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The Present and Future of the Coconut Cultivation towards the Export Industry: A Case on the Coconut Triangle in Sri Lanka

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

In Sri Lanka, Coconut (*Cocos nucifera* L.) provides a livelihood for several million people from the production, processing, and marketing. It's a major plantation product in the country. It is grown in all districts. The coconut triangle, which is distributed in the districts of Kurunegala, Puttalam, and Gampaha, accounts for about 55 per cent of the land used for coconut cultivation. The study was carried out to determine the status of coconut growers' knowledge of new opportunities and trends in the export market within the coconut triangle. Primary data obtained from a sample survey in the coconut triangle. The study area was covered based on the extent of cultivation. The stratified random sampling method was used to select a sample of 100 coconut growers and data were collected through a structured pre-tested questionnaire. Data were analysed through the SPSS

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(Statistical Package for Social Sciences) software using descriptive statistics, correlation analysis and chi-squared test. Five-point Likert scaling was used to determine the coconut growers' attitudes towards the status of the coconut export industry. The findings of the study revealed that more than half of the coconut growers in the study area (55%) cultivated coconut as their main primary occupation. The younger generation's participation was very poor in coconut cultivation. Furthermore, highest percentage (81%) of the growers have moderate attitudes towards the exportation of coconut products. There was a positive and highly significant correlation observed between the coconut growers' attitudes towards the existing coconut industry and attitudes towards the coconut export products at 0.01 level of probability and no significant association was found between the selected independent variables and the coconut growers' attitudes towards the status of the coconut export products.

Keywords: Attitude; coconut triangle; coconut water; export market; plantation.

1. INTRODUCTION

Being an island, Sri Lanka is endowed with the best environmental conditions for agriculture, which is deliberately pursued in the direction of sustainability. Sri Lanka's agriculture industry has contributed significantly to reducing rural poverty, enhancing food security and employment opportunities. The sector is principally fuelled by several unique subsectors, including crop cultivations such as rice, tea, rubber, coconut, vegetables, fruits and sugar, as well as the livestock and fisheries sectors, each of which makes significant contributions. The agriculture sector in Sri Lanka always acts as a major economic strength to the national economy as it ensures food security, employment, and poverty alleviation of rural communities [1]. In terms of Sri Lankan culture, food consumption, and economics, coconut is a significant perennial crop. In Sri Lankan diets, it ranks second in importance only to rice [2]. The origin of coconut in Sri Lanka traces a long history. Many historical records provide proof of its significance as an ingredient in domestic consumption as well as in the commercial sphere. Since it can be used for so many different things, Coconut is a very popular crop. Over 1,095,982 acres (ac) are used for the cultivation of coconut, with Kurunegala, Puttalam, Gampaha, and Colombo accounting for over 70% of this total. From the total cultivation extent, 917,307acres are considered small holdings [3]. In Sri Lanka, the smallholders' sector accounts for 83.7% of all coconut cultivation lands, demonstrating the significant contribution this sector makes to the country's coconut output. The rest is the estate sector, where private and public parties operate [4]. Main coconut growing regions are in the North Western Province (NWP) under the Kurunegala and Puttalam districts and the Gampaha district, which is a part of the Western Province [5]. The Southern Province, sometimes known as the "Mini coconut triangle," which consists of the districts of Galle (12,543 ha), Matara (14,398 ha), and Hambantota (20,733 ha), is where the remaining coconut-growing region is situated. The Southern Province accounts for about 12 per cent of the land used for coconut cultivation [4].

People involved in the cultivation, production, plucking, processing of nut-related by-products, marketing, and processing of related items such as coir, leaves, timber, etc. can find plenty of work opportunities in the coconut business. Coconut-based products had a positive trend from March 2021 to March 2022, generating US $104.7 million in foreign exchange and accounting for 17.28% of agricultural exports during the January–March 2022 quarter [5]. Sri Lanka has earned foreign exchange earnings worth US$ 836.1 million by exporting coconut and coconut-based products in 2021. In 2021, Sri Lanka exported coconuts and products derived from them, generating US$ 836.1 million in foreign exchange revenues. Due to its history, geographic position, skilled manpower, and contemporary, domestic processing technology, Sri Lanka enjoys a comparative advantage in this field. When it comes to exporting coconut milk, cream, and milk powder, Sri Lanka leads the world. The nation placed third for desiccated coconut and second for coir and coir-related products in the 2018 worldwide rankings [6].

