



Impact Assessment of the Sri Lankan Coconut Supply Chain: NDC Cocomate For Jumbo Supermarkets

ImpactBuying BV, February 2024

Table of Contents

1. Introduction.....	2
1.1 Objectives.....	2
1.2 Scope.....	2
1.3 Research team.....	3
2. Methodology	4
2.1 Research Methodology	4
2.2 Locations of the site visits.....	6
2.3 Involved stakeholders.....	6
3. Desk research	8
3.1 Context analysis.....	8
3.2 Background information company.....	11
3.3 Social Compliance Analysis	12
3.4 Supply Chain Analysis Cocomate	12
4. Impact Assessment	16
4.1 Enhancing positive impact.....	16
4.2 Impacts identified at Cocomate and in its supply chain.....	16
4.3 Impacts not found in the assessment	21
4.4 Leverage for mitigating impact.....	22
5. Conclusion.....	23
6. Recommendations.....	25
6.1 Recommendations to Jumbo and its suppliers.....	25
7. References	28
8. Annex.....	30
Annex 1. Research team	30
Annex 2. Framework on risk areas.....	32

1. Introduction

1.1 Objectives

In 2023, Jumbo commissioned ImpactBuying to carry out a Human Rights Environmental Impact Assessment to gain greater awareness of the risks and actual impact in its supply chain of coconut milk from Sri Lanka. Good supply practices are highlighted whilst also negative impacts and prevailing risks are identified and assessed. A root cause analysis identified the core principles driving the negative impacts to be able to avoid, mitigate and/or remediate them on long-term basis.

In line with Jumbo's due diligence process, this assignment addresses the following 8 core questions with regard to Jumbo's coconut milk supply chain from Sri Lanka:

- What does the coconut milk industry look like in terms of risks, per step in the supply chain?
- What does the supply chain of coconut milk from Sri Lanka look like, and what is the level of transparency in this supply chain?
- What is the current and potential impact of Jumbo's activities in the Sri Lankan supply chain?
- Do the supply chain actors and Jumbo cause or contribute to that impact, and if so, what is their (relative) attribution?
- What is the irremediability, scale, and scope of that identified impact? ¹
- What are the root causes to that identified impact?
- What activities are recommended to reduce negative impact and enhance positive impact?
- 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 how to enhance positive impact can be used by Jumbo and its suppliers to create good supply practices (GSP).

1.2 Scope

The scope of this impact assessment is the coconut milk supply chain from Sri Lanka to Jumbo through two different suppliers.

The impact generated by the coconut milk supply chain on people, the environment, animal welfare, and governance have been covered.

Potential risks have been identified through desk research and online consultations with stakeholders. Site visits were conducted by the ImpactBuying team which included interviews with company management, workers, coconut farmers, collectors, and communities.

¹ For a definition and explanation of this impact assessment terminology, see 3.1 – phase 3.

No quantitative tests and/or laboratory analyses were conducted under this assignment. Moreover, no environmental tests were done for this assessment. Risks and impact on the environment were analysed through qualitative interviews.

1.3 Research team

The following team from ImpactBuying carried out the Human Rights Impact Assessment:

No.	Name	Position	Nationality
1.	Roos Vergeldt	Lead consultant	Dutch
2.	Cynthia Jansen	Junior consultant	Dutch
4.	Upul Senanayake (sub-contracted)	Consultant	Sri Lankan

More information on the team members is provided in Annex 1.

2. Methodology

2.1 Research Methodology

For this assessment, ImpactBuying has applied a varied way of working. The research methodology is aligned with the OECD Due Diligence Guidance for Responsible Business Conduct and the human rights impact assessment framework as elaborated by Oxfam.

Overall, the methodology comprised four complementary phases with related activities as follows:

Phase	Activities
Phase 1: Desk research	desk research, consultations
Phase 2: Identification and mapping of impact	interviews, surveys
Phase 3: Assessment and root cause analysis	research, consultations, reporting
Phase 4: Conclusions and recommendations	reporting and meetings with project partners

2.1.1 Phase 1: Desk research

Phase 1 developed an in-depth analysis of the coconut industry (specifically in Sri Lanka) providing an overview of the risks and impacts in the supply chain. This consisted of several steps, namely:

- Context analysis with the global and national context
- Analysis of important coconut milk actors and trade flows
- Stakeholder analysis
- Validation and cross-check of information through stakeholder consultations

The desk study identified the risks and impact with regard to human rights, environmental, animal welfare, and governance issues, and their actual saliency in Jumbo's supply chain. A description of this framework of the risks and impact is given in chapter 4.

Findings were cross-checked with the suppliers involved as well as with experts, and other relevant stakeholders through (online) consultations. Stakeholders consulted can be found in section 2.3.

2.1.2 Phase 2: Identification and mapping of actual impact

In phase 2, the findings from phase 1 were verified, and actual impact was identified through site visits to various supply chain actors in Sri Lanka.

First of all, a social compliance analysis was carried out establishing the social and environmental compliance scores of the suppliers involved and their production locations. It was also analysed whether salient issues were sufficiently covered by applied standards and certifications, or whether there are gaps in such coverage.

Site visits in Sri Lanka took place during harvest season and were conducted by the ImpactBuying team including a Sri Lankan consultant. In total around 45 people were interviewed.

The interviews were conducted both on-site and off-site. Company representatives were not present during interviews so that workers felt safe to express their opinions. All interviews were held in a safe and informal atmosphere of anonymity. The interviews of factory workers ensured a balanced representation of the company staff according to worker positions, gender, and age.

2.1.3 Phase 3: Assessment and root cause analysis

During phase 3, the impact findings from previous phases were assessed, and their root causes were analysed. The impact findings were validated and assessed for their scale, scope, and irremediability. A root cause analysis was conducted to identify the origin and drivers of the impact.

Moreover, the impact findings were shared and validated with the management of the visited production location through a closing meeting at their site.

Definition and explanation of basic impact assessment terminology

Impact is defined as the additional effect (both negative and positive, direct and indirect, intentional and unintentional) resulting from a company's operations on people, communities, natural resources and wider environment. This effect brings about a lasting or durable change to the lives of people and their wellbeing, development of communities and their welfare, and state of natural resources and/or environment.

Impact versus risk: impact is what actually takes place or what people actually experience; risk is the possibility of a negative impact to occur or anticipated / expected / potential impact.

Impact is valued or scored on the basis on its irremediability, scale, and scope:

- Irremediable: 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.
- Scale of the impact: how severe, grave, or serious is a particular impact on people, community, environment, and animals; how severe is the harm done?
- Scope of the impact and/or potential impact: 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?

Root cause: Impact may be caused by an actor, but you dig deeper to find the root causes that are underneath or behind the scenes; root causes need to be brought to the open in order to design and target the solution or remedy.

The **scale** of impact refers to its severity, seriousness, or gravity while the **scope** refers to the reach of (potential) impact or the number of people, animals or resources etc. that are (expected to get) affected.

2.1.4 Phase 4: Conclusions & recommendations

In phase 4, the conclusions from the assessment were drawn and actionable recommendations provided. The recommendations are addressed to both suppliers involved and to Jumbo and focus on the reduction of negative impact and enhancement of positive impact. Recommendations were prioritised based on which impact had the largest scale, scope, and irremediable character.

2.2 Locations of the site visits

For the impact assessment of Jumbo's current coconut milk supply chain with Cocomate, the factory and farmers in different regions were visited. Cocomate supplies Jumbo directly in the Netherlands. Figure 1 below shows the sourcing districts and the visited locations.

