

# Exporting Vietnam's Coconut Products: Opportunities and Threats

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## Abstract

After highlighting the importance of Vietnam's coconut product export industries, the research summarizes the prominent features of Vietnam's coconut products, the export procedures, and the export turnover of these products. It also identifies the opportunities and threats for Vietnam's coconut products. Specifically, opportunities for exporting Vietnam's coconut products include: (i) Large-scale production; (ii) Broad consumer market; (iii) Product processing technology; (iv) Support from coconut associations and traditional craft villages. On the other hand, the threats for exporting Vietnam's coconut products include: (i) Food safety issues; (ii) Competition with foreign countries; (iii) Production technology; (iv) Raw material market - product consumption market. The research results serve as a basis for the research team to consider and propose solutions from the government, associations, and enterprises to promote the export of Vietnam's coconut products.

**Keywords:** coconut products, coconut candy, opportunities, threats, export, Vietnam

## 1. Introduction

Coconut trees has linked with Vietnamese people for the past decades and centuries. They provide numerous benefits involving resting shade, drinking water, food, beauty ingredients, etc. Moreover, coconut products such as coconut candy, desiccated coconut, coconut oil, coir fibers, etc., are useful in everyday life.

The coconut industry community has boldly invested in technology and organic raw material cultivation areas. Many businesses have invested in technology and organic raw material cultivation areas in Tay Ninh, Hau Giang, Long An, Khanh Hoa, Binh Thuan, and Binh Dinh, aiming for export. About 15 specialized coconut farms have an area of over 100 hectares each.

In 2010, Vietnam's total coconut industry export turnover was only \$180 million, Ben Tre province accounting for 70% of this, with only six production and export enterprises. The remaining enterprises were commercial, with outdated production technology, and few products meet international standards. Today, the Vietnam has 90 coconut and coconut-related enterprises, including 42 deep-processing production enterprises. These businesses not only produce but also exploit raw materials from coconuts, serving the food, healthcare, and cosmetic industries ([daibieunhandan.vn](http://daibieunhandan.vn)).

In Vietnam, coconut products are still closely linked with Ben Tre. Ben Tre has identified the coconut tree as the "tree of life," a strategic agro-industrial tree contributing significantly to economic growth and socio-economic development in the province. In reality, coconut products are one of the key export items, contributing importantly to poverty reduction programs, job creation for rural labor, income enhancement, and significant contributions to the budget.

Coconut farming in Ben Tre is considered a symbol of garden civilization. Ben Tre's coconut industry covers 50% of Vietnam's coconut area, with over 71,000 hectares, 163,000 households cultivating coconuts, an annual yield of nearly 800 million fruits, and an export turnover of about \$200 million. The value of processed coconut products accounts for 20% of industrial production value and 25% of the province's export value. Among the 13 provinces in the Mekong Delta region, Ben Tre currently ranks third in the number of products in the "One Commune One Product" program (OCOP).

Ben Tre's OCOP products mainly belong to the food and herbal sectors: facial masks from coconut water by Cuu Long Coconut Processing Co., Ltd.; durian coconut candy and pure fat coconut candy by Dong A

General Production and Trading Co., Ltd.; pure coconut milk candy Yen Hoang and coconut flower cake Tien Dat by Vinh Tien Co., Ltd.; frozen durian and durian fruits by Chanh Thu Fruit Import-Export Co., Ltd.; coconut milk, concentrated coconut milk, and rich coconut creamer by Ben Tre Coconut Investment Joint Stock Company.

Currently, there are more than 180 coconut candy production facilities in Ben Tre, with an annual output of tens of thousands of tons. These products are distributed nationwide and exported (camnangdulich.com).

Not only in Vietnam, but also in China and Thailand, there are coconuts and coconut products such as coconut candy. These products have provided employment and promoted cultural values of each nation. Therefore, researching the status of coconut product exports, identifying opportunities and threats, is essential.

## 2. The reality of coconut product exports in Vietnam

### 2.1. Overview of Vietnam's coconut products

Coconut is a long-term industrial crop that thrives in tropical regions and adapts easily to various ecological zones. There are many different varieties of coconuts: traditional coconuts, Siamese coconuts, Malaysian coconuts, raspberry coconuts, pineapple coconuts, wax coconuts, leaf coconuts, etc. For a long time, coconuts have been fully utilized for culinary, industrial, handicraft, and daily life purposes. A coconut mostly consists of water and coir, specifically including components such as

Composition	% (Weight)
Husk	33.33
Shell	15
Water	21.66
Kernel	30 (water: 15, oil: 10, husk: 5)

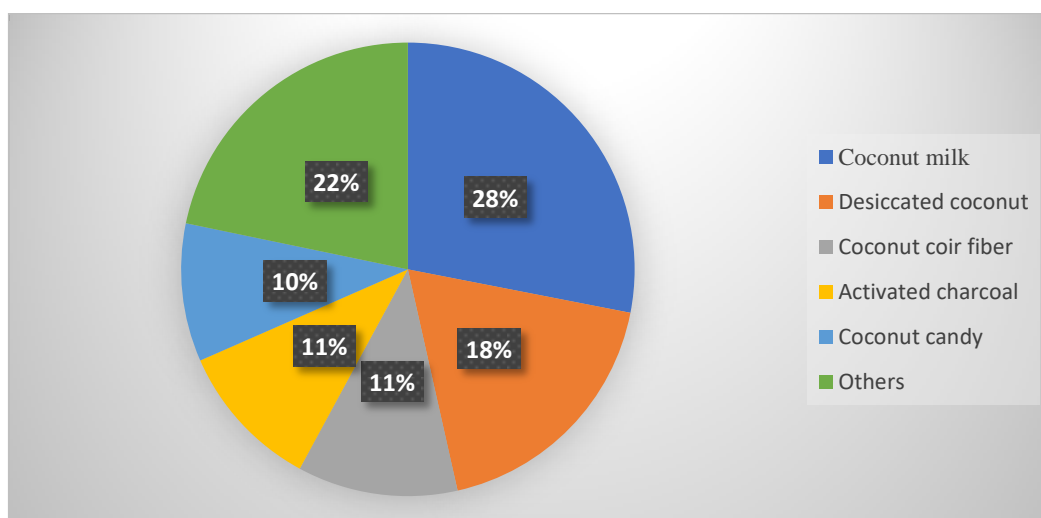
Source: [cesti.gov.vn](http://cesti.gov.vn)

Almost every part of the coconut tree can be used in daily life, not just the fruit. The products derived from the coconut tree include:

- From coconut meat: coconut flour, coconut cream powder, desiccated coconut, frozen coconut meat, coconut oil, coconut candy, coconut jam, coconut cheese, coconut yogurt, etc.
- From coconut water: coconut milk, coconut alcohol, coconut jelly, vinegar, etc.
- From coconut shells: activated charcoal, coconut buttons, cups, spoons, etc.
- From coconut coir: mats, ropes, insulation sheets, fertilizers, etc.