Kernel and non-kernel goods are the two separate sub-sectors that make up the coconut processing industry. Coconut oil, coconut cream, coconut milk powder, copra, and desiccated coconut are the main goods made from coconuts. Inputs for fresh coconut production include labour, agrochemicals and fertiliser, seedlings and management [7]. The processors

receive the output with the involvement of different chain actors. Direct sales to processors are not usual. Chain actors that interact directly with processors include cooperative organisations operating on a contract basis and estate-level plantations. The longest chain typically consists of primary collectors, secondary collectors, wholesalers, and brokers at the village level who then connect to the processors [8]. The non-kernel sector products are based on the coconut's husk and shell. Products made from husks include coir pith, mattress fibre, bristle fibre, and other goods with added value. Coconut husk is one of the remnants from fresh coconuts. This husk is primarily collected from coconut growers selling the husked coconuts to buyers or from the remaining nuts kept for household consumption. Generally, the fresh nuts are sold with the husk to collectors. The husks are what the coir processors buy as raw materials for the fibre processing industry. After being chopped into village-level chips, these husks are sold to producers who then sell to overseas consumers. Different technologies are used by coir millers to process the husks [4]. Particle size or length determines the production of three types of fibre. The best coir dust, or pith, is dried by contractors at the village level and sold to exporters [4]. Markets for bristle and mattress fibre are mainly the export market followed by the local market. Value addition is prominent in the export fibre market. Shell products constitute activated carbon, charcoal, and shell powder. The raw material that is primarily gathered from processors is shells. Village-level collectors are used to gather the remaining amount [4]. The coconut shell is a by-product of coconut, the outer layer of a husked nut (endocarp). These are gathered from fresh nut consumers or kernel processors. Processors sell the produce to the following chain actors. Charcoal manufacturers and activated carbon processors sell their products to the export market mainly through direct sales to overseas buyers [4]. Products with kernels were the most often used and dominated category as compared to non-kernel products. Due to its excellent kernel flavour, Coconuts grown in Sri Lanka offer unique properties. Sri Lanka thus obtains a competitive edge over coconut in the global market. The abundance of prospects in global markets has also led to a simultaneous expansion in the industrial use of coconut. Many recent entrants looking for more opportunities were attracted to the business by this [4].

However, the central question focuses on whether these agro-industries are sustainable enough to cater for the flourishing demand and ready for the next leap in the sector, creating favourable prospects. Hence, the study attempted to explore the current status, constraints and opportunities in the coconut kernel-based export industries in Sri Lanka. The coconut sector in Sri Lanka has shown consistent development in the recent decade, with a large increase in export value between 2020 and 2021. The export revenues from coconut goods in 2021 were USD 836.1 million, representing a 25.80% increase over

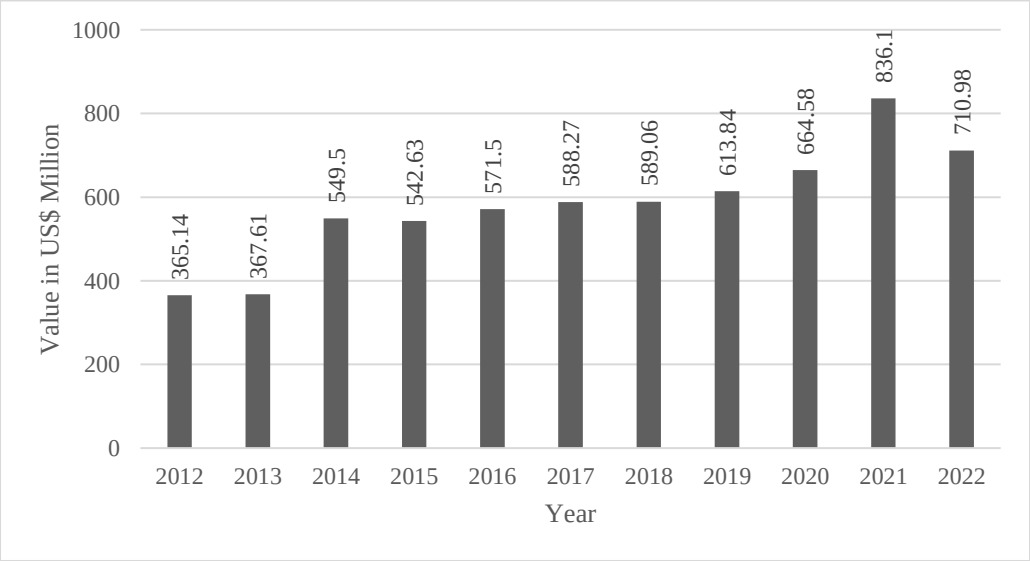

Fig. 1. Export Performance - Coconut Sector - 2012 -2022/ October
(Source: Export Development Board, 2022)