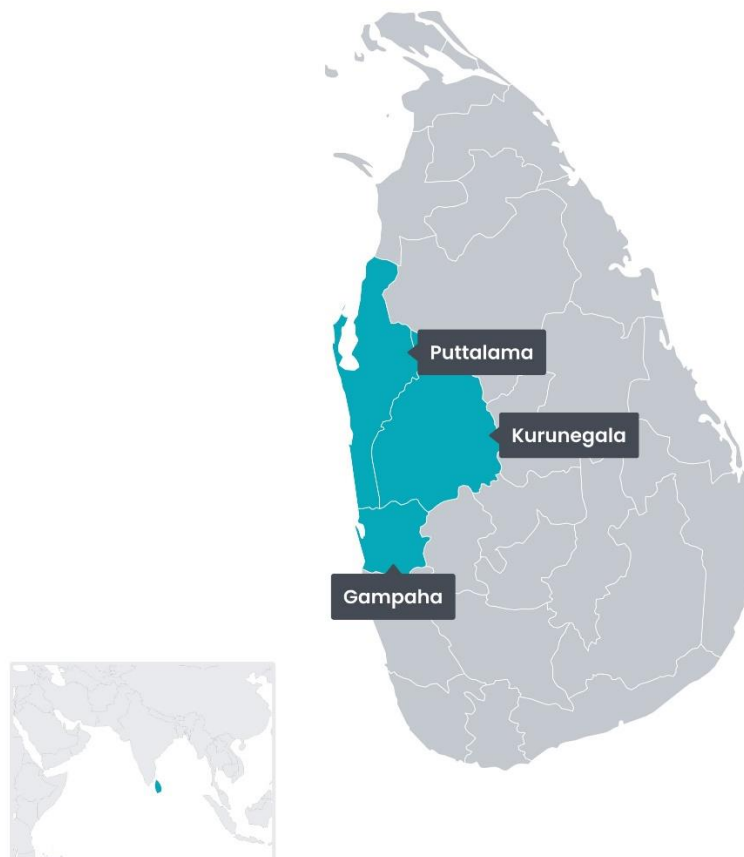


Figure 1 Location of supplying farmers in the supply chain of Cocomate

2.3 Involved stakeholders

The table below provides an overview of the interviewed stakeholders for this assessment:

No.	Company / organisation name	Type	Country
1.	ETC Lanka	Consultancy	Sri Lanka
2.	MDF Asia	Consultancy	Sri Lanka
3.	Coconut Research Institute	Research institution	Sri Lanka

4.	Control Union/Peterson	Inspection & consultancy	Sri Lanka/global
5.	Cocomate / COCOMATE Exports	Processing factory	Sri Lanka
6.	Cocomate's supplying farms	Farm	Sri Lanka
7.	Nadalagamuwa Coconut Producers Farmer Organisation	Fairtrade cooperative	Sri Lanka
8.	Coconut Auction Sri Lanka		Sri Lanka

Interviews were conducted with farmers supplying to Cocomate, coconut collectors, and workers at the Cocomate processing site (common employees, management, packing area, processing area):

No.	Company name	Male	Female	Total
1.	Cocomate's processing factory	12	6	18
2.	Cocomate's supplying farms	9	3	12
3.	Cocomate's collectors	4	0	4
	Total	25	9	34

In the impact assessment attempts were made to include interviews with trade unions and potential members. Other stakeholders, the participating supplier and its workers stated during the interviews that worker representation via committees are preferred over trade unions in Sri Lanka and that the concept of a trade union is a sensitive topic/concept. All workers interviewed indicated that Worker Committees are in place and open to join – at their employer and at their villages or in their regions.

3. Desk research

3.1 Context analysis

3.1.1 Sri Lanka - general

Sri Lanka, formerly Ceylon, is an Asian island nation with a rich history of colonization by Portugal, the Netherlands, and the UK until gaining independence in 1948. It faces challenges like biodiversity loss, urbanization, and deforestation, leading to susceptibility to natural disasters and climate change. The country operates as a democratic republic with a multi-party system, though power is concentrated in two major parties.

The population is diverse, with Sinhalese Buddhists as the majority. The society has three parallel caste systems, with a mix of patriarchal and matriarchal family structures and notable gender disparities. The economy experienced a recession in 2022 and 2023, marked by negative growth rates, currency depreciation, inflation, unemployment, and high debt. Urban areas show progress, but rural regions lag behind. Economic reforms since the late 1970s have reduced poverty rates. The economy relies heavily on agriculture, fishery, and mining, constituting 9% of the GDP. Agriculture, including subsistence and cash crops, plays a crucial role. The secondary and tertiary sectors have grown to diversify the economy.

3.1.2 Sri Lanka - Coconut sector



The coconut industry in Sri Lanka has a rich history deeply ingrained in the country's agricultural heritage. Renowned as the "Land of Coconut Trees," Sri Lanka is utilizing all coconut parts so that no parts go to waste. Though a relatively small country and a modest 4% of the worldwide production, Sri Lanka is the fourth-largest exporter of coconut products².

Coconuts account for approximately 12% of all agricultural produce in Sri Lanka. The country has ideal conditions for coconut cultivation year-round. From all coconuts produced, two-third is consumed locally, and the other third is exported³. The sector has however, faced several challenges over the recent past, such as plant diseases, adverse weather conditions, and strongly fluctuating export market demand. The Coconut Development Authority (CDA), Coconut Cultivation Board (CCB), and the Coconut Research Institute (CRI) are the three major government institutions that are responsible for the sector's development and have been the engines behind its modernisation.

Figure 2 Coconut triangle Sri Lanka

² (FAO, 2021)

³ (Sri Lanka Export Development Board, n.d. a).

Coconut palms grow throughout the entire country except for at higher elevations.. Most of the coconut production is concentrated in a triangle along the west coast, between Puttalam, Kurunegala and Gampaha. This area is commonly known as the country's coconut triangle (see figure 2).

Companies sets its price based on the Coconut Development Authority's weekly price bulletin.⁴ This is a starting value, that companies, collectors, auctions and farmers use to negotiate prices.

The coconuts in Sri Lanka are harvested throughout the year, with two main peak seasons. The major varieties grown are the King coconut (*Cocos nucifera* var. *aurantiaca*) and the Ordinary coconut (*Cocos nucifera* var. *typica*).

King coconuts is the variety that is used for the coconut milk produced for Jumbo. The King coconut is known for its good body and rich flavour in the global coconut market, which is a competitive advantage for Sri Lankan exporters.

On the farms, the coconut trees start producing fruits when they are 3 to 8 years old depending on the type of the tree. Most of the coconut cultivation in Sri Lanka is in a monocropping system. There is a wide variety of options for intercropping⁵, but this potential is hardly used. Farmers apply some intercropping around their coconut farms, but mostly for family consumption only.

3.1.3 Potential impacts

Initial desk research identified potential negative impact caused by the export-oriented supply chain of coconut milk from Sri Lanka. The potential impact (or in other words: supply chain risks) has been classified into 4 risk areas as per the scope of this assignment (see 2.2):

- 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.
- Communities: affected communities and land rights.
- Environment & animal welfare: greenhouse gas emissions, pollution, water consumption, affected biodiversity & ecosystems, waste management, monkey abuse.
- Governance: lack of traceability and poor governance or corruption.

The below table presents the main potential impacts associated with the Sri Lankan coconut milk supply chain in general. These risks may not be applicable to Jumbo's coconut milk products specifically. Whether or not such risks actually occur in Jumbo's supply chain is described later on in this report.

⁴ [Local Market \(cda.gov.lk\)](http://cda.gov.lk)

⁵ (TD Nuwarapaksha, 2022)

Table 1 Potential risks related to the coconut industry and Sri Lanka

Risk area	Potential risk	Explanation from desk research
Human rights	Remuneration	Wages and (farmer) income does not align with the rising cost of living in Sri Lanka.
	Discrimination & Harassment	Discrimination based on caste with reluctance of authorities to address this issue ⁶ .
	Working conditions	Deshelling is a physically challenging task/activity Possibly long working hours on farms and processing factories
	Exploitation	Micro financing at high interest rates has caused indebtedness amongst coconut farmers and harvesting teams
	Health & Safety	Climbing trees during harvest has personal safety risks Usage of sharp tools during dehusking
Communities	Affected communities	Deforestation may occur affecting local communities
	Land conflicts	Land conflicts may arise due to coconut farm expansion and establishment
Environment	Water use	Coconut trees require a lot of water; in dry zones, water use for coconut irrigation entails pressure on water resources.
	Water pollution	The use of fertilizers and pesticides (e.g. against red beetle, the black beetle, and the Whitefly) pollute water sources
	Soil erosion and degradation	In case of large-scale monocropping (without intercropping).
	Deforestation	When new farms/plantations arise or existing ones expand
Animal welfare	Harm to monkeys and squirrels	Monkeys and squirrels damage around 13.1% of all coconuts ⁷ . Farmers may harm these animals to reduce crop damage.
Governance	Lack of traceability	Traceability of coconuts might be hard to achieve due to the informality of the sector and the large volumes of coconuts required for coconut milk production.

