



TVET SKILLS INSIGHTS REPORT | 2025

**SKILLING FOR SUSTAINABILITY:
STRENGTHENING HUMAN CAPITAL FOR THE
COCONUT PROCESSING INDUSTRY IN THE
PHILIPPINES**

I. Coconut Processing Industry

Processed coconut products are essential in the Philippine coconut industry, with about 80% of the coconuts produced being processed into copra, a feedstock in the production of coconut crude oil (COCOFIRM, 2022). In 2022, coconut exports accounted for 43% of the country's total agricultural exports, with coconut oil being the number one product. Table 1 shows that crude coconut oil was valued at around \$1.4 billion and had a 35.86% market share in 2022. Other products include DCN, RBD Oil, Cochin oil, Activated Carbon, Coconut water, Virgin coconut oil (VCO), and Other fractions of CNO, Copra meal, and Coconut Methyl Ester.

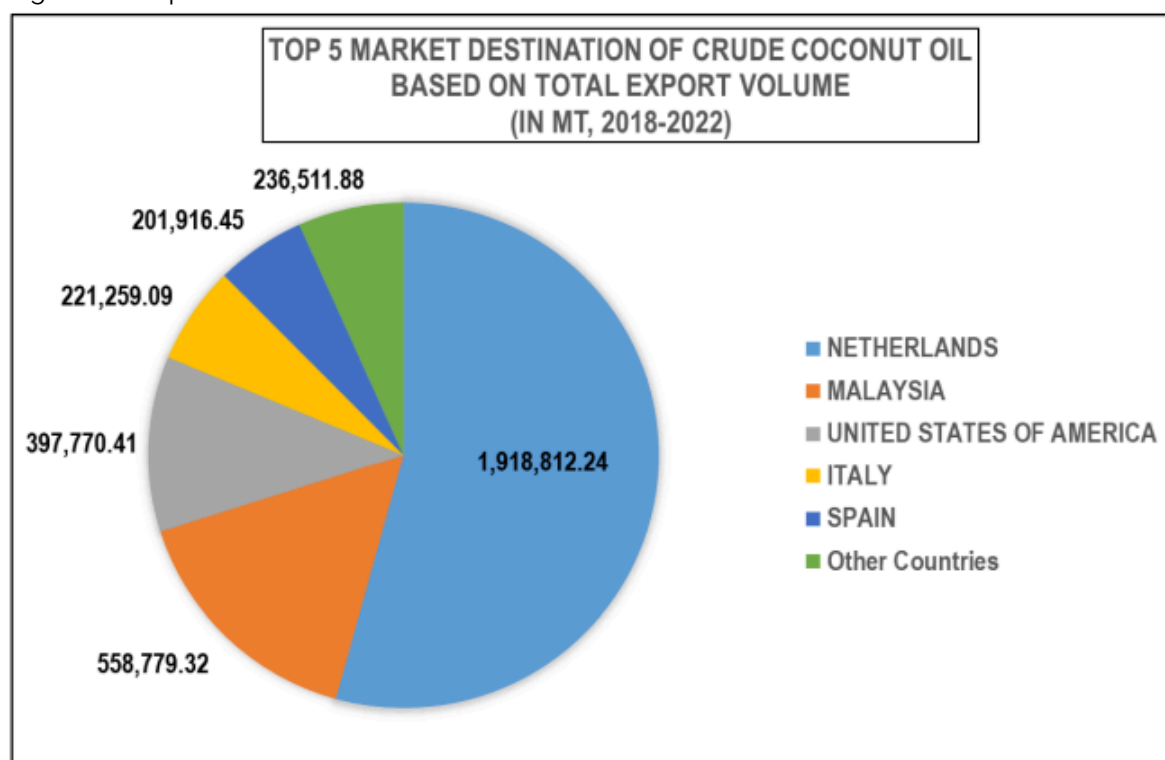
Table 1. CY 2022 Top 10 Exported Coconut Products (in terms of value, in FOB USD)