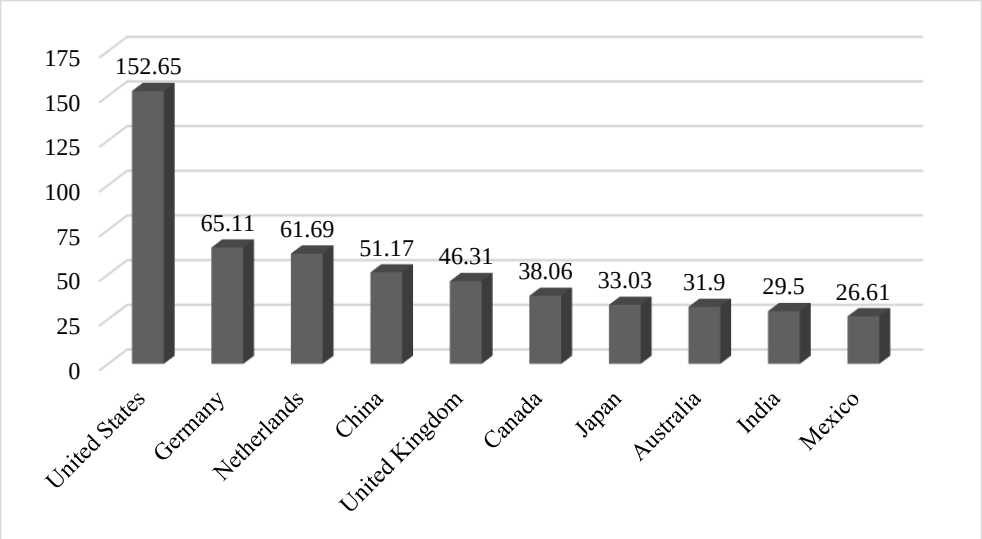

Fig. 2. Major Markets - Coconut Sector - 2021 Value in US$ Million
(Source: Export Development Board, 2022)

the previous year [6]. In 2021, the Sri Lankan Rupee depreciated by 10%, leading to local products becoming significantly more competitive in the international market. This meant that increased demand for Sri Lankan coconut products, against competitor coconut-producing countries.

Currently, Sri Lanka's largest coconut export market is the USA, with more than twice the market value of Germany, which is the second largest.

As a percentage share of Sri Lanka's total merchandise exports (Fig. 3), coconut exports have shown an increase in contribution in the past four years, with a significant surge recorded from 2019 to 2020, even with the COVID-19 pandemic's effects. Exports of coconuts made for 6.83% of all merchandise exports in 2021, a slight rise from the 6.7% proportion in 2020. The three key types of coconut goods that Sri Lanka exports are finished fibre, kernel, and shell. In 2021, kernel products gave US dollars 434.57 million, or 52% of the total export value. With a contribution of US dollars 248.35 million, fibre goods accounted for 29.7% of the total export value, while shell products contributed US dollars 153.18 million, or 18.3% [6].

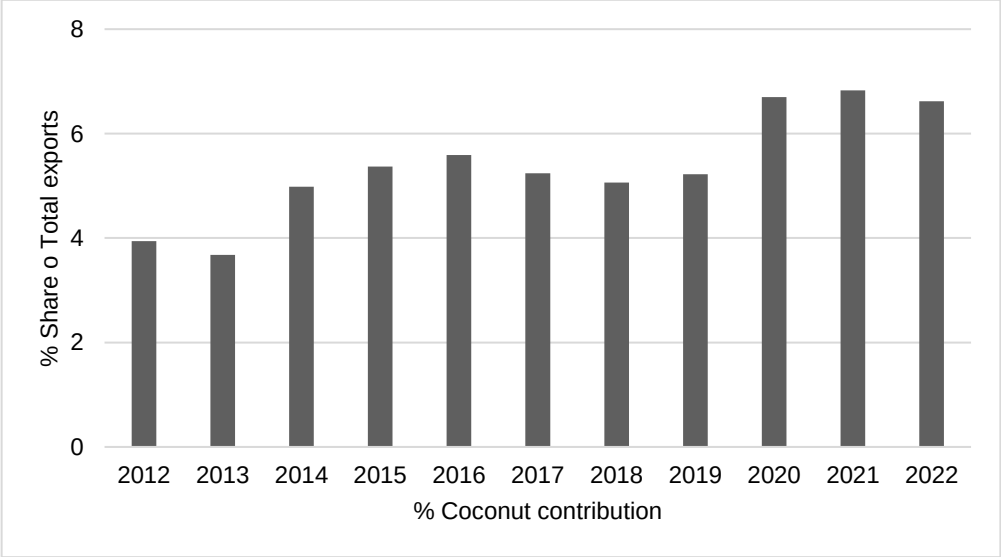

Fig. 3. Percentage of coconut contribution to total merchandise exports - 2012 - 2022 / October
(Source: Export Development Board, 2022)

Taking a look at the export performance of particular product kinds, coconut cream had the biggest export value rise from 2020 to 2021, at 44.70%. The export value of desiccated coconut increased by 37.60% over this time, while the export value of coconut milk powder increased by 30.50%. Between 2020 and 2021, the export value of coco peat, fibre pith, and moulded products increased by 27.84%, while the value of activated carbon increased by 33.89%.

The market has been significantly impacted by the COVID-19 pandemic. In order to maintain a strong immune system, the pandemic highlighted the significance of a plant-based diet and alternative protein. Additionally, the market saw a rise in the number of people working from home and a rise in consumer interest in baking and cooking at home, which has raised demand for plant-based milk. Furthermore, there has been a surge in interest in plant-based foods and dairy substitutes that are clean-label and certified halal. Businesses have been encouraged to invest in online retailing by the COVID-19 epidemic. According to 'Koita', a non-dairy milk maker based in Dubai, their internet sales increased by 370% during the 2020 Covid-19 pandemic. In addition, the company reports that throughout the pandemic, sales in Saudi Arabia have increased by 300%, with WhatsApp being the main online ordering platform [9]. Industry players are spending money on research and development (R&D) and innovation projects to create a new line of coconut products. Coconut water brands are also being used to draw in millennial customers, who are increasingly looking for healthier options in the carbonated beverage market.