Sri Lankan labour laws relevant to this impact assessment

Sri Lankan labour laws, notably the Shop and Office Employees Act, the Wages Board Ordinance, and the Factories Ordinance, play an important role in safeguarding the rights and well-being of factory workers. These regulations encompass critical aspects of employment, including working hours, minimum wages, occupational safety, health standards, and leave entitlements like annual and sick leave. The Factories Ordinance specifically focuses on ensuring safe and healthy

⁶ (United Nations Human Rights Council, 2022)

⁷ (The Island Online, 2023)

workplace conditions within factory premises, aiming to establish guidelines that prioritize worker welfare and rights in the industrial sector.

The Factory Ordinance states that working hours of a person above the age of 18 years should have a maximum of 9 hours daily (exclusive of meal and rest breaks) and 48 hours weekly.

In a factory, the overtime worked by a woman shall not exceed in the aggregate sixty hours in any calendar month and overtime worked by a young person (16-18 years) shall not exceed in the aggregate fifty hours in any calendar month (with for both groups a maximum of 60 hours in any week and 12 hours in any day). Young workers' working hours shall not begin earlier than 6 a.m. and not end later than 8 p.m., and on one day in the week the period of employment shall end by 1 p.m.

In accordance with the Shop and Office Act, every office employee of a factory is entitled to a paid sick leave for a period of 7 days per year from the second year onwards. In the first year, the office employees are entitled to 1 sick day per 2 months worked. For factory workers, sick leave is not specified by law and it can vary between paid and unpaid leave. Some factories may provide a certain number of paid sick leave days per year, while additional sick leave beyond that may be unpaid.

The current legal minimum wage in Sri Lanka is LKR 16000 rupees per month or 640 rupees per day (including budgetary relief allowance of LKR 140.00 as per the Budgetary Relief Allowance Act no 04 of 2016 and Budgetary Relief Allowance of workers Act, No 36 of 2005). Overtime should be paid as 1.5 to 2 times the regular salary.

Moreover, the Education ordinance (2015) states that children aged from 5 to 16 should receive education by regular attendance at a school. This reduces the risk on child labour.

3.2 Background information company

Cocomate was established in 2002 as an export-oriented coconut processing facility in the heart of the coconut triangle under the name of COCOMATE Exports. The company started off producing and exporting coconut fibre and peat. By 2006, it added a mill processing coconut oil. Cocomate was introduced as the brand name. Moreover, all products are produced from fresh grown organically certified coconuts. Today, Cocomate coconut milk is a leading coconut brand from Sri Lanka, and has become the company's main export product and income earner. By 2023, the company employs some 300 workers, with 45 office staff and more than 250 people in processing plants. COCOMATE's current annual intake stands at 73.5 million nuts, accounting for approximately 2.2% of the national annual coconut production, which totals 3.3 billion nuts.

Besides the deshellers, employees are paid per hour which differs per activity. Gender diversity is maintained across different stages of the company. Effective mechanisms, such as Joint Consultation Committees (JCC), allow employees to voice suggestions and complaints, leading to tangible improvements like the establishment of a cafeteria in 2022. Employees enjoy various benefits, including free transportation, breaks, performance-based and festival bonuses, CSR activities, medical services and support during difficult economic times. Furthermore, the

Chairman's fund supports education materials for employees' children and offers financial assistance during family funerals.

At the moment of the visit (November 2023), Cocomate was in the final stages of setting up a Sustainability Development plan for the coming 10 years, and a third-party monitoring and evaluation plan. Control Union was requested to check the monitoring and evaluation plan to guarantee that the SDG plan can be measured and monitored over time. Furthermore, Cocomate is investigating their CO2 emissions with a consultancy firm in order to address questions coming in from European clients regarding their emissions.

In the processing factory and supply chain of Cocomate, 70% of the coconut is used for coconut milk, coconut water, coconut oil, desiccated coconut, coconut powder and rest materials. The parts that are cut off are used to heat the production streams.

3.3 Social Compliance Analysis

As part of the desk research, a social compliance analysis was conducted on the processing plant of Cocomate.

The most recent Social Compliance audit was carried out by Sedex on the 21st and 22nd of June 2023. It was observed that 21 out of 21 workers in the de-shelling section were not provided with adequate PPE (gloves or shoes) to ensure worker safety. There were no other non-conformities found. Previously found non-conformities on missing cover on electrical panels and not provided contract letters for employees were closed.

A Fairtrade audit was carried out on the 11th of November 2022. This follow-up audit was done remotely and there were several non-conformities found on an administrative level such as that the Fairtrade sales transactions reported by customers were not verified, that the Fairtrade premium had not been reported on FairInsight online platform, and that certain information on the member list was missing (e.g. farm location, production volume). It was also found that around 40% of the members were insufficiently informed about Fairtrade's benefits and obligations or they were informed but there was a lack of awareness and understanding.

The findings from these audits were cross-checked by the research team in this assessments through the site visits and interviews. During the site visit of ImpactBuying at Cocomate's farmers, they were aware of the Fairtrade premium and benefits. Other than that, it is concluded that there are no reasons to doubt the social compliance of Cocomate.

3.4 Supply Chain Analysis Cocomate

Jumbo procures a part of its yearly required volume of coconut milk directly through Cocomate in Sri Lanka. The contracts are discussed, negotiated, and drawn up between Jumbo and Cocomate on annual basis, and include the agreed supply price, volume, delivery and product conditions (e.g. certification). In case of mutual satisfaction, these contracts can be renewed. In fact, Cocomate has been an established supplier to Jumbo for more than 3 years. Figure 3 provides an overview of the supply chain via Cocomate.