COMMODITY	Value (FOB USD)	Market Share (%) <i>in terms of volume</i>	Rank <i>in terms of volume</i>
Crude Coconut Oil	1,368,532,088	35.86%	1
Desiccated Coconut	369,974,022	6.53%	2
RBD Oil	339,898,348	7.68%	3
Cochin Oil	223,903,256	5.76%	4
Activated Carbon	154,880,321	3.32%	5
Coconut Water	122,140,651	5.81%	6
Virgin Coconut Oil	91,989,937	1.05%	7
Other fractions of Coconut Oil	80,754,593	1.75%	8
Copra Meal/Cake	62,878,342	14.68%	9
Coconut Methyl ester	55,819,910	1.17%	10

Source: 2022 coconut trade and market trends

The Netherlands was the top country where the Philippines exported its crude coconut oils, followed by Malaysia, the United States of America, Italy, and Spain (Figure 1). In the same year, total coconut oil product exports comprised 52.50% of the total coconut exports.

Figure 1. Top 5 Market Destinations



Source: 2022 Coconut Trade Performance and Market Trend

1.1 Processing Infrastructure

The development of robust coconut processing infrastructure is central to the modernization and competitiveness of the Philippine coconut industry, as outlined in the Coconut Industry Roadmap 2021–2040 and as seen in the trade performance in the international markets. Traditionally reliant on the export of low-value products such as copra, the sector is now shifting towards value-adding and industrial processing to maximize the economic potential of coconuts. This change requires a lot of money to build processing plants, buy after-harvesting equipment, set up storage, and improve transportation systems to turn raw coconuts into valuable products like virgin coconut oil, coco sugar, desiccated coconut, and coir-based items.

Strengthening infrastructure enhances productivity and product quality and enables inclusive growth by creating rural employment opportunities and fostering local enterprise development in coconut-producing regions. Below is the data on the companies/plants that process and produce coconut products based on the Coconut Industry Roadmap.

Coconut Oil

In 2018, there were 60 coconut oil mills nationwide with an annual aggregate capacity of 3,420,554 MT (COCOFIRM, 2022); these oil mills operate in 10 regions, namely CALABARZON, Bicol Region, Western Visayas, Eastern Visayas, Central Visayas, Zamboanga Peninsula, Northern Mindanao, Davao Region, SOCCSKSARGEN, and Caraga Region. Thirty-nine (39) oil refineries were operating in the Philippines in 2018,

with a total annual refining capacity of 1,993,400 MT, with 13 also operating as coconut oil mills. Large oil milling companies and refiners are members of the Philippine Coconut Oil Producers Association (PCOPA) and Coconut Oil Refiners Association (CORA), respectively. It should be noted that, other than unstable copra supply, another problem encountered by coconut oil mills is low-quality copra due to the traditional *tapahan* method of processing it (COCOFIRM, 2022).

Desiccated Coconut

For desiccated coconut, 19 companies operated 21 medium-scale desiccated coconut processing plants in the country in 2019 (COCOFIRM, 2022). These plants are located in 8 regions: CALABARZON, Bicol Region, Central Visayas, Eastern Visayas, Northern Mindanao, Davao Region, SOCCSKSARGEN, and Caraga Region, with CALABARZON and the Davao Region having a combined share of 57.2% of the market. A notable aspect of the desiccated coconut plants is that recently, they have developed into integrated multi-product plants that utilize their coconut wastes and turn them into other coconut products, such as coconut water, coconut cream, and coco shells, to produce more value-added products and avoid wastage. Notable companies using these integrated systems are Franklin Baker Company of the Philippines and Superstar Coconut Products Inc., which makes desiccated and non-traditional coconut products.

Coco Shell and Activated Carbon

Coco shell processing companies comprised 15 small to large plants in the country in 2019 (COCOFIRM, 2022). Although the companies are located across five (5) regions—CALABARZON, Eastern Visayas, Northern Mindanao, and Davao Region—the latter boasts around 47% share of the product market, with CALABARZON and Northern Mindanao placing second, with both having 20% market share, respectively.

