms of Reference – External Consultants Vietnam

Introduction

A large Dutch retailer is keen to increase its understanding of the supply chain of its private label shrimp that is sourced from Vietnam. This is part of the implementation of its due diligence process including fact finding and impact assessment.
The retailer aims to have the impact assessed that its private label shrimp has on the people, society and natural environment. Subsequently, the retailer can take action to reduce negative impact, and enhance positive impact. The retailer has commissioned ImpactBuying B.V. from the Netherlands to carry out this impact assessment. The assessment will deliver constructive and concrete recommendations for practical action by the retailer and its shrimp supplier from Vietnam.
This assessment will include the impact on workers, on communities, animal welfare and impact on the natural environment in and around shrimp farms and processing plants in Vietnam.
The assessment will be performed in line with the UN Principles on Business and Human Rights as well as with the human rights impact assessment framework of Oxfam.
For the data collection, field work and actual assessment in Vietnam, ImpactBuying B.V. requires the services of a consultant registered and operating in Vietnam.

About Impact Buying

ImpactBuying BV is an international operating organisation that provides data management and consultancy services in complex chains. ImpactBuying has been set up to bridge the typical gap between the sustainability and the purchasing department. ImpactBuying is the dedicated partner for organizations that want to have a sustainable product range and contribute to a proven positive impact in their supply chains. Organizations that work with ImpactBuying demonstrate to their consumers, stakeholders, and suppliers that sustainability is more than a word.

The assignment

At the end of this assessment, the impact of suppliers to the Dutch retailer producing and exporting shrimps from Vietnam is identified and assessed, resulting in practical recommendations.

In line with the retailer's due diligence process, the assessment will address these **5 core questions**:

a. What is the current and potential impact that the retailer's shrimp supply has in Vietnam?
b. Does the supplier cause or contribute to that impact, and what is its (relative) attribution?
c. What is the irremediability, gender dimension, scale and scope of that identified impact?
d. What are the root causes to that identified impact?
e. What activities are recommended to reduce negative impact and enhance positive impact?

Gender inequality will be applied as an integrated issue throughout the assessment.

Scope

The scope of this project will include the main suppliers of the Dutch retailer and a representative sample of shrimp farms that produce for these suppliers.
The products in scope include **shrimps** (white-leg). The farming of these shrimps is in ponds and the processing at different locations. A basic check will be conducted on the traceability of fish feed and its sustainability.
Impact on **people, communities, animal welfare** and **natural environment** will be covered. Yet, particular focus is on people's working conditions, and on health and safety at both shrimp ponds and in processing plants.
Prior to the assessment, salient issues will be identified through online consultations with suppliers involved, experts, authorities, NGOs and other relevant stakeholders. These issues will be forwarded to the consultant.
The suppliers (processors) to be studied and visited are: 2.

Site visits of field work

The ImpactBuying team will carry out desk research, compliance analysis and online consultations. Collected data and preliminary findings will be cross-checked by the Vietnamese consultant.
To identify and assess adverse as well as positive impact at the production locations, the team will actively gather data through interviews and/or group discussions with shrimp farmers, workers, farmer representatives, management and staff of the shrimp trader/processor/exporter, and with potentially impacted people in surrounding communities. The interviewees will remain anonymous, and the team will make sure no one will feel consequences of the requested interviews.
Determining who to interview, the team will assure proper balance with regard to the gender, age, social status, economic status (land ownership), and employment type (seasonal, permanent, self-employed) of people to be interviewed. The team will also have meetings with external stakeholders, such as village leaders, civil society organisations and labour union representatives if and when relevant.

Deliverables

This assessment is expected to deliver inputs to the report by the ImpactBuying team comprising:
1. an analysis of negative impact of the shrimp supply chain in Vietnam on people, community and natural environment along with their occurrence, scale, scope, and root causes;
2. an analysis of positive impact of the shrimp supply chain in Vietnam on people, community, and natural environment;
3. actionable recommendations for reducing negative impact and enhancing positive.