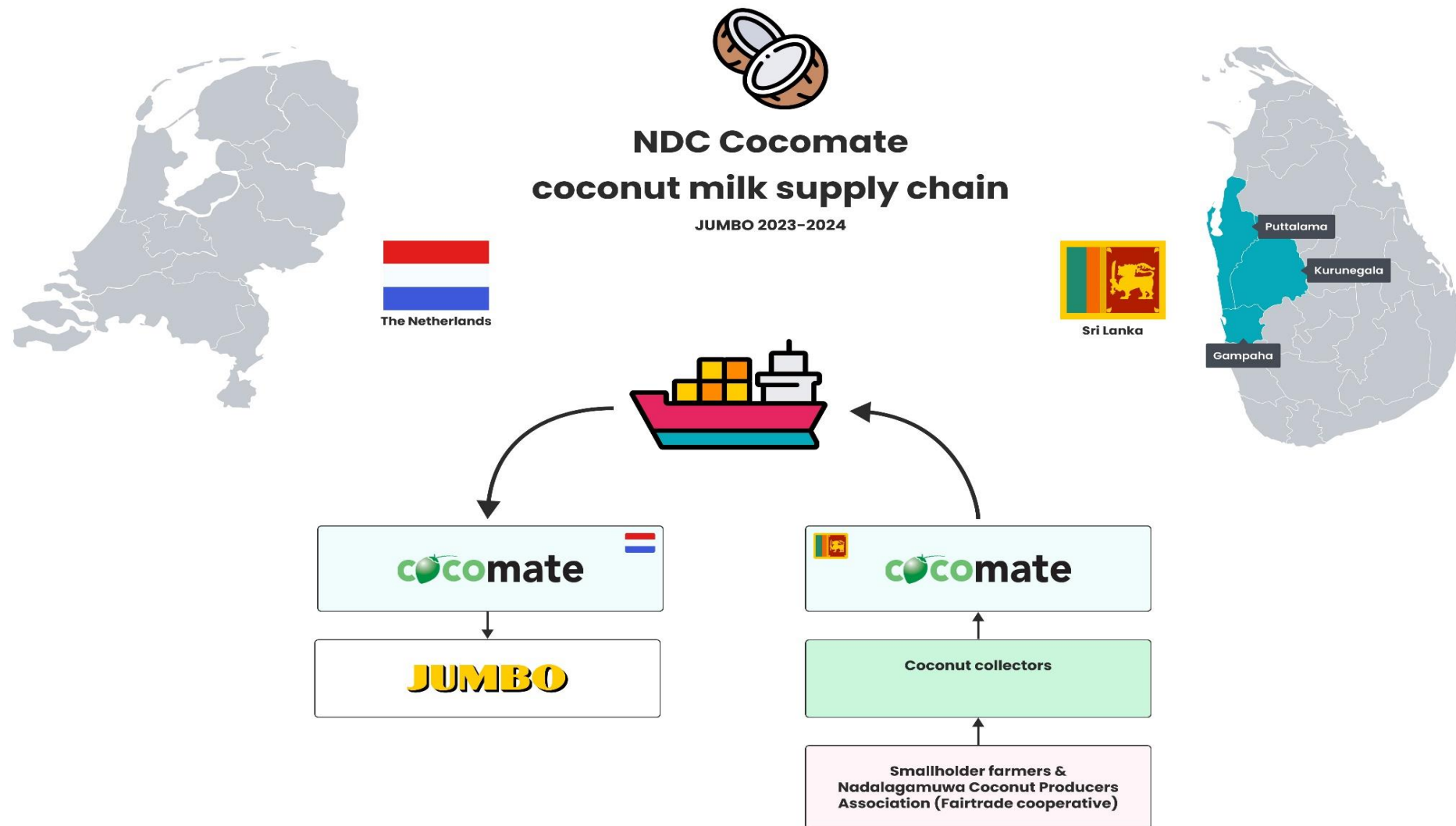


Figure 3 Supply chain of Jumbo and Cocomate

Coconut farms

Cocomate has an extensive network of independent coconut farmers, ensuring a consistent and sustainable coconut supply. These farmers form a large pool of small-scale farmers (less than 2 acres) medium-scale farmers (between 2 and 15 acres), and large-scale farmers (more than 15 acres/hectares), and are predominantly located in the coconut triangle, enhancing the proximity to the processing plant and efficiency of operations.

Many farmers express a profound emotional bonding with COCOMATE, rooted in the company's local origin. Currently, the coconut input requirement of COCOMATE is met through this established farmer network. For Jumbo, the coconut farms are partially conventional (not certified) or organic and Fairtrade certified (double certification). Trees of the farmers supplying Cocomate are between the ages 15 and 30, which is relatively old.

The coconuts are harvested on average every 50 days by a team of pluckers that a farmer contacts. Farmers have been working with the same contracted pluckers for years or even generations. Originally, pluckers climbed in the trees to harvest the mature coconuts and clean the top of the tree (remove old leaves). However, due to a shortage of skilled, trained pluckers, the cost of this activity has become too high for farmers. Pluckers who climb in the trees charge per tree 150 rupees (0.425 in Euros). Therefore, harvesting with a stick has become more popular as pluckers charge a lower amount (30 Rupees per tree) for this type of harvesting.

Conventional farmers face challenges due to the high cost of chemical fertilizers, which price went up due to removal of a subsidy by the Sri Lankan Government. Despite the belief in the yield potential of chemical fertilizers, farmers shifted to organic alternatives. Coconut farmers have to deal with various pests and diseases, relying on traditional methods as permanent solutions are lacking.

For the Fairtrade and organic certified farmers, Cocomate is working with the Fairtrade cooperative to distribute Dolomite (organic fertilizer) and is currently setting up a compost manufacturing program to produce own organic fertilizer. All farmers stated to be aware of the Dolomite program and the benefits of the organic and Fairtrade certification. The Fairtrade cooperative (Nadalagamuwa Coconut Producers Association (NCPA)) is a cooperative that has recently started and is still in a premature stage.

During the harvest there is a peak of people in the workforce, however, most are contracted pluckers. Some large-scale farmers hire people to live and work on the farm and to take care of the production. Smaller farms are owned and operated by a family where the adults work and the children are going to school.

Cocomate give their collectors a price indication and collectors negotiate with the farmers. During the field visit in November 2023, the price for 1 nut was around 62 rupees (0.18 Euro).

Collectors

Collectors are contracted by Cocomate to make sure that the daily required coconut volumes are delivered to the processing facilities each day. The collectors select the harvested coconuts and buy them from the farmers. They also pay the farmers; either in advance, on the spot or within 5 days upon collection. Subsequently, the collectors take responsibility for maturing and dehusking the nuts before they transport and deliver the nuts to Cocomate facilities.

In the last few years, collectors have been required to pay on the spot, or in advance due to coconut shortages and increasing competition between processors securing volume via their collectors. Before, payments within 5 days were accepted by farmers.

The collectors place the nuts on dry ground at their own site and let them mature for another three weeks to a month. After three to four weeks, the collector hires someone or a team to remove the skin of the coconuts. This dehusking process is mostly done manually by skilled people who are paid per nut (3.00 rupees).

Processing plant

When the dehusked coconuts arrive at Cocomate, they first check whether these are coming from conventional or certified coconuts (organic and Fairtrade) where they are separated at the dropping station. At the dropping station the shell/fibre is cut off the coconuts. This is highly skilled labour done manually or with a semi-manual machine. At Cocomate this labour is done by men, who are paid per processed nut (on average 3000 nuts per day per person). The next phase consists of splitting the coconut to remove the coconut water (mostly done by women). Then, the coconuts are paired where the thin brown skin of the coconut (testa) is removed (both men and women). It is taken off to prevent a brownish colour and a slightly bitter taste of the end product. The coconuts are washed to rinse of the remaining particles.

At this moment only the meat, or the kernel, of the coconut is left. Every kernel is subjected to a pathogen sterilizing process by keeping them above 90 centigrade temperature for 90 seconds. The clean coconut meat is grated into smaller pieces although cutting or grinding are possible alternatives. The grated coconut is mechanically pressed to extract the coconut milk. The residue can be extracted/pressed multiple times after adding water, with each subsequent batch having a lower fat percentage. The fat percentage determines whether the end product can be called cream or milk.

After the extraction, the batches of coconut milk are filtered to remove any particles. Then, the coconut milk is exposed to a high temperature for short amount of time so that it has a longer shelf life. Packaging cans are imported from China at the moment and the packing of the cans in boxes and on pallets is done manually. The cans of coconut milk are then shipped by Cocomate to the Netherlands and transported to the distribution centres of Jumbo.

4. Impact Assessment

The Impact Assessment section assesses the identified impact in Jumbo's coconut milk supply chain from Sri Lanka through Cocomate. This section presents the information gathered from site visits, worker interviews, farmer visits and interviews, collector interviews, expert consultations, and discussions with company management, along with results from recent social compliance analysis and the earlier desk research. Both positive activities and negative impact are described in this chapter.

4.1 Enhancing positive impact

Cocomate is an important employer providing hundreds of workers with direct and permanent employment at decent labour conditions. Secondly, it provides thousands of farmer families with indirect income through procurement of coconuts. Cocomate appears to be at the centre of a robust farmer network for sustainable coconut supply.

At the processing facility of Cocomate, gender diversity is maintained across different stages of the company, in other words, many women are provided with decent employment.

Moreover, Cocomate has effective internal communication mechanisms, such as Joint Consultation Committees that allow employees to voice suggestions and complaints, leading to tangible improvements like the establishment of a cafeteria. The workers who were interviewed stated that they feel heard by Cocomate and that investments are made in products and services that are brought to the attention by the worker committees instead of because the management team suggested it. Furthermore, Cocomate has been adjusting the wages regularly due to the high inflation rates in Sri Lanka. Another raise was planned at the beginning of 2024 and all employees were already informed about this raise at the time of the assessment.

4.2 Impacts identified at Cocomate and in its supply chain

From the prioritized potential impacts given in section 3.1.3, the following actual impacts were identified and experienced by farmers, collectors or employees at the processing plant of Cocomate. The impacts are divided into these two supply chain levels.