Coconuts are cultivated in all parts of the country although their importance varies from region to region. The major coconut growing areas are the western, north-western, and southern provinces of Sri Lanka. Puttalam, Gampaha, and Kurunegala districts are the coconut triangle, where most farmers cultivate coconut. The majority of farmers harvest, gather, and sell the coconuts after they are plucked. Nonetheless, the majority of the coconut industry's profits go to the manufacturers and exporters.

Therefore, by offering them new options and fostering new entrepreneurs in the coconut industry through the implementation of new awareness campaigns, we can improve the lot of coconut farmers by introducing loan schemes with the help of the coconut research institute, export development board and banks. This could be done by identifying the present status of the coconut cultivation sector and future opportunities in Sri Lanka. This study was carried out to investigate the status of coconut growers' knowledge of new opportunities and trends in the export market within the coconut triangle and find out the constraints farmers face when engaging new opportunities and trends in the export market.

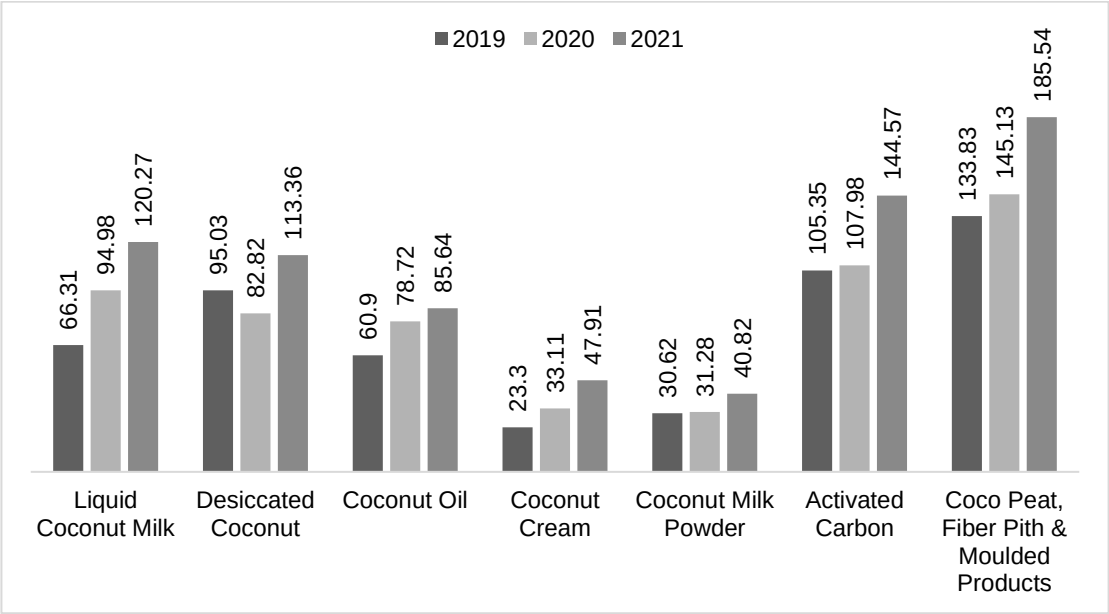

Fig. 4. Coconut Export by product type in US$ million
(Source: Ceylon Export and Trading (Pvt) Ltd, 2022)

2. METHODOLOGY

This study was conducted in the coconut triangle, which includes Kurunegala, Puttalam, Gampaha, Colombo, and Kalutara districts. Colombo and Kalutara districts are not considered due to less extent than other districts. The total extent in the coconut triangle of Kurunegala, Puttalam, and Gampaha is 419,312, 186,053 and 133,551.
A stratified random sampling method was used to select the respondents for this study. The sample size was 100 coconut farmers. They were selected based on the total extent of the districts in the coconut triangle. The total extent of the coconut triangle is 760,664 acres.

Data were collected through a structured pre-tested questionnaire. The Primary data was collected from the whole sampled coconut growers by directly administrating the questions in the pre-tested and structured questionnaire, personal observation, and interviews. Before starting the data collection, farmers were explained the purpose of the study. A structured questionnaire was designed for interviewing coconut cultivators and in the selected area. The interview protocol was applied individually through formal interviews to understand and identify their future aspects from the Government. The information collected from the growers mainly includes the socio-economic status of the farmers, ownership of the land and extent of coconut cultivation, details about coconut buyers, and the general attitude of the farmer towards the coconut industry, and export products. The sampling frame was developed using secondary data collection from the Coconut Research Institute (CRI), *Lunuwila*. The data necessary for the study was collected from various sources: textbooks, professional magazines, statistical handbooks, libraries, websites etc. the secondary data were extracted

