

Beyond Coffee

Agri-commodities export potential from Timor-Leste

Market Development Facility

Timor-Leste

Acknowledgement

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Market Development Facility (MDF)

Market Development Facility is an Australian Government funded multi-country initiative which promotes sustainable economic development, through higher incomes for women and men, in our partner countries.

We connect individuals, businesses, governments and NGOs with each other, and with markets at home and abroad. This enhances investment and coordination and allows partnerships to flourish, strengthening inclusive economic growth.

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Context

As the world begins a substantive shift to renewable energy, Timor-Leste remains overly reliant on oil and gas resources for sustaining its economy. More than 90 percent of total exports, and over 80 percent of government revenue are from oil and gas resources. However these resources are forecast to dry up by 2034. While the economy has grown in recent years, this has been driven by government spending, which is an unsustainable practice in the long term. There is a consensus that Timor-Leste must diversify its economic base. Aside from the petroleum industry, the government's strategic plan prioritises investment in the agriculture and tourism sectors. Currently, Timor-Leste's largest non-oil exports are agricultural produce. These commodities contribute to only 5% of total exports from the country.

By far the largest agricultural export is coffee, and the export values for other commodities are much smaller and inconsistent on an annual basis. Coffee production is also highly vulnerable to climate change, as evidenced by low harvests due to untimely rains in 2022, traditional coffee growing areas are expected to become more marginal as temperatures increase. If Timor-Leste were successful in developing other export commodities,

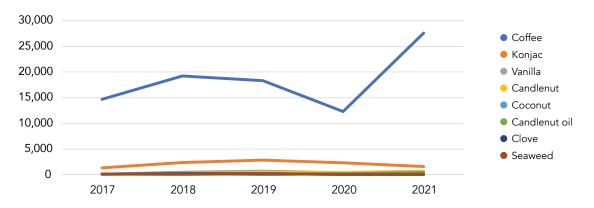
this would provide a significant boost to the size and resilience of the country's economy.

Timor-Leste's coffee sector has developed into a competitive market, with multiple actors and export destinations, able to withstand market disruptions such as price fluctuations or biosecurity challenges in one market. Other agricultural export commodities, conversely, have few market actors and export destinations. They are fragile and vulnerable to market disruption. Konjac, for instance, was first exported in 2016 and quickly became the second-largest non-oil export commodity in Timor-Leste. However, disruption to its main market, China, plunged its export value from its peak of USD2.8 million in 2019 to USD1.6 million in 2021. To gain a more solid footing in international trade, the market access and capacity of market players in these early-stage export commodities will need to be developed.

The table below highlights the top-eight agricultural export commodities from Timor-Leste in the past five years. While there have been some exports in the aquaculture sector, they have not been added here as the focus of this paper is on agriculture.

Top agricultural exports from Timor-Leste (USD Thousands)

Export trends (with coffee)



¹ https://eiti.org/countries/timor-leste

 $^{^2\} https://www.macaubusiness.com/timor-leste-government-estimates-petroleum-fund-will-lose-us 1-4 b-in-2022/1000 and the control of the co$

³ Based on the data from Timor-Leste customs on exports statistics

This paper looks at Timor-Leste's top early-stage agricultural commodities, their current production and export volumes, and the challenges and opportunities around exporting these commodities. The paper refers to these commodities as "early-stage export commodities" as they have small volumes and are largely dependent on one or two import buyers. Coffee is presented as a point of reference but is not considered "early-stage" as, despite some challenges, the commodity has an established export market and consistently increasing export volumes.

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MDF considers early-stage export commodities important for Timor-Leste to diversify its economic base. Collectively, based on current production, these commodities have the potential to generate over USD63 million4 in additional export revenue for the country. Increased private investment in these commodities can also boost economic activity and job creation. As the majority of Timor-Leste's rural households are dependent on agriculture, and these early-stage export commodities are grown mainly by small-scale farmers, developing these value chains can lead to pro-poor growth that supports higher incomes and improved livelihoods for farming households.

⁴ MDF calculations, based on average annual production and projected export value if all production is exported.