The value of prominent coconut products:

Figure 1. The percentage value of some coconut products



Source: [Hiephoiduabentre.com](http://Hiephoiduabentre.com)

Coconut products go through the following chain before being marketed:

- *Collecting the coconuts:* The process begins with collecting coconuts from coconut-growing areas. Coconuts can be harvested either ripe or young, depending on the type of final product.

- *Peeling and Core Separation:* Coconuts are peeled by separating the core from the outer shell. The coconut core is then separated and ready for the next steps.
- *Processing:* The coconut core can be processed into various products - coconut water, dried coconut, shredded coconut, fresh coconut, crushed coconut, cold-pressed coconut, canned coconut, and other processed coconut products.
- *Packaging:* After processing, coconut products are packaged for preservation and transportation. Packaging can be done in forms such as cans, bags, or other suitable packaging materials.
- *Quality Inspection:* Before being marketed, coconut products often undergo quality inspection to ensure compliance with food safety standards.
- *Marketing and Distribution:* Coconut products are marketed and promoted so that customers are aware and can purchase the products. They are then distributed to stores, supermarkets, restaurants, or other distribution channels to reach consumers, including export activities.

## 2.2. Export procedures for Vietnam's coconut products

Coconut products, including processed food items, handicrafts, and beauty products, are specialty items. Besides following the general export procedures, exporting Vietnam's coconut products involves specific procedures for items related to health, beauty, and daily living of the importing country's citizens.

The general export procedures for Vietnam's coconut products usually involve:



### Sơ đồ 1: Procedures for exporting Vietnam's coconut products

*Source: Research team compiled*

#### Step 1: Preparing for phytosanitary procedure

Coconut products have plant origins, so phytosanitary ensures no pathogens accompany the goods, proving they meet the conditions for export.

#### Step 2: Inspecting and fumigating coconut products

Export goods from Vietnam must adhere to numerous regulations from customs at the destination port for import clearance, especially in stringent markets like Europe. One such regulation is fumigation for certain goods. Without a fumigation certificate, the entire shipment may be returned to Vietnam.

#### Step 3: Preparing export documents

Each item is assigned an HS code. Knowing the HS code allows businesses to understand the export/import regulations, taxes, fees, documents, and procedures linked with the product. Coconuts and related products fall under HS Code group 0801, with variations based on the specific type of coconut.

Exporting businesses must check with their import partners regarding quarantine requirements for these products to avoid issues post-export.

Required documents:

Commercial Invoice

Packing List

Bill of Lading

Phytosanitary Certificate

Fumigation Certificate

Certificate of Origin (if applicable)

Certificate of Free Sale

Health Certificate

Other relevant documents; (According to [www.hcargovn.com](http://www.hcargovn.com))

#### Step 4: Customs clearance

According to Decree No. 69/2018/ND-CP dated May 15, 2018, coconuts are not on the list of goods prohibited from export. Therefore, businesses can follow standard commercial export procedures without

needing an export license. Export customs documents comply with Clause 5, Article 1 of Circular 39/2018/TT-BTC (amending Article 16 of Circular 38/2015/TT-BTC). These goods are not subject to specialized management.

During V5 signing, businesses may attach the following documents:

Commercial Invoice

Packing List

Input goods documents (invoices, purchase lists)

Other relevant documents

*Step 5: Monitoring the shipment to the import destination*

Exporting businesses must coordinate with importers/shippers/logistics units to monitor loading, transportation, and customs clearance. Businesses should ensure the logistics provider meets container specifications, ensuring safe, high-quality transport to avoid damage or loss. Regular communication with logistics providers and recipients is essential to track shipping progress, customs clearance, and notification of arrival to ensure safe delivery of fresh coconuts and other coconut products (<https://taca.com.vn/xuat-khau-dua/>).

### 2.3. Export turnover of Vietnam's coconut products

2023 saw a significant breakthrough in Vietnam's agricultural exports. Amid general import-export threats, agricultural export turnover of \$ 53 billion was a highlight. Vietnam ranked fourth in the Asia-Pacific region for total export value of coconuts and related products (according to the Vietnam Coconut Association).

Coconut farming is a source of income for about 389,530 farming households. The export turnover of coconut products and related items (such as cakes, candies, cosmetics, wood, handicrafts, etc.) in 2022 reached approximately \$940 million.

In the first months of 2023, economic difficulties led to a sharp decline in the production and business results of the coconut industry. However, in the second and third quarters of 2023, the industry received positive news with coconuts being officially exported to the US and some European countries, while China is considering importing Vietnamese coconuts.

The export turnover of coconut products and related items in 2023 was \$1 billion, and it is projected to exceed this figure in 2024.

**Table 2: Export turnover of coconut products**

Year	2022	2023	Prediction 2024
Export turnover of coconut products (USD)	940 million	1 billion	>1 billion

Source: *nhandan.com*

According to the General Department of Customs, the market for coconut products continues to be maintained and expanded. To date, coconut products from Ben Tre have been exported to nearly 90 countries and territories, with export turnover in 2019 estimated at \$215.34 million, accounting for 22.4% of the province's total export turnover, with an average annual growth rate of 11.93% from 2016 to 2019 (General Department of Customs, 2023).

According to experts, localities growing coconuts need to leverage the advantages of coconut trees to effectively exploit this crop. Efforts should be made to increase the added value of coconut products, diversify product quality and designs, and expand the market for coconut candy (*dangcongsan.vn*, 2020).

While the export prices of dry and fresh coconuts have dropped and the market has become difficult, the market for coconut candy remains favorable. To meet the demands of export markets, coconut candy manufacturers are not only improving packaging designs but also focusing on enhancing quality, such as reducing sweetness and stickiness, increasing fat content, and diversifying flavors and scents (*vov.vn*, 2023). Currently, Ben Tre has more than 40 types of processed coconut products exported to many countries around the world, including desiccated coconut, coir fiber, coconut candy, coconut jelly, etc. Additionally, there are about 100 handicraft products made from the coconut tree, coconut fruit, coconut shell, and coconut fiber that are also in strong demand. Annually, coconut products account for about 20%-30% of Ben Tre's export turnover. The province aims to increase the production and processing value of coconuts by an average of 17.2% per year, with export turnover increasing by an average of 23.6% per year, reaching \$1 billion by 2025.