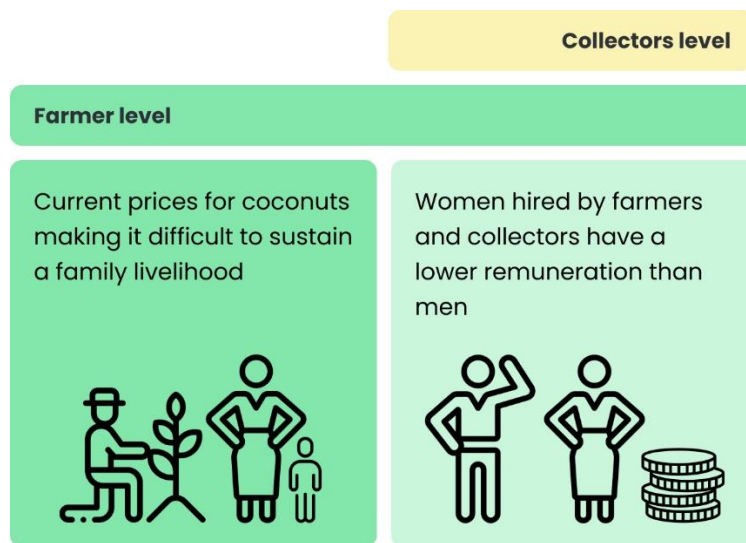


Figure 4 Impact identified at farmer and collector level

The impact issues identified at Cocomate are interdisciplinary, thus forming part of more than one impact area (i.e. part of Human Rights as well as of Communities & Consumers, etc.). The figure above gives the main negative impact issues as identified during the impact assessment on Jumbo's coconut milk supply chain of Cocomate in Sri Lanka.

In the following section, these two 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.

Negative impact

Cocomate complies with international standards and national legislation. Still, this impact assessment identified some areas of negative impact in the supply chain that requires attention when sourcing coconut milk.

The impacts and issue of concern described in the following chapters are all connected to each other, due to overlapping root causes and the systemic nature of the impacts. In this assessment, it was decided to split the impacts and issue of concern to be able to explain each impact in better detail.

4.2.1 Farmer level – Farmers face difficulties in sustaining a decent livelihood

The assessment indicates that the prices farmers receive for coconuts are insufficient to cover production costs and sustain a family livelihood. Cocomate determines its prices based on the Coconut Development Authority's daily price bulletin, with farmers receiving around 65 Sri Lankan Rupees (0.18 Euro) per 1 KG of coconuts. Organic certified farmers receive the same rate, and Fairtrade certified farmers receive the conventional price with premiums directed through the Fairtrade cooperative. Many farmers are unaware of production costs and profitability in numbers. All interviewed farmers felt their business is profitable.

Medium and large-scale farmers earn more, but small-scale farmers face difficulties, exacerbated by rising production costs due to inflation and a shortage of skilled workers. Harvesting costs have increased, leading to the adoption of using long poles instead of climbing trees. Fertilizer costs skyrocketed after government subsidy removal, and research indicates declining yields due to aging trees. Intercropping with other crops is limited, and Cocomate's sourcing at low prices contributes to farmers' challenges.

Collectors report farmers requesting advances due to unexpected costs. The arguments collectors hear is that they are facing unexpected costs for fertilizers, education fees or other family related costs. The fact that payments are moving from first paying within 5 days, to on-the-spot payments and now sometimes paying in advance, shows that farmers may have difficulties to sustain a family livelihood and that the market is competitive.

Cocomate pays the farmers prices that are in line with the price set by the Coconut Development Authority, the organic certification and the Fairtrade premium. The company has good relations with the collectors and farmers, is setting up a facility to make their own organic fertilizer and has ensured a stable demand from its farmers.

It is difficult to determine the scale of the impact felt by farmers, because they did not explicitly indicate themselves that their coconut business is not profitable and covering all the costs. Furthermore, no exact calculations have been made to confirm the gap between coconut prices and farmers' income and the costs of production and the costs of living. The impact touches the majority of the farmers and its families. Therefore, the scope and the scale of this impact are found moderate to serious.

The impact is remediable, as Cocomate can take actions to remediate the impact by for example changing their price structure, by providing additional benefits, work on additional incomes, higher yields and good agricultural practices.

Impact: Farmers face difficulties in sustaining a decent livelihood				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				

Root causes

Several direct and indirect factors are causing and/or have an effect on farmers having insufficient incomes to cover the costs of production and the costs of living.

- **Inflation rates** in Sri Lanka have been skyrocketing and resulted in increased prices of agricultural inputs (fertilizers, labour, fuel, etc.) and of food, housing, education, healthcare, transport and other family expenses.
- The interviewed farmers indicated that **yields are decreasing** due to several factors: pest and diseases, old trees, insufficient fertilizer, and monkeys and squirrels. Lower yields lead to lower income generated of the sales of their crops.

- **The prices of coconuts** are determined by the government, which are used to negotiate prices between farmers, collectors and buying organizations such as Cocomate. These prices seem not to cover the costs of production and costs of living. Because the government decides the prices (for every coconut producing region in Sri Lanka), the negotiation on these prices are minimal. Increasing the prices in only the supply chain of Cocomate and Jumbo could have negative spill-over effects (on the short- and long-term) that need to be considered: position in the market as a processor and selling organisation could change (being not competitive anymore because of higher prices of end products), oversupply of coconuts when more farmers want to supply to Cocomate or the existing pool of farmers increases their yield, and local shops and businesses that could increase their prices.
- **Procurement practices** in the supply chain of Cocomate: while Jumbo and Cocomate have a long relationship, contracts are still negotiated on a yearly basis, without official commitments for the years to come. The volumes purchased by Jumbo have been relatively stable over the past years, but short-term contracts upholds insecurity in the supply chain and minimize commitments on higher prices or long-term agreements between Cocomate and its farmers.
- **Other income options** are limited, due to increasing rates of unemployment in Sri Lanka. Data shows that after a decrease in unemployment (from 8.2% in 2003 to 3.9% in 2012), unemployment rates it started to increase again in 2013 with a steep rise from 5.2% in 2021 to 6.7% in 2022.⁸ Especially, the drop in tourism has caused unemployment in some regions. Limited job possibilities and high unemployment rates makes it more difficult to find an extra income for a family.

4.2.2 Farmer and collector level – discrimination in remuneration between women and men

The assessment confirms that women are paid less for the same jobs as men at farmer and collector level. At the farm these are jobs related to taking care of the crops and the farmland (weeding, applying fertilizer, land cleaning etc.). At the collector level workers are hired for dehusking and transporting. Certain tasks, such as plucking with a stick or climbing, are specialized for men.

It was found that women received 20–30% lower daily rates than men during the interviews (based on comparing rates). Cocomate indirectly contributes to this impact by sourcing of collectors and farmers that apply different daily rates for men and women.

The scale of this impact is moderate to serious as it affects people, communities and families because their total income is lower. Moreover, the difference in payment of 20 to 30% is more than substantial discrimination.

The scope is low because only in a few farms and at a few collectors women were working. Mostly men are working at the farm as external, hired workers.

The impact is in theory remediable as daily rates can be set at the same rate as men. It is however expected that this will be difficult. The difference in remuneration between men and women in Sri Lanka and in its rural areas in particular, appears to be widely applied by employers and also widely

⁸ (Statista , 2024)

accepted in society, including by many women. As this wage difference is hardly questioned and considered a part of life, women workers hardly demand equal wages and rural employers continue offering discriminatory wages. As a result, though the wage difference is remediable, it would require a structural change in Sri Lankan society, which women nor employers may take up any time soon.

Impact: discrimination in remuneration between women and men				
	Negative Impact Scores			
	Low	Moderate	Serious	High
Scale				
Scope				
Irremediability				

4.2.3 Issue of concern

Processing level (Cocomate facility) – salaries meet legal requirements but not the living wage level

In this impact assessment, the living wage gap is not calculated. During the assessment and site visits however, extra attention was paid to the wage situation compared to the concept of living wage. Cocomate pays their workers more than the minimum wage. Besides wages, everyone is entitled to in-kind benefits such as transportation, medical services, food, snacks and discounted rates from some welfare shops etc. There is no living wage benchmark freely available for the rural areas around Colombo or in the coconut triangle, however the living wage benchmark for urban area Colombo can give an indication.⁹ This benchmark states that a worker in that area for an average family of 4 (2 adults and 2 children) would need to earn 113,987 Rupee per month (348 USD).

Looking at the employees of Cocomate, the following conclusions are made regarding their living wage gaps. It is important to note that in general in Sri Lanka, salary details are not openly discussed in focus group discussions or shared with external parties.