Summary



Av. Annual production in TL (tons)	# of farmers 1,200
Exports from TL (2021)	Potential exports from TL
\$1.6m	\$16.4m

Current markets for TL

China
Indonesia
Thailand

Top Global Importers

US
France
Germany
Canada



Av. Annual production in TL (tons)	# of farmers 1,200	Current markets for TL Indonesia	Top Global Importers US France
Exports from TL (2021)	Potential exports from TL \$10.0m		Germany (*) Canada Netherlands



Av. Annual production in TL (tons)	# of farmers	Current markets for TL	Top Global Importers
10,000	11,270	Indonesia	JapanUS
-	<u> </u>	- S	China Singapore
Exports from TL (2021)	Potential exports from TL	Singapore	South Korea
\$0.4m	\$15.6m	China	

 $^{^{5}}$ MDF calculations, based on average annual production and projected export value if all production is exported.

Collectively, based on current production, these commodities have the potential to generate over **USD63 million** in additional export revenue for the country.



\$0.4m	\$18.0m		
Exports from TL (2021)	Potential exports from TL		(*) Canada
		- Australia	China
30,000	16,000	Indonesia	US US
Av. Annual production in TL (tons)	# of farmers	Current markets for TL	Top Global Importer



Av. Annual production in TL (tons)	# of farmers	Current markets for TL	Top Global Importers
1,200	3,000	⊕ US	India Vietnam
	-	_	UAE Singapore
Exports from TL (2021)	Potential exports from TL		Malaysia
\$0.05m	\$3.6m		



Av. Annual production in TL (tons)	# of farmers	Current markets for TL	Top Global Importers
16,000	1,200	China	China South Korea
	<u> </u>	- Indonesia	JapanUS
Exports from TL (2021)	Potential exports from TL	South Korea	
\$0.08m	\$2.4m	Vietnam	

Netherlands Germany

Considerations for increasing exports:



There is potential to leverage on Timor-Leste's heavy reliance on Indonesia for unprocessed exports

- Timor-Leste exports substantial unprocessed agricultural produce to Indonesia, including vanilla, konjac, candlenut and coconut. This is due to the easy market access, many active traders and Indonesia's role as a large commodity importer.
- Processing and value addition in Timor-Leste can help bring more revenue from the same volume of exports for Timorese businesses and farmers. It can help increase export price and provide incentive to farmers and businesses to further invest in the value chain.



Relying on one big buyer can be risky

- Export to China has provided good value for Timorese farmers and businesses. For example, exporting konjac and seaweed to China has fetched good prices compared to exporting unprocessed commodities to Indonesia. However, exporting these commodities to China has been dependent on one big buyer, which has resulted in a significant reduction in exports in the past two to three years mainly due to biosecurity requirements from China as well as fluctuating bilateral relations.
- There are several alternative, untapped markets that Timor-Leste could explore, particularly the
 US and Europe. The US is a top importer of vanilla, candlenut and coconut oils. Germany is also
 among the world's top importers of vanilla and coconut oils. Japan and South Korea are potential
 alternative market for seaweed and candlenut, compared to the Chinese market.
- To have consistent exports and develop resilient value chains for these early-stage export
 commodities, Timorese companies will need to target multiple markets. While smaller companies
 do not have the market linkages or adequate knowledge of requirements, industry organisations
 such as TradeInvest and government trade bodies can step in to address this gap. Businesses, in
 turn, can work with farmers to understand and cater to international market requirements.



High farmgate prices can provide incentives to farmers to invest in a crop

- The current farmgate price of vanilla is more than USD20 per kg, while for cloves it is around USD7.5 per kg. These prices are higher than those of many other crops grown by Timorese farmers, due to the high export price of USD150 for vanilla and USD50 for cloves. Both these crops are labour intensive and require technical skills which farmers are currently lacking.
- There is potential to increase exports of both vanilla and cloves by USD12.7 million at current production levels. Investments in farmer knowledge and skills, in combination with improved market access, can provide lucrative opportunities for businesses and farmers to earn more through selling higher volumes.



There is an opportunity to revive konjac exports

- Konjac has the potential to bring significant export revenue for Timor-Leste. Farmers who reaped the benefits of harvesting and processing konjac when China was still buying from Timor-Leste have replanted the crop and are waiting for prices to improve before selling.
- Volumes are available, ready to be harvested while companies have the knowledge and skills to process konjac for exports. While Timor-Leste has established market linkages with China, government support will be required to resolve the current bilateral trade challenges.
- There is also a need to find opportunities in other markets that are top konjac exporters, including Japan, Thailand and Vietnam.
- The US and European markets import processed konjac. However, this would require processing facilities in Timor to convert konjac chips into end-products, and there are currently no market actors with the capacity or willingness to tap into that market.