Work plan

A detailed workplan for delivering these results, is given below:

Phases and timing	Topics covered	Activities
Context analysis June 2022 By ImpactBuying	DESTEP: demographic, economic, social, technological, ecological factors, and policy review related to sourcing shrimp from Vietnam Identification of salient issues in the shrimp chain in Vietnam and salient issues sanity check Identification of the organisation and contractual structures Analysis of social compliance status from audits and coverage of salient issues by applied standards	desk research, literature review, consultations, data analysis supplier interviews, expert interviews
Site visit: **July – August 2023** **By Vietnamese consultant**	**Visit to suppliers and a representative sample of producers / shrimp farms**	
Validation August 2023 By ImpactBuying + **Vietnamese consultant**	Cross-check and validation of findings and results Debriefing of suppliers at the end of site visit Assessment of impact findings based on their scale, scope, irremediability, gender, root causes, attribution, leverage	Cross-checking Critical evaluation, rating and prioritisation of impact and risks
September 2023 Conclusion & presentation By ImpactBuying	Formulation of draft report Presentation and discussion on draft report Integrating feedback into final report	reporting & actionable recommendations

The team needs a Vietnamese co-consultant for her/his contribution and data collection, site visits and actual assessment in Vietnam. To allow for effective communication, the consultant is required to be fluent in Vietnamese language.

6.3 References on HRIA issues

Minimal requirements on human rights per salient issue		
Human Rights Impact on people, communities and environment	Child labour	ILO – Minimum Age Convention, 1973 (# 138) ILO – Convention on the Worst Forms of Child Labour, 1999 (#182)
	Forced labour	ILO – Forced Labour Convention, 1930 (# 29) Article 7, International Covenant of Economic, Social & Cultural Rights
	Discrimination and harassment	Article 7, International Covenant of Economic, Social & Cultural Rights ILO – Violence and Harassment Convention, 2019 (# 190) ILO – Discrimination (Employment and Occupation) Convention, 1958 (No. 111)
	Freedom of association and collective bargaining	ILO – Right of Association (Agriculture) Convention, 1921 ILO – Rural Workers' Organisations Convention, 1975 ILO – Freedom of Association and Protection of the Right to Organise Convention, 1948 ILO – Workers' representatives convention, 1971, No. 135
	Gender equality and women's rights	Convention on the Elimination of All Forms of Discrimination Against Women, 1979 ILO – Equal Remuneration Convention, 1951 (No. 100) ILO – Maternity Protection Convention, 2000 (No. 183) ILO – Workers with Family Responsibilities Convention, 1981 (No. 156) ILO - Discrimination (employment and occupation), 1958, No. 111 ILO - Violence and harassment convention, 2019, No. 190 and No. 206
	Working conditions: working hours and environment	ILO - Hours of Work (Industry) Convention, 1919 (No. 1) ILO - Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148) ILO - Weekly Rest Convention, 1921, No. 14
	Working conditions: wages and benefits, including living wage	ILO – Minimum Wage-Fixing Convention, 1970 (No. 131) ILO – Protection of Wages Convention, 1949 (No. 95) ILO – Equal Remuneration Convention, 1951 (No. 100) ILO – Termination of employment convention, 1982, No. 158 Living wage, based on Anker & Anker benchmarking and IDH remuneration calculation methodology
	Working conditions: occupational health and safety, and access to safe water and sanitation	ILO – Occupational Safety and Health Convention, 1981 (No. 155) ILO – Safety and Health in Agriculture Convention, 2001 (No. 184) A/RES/64/292 Human Right to Water and Sanitation, 2010 (UN)
	Working conditions: access to a grievance mechanism	ILO - Examination of Grievances Recommendation, 1967 (No. 130) UNGP 31: Effectiveness criteria for non-judicial grievance mechanisms, including its cross-cutting themes (OHCHR 2021)
	* If applicable: migrant workers	ILO – Migrant Workers Convention, 1975 (No.143) ILO - Migration for Employment Convention, 1949 (# 97) ILO – Plantations convention, 1958, No. 110 and its 1982 protocol
	** If applicable: housing	ILO - Workers' Housing Recommendation, 1961 (# 115)
	Land property rights	Right to Free, Prior and Informed Consent (FPIC), FAO/UNDRIP, 2008
	Land use / conversion	Regulation on deforestation-free products, 2023 (EU) Convention to Combat Desertification in Those Countries Experiencing Series Drought and/or Desertification, 1994 (UN)
	Impact of pesticides use on communities	International Code of Conduct on Pesticide Management; Guidelines for pesticide legislation, FAO & WHO, 2015
	Waste management	98/EC on waste and repealing certain Directives, 2008 (EU) The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1989 (UN)
Governance Impact	Supply chain transparency	Responsible and Sustainable International Business Conduct, 2021