- Deshellers and peelers: they are paid 3.2 Rupee per nut. On average with a machine, they can peel around 4000 nuts per day and manually around 2750 per day. This group is therefore estimated to earn around/more than benchmark value of 113,987 Rupee per month (counting with on average 22 working days per month).
- Office staff: this division is paid per month and because all have a Bachelor's or Master degree it is expected that they earn above the living wage benchmark. Since their gross wages have been raised for inflation all office staff had to pay more taxes. The company was informed about this and is currently paying the increase in taxes as a bonus for the office staff to ensure higher monthly nett wages.
- For the workers in the factory, packing and labelling less information was retrieved around wages. They are paid per week; overtime rates are higher and also on Sundays there is a higher rate. It is estimated that this group of workers earns around 40,000-60,000 Rupees per month, which would mean their wages are below the living wage benchmark value even though Cocomate pays more

⁹ [Living Wage Reference Value – Urban Sri Lanka – Global Living Wage Coalition](#)

the national minimum wage (16000 Rupees per month or 640 Rupees per day) and offers bonuses and in-kind benefits.

In an article published by IndustriALL (a global union) on October 2022, highlighted that Sri Lankan workers struggled due to high inflation and that trade unionists expressed concern over workers not being paid a living wage in the country. Trade unions were demanding that the national minimum wage be increased to 26000 LKR (US\$ 71) but the government decided not to increase. (IndustriALL, 2022)

Root causes

Several direct and indirect factors are causing and/or have an effect workers not being paid a living wage.

- There are external factors that create a difficult environment for companies in Sri Lanka to pay or work towards living wages. There are **low minimum wages**, causing large differences between current remuneration and living wage reference values. As paying the minimum wage is the legal requirement, companies do not tend to pay a living wage as this might harm their position in the market. Increasing wages to living wage level could furthermore have some negative spill-over effects to surrounding communities (effects reported in the Malawi tea project¹⁰) and workers having to pay more income taxes.
- **Purchasing practices:** Insufficient profit margins in company or an entire supply chain can result in poor wages and working conditions. Furthermore, short-term contract agreements result in hesitation at processor level to increase wages and formalize labour relationships.
- **Internal factors:** when the productivity of a facility is lower than the average in that country and sector, this is likely to result in smaller margins which hinders the payment of living wages.

4.3 Impacts not found in the assessment

During the impact assessment the risks in table 1 in chapter 3.1.3 were investigated to determine whether the risks occurred and to what extent. In the supply chain of Cocomate, the two impacts described above and one issue of concern were found.

In the Human Rights and Communities level, the impacts found were limited to the remuneration of farmers and employees at Cocomate, and discrimination in remuneration between female and male workers at the collectors and farmers. The working conditions at Cocomate were found to be positive and high attention is paid by Cocomate to improving working conditions, training initiatives and health and safety requirements.

Due to rising costs and unemployment rates, the risk of exploitation because of debt is present, also in the supply chain of Cocomate. No evidence was found during the impact assessment that the farmers in the supply chain of Cocomate were exploited.

Furthermore, the desk-research showed environmental risks: water use, deforestation, water pollution, soil erosion and degradation. In some regions in Sri Lanka, climate change has affected rainy seasons

¹⁰ (IDH, 2020)

leading to some water scarcity. However, the farmers supplying to Cocomate located in the coconut triangle explicitly indicated not to face any issues regarding water scarcity or other water related issues. This was also confirmed by the interviewed stakeholders.

Evidences of deforestation, soil erosion and soil degradation were also not found in the assessment. Farmers are all aware of the benefits of applying fertilizer to improve their yield. Several studies link coconut production, processing and export to deforestation in Sri Lanka. Deforestation for tea, rubber and coffee production is however more common. The coconut triangle has limitations in terms of expansion of land, which minimizes the risks for deforestation. The Sri Lankan government has appointed a district in the North for further expansion.

Next, risks related to animal welfare were also investigated but were not found. In the coconut triangle, farmers indicated that squirrels attacked their coconuts and trees. However, the farmers have not found solutions to scare the squirrels, nor want to hard them. Issues with monkeys are reported in the Northern regions, but Cocomate does not source in these regions.

Finally, the supply chain of Cocomate has been mapped by them until farmer level. Lists of farmers and collectors are updated regularly and there is often communication between all supply chain partners.

4.4 Leverage for mitigating impact

As final buyer, Jumbo has certain leverage over its coconut milk supply chain partners towards mitigating the negative impact identified. Jumbo buys the coconut milk through its first-tier in Sri Lanka, Cocomate. Jumbo has a long-standing relation with Cocomate, making Jumbo's leverage more significant. On the other hand, Cocomate is a large exporter of coconut milk, other (coconut) products, which may result in less leverage for Jumbo to mitigate impact or focus on positive impact.

5. Conclusion

ImpactBuying has carried out a Human Rights Environmental Impact Assessment to gain greater awareness of the risks and actual impact in Jumbo's supply chain of coconut milk from Sri Lanka. For this assessment, desk research was combined with site visits leading to the below conclusions.

Though Sri Lanka is a relatively small country, it is the fourth-largest exporter of coconut products. Coconuts account for approximately 12% of all agricultural produce in Sri Lanka and from all coconuts produced, two-third is consumed locally. Of this one-third that is being exported, a small part goes to the Netherlands and even a smaller part is being exported by Cocomate and ends up in Jumbo's supermarkets.

Over three years, Jumbo has been sourcing a part of its coconut milk assortment from Cocomate directly from Sri Lanka. Cocomate's current annual intake stands at 73.5 million nuts, accounting for approximately 2.2% of the national annual coconut production, which totals 3.3 billion nuts. Cocomate is a local business who works with a robust farmer network of independent coconut farmers, ensuring a consistent and sustainable coconut supply. These farmers are predominantly located in the coconut triangle, enhancing the proximity to the processing plant and efficiency of operations.

This assessment found several positive impacts in terms of human rights and the environment. First of all, the supply chain shows a strong and stable relationship between farmers, collectors and Cocomate. Farmers have been working with the same contracted pluckers for years or even generations and collectors indicate that Cocomate pays a fair price, pays in a timely matter, coordinate orders well and offers good services and conditions. Secondly, the employees of Cocomate are entitled for monthly salaries, contribution for Employee Provident Fund (EPF), Employee Trust Fund (ETF) and overtime payment. Effective mechanisms, such as Joint Consultation Committees (JCC), allow employees to voice suggestions and complaints, leading to tangible improvements. Lastly, for the Fairtrade and organic certified farmers, Cocomate is working with the Fairtrade cooperative to distribute an organic fertilizer and they are currently setting up a compost program to produce own organic fertilizer.

Although Cocomate does a lot of good and complies with international standards and national legislation, this impact assessment also identified some areas of negative impact in the supply chain that require attention. Firstly, the assessment confirmed that farmers receive a price for their coconuts that is not sufficient to cover production cost and sustain a family livelihood. Generally, medium and large-scale farmers are better able to sustain their livelihood, while small scale farmers indicate difficulties. However, all indicate that the production costs have been rising due to extreme inflation (especially fertilizer) and a shortage of skilled workers, while living expenses are rising as well. Secondly, the assessment found that women are paid less for the same jobs as men. Both at farmer level as at collector level it was found that women earn 20-30% less than men by comparing daily rates between female and male workers.

The country, Cocomate and its supply chain will need to work on sustaining farmer livelihoods, dealing with pests, diseases and trees who are past their productive peaks, labor shortages and a shrinking growing area. However, with Sri Lanka's favorable climate conditions, special King coconut flavor and growing demand of the national and international market, there are many opportunities. Jumbo's

strong relationship and leverage at Cocomate make it interesting and feasible to work together to mitigate negative impact and explore positive impact opportunities.

The above conclusions are summarized in the visual below.

Impact

Positive

Decent employment provided by NDC Cocomate

Strong Worker Committees and effective social dialogue practices

Robust farmer network with stable commitments between Cocomate, collector and farmers

Impact

Rating

Negative

Discrimination in remuneration between women and men

Low risk

Farmers face difficulties in sustaining a decent livelihood

Medium to high risk



Farmer level



Collector level



Processing level

6. Recommendations

This impact assessment on the supply chain of Cocomate focusing on coconut milk has been carried out for Jumbo to identify and assess the actual impact.

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. Jumbo is recommended to take action in reducing the negative impact and enhance positive impact in their current coconut milk supply chain with Cocomate.