### 3. Export opportunities for Vietnam's coconut products

#### *Regarding production scale:*

Coconut products for consumption and export are derived from the cultivation, care, harvesting, and processing of coconuts. In recent years, the area under coconut cultivation has been increasing.

**Table 3: Coconut cultivation area in Vietnam in recent years**

Year	2020	2021	2022	2023
Coconut cultivation area	182.000	188.000	194.286	200.000

*Source: Vietnam Coconut Association*

According to the Vietnam Coconut Association, the nationwide coconut cultivation area has been increasing. The Mekong Delta region accounts for over 88% of the country's coconut area. Provinces with the largest coconut cultivation areas include Ben Tre, Tra Vinh, Tien Giang, Vinh Long, and Kien Giang. Besides the current cultivation area, many localities still have available land, especially in saline intrusion areas, which can be used to expand coconut cultivation to meet consumption, processing, and export demands.

The Mekong Delta has a coconut cultivation area of 130,000 hectares, with four main provinces accounting for 110,630 hectares (equivalent to 85% of the Mekong Delta's coconut area), as detailed in the following table:

**Table 4: Coconut production scale in some Mekong Delta provinces**

Provinces	Coconut cultivation area (ha)	Quantity (tons)
Bến Tre	69.000	570.000
Trà Vinh	19.319	223.318
Tiền Giang	14.988	106.185
Vĩnh Long	7.951	112.000

*Source: Hiephoiduabentre.com*

Due to suitable soil conditions and the silt from river systems, the coconuts in the Mekong Delta and Vietnam, in general, are of good quality, with thick flesh and high oil content. Moreover, waterway transportation is favorable for coconut transport in the Mekong Delta due to its low cost. Therefore, the Mekong Delta is referred to as the "Coconut market" of the entire country and is a source of income for over 1.9 million farming households in the region ([hiephoiduabentre.com.vn](http://hiephoiduabentre.com.vn)).

Ben Tre, known as the coconut capital, has an area of more than 78,000 hectares, characterized by products made from this fruit, including the famous coconut candy. Processed coconut products are divided into two groups: refined processing (coconut candy, desiccated coconut, canned coconut milk, canned coconut water, coconut milk powder, activated charcoal, virgin coconut oil, high-value coconut jelly masks) and crude processing (crude coconut oil, crude coconut jelly, coir fiber, coir products, and carbonized charcoal).

The entire Ben Tre province has more than 2,000 coconut processing businesses and establishments, with various types and scales of operation, capable of processing the entire coconut output of the Mekong Delta ([tapchicongthuong.vn](http://tapchicongthuong.vn), 2023).

According to the Ben Tre Department of Agriculture and Rural Development, after the establishment of the coconut value chain, the province now has 32 cooperative groups and 28 cooperatives participating in linkage and production organization, with the cooperation of nine major enterprises in the coconut product chain. These enterprise-linked models have led to the formation of hundreds of preliminary processing establishments, creating many jobs for local workers. Building an organic coconut value chain is significant, especially in linking small producers to form large-scale production, meeting global market demands. Through organic coconut production, the production value has increased, and businesses have secured strong positions in the market, especially in demanding export markets (*Ben Tre Department of Agriculture and Rural Development, 2023*).

Currently, the country has about 854 businesses producing and processing coconut products with various types and scales of operation, such as desiccated coconut, coir; spun fibers from natural products like cotton, flax, jute, coir, and sedge; dried coconuts, providing employment for over 15,000 workers ([viracresearch.com](http://viracresearch.com)).

According to statistics from the Ministry of Agriculture and Rural Development, there are currently 90 businesses exporting coconut products nationwide, with 42 companies exporting deeply processed "Made in Vietnam" products. Nowadays, the coconut industry not only includes companies specializing in coconut production but also many businesses utilizing coconut materials for food production and extracting essential oils for medical purposes. Notably, coconut trunks have great potential for producing coconut wood products (*hanoimoi.vn*).

Besides the direct economic value, coconut trees also contribute significantly to climate change mitigation, as 1 hectare of coconut trees can filter 70-75 tons of CO<sub>2</sub> annually. In the context of Vietnam's commitment to reducing net greenhouse gas emissions to zero by 2050 and Europe implementing the Carbon Border Adjustment Mechanism (CBAM), the economic value of coconut trees will continue to increase through the sale of carbon credits (*bnews.vn*).

**Box 1.** Currently, there are 90 enterprises exporting coconut products nationwide, with 42 of these companies exporting deeply processed "Made in Vietnam" products. Today, coconut industry enterprises are not merely focused on coconut production but also exploit coconut materials to serve the food, healthcare, and cosmetics industries, with over 200 related products. Notably, virgin coconut oil is a high-value product that is very popular with consumers due to the trend towards consuming natural, vegan, healthy foods with low calories and high nutritional value, which also reduces the risk of heart disease. In addition, premium cosmetic products using coconut essential oil, such as shampoo, skin cream, lipstick, mascara, and makeup remover, also have great market potential. Particularly, coconut trunks have significant potential to produce high-value coconut wood products. Overall, the export turnover of deeply processed coconut products and raw materials such as coconut milk powder and desiccated coconut has continuously increased in recent years, strongly driving the coconut industry forward.

Coconut industry products have been exported to top global markets, and within the last five years, the industry has risen to the fourth position in Asia. Statistics show that the export value of coconuts and coconut products in 2022 reached over \$900 million.

In the first quarter of 2023, due to the overall situation, the export value of coconuts dropped by about 32% compared to the same period in 2022, reaching approximately \$215 million. However, in the long term, the export potential of the coconut industry remains vast and will soon reach an export turnover of \$1 billion.

#### **Regarding Market Consumption:**

Vietnam's unique climate and soil conditions, unlike other countries, are ideal for coconut growth, creating a diverse range of products from coconut leaves, fruit, and trunks, exported to countries that do not have these natural advantages. According to the Vietnam Coconut Association, in the past five years, the Vietnamese coconut industry has developed around 200 products, some of which are high-value items exported to demanding markets such as Finland and the United States, thereby affirming the brand of Vietnamese coconuts on the global market (*hanoimoi.vn*).