Eight (8) plants are “vertically forward integrated” into activated carbon processing, which means that these companies also directly process their products into coco shell-based activated carbon. In 2020, coconut shell-based activated carbon manufacturing companies comprised fourteen plants, with the Davao Region having the highest percentage of plants at about 42.9% (6 companies). Other regions with activated carbon production plants include CALABARZON, Central Visayas, Eastern Visayas, Zamboanga Peninsula, Northern Mindanao, and Davao Region.

Oleochemicals and Biodiesel

Oleochemicals are also prominent products in the industry; chemicals such as fatty alcohol, fatty acids, methyl esters, and glycerin are vital materials needed in fuel, personal care items, cleaning products, lubricants, paints, coatings, and even as ingredients in food and pharmaceuticals. In 2018, there were eight companies in the country, with most of them (53.3%) located in the CALABARZON region. Five oleochemical companies are also members of the Philippine Oleochemical Manufacturers Association (POMA).

There are also 12 operational Department of Energy-accredited coco-biodiesel manufacturers, with a combined production capacity of 607,900 MT of CME (Coconut Methyl Ester) per year (COCOFIRM, 2022). These manufacturers operate in five regions: NCR, CALABARZON, Northern Mindanao, Davao Region, and SOCCSKSARGEN. NCR has the most significant percentage of manufacturers, with 43.1%, and CALABARZON is second, with 35.1%.

Virgin Coconut Oil (VCO)

In 2029, 42 VCO processing plants operated in nine regions: CALABARZON, Bicol Region, Central Visayas, Eastern Visayas, Zamboanga Peninsula, Northern Mindanao, Davao Region, Caraga, and BARMM. CALABARZON had the most significant percentage of plants, 40.5%, followed by Central Visayas and Davao Region, 17% and 14%, respectively. MSMEs comprise the VCO processors, who use the wet process (i.e., fermentation and centrifuge) to produce VCO (COCOFIRM, 2022). About thirty-one VCO manufacturing companies are members of the Virgin Coconut Oil Processors and Traders Association of the Philippines Inc. (VCOPTAP).

Coco Coir Processing Companies

Seventy-one percent (71%) of processing plants operate in Mindanao, and about 30.9% are in Caraga (COCOFIRM, 2022). The remaining regions with processing plants are Northern Mindanao and the Davao Region, MIMAROPA, CALABARZON, the Bicol Region, the Western Visayas, and the Eastern Visayas. Like VCOs, the COCOFIRM reported that the country's coco coir/peat processors are mainly MSMEs.

Coco Sugar

In 2018, the country had 33 coconut sugar processing plants. The plants function in eight regions: MIMAROPA, CALABARZON, Central Visayas, Northern Mindanao, Davao region, SOCCSKSARGEN, Caraga, and BARMM (COCOFIRM, 2022). A majority of the companies (75.7%) are located in Mindanao. 18% of the 33 coconut sugar enterprises are in MIMAROPA and CALABARZON, while 6.1% are in Central Visayas. Most coco sugar processors are MSMEs and still use the traditional method of coco sugar processing.

Coconut Water Processing Companies

As of 2018, 14 coconut water processing plants were operating in the Philippines. These companies were spread in only six regions: CALABARZON, Central Visayas, Eastern Visayas, Northern Mindanao, Davao Region, and SOCCSKSARGEN (COCOFIRM, 2022). CALABARZON and Davao Region had the most concentrated coconut water processing plants.

1.2 Laws and Initiatives

The Philippine coconut industry is backed by a robust policy and institutional framework to promote sustainable growth, rural development, and value-added processing. Over the years, several laws and national initiatives have been enacted to strengthen the industry's foundation, address systemic challenges, and uplift the lives of millions of coconut farmers. Table 2 shows that about 40 enacted policies are either still implemented or have been amended.