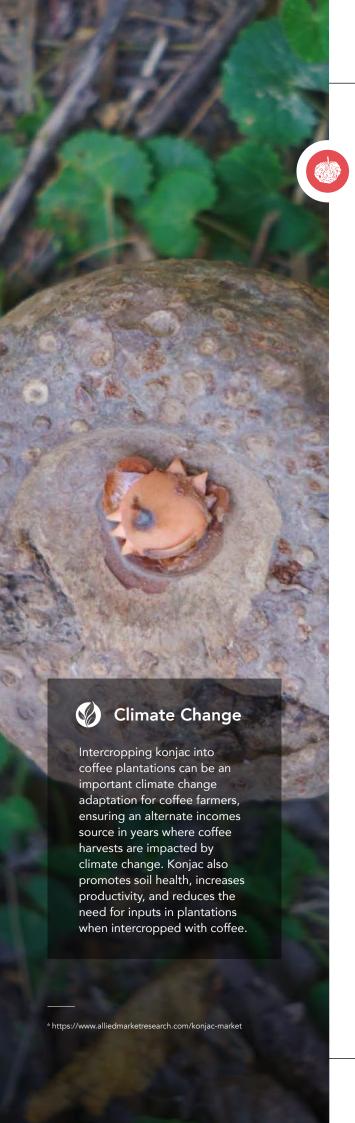
Volumes are available to develop the coconut value chain for virgin coconut oil (VCO)

- More than 16,000 farmers engage in coconut farming in Timor-Leste. While the Cesta Basica
 program increased local demand for coconuts, with the program ending, there is a substantial
 amount of the commodity that can be converted to VCO and exported.
- Timor has the processing facilities to convert coconut into VCO for export. However, only one company currently exports ¬a small amount of VCO to Australia. Expanding this value chain through new business entering and improved access to other export markets could provide the opportunity to increase exports by USD18 million.



The following sections will highlight the **trends**, **challenges** and **opportunities** in each commodity, except for coffee.





Konjac

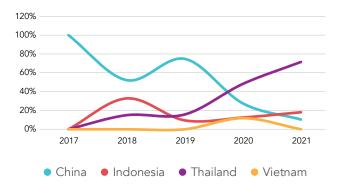
Konjac was first exported in 2016 to China from wild harvesting and quickly became the second-largest agriculture export. But China's import ban has hurt exports and lowered the farmgate price.

Demand for konjac is being pushed by factors such as increased consumer health consciousness, a rise in demand for digestive supplements, a surge in demand for weight loss supplements and brisk R&D. The global konjac market was valued at USD922.5 million in 2020 and is projected to reach USD1.8 billion by 2030, registering a Compound Annual Growth Rate of 7.1%.6

Timor-Leste Konjac exports (2017-2021)



Exports by country (percentage)





1,616 tons

*Assumed equal to export as it's wild harvest



1,200

Monash report and MDF estimate



Highest exports value from TL (last 5 years)

1.1 tons (2019)

(USD \$2.8m)



Number of TL exporters

7 export companies

most sell to domestic Chinese buyers or partner with Chinese

Top export destinations from TL









Significant reduction in exports to China in 2021

Top global exporters

Indonesia

Japan





Vietnam



Thailand

Top global importers





France Canada



United Kingdom

Current challenges



Farmer

- Prices are low due to lack of demand/limited availability of buyers
- Farmgate prices have dropped from USD2.5 per kg in 2021 to USD0.5 per kg in 2022



Private sector

- China's import ban has reduced demand for Konjac and affected price
- Mostly sold to Indonesia at lower price, which is expected to be exported to China at premium price by Indonesian exporters



Industry

- No phytosanitary lab (required to export fresh produce to China)
- Bilateral relations are unfavourable
- There is limited information on other markets
- Limited data available on konjac

Opportunity for Timor-Leste



Export potential of over USD16.4 million⁷ from Timor-Leste if deliberate harvesting is done by farmers using konjac seeds.



More than **USD850 million** in global market growth expected between 2020 and 2030 – a significant market to tap into.