In the years 2021-2022, Ben Tre's export turnover to the Chinese market exceeded \$360 million, with an average annual growth of 18.42%, accounting for 10-15% of the province's total export turnover each year. China currently seeks to connect and promote the import of Vietnamese coconuts through official channels. Most coconut products, including dry coconuts, coir fiber, candy, coir nets, jelly, desiccated coconut, and coconut milk, are favored in China.

Ben Tre province has significant potential for developing coconuts and coconut products, with 77,000 hectares of coconut plantations producing over 600 million coconuts annually. The production value of the coconut processing industry reaches 3,500 billion VND, accounting for nearly 10% of the province's industrial production value. Each year, Ben Tre's coconut export turnover reaches approximately \$350 million, to 90 countries and territories, primarily the United States, the Middle East, Africa, the EU, China, South Korea, Japan, and Australia (*congthuong.vn*, 2023).

Currently, the U.S. market is second only to China. Each year, the U.S. imports about 2,000 containers of fresh coconuts from various countries. However, Vietnamese enterprises have only exported about 110-120 containers of fresh coconuts to the U.S. annually. This indicates significant potential for increasing the market share of Vietnamese coconuts in the U.S.

According to the Ben Tre Coconut Association, the province currently has about 180 businesses and nearly 2,400 establishments producing and processing coconut products such as coconut shell products, coir, coir pith, products made from coir, coconut shell, preliminary processed coconut meat, desiccated coconut, coconut milk, coconut milk powder, coconut candy, and various coconut-based cosmetics. Ben Tre's coconut products are present in over 90 countries and territories. The province identifies coconuts as a strategic crop for development goals by 2025, with an orientation towards 2030, and is investing significantly in the coconut processing industry. The coconut industry is considered one of the key industries influencing the province's development. To achieve this, the provincial leaders and relevant departments in Ben Tre have been making great efforts to create a sustainable path for coconuts and implement various solutions to expand the consumption market. This contributes to enhancing the position of coconuts and providing stable and sustainable income for coconut growers ([kinhtetrunguoc.vn](http://kinhtetrunguoc.vn)).

### ***Regarding processing technology:***

To meet market demands, companies have continuously invested in modernizing production technologies and enhancing deep processing to bring to market many high-end, high-value-added products that are very popular in export markets. The development of numerous new products has brought significant value to the coconut processing industry and meets diverse, environmentally friendly usage needs: virgin coconut oil (VCO), coconut masks, coconut oil-based hand sanitizers, paper made from coconut husks used for packaging, bags, interior decoration, art, calligraphy, and more, replacing plastic and nylon products. Products with good nutritional value for health include coconut nectar, which can be processed into products such as sugar, vinegar, wine, high-proof alcohol, and soft drinks, fitting current consumption trends.

Many models of large-scale commodity production, linked production following GAP and organic standards, with market consumption connections, have been established and are increasingly developing. Particularly, the coconut product chain is quite large with a wide level of linkage, with about 30% of coconut products being deeply processed for export. As of now, the area of organic coconut in Ben Tre province has reached over 18,000 hectares, with 11,630 hectares certified according to US, Japanese, EU, Chinese, Korean, and Taiwanese standards ([nhandan.vn](http://nhandan.vn), 2023).

Currently, thanks to the application of scientific and technological advancements in production, the coconut processing industry in Ben Tre has made remarkable progress, quickly integrating with the global coconut processing industry. Modern processing technology has diversified and improved product quality.

Ben Tre prides itself on its advanced coconut processing technology. Ten years ago, Ben Tre's coconut processing technology lagged behind Sri Lanka by about a decade; now, Sri Lankan experts state that our coconut processing technology is ten years ahead of theirs.

High-end product lines, well-standardized in terms of quality and variety, and increased added value of processed coconut products such as coconut milk, coconut cream, virgin coconut oil, and products made from virgin coconut oil have been exported to many countries and territories worldwide. Traditional products like coconut candy, coir, and desiccated coconut tend to decline. New product categories such as coconut milk, canned coconut water, activated charcoal, and coconut oil are on the rise.

Thanks to processing techniques, prominent products such as virgin coconut oil, coconut masks, coconut oil-based hand sanitizers, paper made from coconut husks used for packaging, bags, interior decoration, art, and calligraphy have replaced plastic and nylon products. Health-nutritious products like coconut nectar can be processed into sugar, vinegar, wine, high-proof alcohol, and soft drinks, fitting current consumption trends ([vista.gov.vn](http://vista.gov.vn)).

### ***Supports from coconut associations and craft villages:***

The Ministry of Industry and Trade, which manages the coconut tree, has invested in research funding for many years, specifically funding scientific research for the Oil and Oil Plants Research Institute (Ho Chi Minh City); the Dong Go Coconut Center (Ben Tre), the Trang Bang Seed Center (Tay Ninh); and implemented the Coconut Project with numerous training and educational programs for coconut farmers nationwide. These include overseas study programs for coconut researchers, importing new coconut

varieties such as Pineapple Coconut and Wax Coconut, transferring research results on coconut tissue/embryo culture, and facilitating Vietnam's membership in the Asian and Pacific Coconut Community (APCC) to access new technologies, products, and advanced equipment. Support has also been provided for establishing the Vietnam Coconut Association, bringing together businesses, researchers, and coconut farmers to develop the coconut industry. Various industry promotion and national trade promotion programs have been organized, incorporating coconut product trade promotion for coconut-growing provinces, and providing funding for planning and developing industrial zones/clusters to attract investment in coconut product processing.

The Ministry of Agriculture and Rural Development, previously responsible for managing coconut trees, has supported the introduction of parasitic bees to control coconut pests. Ben Tre province has successfully bred and transferred parasitic bee breeding techniques to the community, with the community and the Department of Agriculture and Rural Development continuing to release parasitic bees into the wild to control harmful coconut beetles.

The Ministry of Science and Technology has recently invested in several local coconut research projects, supporting businesses with loans from the national science and technology development fund. The Ministry of Planning and Investment, through the national investment promotion program, has facilitated the province's call for and attraction of investment in the coconut processing sector.

Ben Tre province and the Mekong Delta provinces in general, recognize the coconut industry as crucial for poverty reduction, job creation for rural workers, income enhancement, and significant budget contributions. Given the rapid climate change, which heavily impacts the Mekong Delta, coconut trees will be essential for climate adaptation. Hence, there have been numerous positive activities to support the coconut industry, including:

The Coconut Development Program until 2020, with many component projects focusing on all areas from breeding, intercropping models, pest control, and tourism projects reflecting the coconut culture. Projects for the development of the processing industry, including coconut processing. Plans for the development of priority and key industries (including the orientation to attract investment in coconut processing). Industry promotion and trade promotion programs for the coconut industry. Supports for the establishment and operation of the Ben Tre Coconut Association. Coconut industry science and technology programs. Science and technology development funds prioritizing loans for equipment and technology renewal in the coconut processing industry. Agricultural extension programs supporting technical assistance and quality seed supply to farmers.