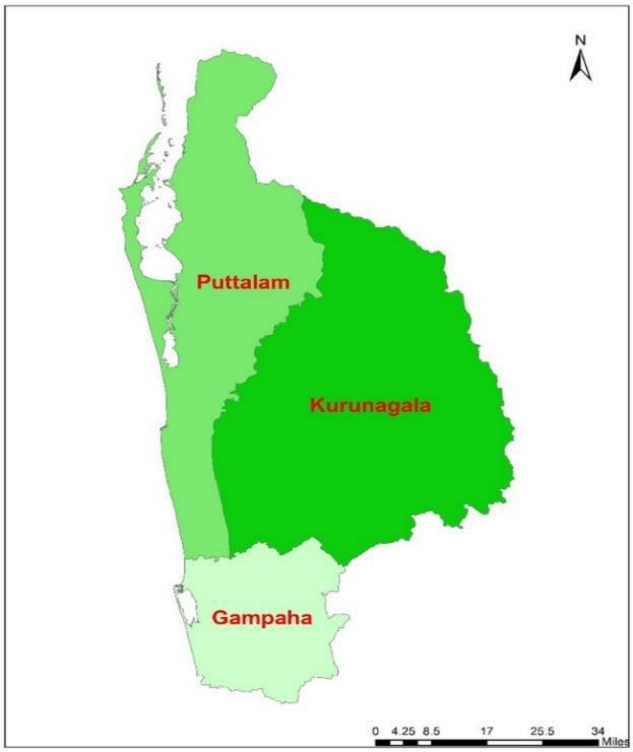

Fig. 5. Study area - Coconut Triangle
(Source: Department of Census and Statistics, 2014)

Table 1. Distribution of the respondents by total extent of coconut cultivation of land

Districts	Total Extent (Acres)	Sample Size (No. of participants)
Kurunegala	419,274	57
Puttalam	186,054	25
Gampaha	133,552	18

from different published sources such as, annual statistical report, publications of the Coconut Cultivation Board, library materials from the CRI, research, reports, books, journals, and relevant websites.

This study was carried out from August to December 2022. Data and respective information were collected from October to November 2022 by using a structured questionnaire and direct interviews with the coconut growers. The collected data were arranged to Microsoft excel 365 work sheets properly. Then arranged data was entered through the SPSS version 29 statistical software package, and the database was created for further study. Descriptive statistics were used to describe the basic features of the study variables with the help of frequency distribution, mean and standard deviation, Five-point Likert scaling was used to determine the coconut growers' attitudes towards the status of the coconut export industry, and Chi-squared analysis was used to find the association between different variables.

3. RESULTS AND DISCUSSION

3.1 Socio-economic Status of the Coconut Growers

The Fig. 6 indicated that most respondents (90%) were male, and 10% females were involved in coconut cultivation. According to Fig. 7, the majority of the coconut growers (52%) in the coconut triangle had a secondary level of education (grade 6 – grade 11), 20% of the coconut growers had a tertiary level of education (grade 12 – grade 13), and 3% of growers had primary level of education (grade 1 – grade 5), respectively. These findings are similar to the results of [10] who reported that most coconut growers have a secondary level of education in the Kurunegala district. Based on their study in the Coconut Technology Park of CRI,