Table 2. Summary of enacted policies related to the coconut industry

Policy Type	Policy Number	Year	Policy Title
Law	Commonwealth Act No. 518	1940	An Act to Establish the National Coconut Corporation
Law	Commonwealth Act No. 521	1940	An Act Appropriating Amounts from the Coconut Oil Excise Tax Fund Collected on and After January First, Nineteen Hundred and Thirty-Nine, for the Period from January First, Nineteen Hundred and Thirty-Nine, to June Thirtieth, Nineteen Hundred and Forty
Law	Commonwealth Act No. 552	1940	An Act Appropriating Amounts from the Coconut Oil Excise Tax Fund Collected on and After January First, Nineteen Hundred and Thirty-Nine, for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Forty-One
Law	Commonwealth Act No. 627	1941	An Act Appropriating Amounts from the Coconut Oil Excise Tax Fund Collected on and After January First, Nine Hundred and Thirty-Nine, for the Fiscal Year Ending June Thirtieth, NineTeen Hundred and Forty-Two
Law	Commonwealth Act No. 718	1945	An Act Appropriating the Sum of Two Million Nine Hundred Forty-One Thousand Pesos from the Coconut Oil Excise Tax Fund Collected on and After January First, Nineteen Hundred and Thirty-Nine, for Certain Activities Under the Department of Agriculture and Commerce, for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Forty-Six

Law	Republic Act No. 5	1946	An Act to Amend Sections Two and Five of Commonwealth Act Numbered Five Hundred Eighteen, Entitled "An Act to Establish the National Coconut Corporation, and to Appropriate Additional Operating Capital for Said Corporation"
Law	Republic Act No. 362	1949	An Act Appropriating the Sum of Three Hundred Thousand Pesos for the Study, Control and Eradication of the "Kadang-Kadang" and Other Diseases or Pests of Coconut Trees
Law	Republic Act No. 471	1950	An Act Providing that Fifty Per Centum of the Fees Collected from the Copra Standardization and Inspection Service by Virtue of Commerce Administrative Order Numbered Two, dated January Sixteen, Nineteen Hundred Forty-Eight, Shall be Paid to the Funds of the National Coconut Corporation for the Rehabilitation of the Coconut Industry
Law	Republic Act No. 773	1952	An Act Appropriating the Sum of Five Hundred Thousand Pesos for the Study, Control, and Eradication of Coconut and Other Plant Diseases and Pests, Including Rats
Law	Republic Act No. 1145	1954	An Act Creating the Philippine Coconut Administration, Prescribing its Powers, Functions and Duties, and Providing for the Raising of the Necessary Funds for its Operation
Law	Republic Act No. 1369	1955	An Act Appropriating the Sum of Thirty Million Pesos, Out of the Proceeds of the Sale of Bonds to be Issued Under Republic Act Numbered One Thousand or from Any Loan, for the Purpose of Financing the Manufacture of Coconut Products and By-Products and the Component Parts of Coconut Trees, and Otherwise for the Industrialization of the Coconut Trees and Coconut Products and By-Products
Law	Republic Act No. 2282	1959	An Act to Promote the Development of the Coconut Industry
Law	Republic Act No. 4059	1964	An Act Establishing the Philippine Coconut Research Institute, Defining its Objectives, Powers and Functions, Authorizing the Appropriation of Funds Therefor, and for Other Purposes
Law	Republic Act No. 4403	1965	An Act Encouraging the Organization of Agro-Industrial Coconut Cooperatives Under the Jurisdiction of the Philippine Coconut Administration, Amending for the Purpose Republic Act Numbered Eleven Hundred Forty-Five