Local availability of local buyers with connection to importers in China, who are willing to pay good price to farmers in case of higher demand from importers.



Farmers are aware of the potential price premium and are replanting konjac in expectation of better prices.



Vanilla

Cooperativa Café Timor (CCT) is Timor-Leste's largest agriculture cooperative, with 28,000 members. CCT supports Timorese vanilla farmers through seed distribution and technical assistance. CCT is the main buyer of vanilla in the country and sells to a long-time buyer in Indonesia.

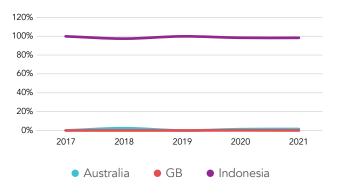
Timorese vanilla is known for its fresh, exotic taste and mild and pleasant fragrance. The global vanilla market is witnessing robust growth due to growing consumer demand for plant-based products. Vanilla has many health-promoting elements, such as vitamins, minerals and phenols, which has led to its increase in demand. The global vanilla market was valued at USD2.9 billion in 2021. It is projected to reach USD4.7 billion by 2030, growing at a Compound Annual Growth Rate of 5.7%.8

Timor-Leste Vanilla exports (2017-2021)



Decrease in value in 2020/2021 is because between 2017-2019, processed vanilla (crushed or ground) was exported while vanilla exported in 2020-2021 was not processed.

Exports by country (percentage)





163 tons

*Census 2019



1,200

TOMAK Report



Highest exports value from TL (last 5 years)

1.7 tons (2019)

(USD \$0.7m)



Number of TL exporters

Mainly CCT to Indonesia. In the past 5 years, there had been 3 exporters to Australia and 1 to Germany

Top export destinations from TL



Top global exporters



Madagascar



France

Germany

Indonesia



Canada



Germany



United States



Canada

Netherlands

Current challenges



Farmer

- Prices low due to lack of demand/limited availability of buyers
- A labour-intensive crop/ difficult to grow and manage
- Lack of technical skills in producing quality vanilla



Private sector

- Lack of private sector engagement (CCT is the only buyer and is donorfunded)
- Currently only one main market - Indonesia



Industry

- Lack of value-addition opportunities
- Buyers reluctant to source processed products due to quality conerns
- Limited focus from government

Opportunity for Timor-Leste



Export potential of over **USD10 million**° from Timor-Leste based on current production.



More than USD1.8 billion global market growth expected between 2020 and 2030.



Vanilla offers high farmer price (average USD20 per kg), which can provide opportunity to small-scale farmers to earn higher incomes and improve their livelihood.



The global vanilla market is currently dominated by production from Madagascar, with a high-risk of climate disruption. Commodity traders are looking to diversify their sourcing to balance this risk.



High export market price makes Timor-Leste's market lucrative for exports. In 2021, the world's average unit price for imports of non-crushed and unground vanilla was USD123,939 per ton.



Candlenut

Approximately 70% of Timor-Leste's candlenut exports are exported in raw form to Indonesia. There is only one candlenut oil producer and exporter, supported by donors to set up oil production. This exporter mostly sells to the US market.

Candlenut oil is obtained from the seeds of trees belonging to the genus Aleurites, found throughout tropical regions. Demand for candlenut oil has increased in the last few years owing to its various applications, including skincare, haircare, nail care, lip care and cosmetics. The global candlenut oil market is expected to grow from USD3.03 billion in 2017 to USD5.47 billion by 2030, at a CAGR of 5.2% over the forecast period 2018-2030.¹⁰

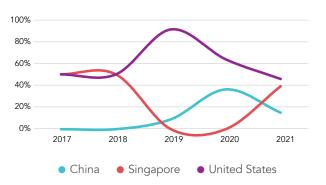
Timor-Leste Candlenut exports (2017-2021)



Timor-Leste Candlenut oil exports (2017-2021)



Exports by country - Candlenut oil (percentage)



The export value of candlenut oil is much higher than that of raw candlenut. Timor-Leste exports raw candlenut only to Indonesia, and candlenut oil to the US, Singapore and China.