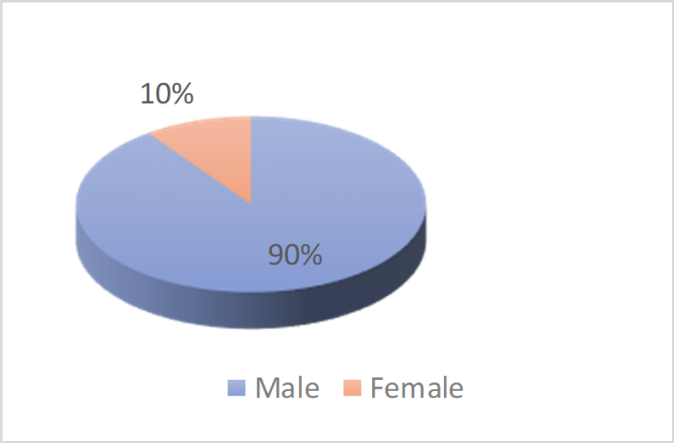

Fig. 6. Gender percentage of the respondents

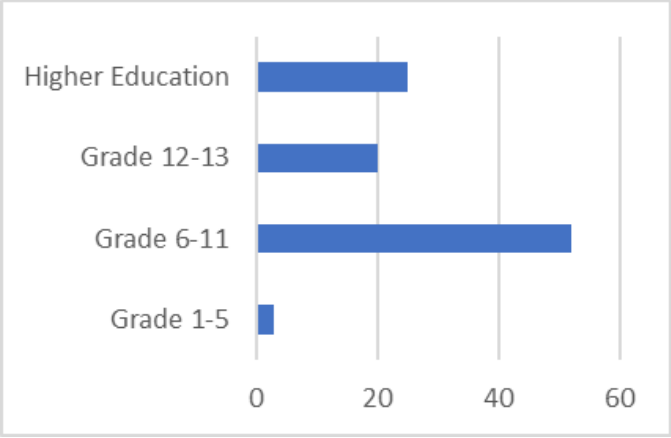

Fig. 7. Educational level of the growers

[11] reported that all the farmers who visited Coconut Technology Park had attended school and 49% had received at least primary education. Only 11% of growers received tertiary education. The data revealed that the average age of coconut growers was 51 years old. [12] and [13] reported a similar age range. According to [13], coconut growers' average age was 50 years in the Batticaloa district; according to [12], it was 50.9 years. However, findings of the study carried out in Coconut Technology Park of CRI by [11] showed the average age of coconut growers who visit Coconut Technology Park was 40 years.

In the coconut triangle area, more than half of the growers (55%) were doing coconut cultivation as their main occupation, and 45 per cent of respondents were engaged in coconut cultivation as a subsidiary occupation. This is in line with the findings of [12] and [11]. According to [12], most growers in Gampaha and Puttalam districts spent part-time in farming. In contrast, most growers in Kurunegala district were full-time farmers. Similarly, most (79%) coconut growers visit Coconut Technology Park of CRI were part-time farmers [11].

Fig. 8 shows, that most respondents had 26-30 years of experience in coconut growing. The next highest number of growers had 16-20 years of coconut growing experience. The minority of respondents belongs to the > 40 years of experience category. According to [13], nearly half of the coconut growers (50%) had the farming experience more than 15 years, and 40% of the growers had 11-15 years of farming experience. According to the field survey data, 86 per cent of the coconut growers had their own coconut land in the coconut triangle, and few (14%) used leased coconut lands for cultivation. The average extent of coconut land size was 39 acres.

According to Table 2, based on this study in the coconut triangle area, 70 per cent of the respondents produced had coconut nuts between 15,000 – 100,000 nuts annually, and 25 per cent of the respondent annually produced nuts between 100,000 – 200,000 nuts annually. Further, 5 per cent of the respondents produced between 200,000 – 360,000 nuts annually.

According to Table 3, in the coconut triangle area, 60 per cent of the growers sell their coconut directly to brokers, and 20 per cent of them give directly to manufacturers. Around 15 per cent of the respondents provide them to farmers and the rest of the 5% sell to nearby merchant in their respective town.

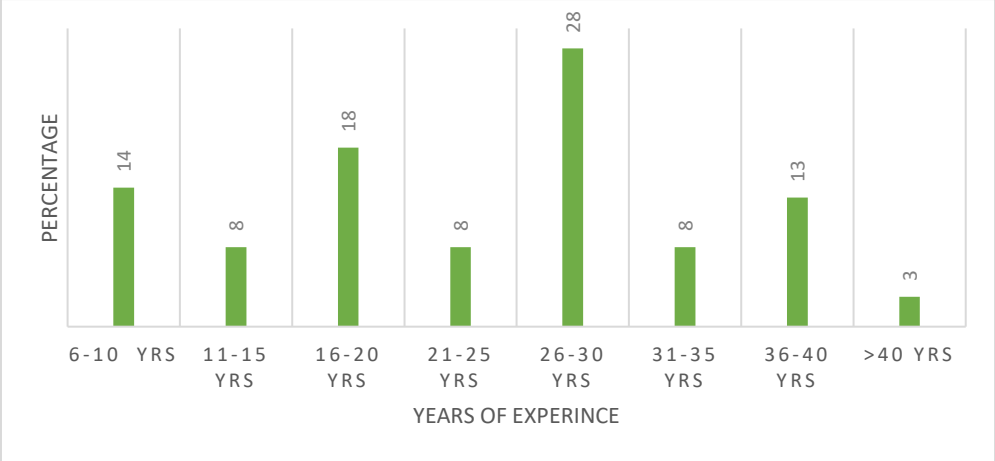

Fig. 8. Experience of the growers in coconut cultivation

Table 2. Coconut nuts produced annually

Amount	Frequency	Percent (%)
15,000 – 100,000 (nuts)	70	70.0
100,000 – 200,000 (nuts)	25	25.0
200,000 – 360,000 (nuts)	5	5.0

(Source: Field survey data, 2022)

Table 3. Type of buyers

Buyers	Frequency	Percent (%)
Brokers	60	60.0
Manufacturers	20	20.0
Farmers	15	15.0
Others	5	5.0

(Source: Field survey data, 2022)

3.2 General Attitude toward the Coconut Industry

The total export earnings in the decade (2011-2020) have increased by 2-fold (Ministry of Plantation Industries & Export Agriculture, 2022). According to the Table 4 all the respondents were agreed with the statement 1. A majority of the participants (95%) expressed agreement with statement 2, while 5% indicated they were neither in agreement nor disagreement. Regarding the third point (3), the majority of respondents said they disagreed, which denoting dissatisfaction with the government's support of the coconut industry. Just 4% of respondents said they "neither agreed nor disagreed." More than 50% of the respondents were agreed with the statement, 'Coconut production has reduced drastically during the past years.' This result aligned with the study by [1] reported that in 2016, there seems to be a downturn in the supply of coconuts and coconut products. As a result, compared to the 2015 numbers, the estimated value of 3,011 million nuts decreased by 1.5%. An extended period of drought in the growing regions has been primarily criticised for this poor output condition. 78% of the coconut growers disagreed with the statement 5, and 20% of them said that the COVID pandemic had an impact on the coconut sector. To 6th statement from the Table 4, 37% of the respondents said that they 'strongly agree' with 'agree' denoting dissatisfaction with subsidies for coconut production. Meanwhile 58% of them stated that they had sufficient subsidies for coconut production.