Law	Republic Act No. 5898	1969	An Act Establishing a Coconut Breeding Station and Nursery in the Municipality of Pantukan, Province of Davao del Norte, and Authorizing the Appropriation of Funds Therefor
Law	Republic Act No. 6260	1971	An Act Instituting a Coconut Investment Fund And Creating A Coconut Investment Company For The Administration Thereof
Law	Presidential Decree No. 232	1973	Creating a Philippine Coconut Authority
Law	Presidential Decree No. 276	1973	Establishing a Coconut Consumers Stabilization Fund
Law	Presidential Decree No. 271	1973	Amending Presidential Decree No. 232 Creating a Philippine Coconut Authority
Law	Presidential Decree No. 527	1974	Granting Authority to the National Economic and Development Authority to Set Minimum Prices of Coconut Oil, Copra and Other Coconut Products and by Products
Decree	Presidential Decree No. 514	1974	Amending Republic Act No. 6260, Entitled An "Act Instituting A Coconut Investment Fund And Creating A Coconut Investment Company For The Administration Thereof."
Law	Presidential Decree No. 755	1975	Approving the Credit Policy for the Coconut Industry as Recommended by the Philippine Coconut Authority and Providing Funds Therefor
Law	Presidential Decree No. 961	1976	An Act to Codify the Laws Dealing with the Development of the Coconut and Other Palm Oil Industry and for Other Purposes, also known as the "Coconut Industry Code"
Law	Presidential Decree No. 1468	1978	Revising Presidential Decree Numbered Nine Hundred Sixty One
Law	Presidential Decree No. 1699	1980	An Act Suspending the Collection of the Coconut Consumers Stabilization Fund Levy and Similar Levies and Providing in Connection Therewith Appropriate Measures to Cushion the

			Adverse Effects Thereof on the Coconut Farmers
Law	Presidential Decree No. 1644	1980	Granting Additional Powers to the Philippine Coconut Authority
Law	Presidential Decree No. 1768	1981	Establishing Agro-Forest Reserves Within the Agusan Valley for the Implementation of the Nationwide Coconut Replanting Program
Law	Presidential Decree No. 1842	1983	Amending Certain Provisions of Presidential Decree No. 1841 and Creating a Coconut Reserve Fund
Law	Presidential Decree No. 1841	1983	Prescribing a System of Financing the Socio-Economic and Developmental Program for the Benefit of the Coconut Farmers and Accordingly Amending the Laws Thereon
Law	Presidential Decree No. 1863	1984	An Act to Promote and Expand the Utilization of Chemicals Derived from Coconut Oil and for Other Purposes
Law	Presidential Decree No. 1854	1984	Authorizing an Adjustment of the Funding Support of the Philippine Coconut Authority and Instituting a Procedure for the Management of Such Fund
Law	Presidential Decree No. 1972	1985	An Act to Finance the Coconut Replanting Program
Executive Order	Executive Order No. 1016	1985	Withdrawing the Inspection, Commodity and Export Clearance Requirements on Philippine Exports
Law	Presidential Decree No. 1960	1986	Prescribing Measures for the Structural Economic Adjustment Program for the Coconut Industry
Law	Republic Act No. 8048	1995	An Act Providing for the Regulation of the Coconut Trees, Its Replenishment, Providing Penalties Therefor and For Other Purposes, also known as the "Coconut Preservation Act of 1995.

Executive Order	Executive Order No. 213	2000	Constituting The National Enforcement Task Force On Coconut Tree Conservation
Law	Republic Act No. 10593	2012	An Act Amending Certain Sections Of Republic Act No. 8048, Entitled “An Act Providing For The Regulation Of The Cutting Of Coconut Trees, Its Replenishment, Providing Penalties Therefor, And For Other Purposes”
Executive Order	Executive Order No. 179	2015	Providing The Administrative Guidelines For The Inventory And Privatization Of Coco Levy Assets
Executive Order	Executive Order No. 180	2015	Providing The Administrative Guidelines For The Reconveyance And Utilization Of Coco Levy Assets For The Benefit Of The Coconut Farmers And The Development Of The Coconut Industry, And For Other Purposes
Law	Republic Act No. 11524	2021	An Act Creating The Coconut Farmers And Industry Trust Fund, Providing For Its Management And Utilization, Reconstituting For The Purpose The Philippine Coconut Authority Board, and For Other Purposes

Source: The Department of Science and Technology (DOST)

The latest law passed declares that “the policy of the State to consolidate the benefits due to coconut farmers, especially the poor and marginalized, under various statutes and to expedite the delivery thereof to attain increased incomes for coconut farmers, alleviate poverty, and achieve social equality.”