Efforts are also focused on upgrading and improving rural transportation; creating specific investment incentive policies to encourage and attract investment in the coconut processing sector; supporting the construction of organic and GAP coconut farming models; and building production and consumption links (*hiephoiduabentre.com.vn*).

During its first term of 13 years (2010-2023), the Vietnam Coconut Association has timely advised relevant ministries and sectors on policies and orientations for the Vietnamese coconut industry and linked with sectors related to coconuts, such as the food industry, handicraft industry, cultivation, and post-harvest technology, to enhance the value of coconuts and increase the competitiveness of coconut industry products.

The Association has also accompanied residents and businesses in enhancing the exploitation and production capabilities of coconut products, affirming the brand and reputation of coconut products in domestic and international markets, thereby increasing export turnover for the Vietnamese coconut industry.

The biggest goal of the Vietnam Coconut Association is to make the coconut industry a key production and export sector, maximizing the economic value of coconut products. The Association will continue to build standardized coconut raw material areas, aiming to create a coconut map nationwide as a data source for investors and businesses to reference and support the development of the coconut industry.

Notably, the Association will work with coconut farmers in cultivation, harvesting, and processing to help stabilize coconut prices. It will also support coconut industry enterprises in enhancing competitiveness, developing markets, and affirming product brands domestically and internationally (*bnews.vn*, 2023).

#### **4. Threats for exporting coconut products in Vietnam**

##### ***Food hygiene and safety issues***

Currently, Vietnam's national standard system (abbreviated as TCVN) has about 13,000 TCVN. Among them, there are 182 TCVNs on fruits and vegetables and fruit and vegetable products, including product



standards, codes of practice and test method standards. Regarding coconuts and coconut products, there are currently the following standards, for coconuts and seedlings with TCVN 10684-5:2018 Perennial industrial plants – Standards of seedlings, seeds – Part 5: Coconut trees. TCVN 10738: 2015 Fresh coconut, built on the basis of reference to ASEAN standard STAN 15: 2009 Young coconut.

For coconut products with standards such as TCVN 11412: 2016 (CODEX STAN 240-2003) Liquid coconut products – Coconut milk and coconut cream, accept CODEX STAN 240-2003 Aqueous coconut products: coconut milk and coconut cream. TCVN 9763:2013 (CODEX STAN 177-1991, Rev.1-2011) Dried copra, accepted CODEX STAN 177-1991, Rev.1-2011 Grated desiccated coconut. TCVN 9218:2012 Code of hygiene practice for dried copra, refer to CAC/RCP 4-1971 Hygienic practice for desiccated coconut. TCVN 7597:2018 Vegetable oils, refer to CODEX STAN 210:1999 (amended 2015) Vegetable oils, including crude coconut oil.

Thus, standards for fresh fruit coconuts are in harmony with ASEAN standards (English name: Association of Southeast Asian Nations), standards for coconut products (coconut milk, coconut cream, dried copra, coconut oil) are basically in harmony with CODEX standards (English name: Codex Alimentarius), the standard for coconut tree varieties is self-constructed, there is currently no regional or international standard (*btusta.vn*).

Exporters also face obstacles when entering the world market due to regulations of importing countries on quality, food hygiene and safety, very strict inspection will be a big barrier for export activities (*tapchicongthuong.vn*).

Coconut candy exports face many difficulties, especially in terms of food hygiene and safety and sugar and flavoring ingredients in candy. To access and open export markets, Vietnam needs to comply with regulations on food safety and promote taste research to expand export markets with a variety of coconut candies. At the same time, building a national brand and ensuring traceability records are also important issues raised in the coconut export industry in general and coconut candy in particular of Vietnam.

Many enterprises and production facilities have not paid much attention to production technology. The application of the management system, international standard conditions, food safety and hygiene standards in some places is still disregarded..

Exporting coconuts to Europe is becoming more and more demanding in terms of procedures, quality and packaging. Vietnamese businesses are facing many difficulties in meeting those needs (*vietpacking.vn*).

**Figure 2. Requirements when exporting fresh coconuts to the EU**



Source: *boxes.com.vn*

Specifically, for fresh coconut products when exported to the EU, it is necessary to meet the following conditions:

- Not too much pesticide and pollutant content: Pesticide residues are an important problem. The European Union has set maximum residue levels (MRLs) to limit the amount of pesticide and other contaminants on food. Coconuts have a natural shell that provides quite good protection, but the use of pesticides and injections into trees can lead to excessive chemical flow. The bleaching of young coconuts needs to be strictly followed as some chemicals are banned in the EU market.

- Coconut export standards for quality: Exported coconuts need to meet basic standards such as no scratches, clean storage, no problems visible to the naked eye. There are no signs of pests and diseases and

are not affected by them, external humidity has no signs of abnormalities (except in the case of taking out from a cold room). Coconuts should not appear strange smells and tastes.

- Coconut export standards in size and packaging: Fresh coconuts are usually packed in jute bags or sacks, then put into cartons for shipping. Each barrel weighs about 25kg. Young coconuts can be peeled into diamond shapes before packaging. The size of the carton depends on the weight of the fruit, which is usually according to ASEAN standards.

And when exporting coconuts to China, it is also necessary to ensure compliance with the requirements, because from the beginning of 2022, the import conditions for agricultural products and plant-based products in this market are increasingly strict. Many new policies on food safety management have been established, so besides opportunities, Vietnam's agricultural industry also faces many threats. Here are a few coconut export standards that China sets:

– It is necessary to comply with the standards of the Food Standards Committee, administered by the International Food and Agriculture Organization (FAO) and the World Health Organization (WHO). The maximum allowable residue level of pesticides should be ensured.

– Strictly implement phytosanitary measures (CPM) and the International Plant Protection Convention (IPPC), helping to ensure product traceability and handle issues related to food safety.

- Provide full information in the declaration forms (commercial, shipping) and pay all fees. Customs accepts it only after the import duties and other fees have been settled (*boxes.com.vn*).