Based on the responses for statement 7, 7% of the coconut growers have been facing difficulties in finding buyers for selling coconut products. 90% of them said they disagreed to the statement 7. 75% of the growers had the positive attitude toward entering to exporting a product or manufacturing a product while 25% of them disagreed with that. 84% of the respondents were disagreed to the statement 9. To the statement (10) 'Possibilities for expanding new market opportunities for kernel-based products in Asia, the Middle East, and Africa' 38% was 'neither agree nor disagree' and others responded as 'Agree' (32%), and 30% were recorded as 'disagree.' 60% were agreed with the statement 11, others responded as 'neither agree nor disagree' (10%), and 30% recorded their views as disagree. Only 20% of the coconut growers were agreed to the statement (12) 'cost of production of coconut oil in Sri Lanka is high compared to edible oil'. Majority of the respondents (90%) were agreed with statement 13. 78% of the coconut growers were agreed that 'Assistance by the Export Development Board (EDB) and CRI is mandatory.' All of them were agreed with the statement 15 which says 'Coconut trees produce the best yield after ten years of planting.' 70%of the respondents were agreed to the statement 16 and 10% of them disagreed with that. The statement 17, which says 'Virgin coconut oil has a huge demand across the countries', 85% of the growers were accepted that while 10% of them were disagreed with that. 40% of the respondents were agreed that, Coconut water has antioxidant properties and 35% were neither in agreement nor disagreement. 80% of the growers were 'neither agreed nor disagreed' with the statement 19.

Correlation was tested between two key variables related to coconut growers' attitudes. Those were; existing coconut industry which reflects coconut growers' perceptions and attitudes towards the current status and practices of the coconut industry and export products which captures their attitudes towards coconut export products and the associated market.

According to the Table 5 there is a statistically significant correlation between coconut growers' attitudes towards the existing coconut industry and coconut export products at the 0.01 significant level with a Pearson correlation coefficient of .271. It shows a positive relationship between these two attitude levels of the coconut growers. The relationship implies that if growers have a positive perception of the existing industry such as its practices, support systems, or profitability they are also likely to feel positively about the export potential and quality of coconut products.

Table 4. Coconut growers' general attitude toward the coconut industry (N=100)

Sn	Statement	Strongly disagree		Disagree		Neither		Agree		Strongly agree	
		No	%	No	%	No	%	No	%	No	%
1	The coconut export market has an impact on the economics of the country.	-	-	-	-	-	-	45	45.0	55	55.0
2	Entering the export or manufacturing sector of coconut can help to increase the farmers' income.	-	-	-	-	5	5.0	46	46.0	49	49.0
3	The Government is supporting enough towards the coconut industry.	61	61.0	35	35.0	4	4.0	-	-	-	-
4	Coconut production has reduced drastically during the past years.	15	15.0	31	31.0	3	3.0	29	29.0	22	22.0
5	The Covid pandemic had an impact on the coconut sector.	43	43.0	35	35.0	2	2.0	7	7.0	13	13.0
6	There is a lack of subsidies for coconut production.	25	25.0	33	33.0	5	5.0	21	21.0	16	16.0
7	Finding buyers for selling coconut products is difficult.	57	57.0	33	33.0	3	3.0	7	7.0	-	-
8	Attitude toward entering to exporting a product or manufacturing a product.	4	4.0	21	21.0	-	-	32	32.0	43	43.0
9	The coconut market is saturated.	48	48.0	36	36.0	6	6.0	9	9.0	1	1.0
10	Possibilities for expanding new market opportunities for kernel-based products in Asia, the Middle East, and Africa.	7	7.0	23	23.0	38	38.0	19	19.0	13	13.0
11	Virgin coconut oil is produced by drying and compressing coconut	9	9.0	21	21.0	10	10.0	15	15.0	45	45.0
12	The cost of production of coconut oil in Sri Lanka is high compared to edible oil	8	8.0	17	17.0	55	55.0	15	15.0	5	5.0
13	Diseases affect the production of coconut.	1	1.0	9	9.0	-	-	27	27.0	63	63.0
14	Assistance by the Export Development Board (EDB) and CRI is mandatory.	3	3.0	17	17.0	2	2.0	37	37.0	41	41.0