10,000 tons



11,270+



Highest exports value from TL (last 5 years)

Raw Candlenut **381 tons** (2021)

Candlenut Oil 41 tons (2019)

(USD \$186k) (USD \$199k)



Number of TL exporters

Raw Candlenut

2 exporters, primarily traders

Candlenut Oil

1 exporter

Top export destinations from TL

Raw Candlenut

Candlenut Oil









Indonesia Malaysia

Top global exporters













Singapore

Current challenges



- Low productivity
- Lack of technical skills and knowledge
- Lack of buyers



Private sector

- Lack of private sector engagement (only one candlenut oil exporter)
- Businesses have limited information on the market opportunity



Industry

- Lack of value-addition opportunities
- Lack of understanding of the export markets and requirements
- Limited focus from government

Opportunity for Timor-Leste



Export potential of over **USD15.6 million**¹¹ from Timor-Leste.



More than USD2.44 billion global market growth expected between 2018 and 2030.



Large farmer base in Timor-Leste, with the potential to significantly increase production and export.



High export price of candlenut oil compared to raw candlenut provides a lucrative opportunity for private sector investment in value-addition.



Coconut

Despite its widespread availability in Timor-Leste, there is limited value addition in the coconut sector, and the main export is copra, sent over the land border to Indonesia. There are a few VCO producers, mainly targeting the domestic market, including through the government's Cesta Basica program .

Coconut oil is one of the most important food oils globally. It is widely used as a cooking oil in food industries such as baking and confectionery. Growing consumer awareness about healthy eating habits and an increasing preference for organic food and beverage products are expected to fuel global expansion. The global VCO market was valued at USD2.2 billion in 2022 and expected to reach USD4.5 billion by 2030, at a Compound Annual Growth Rate of 9.5%. 12

Lower volume of export in 2019 is due to that lower price offered by Indonesian traders, which resulted in farmers selling coconuts in local market instead of selling copra to traders. The lower price offered by traders in 2019 was likely due to the lower price of coconuts in Indonesia in 2019.¹³

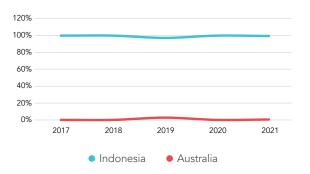
Timor-Leste Copra exports (2017-2021)



Timor-Leste VCO exports (2017-2021)



Exports by country (percentage)





30,000 tons Census



16,000+



Highest exports value from TL (last 5 years)

1,718 tons (2021)

(USD \$0.4m)

vco 8 tons (2021)

(USD \$14k)



Number of TL exporters

Copra

Several exporters sending to 5 companies (traders)

vco

2 exporters

Top export destinations from TL

Copra

vco



Australia

Top global exporters







Vietnam



Top global importers







China

Current challenges



- Prices low due to lack of demand/limited availability of buyers
- Harvesting coconuts is labour-intensive



Private sector

- Traders export copra to Indonesia without any value addition
- Only one player exported a small volume of VCO to Australia



Industry

- · Lack of understanding of export market potential and opportuntiies
- The government's Cesta Basica program increased focus on local sales of copra for VCO

Opportunity for Timor-Leste



Export potential of over **USD18 million**¹⁴ from Timor-Leste.



More than USD2.3 billion global market growth expected between 2022 and 2030.



Coconut is an important crop for households in Timor-Leste, with more than 16,000 farmers engaged in farming coconuts; volumes can be achieved as required for exports.



Existing export relationship with Australia provides potential for scale-up.



Cloves

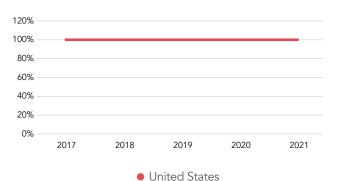
Cloves are produced with very little maintenance in Timor-Leste. Once planted, cloves only require labour at harvest. The only exports of cloves are to one big company in the US, with this likely being exported by CCT. The value of exports from Timor-Leste has decreased over the past five years, likely due to fluctuations in global prices. Cloves prices had been declining between 2016 to 2020, however, have reversed back in 2021 to the high price levels of 2016.¹⁵

Clove is one of the most valued species due to its increasing use in food and personal care products. The many health benefits associated with cloves are the major market driver in increasing global demand. The global clove market was valued at USD366.7 million¹⁶ in 2022 and is expected to grow at a Compound Annual Growth Rate of 4.4% to reach a market value of USD589.5 million by 2033.