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

6.1 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 coconut milk supplies from Sri Lanka.

1. Collaboration with the coconut producers who supply to Cocomate

Goal: tackle impact 'Farmers face difficulties in sustaining a decent livelihood' by collectively working on factors that Jumbo and Cocomate can influence and using the strengths and opportunities in the supply chain.

The supply chain of Cocomate is organised well, which enables Jumbo to collaborate effectively with coconut producers and Cocomate. Therefore, there are many opportunities to work on the negative impacts found and focus on the positive impact. This large joint collaboration is interdisciplinary, several initiatives come together in terms of activities, set-up, and monitoring progress:

1a) Currently, farmers are unaware of the exact production costs and their income earned via their coconut sales. Having more insight in these costs and income strengthens the position of the farmers in the negotiations, provides argumentation for Cocomate and other stakeholders such as the governmental Coconut Authority to increase farm gate prices, and can help Cocomate in determining where farmers need support (e.g. fertilizer, education, etc.). **Collectively, the supply chain partner can enable a series of coconut producer meetings to streamline the supply to Cocomate and then evaluate the cost structure of producers** during one or several of these meetings, and come up with cost saving measures.

1b) Collaborate to improve agricultural practices: agricultural aspects have an effect on the sales of coconuts and the income of a farmer. As the coconut prices are heavily influenced by the Coconut Board of the Sri Lankan government, who decides per week what the farmgate prices are, other aspects besides increasing prices show opportunities. During the assessment it was found that there is room for improvement on productivity, investing in young trees, efficiently dealing with pest and diseases, and applying organic fertilizer and other good agricultural practices. Improving agricultural practices directly (on the short- and long-term) have an effect on yields and therefore on the income of farmers.

1c) Strengthen the Fairtrade Cooperative (Nadalagamuwa Coconut Producers Association (NCPA)): The cooperative has been established by Cocomate and its Fairtrade certified farmers as

part of the Fairtrade certification. The cooperative is in its early stages and is still dependent on the involvement of Cocomate, who feels responsible for the success of the cooperative. In the next years, this cooperative will become more independent. The cooperative is informing its farmers but can strengthen its operational and organisational system. There are opportunities to work together as Jumbo and Cocomate on further developing the cooperative and its farmers, such as:

- Provide training to the management of the cooperative on organisational and operational elements;
- Provide training on good agricultural practices to farmers;
- Invite NGOs to share relevant knowledge: for example Agriterro with their Agripool program, where experts over the world are visiting the cooperative and sharing experiences with farmers.

A joint collaboration requires long-term commitment between Jumbo, Cocomate and its coconut farmers. It is therefore recommended that Jumbo sets a long-term contract with Cocomate and works with an open cost price calculation to show how the prices are determined and where budget is appointed to regarding future initiatives.

The effect of the three initiatives together and individually needs to be monitored to track the progress on higher yields, higher incomes and stronger businesses. A monitoring and evaluation plan needs to be developed to assess on the short-, medium- and long-term the set targets. The recommendations described below at point 2 have also an effect that need to be considered in the monitoring and evaluation plan.

2. Implement procurement practices that enable minimizing negative impact and promoting positive impact

Goal: create an enabling commercial environment to minimize negative impact and enable positive impact.

Procurement practices on buyer level can cause lower down in the supply chain issues regarding income of farmers and remuneration of workers in factories. In this assessment, both issues were also found in the supply chain of Jumbo. Short-term contracts/commitments and low margins may pose an increased challenge to increase wages in factories and pay higher prices to farmers for their coconuts.

While on one side, Jumbo, Cocomate and its farmers can work collaboratively on improving enabling factors on farm level, Jumbo can provide an enabling environment by changing current annual contracts to contracts of at least 3 years. In these contracts Jumbo and Cocomate may include agreements regarding investments on initiatives, prices and quality factors. It is recommended to work with open cost price calculations in order to be transparent about the cost factors and the set up of the price.

3. Additional research on living income gap

Goal: obtain insight into the difference between the current income of farmers in the supply chain of Jumbo and Cocomate and the living income reference value. This study can substantiate the activities described at recommendation 1, which focuses on increasing yields, productivity and income and can run parallel because of the informative nature of this study.

The outcomes of the insights of the calculations described at recommendation 1 feed a living income calculation to determine what farmers earn compared to a living income. Fairtrade has worked on a Living Income Reference price for coconuts from Sri Lanka. A Living Income Reference Price indicates the price needed for a typical farmer household with a viable farm size and a sustainable productivity level to make a living income from the sales of their crop. According to the study of Fairtrade a viable farm has a size of 5 acres. Based on this size the Fairtrade Living Income Reference Price for coconuts from Sri Lanka is established at 108 rupees per nut (US\$ 0.29) at farmgate. The outcome of an living income gap analysis could show factors that can be improved on farm level, such as productivity, total yields, tree age or other income opportunities.

Now, Jumbo is recommended to investigate the opportunity to work together with other buying organisations, Cocomate, other processors and farmers to start an living income study in the Sri Lankan coconut industry. Setting up a study with peers is recommended instead of setting it up individually. The outcomes can be used to better understand and determine how to tackle difficulties in covering production costs and costs of living.

4. In-depth study on Worker Committees

Goal: learn from the effective worker committee structure at Cocomate as a best practice case.

Involving workers in daily operations and management decisions, having effective worker representation in companies and supply chains is key for collective bargaining practices and in rolling out, for example mitigation measures. Ensuring social dialogue has taken place is globally an issue that has turned out to be difficult to address properly. In this assessment it was found this social dialogue and worker representation are very effectively set up at Cocomate. It is therefore recommended to Jumbo to collectively assess what makes the worker committees at Cocomate and neighboring companies a success, how it can help Jumbo in the living wage assessment and paying better prices.

5. Reduce wage discrimination between women and men for equal work

Goal: raise awareness in the supply chain on discrimination in remuneration and simultaneously on national, regional and sector level.

Finally, to tackle the systemic issues such as low farmgate prices and remuneration differences, other stakeholders need to be involved. Therefore, it is recommended to Cocomate and Jumbo to lobby and raise awareness on these topics to emphasize the need for sector and country broad solutions.

Collectors and farmers hire teams for certain manual jobs and those teams travel from location to location. Interviews with both female and male workers showed that they are aware of the differences and that this is seen as normal. Because those teams are at the collectors and farmers for very short periods, raising awareness in the sector with stakeholders and governmental organizations is recommended to improve the situation.

Furthermore, with the improvement of procurement practices and larger profit margins, Cocomate will be able to pay higher prices to collectors who in their turn can pay more to the farmers. With low margins, labour costs are one of the first costs that are cut and therefore, with higher prices it can be expected that workers will receive a higher wage. At the same time, Cocomate and Jumbo can raise awareness around discrimination in remuneration by setting up training materials, flyers and instruct their local field officers to inform farmers and collectors during their visits.