Enterprises producing frozen coconut water when exporting to China must strictly comply with Regulations 248, 249 on business registration, as well as the country's import and export food safety management. In addition, regularly update regulations on food safety, regulations on food packaging materials, regulations on label packaging of the General Administration of China Customs to promptly meet regulations of the importing country. This tightening comes when in early 2024, the National Sanitary and Phytosanitary and Phytosanitary Notification Office and Inquiry Point (SPS Vietnam Office) received Official Power No. TCOCD 018 from the Embassy of Vietnam in China, announcing that the General Department of Customs of China detected frozen coconut water products of Vietnam in quantity coliform bacteria, yeast, mold exceed the permissible food safety threshold (food safety), according to Chinese regulations (*congthuong.vn*).

### ***Competition issues***

In the first months of 2024, due to the difficult economic situation, the production and business results of the coconut industry will decline sharply. However, before that, in Q2 and 3/2023, the coconut industry received many good news when coconuts were officially exported to the US market and some European countries; and China is considering allowing Vietnamese coconuts to be exported to the country (*nhandan.vn*, 2023).

Before that, in 2010, Brazil was still the world's leading producer of coconut products. However, after 2010, Asian countries experienced an incredible growth in this industry. At the moment, nearly 90% of global supply comes from Asian countries, where the industry has become a very important source of income for many countries. For example, revenue from coconut exports accounts for 50% of Vanuatu's revenues, and 1.5% of the Philippines' revenues. The Solomon Islands and Samoa mainly export oil and dried coconut, while India, the Philippines, and Sri Lanka focus on products such as dried copra and have dominated this market for more than 1 century. In the Philippines alone, the average annual export to the US is more than \$ 1 billion for coconut products.

The largest coconut growing country is Indonesia with 3.8 million hectares, followed by the Philippines with 3.2 million hectares, followed by India, Sri Lanka and Thailand. Currently, there are more than 100 products produced from coconut trees. In 2010, the Philippines exported more than 50 types of coconut products bringing in nearly US\$1.5 billion in foreign currency, contributing more than 3% of the total export value; Indonesia is no less, earning more than \$944 million for the country.

Vietnam's coconut area is only 4.2% of Indonesia's coconut area, 4.5% of the Philippines' coconut area, 8.4% of India's coconut area, 40.5% of Sri Lanka's coconut area. However, the average coconut yield of Vietnam (Ta Ben Tre coconut) reached 9,863 fruits / ha / year equivalent to 1.9 tons of copra / ha, higher than the average of countries of the Asia-Pacific Coconut Association (APCC, only 0.9 tons of copra / ha), the Philippines, Indonesia (0.85 tons), India (1.1 tons) (*hiephoiduabentre.com*).

**Table 5: Top 10 nations with the highest coconut production**

Rank	Nation	Output million tons
1	Indonesia	17.13
2	Philippines	14.77
3	India	14.68
4	Sri Lanka	2.47
5	Brazil	2.33
6	Vietnam	1.68
7	Mexico	1.29
8	Papua New Guinea	1.19
9	Thailand	0.81
10	Malaysia	0.54

Source: <https://www.worldatlas.com/articles/the-world-leaders-in-coconut-production.html>

Vietnam is in the top 10 countries with the highest coconut production, but still modest compared to Indonesia and the Philippines.

In terms of exporting coconut products, Vietnam's competitiveness has not surpassed Thailand, which is ranked 3rd in coconut exports in the international market after Indonesia and the Philippines. In the period of 2019 – 2021, export turnover grew strongly due to the demand of major markets such as the US and China. The main export product group includes young coconut, organic coconut, peeled coconut and coconut products (dried coconut, coconut essential oil, sheep and coconut milk) ([vinhlong.gov.vn](http://vinhlong.gov.vn)).

#### ***Production technology of coconut products***

Coconut products are very popular with consumers around the world because of their high nutritional value, which is a source of healthy fat supplements for many different groups. Along with the trend of consuming natural and vegan foods, the demand for coconut products is increasing. Vietnam has natural conditions to develop a specialized coconut cultivation area. The coconut processing industry is also shaped with a number of factories with modern technology, investment in research and development of value-added products. However, the market space is still very large, if you know the effective approach, it will continue to grow strongly in the near future ([bnews.vn](http://bnews.vn)).

Some inadequacies that are currently being proposed are that there is no document of the functional sector regulating drinking coconuts or raw coconuts to prioritize export in the near future, there is no specific industry code for relevant sectors to encourage to create administrative leverage, institutions and tax incentives for which coconuts should be exported, which coconuts restrict export as raw materials for the domestic business community.

Coconut wood has not been classified into a specific industry group, has not been granted an industry code for production and circulation on the market. Meanwhile, these are industries with very high value but lack economic value, lack of foothold in the market today.

In addition to enterprises processing copra, coconut water, the coconut industry ecosystem also has many handicraft processing facilities from coconut shell shells, coconut wood, coconut fiber... contributing to adding economic value to coconut trees and solving environmental problems. Currently, in addition to some large enterprises investing in processing coconut water and copra, the rest such as coconut fiber, coconut shell, coconut wood are used for partial processing with rudimentary technology.

The market demand for coconut products is increasing, especially in the US, China and Middle East markets. However, to invest in a coconut processing factory meeting export standards requires large initial capital, long payback time, so it is quite picky for investors, especially in the current difficult economic period ([thoibaotaichinhvietnam.vn](http://thoibaotaichinhvietnam.vn)).

Coconut products are nonetheless of natural origin, so the challenge of preservation and processing technology to retain nutrients, diversify products, suitable for travel distance, weather conditions in importing countries as well as consumption habits of international customers.

Coconut processing enterprises face pressure to innovate technology, some enterprises face capital difficulties in technological innovation, therefore, still maintain production, processing and export of raw products, leading to low business efficiency or losses (*tapchicongthuong.vn*).

### ***The market for coconut products is unstable***

*Source of raw materials:* In the context that many countries allow official imports of Vietnamese fresh coconuts, many processing enterprises are concerned about the "bleeding" of raw coconuts or preliminary processed products at low prices, while domestic processing enterprises do not have enough raw materials for production (*bnews.vn*).

Vietnamese coconut products have great potential, especially deep-processed products, applying high technology, organic production ...It can be seen that at present, the coconut industry is not only an enterprise specializing in coconut production but also many enterprises exploiting raw materials from coconut such as food production, essential oil production in the medical field. In particular, coconut tree stems are having great exploitation potential to produce coconut wood products.