Timor-Leste Cloves exports (2017-2021)



Exports by country (percentage)





1,200 tons

*MDF estimate (FAO estimate is 2,700 tons)



3,000+

*TOMAK report



Highest exports value from TL (last 5 years)

10 tons (2018) (USD \$188k)



Number of TL exporters

1 exporter, likely CCT

Top export destinations from TL



United States

Top global exporters



Indonesia

Tanzania







Top global importers







🗀 UAE





Current challenges



- Unpredictable rains could impact quality as dry period is required during flowering
- Harvesting is labour-intensive



Private sector

- Limited private sector involvement
- Mostly sold to one company in the US, likely



Industry

- Global price flucations (TL export value decreased over past five years)
- Lack of export market connections

Opportunity for Timor-Leste



Export potential of over **USD3.6 million**¹⁷ from Timor-Leste.



More than **USD220 million** global market growth expected between 2023 and 2033.



Potential to export to neighbouring countries including Singapore and Malaysia.



Potentially high farmgate price of **USD7.5 per kg**, which is higher than other crops, can provide lucrative opportunity for farmers to invest time and effort.



Seaweed

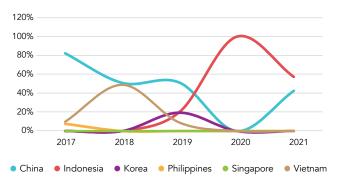
While seaweed is produced in different areas of Timor-Leste, the primary production hub is Atauro Island. All exports of seaweed from the country come from Atauro. The seaweed strand that is cultivated in Timor-Leste is Eucheuma (or red seaweed), which is globally sought out for its carrageenan content, used in cosmetics, food processing and medicine, as well as for industrial purposes.

Globally, increasing consumer awareness of the nutritional content of food products, and the resulting use of seaweed as a food/ingredient, are driving market demand. The global seaweed market reached USD7.5 billion in value in 2022. Market research firm IMARC Group expects the market to reach USD14.3 billion in value by 2028 – growing at a rate of 11.64% over 2023-2028.

Timor-Leste Seaweed exports (2017-2021)



Exports by country (percentage)



Seaweed export have declined since 2019 due to a drop in exports to China and Vietnam, which is mainly done by opportunistic dealers who do not buy and export seaweed consistently.



16,000+ tons (2019)

*FAO



1,200+

*MDF estimates



Highest exports value from TL (last 5 years)

328 tons (2017) (USD \$0.5m)



Number of TL exporters

3 exporters

(1 cooperative in Atauro, 2 traders in Dili)

Top export destinations from TL

China

Indonesia

South Korea

Vietnam

Top global exporters

Indonesia

China

South Korea

Top global importers

China

Japan

South Korea

United States

Current challenges



- Low productivity and limited knowledge of good cultivation practices
- Lack of market access (farmers wait for buyers to come to them)



Private sector

- Limited export capacity due to quality and market linkage challenges
- Limited players focusing on high value markets



Industry

- No phytosanitary lab (required for several export markets)
- Limited research on type of seaweeds grown versus global requirements

Opportunity for Timor-Leste



Export potential of over **USD2.4 million**¹⁸ from Timor-Leste.



More than USD6.8 billion global market growth expected between 2023 and 2038.



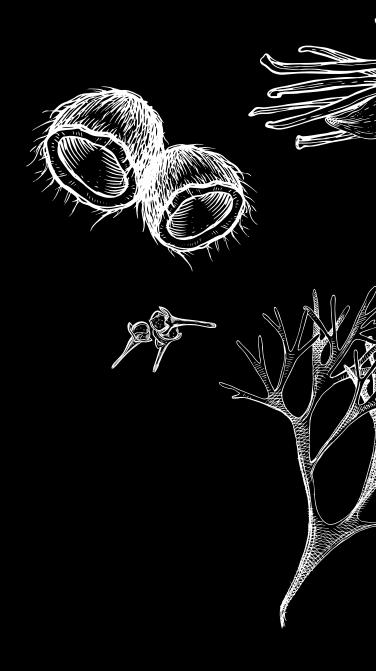
Potential to learn best practices from Indonesia, one of the largest global exporters of seaweed.



Previous experience in exporting to China and Vietnam.



Potential to increase productivity by at least 50% with better cultivation practices.





Timor-Leste: 2nd Street, Palm Business & Trade Centre, Surik Mas, Dili, Timor-Leste

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