Sn	Statement	Strongly disagree		Disagree		Neither		Agree		Strongly agree	
		No	%	No	%	No	%	No	%	No	%
15	Coconut trees produce the best yield after ten years of planting.	-	-	-	-	-	-	45	45.0	55	55.0
16	Coconut sugar has more health benefits than normal sugar	3	3.0	7	7.0	20	20.0	42	42.0	28	28.0
17	Virgin coconut oil has a huge demand across the countries.	3	3.0	7	7.0	5	5.0	25	25.0	60	60.0
18	Coconut water has antioxidant properties.	13	13.0	12	12.0	35	35.0	13	13.0	27	27.0
19	Coconut flour is rich in fiber and low in carbohydrates and the absence of gluten.	3	3.0	7	7.0	80	80.0	4	4.0	6	6.0

(Source: Field survey data, 2022)

Table 5. Correlation between coconut growers' attitudes towards the existing coconut industry and coconut export products

		Existing Industry	Export Products
Existing industry	Pearson Correlation	1	.271**
	Sig. (2-tailed)		.006
	N	100	100
Export products	Pearson Correlation	.271**	1
	Sig. (2-tailed)	.006	
	N	100	100

*** Correlation is significant at the 0.01 level (2-tailed)*
(Source: Field survey, 2022)

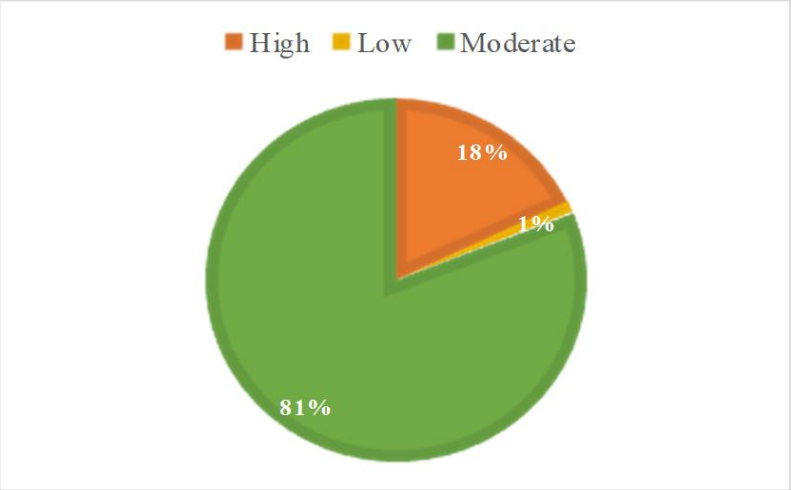

Fig. 9. Level of attitudes of coconut growers regarding coconut export products

Table 6. Chi-square analysis between coconut grower's attitudes towards the coconut export industry and selected independent variables

Independent variable	X^2	df	*P* value
Age	6.923	10	.733
Gender	0.513	2	.774
Educational Level of the Respondent	4.752	6	.576
Type of Ownership	.281	2	.869
Occupational Income	1.1010	2	.603
Experience of the farmer	17.067	14	.253

*df - Degree of freedom, X^2 - Chi-square, *P <.05*

Fig. 9 shows the level of attitudes of coconut growers regarding coconut export products. 81 per cent of the growers show moderate level of attitude towards the export products. Only 18 per cent of the respondents show high level of attitude towards the export products.

3.3 The Factors Influencing the Coconut Growers' Attitudes towards the Coconut Export Industry

In order to determine the factors which, influence the coconut growers' attitudes, six independent variables with a categorical nature were chosen based on their potential relevance to coconut growers' attitudes towards the coconut export industry. These independent variables were selected to capture a comprehensive view of factors like demographic (age, gender & education), socioeconomic (income, ownership) and behavioural (experience) could influence growers' perceptions and attitudes.

Table 6 indicates that none of the independent variables showed a statistically significant

association with coconut growers' attitude towards the export industry. Therefore, these results imply that coconut growers' attitudes towards the export industry are not influenced by the selected demographic and socio-economic factors examined in this study.

4. CONCLUSION

The study was conducted to understand the status of coconut growers' knowledge of new opportunities and trends in the export market within the coconut triangle and find out the constraints farmers face when engaging new opportunities and trends in the export market. Most of the coconut growers were male. In the coconut triangle area, 70% of the growers produced had coconut nuts between 15,000 – 100,000 nuts annually. Only 18% of the farmers have high-level attitudes towards the coconut export products. Some coconut growers have been facing difficulties in finding buyers for selling coconut products. 32% of the growers were agreed that there are possibilities for expanding new market opportunities for kernel-based products in Asia, the Middle East, and Africa. There was a statistically significant correlation between coconut growers' attitudes towards the existing coconut industry and coconut export products at the 0.01 significant level. No significant association was observed between age of the respondent, gender, educational level of the respondent, type of ownership, occupational income, experience of the farmer and the attitude level of the coconut growers and attitudes towards the coconut export industry. As such, it is crucial to increase growers' awareness of the opportunities in the coconut export sector. It is imperative that the appropriate authorities encourage and facilitate the exportation of coconut goods in the future to benefit coconut growers.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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