Currently, the two main raw material areas in Ben Tre and Tien Giang basically meet the needs of the world market. However, the annual saltwater intrusion season in the Mekong Delta is reducing productivity and output, causing a shortage of coconut raw materials for export processing. Although the coconut industry has made many positive changes recently, it is still facing some difficulties and threats in investing in organic coconut material areas when there are no specific regional policies to build projects (*thoibaotaichinhvietnam.vn*)

Climate change has a great impact on the growth of coconut trees. According to the United Nations Development Programme (UNDP), Vietnam is in the list of the top 5 countries in the world most vulnerable to climate change. If the sea level rise is 3-5m, this means that there could be a disaster in Vietnam.

Salt water is increasing the level of intrusion into the Mekong Delta provinces. If in early January 2013 salt water only entered Ben Tre, on March 14, 2017 it entered the provinces: Kien Giang, Tra Vinh, Tien Giang, Hau Giang, Vinh Long ... In Ben Tre, salt water has encroached deep into 3 districts: Giong Trom, Ba Tri, Binh Dai, salinity from 5-27%. On the Ham Luong River, salt water has encroached as deep as the Ham Luong Bridge. Thousands of hectares of crops have been affected. In Long An, salt water has overflowed into Vam Co Dong and Vam Co Tay rivers. In Can Giuoc district, on the Rach Cat River, salinity measured up to 11.6%.

Currently, Ben Tre's coconut processing enterprises, if running at full capacity, will consume about 1.1 billion dried coconuts each year, not to mention that there are currently 03 new investment enterprises and 02 enterprises expanding production scale that have not yet come into operation. Thus, the shortage of coconut raw materials will be the biggest challenge for coconut processing enterprises in the near future (*tapchicongthuong.vn*).

*Consumption market:* the output market for coconut products is unstable. Although Ben Tre's coconut products are present in more than 90 different countries and territories around the world, global economic fluctuations may affect export markets in the future. Continuing to consolidate and increase market share in markets around the world is a great challenge for Ben Tre's coconut exporters (*tapchicongthuong.vn*).

The Covid-19 pandemic has significantly affected Vietnam's import markets for coconut products. Businesses are anxious to find new markets in the face of the COVID-19 pandemic and the overall impact of the global economy.

According to businesses, the first quarter of 2022 exports were not equal to one month of the previous year. The number of Siamese coconuts exported, the US market alone accounts for about 40%, but so far it has not been exported. Currently, the main Siamese coconut export markets of enterprises in the province are Korea, Australia, Japan, Taiwan (China), Singapore ...

The reason for the export of Siamese coconut is reduced is that the freight is 3-6 times higher than before. Besides, the purchase price of Siamese coconuts in the province is increasing due to low output and the domestic market is sucking goods, therefore, enterprises cannot export.

In addition, in the first quarter of 2022, the number of dried coconuts exported to this market decreased by nearly 80%, while coir thread was almost impossible to export. Currently, businesses have shifted dried coconut exports to the Thai market, but, currently, the price of dried coconuts in the province is falling quite a lot, only from 40,000-50,000 VND/dozen and many establishments temporarily suspend purchase (*baotintuc.vn*).

And when the US and China had a written agreement to accept the import of fresh coconut products from Vietnam, the demand in this market increased significantly, also putting supply pressure on Vietnam.

## **5. Some solutions to promote the export of coconut products of Vietnam**

### **5.1. Forecast and export orientation of coconut products of Vietnam** - Forecast of demand for coconut products in Vietnam

According to world-class Forecast Centers, the increase in demand for coconut products worldwide to 2025 is as follows:

Coconut milk increased by 15%, of which HC coconut milk increased by 8.5%. Coconut jelly rose 5.6%. Coconut flour rose 6.6%. Coconut ice cream increased by 36%. Coconut water increased by 25%. Pure coconut oil rose 21%. Average increase of over 10%

The increase was high on the grounds of changing consumer preferences and acceptance of the trend of consuming healthy, natural vegan foods that are low in calories and have high nutritional value, reducing cardiovascular risk (*btusta.vn*).

- The demand for organic coconuts is huge

Ben Tre province has over 78,000 ha of coconuts, of which more than 17,200ha meet organic standards. Organic coconut in Ben Tre is mainly industrial coconut used to make products such as pure coconut oil, coconut milk, desiccated copra (different from drinking coconut) (*vca.org.vn*).

Organic coconut certification is more about farming, GlobalGAP certification focuses more on occupational safety in farming. The Fairtrade Fair Trade Standard is a higher standard, which favors the welfare of farmers. For example, a normal coconut sells for 10,000 VND, organic coconuts are bought by 5-10%; and Fairtrade coconuts will be paid an additional 10-15% (*danviet.vn*).

- Exports of fresh coconuts increase

Currently, coconuts as food exports annually reach about 250 million USD; of which 2/3 are processed products. If we continue to increase the export of fresh coconuts, the export value of coconuts will be more prosperous, the income of coconut growers will also be better, not as precarious as in recent times. That is the motivation for farmers to take care of and invest in coconut gardens (*vca.org.vn*).

Recently, Vietnam increased the export of coconut water to the Chinese market according to the Protocol that the two countries signed. The US market is also starting to receive Vietnamese coconuts.

- Focus on raw materials for production

Vietnamese enterprises need to actively focus on developing raw material sources. Currently, the raw material area is not really stable. Therefore, when foreign markets open, we must have policies on production, development strategies as well as prices.

- Focus on production technology

Currently, the coconut business community has boldly invested in technology and built planting areas. Many coconut farms have an area of over 100 hectares to grow specialized coconuts, especially in new provinces such as Tay Ninh, Binh Thuan, Khanh Hoa and Binh Dinh. At the same time, the coconut industry also wishes to develop and build coconut trees into national key trees in the coming time (*thoibaotaichinhvietnam.vn*).

### **5.2. Solutions to promote the export of coconut products of Vietnam**

#### **5.2.1. Solutions from the State/Vietnam Coconut Association**

- Assist in negotiating and disseminating international rules in the export of coconut products. The state represents the interests and voice of companies exporting coconut products, carrying out negotiations so that these products "widen the way" to import into countries. In addition, the State supports enterprises in complying with international food safety standards and receiving appropriate certification, helping to strengthen trust from export partners. Vietnam should soon disseminate regulations on food safety for plant-based goods in accordance with importing countries. Ensuring compliance with the standards and regulations of the host country is mandatory, right from the stage of inspection and export of products must be handled thoroughly. It is necessary to soon apply international standards, Vietnamese enterprises must research to innovate technology and take international and regional standards to apply to production.