7. References

- Department Of Agriculture. (n.d.). *Agro-ecological Regions in Sri Lanka*. Retrieved from <https://www.arcgis.com/apps/instant/minimalist/index.html?appid=d244641b5f3e4206a7c98f5cda1892e7>
- Earthworm. (2020, 2 26). *Earthworm's Róisín Mortimer explores the state of the coconut industry*. Retrieved from <https://www.earthworm.org/news-stories/starting-fresh-coconut-supply-chains>
- Earthworm. (2020). *Webinar: Understanding the coconut supply chain*.
- Fairtrade. (2022). *Fairtrade Living Income Reference Price for Coconut from Sri Lanka*. Retrieved from <https://files.fairtrade.net/Fairtrade-Living-Income-Reference-Price-Sri-Lanka-coconut-explanatory-note.pdf>
- Food and Agriculture Organization of the United Nations. (n.d.). *Crops and livestock products*. Retrieved from <https://www.fao.org/faostat/en/#data/QCL>
- IDH. (2020). *An unprecedented collaboration: Malawi Tea 2020*. Retrieved from IDH: <https://www.idhsustainabletrade.com/publication/an-unprecedented-collaboration-malawi-tea-2020/>
- IndustriALL. (2022, October 27). *Sri Lankan workers struggle due to high inflation*. Retrieved from IndustriALL: <https://www.industriall-union.org/sri-lankan-workers-struggle-due-to-high-inflation>
- Karunathilake, T. (2015, May 16). *Coconut Purchasing, Production and Sales Management System for Dunagaha Coconut Producers Co-operative Society Ltd*. Retrieved from <https://dl.ucsc.cmb.ac.lk/jspui/handle/123456789/3093>
- Karunatillake, S. (2023, September 14). *Interview coconut sector in Sri Lanka*. (C. Jansen, Interviewer)
- Sri Lanka Export Development Board. (n.d. a). *COCONUT & COCONUT-BASED PRODUCTS*. Retrieved from Sri Lanka Export Development Board: <https://www.srilankabusiness.com/coconut/about/>
- Sri Lanka Export Development Board. (n.d. b). *INDUSTRY CAPABILITY OF COCONUT AND COCONUT-BASED PRODUCT SECTOR IN SRI LANKA*. Retrieved from <https://www.srilankabusiness.com/coconut/about/industry-capability.html>
- Statista . (2024, February 2). *Sri Lanka: Unemployment rate from 2003 to 2022*. Retrieved from Statista 2024: <https://www.statista.com/statistics/728520/unemployment-rate-in-sri-lanka/>
- Tamil Guardian. (2021, October 26). Retrieved from <https://www.tamilguardian.com/content/sri-lankan-army-plants-coconut-trees-occupied-tamil-land>
- TD Nuwarapaksha, S. U. (2022). *Coconut based multiple cropping systems: An analytical review in Sri Lankan Coconut Cultivations. Circular Agricultural Systems*, 2(8). doi:10.48130/CAS-2022-0008

Tetra Pak. (n.d.). *Coconut Handbook*. Retrieved from <https://coconuthandbook.tetrapak.com/>

The Island Online. (2023, January 13). *Animals devoured 93 mn coconuts in first six months of last year*. Retrieved from <https://island.lk/animals-devoured-93-mn-coconuts-in-first-six-months-of-last-year/>

United Nations Human Rights Council. (2022, 12 03). United Nations. Retrieved from <https://reliefweb.int/report/sri-lanka/report-special-rapporteur-contemporary-forms-slavery-including-its-causes-and-consequences-tomoya-obokata-his-visit-sri-lanka-ahrc5126add1>

United States Department of Labor. (2019). *2019 FINDINGS ON THE WORST FORMS OF CHILD LABOR*. Retrieved from https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2019/2019_TDA_Report_Online_Final.pdf

Weiyi Cai, K., Lai, R., & Singhvi, A. (2019, April 23). *Easter Sunday Attacks Add a New Dimension to Sri Lanka's Sectarian Tensions*. Retrieved from New York Times: <https://www.nytimes.com/interactive/2019/04/23/world/asia/sri-lanka-isis-religious-ethnic-tensions-map.html>

8. Annex

Annex 1. Research team

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 & Manager 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 of Upul Senanayake

1. Name: Upul Senanayake
2. Full Name: Alahakoon Udawattage Upul Chameera Senanayake
3. Date of Birth: 12th October 1986 Citizenship : Sri Lankan
4. Marital Status: Married
5. Address: No. 50/4/A, Rathmal Uyana, Pubudu Mawatha, Mattegoda
6. Tel. and Email: +94 771 517512 | upuluoc@gmail.com



7. Education:

Name of Institute	Qualification Obtained	Year
Faculty of Management & Finance (FMF), University of Colombo	Master of Business Administration (MBA) in Finance	2020
Faculty of Management & Finance (FMF), University of Colombo	Bachelor of Business Administration (Accounting) Sp. Degree	2010
Security Exchange Commission in Sri Lanka (SEC)	Certificate in Capital Markets (CCM)	2012
Institute of Chartered Accountants Sri Lanka (ICASL)	Certificate in Accounting & Business (CAB II)	2007
University of Colombo School of Computing (USCS)	Diploma in IT	2011

8. Certification or Membership in Professional Associations:

- Registered Investment Adviser (RIA), Security Exchange Commission in Sri Lanka – 2012

8. Languages:

- Sinhala: Native
- English: Good

9. Employment record:
• Freelance Business Consultant cum Trainer, June 2018 -To date
• Consultant cum Project Manager at Development Concepts (Pvt) Limited, around 6 years
• Investment Advisor at TKS Securities (Pvt) Ltd, around 1.5 years
• Director / Finance Head at AIESEC in Sri Lanka around 1.5 years

Annex 2. Framework on risk areas

Risk Areas	Sub Risk	Relevant Legislation or Sources
Human Rights Issues	Occupational Health and Safety	ILO C155 – Occupational Safety and Health Convention, 1981 (No. 155) ILO C184 – Safety and Health in Agriculture Convention, 2001 (No. 184)
	Wages and Benefits	ILO C131 – Minimum Wage-Fixing Convention, 1970 (No. 131) ILO C095 – Protection of Wages Convention, 1949 (No. 95) ILO C100 – Equal Remuneration Convention, 1951 (No. 100)
	Discrimination	Article 7 of the International Covenant of Economic, Social and Cultural Rights ILO C111 – Discrimination (Employment and Occupation) Convention, 1958 (No. 111)
	Harassment and Abuse	Article 7 of the International Covenant of Economic, Social and Cultural Rights ILO C190 – Violence and Harassment Convention, 2019 (No. 190)
	Freedom of Association and Collective Bargaining	ILO CO11 – Right of Association (Agriculture) Convention, 1921 ILO CO-141 – Rural Workers' Organisations Convention, 1975 ILO CO87 – Freedom of Association and Protection of the Right to Organise Convention, 1948
	Bonded or Forced Labour	ILO C029 – Forced Labour Convention, 1930 (No. 29) Article 7 of the International Covenant of Economic, Social and Cultural Rights
	Working Hours	ILO C001 – Hours of Work Convention, 1919 (No.1)
	Child Labour and Special Protection for Young Workers	ILO C138 – Minimum Age Convention, 1973 (No. 138) ILO C182 – Convention on the Worst Forms of Child Labour, 1999 (No.182)
	Women's Rights and Gender Equality	Rights of women Convention on the Elimination of All Forms of Discrimination Against Women, 1979 ILO C100 – Equal Remuneration Convention, 1951 (No. 100) ILO C183 – Maternity Protection Convention, 2000 (No. 183) ILO C156 – Workers with Family Responsibilities Convention, 1981 (No. 156)
	Terms of Employment	ILO C122 – Employment Policy Convention, 1964 (No.122)
	Grievance Mechanisms	ILO C130 - Examination of Grievances Recommendation, 1967 (No. 130)
	Migrant Labour	ILO C143 – Migrant Workers Convention, 1975 (No.143) ILO C097 - Migration for Employment Convention, 1949 (No. 97)
	Rights of Indigenous Peoples and Local Communities	
Environmental Issues	Climate Change Attribution	
	Water Pollution, Use and Conservation	
	Waste Generation and Management	
	Air Pollution, Quality, and Atmospheric Integrity	
	Soil Pollution, Quality and Conservation	
	Noise and Light Pollution	
	Biodiversity Loss and Ecosystem Conversion	
	Natural Resource Use and Conservation	
Animal Welfare	Animal Living Environment and Facilities	EU Convention for the Protection of Animals kept for Farming Purposes, 1976 Animal Welfare Certifications Criteria
	Animal Nutrition	EU Convention for the Protection of Animals kept for Farming Purposes, 1976 Animal Welfare Certifications Criteria
	Animal Wellbeing, Natural Behaviour and Entertainment	EU Convention for the Protection of Animals kept for Farming Purposes, 1976 Animal Welfare Certifications Criteria
	Animal Health, Treatment and Handling	EU Convention for the Protection of Animals kept for Farming Purposes, 1976 Animal Welfare Certifications Criteria
	Management and Procedures	EU Convention for the Protection of Animals kept for Farming Purposes, 1976 Animal Welfare Certifications Criteria
Governance	Supply Chain Transparency	Responsible and Sustainable International Business Conduct, 2021 (Netherlands)

	Compliance with National Legislation and Universal Rights	Factory Ordinance Shop and Office Employees Act Wages Boards Ordinance The Education ordinance, 2015 Employment of women, young persons and childrens act, of 2021 Allowances to Plantation Workers Act, No. 72 of 1981 Employees' Provident Fund Act, No.15 of 1958
--	---	--