In the upcoming plan, the Vietnam Coconut Association needs to build more coconut associations in many provinces and cities across the country. In each province, the association will be established by the province and the Vietnam Coconut Association will be a member to support its members.

The State and the Association need to gradually develop their own sets of standards and rules for coconuts. For example, a set of seedling standards, confirming the origin of coconut wood.

- *Cooperation between state agencies, coconut farming households/cooperatives, production and trading enterprises, coconut associations and scientists.* This cooperation to orient households/cooperatives in planting, caring for and collecting raw coconut products has full records to help traceability. After that, the cooperation of scientists, breeding new coconut varieties and offering recipes for processing coconut products in accordance with imported market tastes; introduce measures to limit saltwater intrusion into coconut growing areas. The cooperation between businesses to create a smooth production and supply chain of coconut products, adding value to these products. It is the coordination and investment of state agencies that will help create conditions for infrastructure, legal corridors – regulations that are essential for enterprises exporting coconut products.

The State formulating a coconut export strategy should prioritize deeply processed products with high value-added content.

At the same time, in order to maintain and expand the area of specialized coconut cultivation, meeting export standards, the organization of linking material areas and long-term purchasing commitments for farmers is extremely important. To do this, state management agencies and each locality must have specific coconut growing area planning, support the issuance of planting area codes, and guide sustainable farming techniques to reduce pressure on enterprises.

In terms of long-term solutions, the Department of Agricultural Product Processing and Market Development (MARD) will coordinate with units to expand exports to markets such as Australia, Korea, Japan, Singapore ...; coordinate with MARD units to propose and support the construction of raw material areas for coconuts and coconut processed products.

- *Strengthen strict inspection and supervision, and establish mechanisms to strictly handle acts of abuse of chemicals and additives in the production process of coconut products.* It is necessary to restore and maintain the models of handicraft villages producing coconut candy with long-standing traditional values, building geographical indications and brands of regional specialty coconut candies, OCOF products... In addition, the Government needs to create conditions for building a national brand identity for the coconut food industry; MARD needs to include coconut trees in the Project on key industrial tree development until 2030.

Localities enhance the provision of information on foreign markets through various forms; Monitor and regularly contact businesses to promptly grasp the operation of the business. Thereby, promptly removing difficulties and supporting in goods export activities of enterprises.

In addition, the functional sector is in close contact with Ambassadors abroad, Trade Counselors in countries that are key and potential export markets of the province, to understand the needs, tastes, warnings about the market... From there, timely information to businesses and especially thanks to ambassadors to support connecting businesses in the province with importers of other countries, focusing on countries in Free Trade Agreements (FTAs).

Local agencies need to actively invest in intra-regional and inter-regional transport and logistics infrastructure to facilitate the purchase and transportation of coconuts in particular and agricultural products in general. From there, enterprises will be assured to invest in processing plants, expand the value chain, improve economic efficiency for coconut growers; improve export turnover and aim to build a brand for Vietnamese coconut products.

### **5.2.2. Solutions on the part of coconut farming households/cooperatives and businesses**

#### *- Production focus*

Coconut farming households/cooperatives actively plant, care for and apply science in all stages, ensuring the source of coconut raw materials in both quantity and quality. At the same time, businesses need to upgrade infrastructure, workshops, and tools that directly create products in the production process of coconut products. Apply food safety and quality management programs in the production of coconut products. In particular, pay attention to product packaging and labeling to ensure food safety and environmental protection. In addition to the program of building sustainable growing areas, coconut processing and exporting enterprises spend resources on researching and developing coconut embryos that are resistant to salinity drought and fertilizer support policies for coconut farmers to reduce input costs.

#### *- Actively communicate and promote the brand of coconut products of Vietnam*

To create a premise for communication, businesses need to invest and research a variety of product designs and packaging to create luxury, convenience and attractiveness for Vietnamese coconut products. On the other hand, businesses bringing coconut products participate in e-commerce trading platforms, cross-border e-commerce platforms to expand export markets. Coconut exporters through e-commerce channels such as organizing online markets, participating in major e-commerce platforms such as Amazon, Alibaba ... to boost exports.

Enterprises participate in exhibitions and exhibitions, promotion activities in foreign markets, introduce and try to experience coconut products at these promotion activities

- *Towards sustainable export of coconut products of Vietnam*

Ensuring that planting, collecting, producing, exporting coconut products is done in a sustainable and socially responsible manner, which can help strengthen brand image and value. Implementing business activities that benefit the community and the environment can help strengthen brand image and value.

At the same time as the sustainable export of coconut products, businesses can move towards selling carbon credits.

Enterprises producing and exporting coconut products can borrow "green capital" at commercial banks, carry out activities under the agreements of the parties towards creating quality coconut products, helping that capital to proliferate.

Besides, it is possible to learn from the experience of exporting coconut products in other countries that also carry out this activity. Since then, seeking to export Vietnamese coconuts to one of the world's leading coconut producing countries, diversify as well as create sustainable import markets for Vietnam's coconut products

## Conclusion

Coconuts and coconut products are considered a highly resilient commodity of Vietnamese agricultural products. Vietnam's exports of coconuts and coconut products recorded significant growth. Over the years, coconut has become one of the main export products of some localities and enterprises, in which coconut export to the US market is the largest. Coconut products include traditional products: culinary products (unprocessed, processed); handicraft products and new products: beauty, health, energy... All parts of coconut trees are valuable, meeting international market tastes, especially countries without coconut trees. Vietnam's export opportunities for coconut products are therefore huge. For example, Ben Tre has five key coconut products, accounting for 80% of Ben Tre coconut's export turnover. These five products include coconut milk, desiccated copra, canned coconut water, activated charcoal and coir thread. Many businesses believe that Vietnam's coconut industry still has many difficulties that need to be solved, especially in logistics. When compared to Thailand, Vietnam's coconut prices are currently quite good, but in terms of logistics, Thailand has many advantages and the government also has policies to support freight. The domestic coconut export industry currently lacks connectivity. To access and increase the export turnover of products to the international market requires the efforts of many agencies, departments, the business community and coconut farmers. Besides, it is necessary to have methodical and prudent plans to create a stronger, longer-term brand. The Coconut Association implements many plans in branding the coconut industry, as well as promoting the association of growing areas up to organic standards. From there, proceed to the traceability as well as protection of coconut industry product brands in domestic and foreign markets. At the same time, the association also makes efforts to coordinate with relevant units to support localities to register first-of-the-line varieties; support enterprises to register breed ownership to increase reliability and competitiveness for products.

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