The law sets in motion reforms in the coconut industry. It provides efficient utilization of the trust fund by the Coconut Farmers and Industry Development Plan for the benefit of 2.5 million coconut farmers and their families and the coconut industry in general. (treasury.gov, n.d)

Under RA No. 11524, TESDA and ATI will have an equal share of around eight percent (8%) of the annual allocation from the trust fund for training on coconut production and processing technologies, value addition of coconut products, diversification, and sustainable farming methods, including organic farming, financial literacy, and farm business school programs for farmers and their families.

The Philippine Coconut Industry is also tasked with entering a memorandum of understanding (MOU) with TESDA to “ensure a coordinated implementation of the programs under the Development Plan, proper utilization of the allocations provided in this section, and submission of periodic accomplishment report of these implementing agencies to the PCA Board” (RA 11524, 2021).

In 2024, TESDA Board Resolution No. 2024 - 07 was approved, which prioritizes the development of the Coconut Production value chain requirements into Training Regulations. Additionally, the PCA has also shown interest in further developing other programs specifically for processed coconut.

Also, in 2024, the Philippine Coconut Authority (PCA) funded a P230 million facility called the Sustainable Agriculture and Fisheries Enterprise (SAFE) Innovation Hub for Coconuts and other by-products in San Jose, Pili, Camarines Sur (Department of Agriculture, 2024). The article noted the hub's modern facilities, essential for the development of various coconut by-products, including coconut water, virgin coconut oil, desiccated coconut/coco cream, flour, and distilled water, among others. It also stated that the facility is expected to uplift the lives and livelihoods of farmers dependent on coconut by providing income-generating opportunities and establishing various enterprises in the municipality, as well as nearby towns.

The Philippine Center for Postharvest Development and Mechanization (PhilMech) has also inaugurated its first coconut shared processing facility (SPF) funded by the coconut levy, handing it over to the Mabini United Farmers Cooperative in Placer, Surigao Del Norte in 2024. Valued at P5.17 million, the facility is designed to produce cocopeat and geonet and is situated on land owned by the cooperative, which comprises 127 coconut farmers. This initiative is part of the P75-billion Coconut Farmers and Industry Development Plan, with the SPF component receiving 10% of the fund to support the establishment of value-adding and processing facilities. PhilMech projects an internal rate of return of 171.74% for the facility, indicating a potential earning of P10.30 for every peso invested and an estimated payback period of less than a year. The facility will utilize approximately 5,000 coconut husks per production run, transforming what was previously considered farm waste into valuable products.

II. Objective

The meeting intends to validate the coconut processing skills requirements in order to determine the necessary training related support and programs for the sector.

Specifically, it intends to:

- Presentation of Coconut Processing Value Chain;
- Determine the priority skills requirements for the sector.

III. Attendees

The Philippine Coconut Authority (PCA) assisted the Technical Education and Skills Development Authority (TESDA) in inviting stakeholders from the coconut processing

industry. The following organizations/agencies attended the May 8, 2025, validation meeting:

- The Technical Education and Skills Development Authority (TESDA)
 - Planning Office (PO)
 - Qualifications and Standards Office (QSO)
 - Regional Operations Management Office (ROMO)
- Philippine Coconut Authority (PCA)
- ADC Farm
- Assaba'bo Bangsamoro Agri-Product Marketing Cooperative
- BHMC Bionatural Products, Inc.
- Capiz Small Coconut Farmers Marketing Cooperative
- Dumaguete Coconut Mills, Inc. (DUCOM)
- Franklin Baker Company of the Philippines
- Lamac Multi-Purpose Cooperative
- Lonoy Agrarian Reform Cooperative (LARC)
- Mega Greenlife OPC
- Quezon Federation and Union of Cooperatives
- Sox Food Products Manufacturing

IV. Challenges and Constraints in the Industry

In general, a majority of challenges facing the coconut processing industry come from the difficulties in the productivity of coconuts. This is clearly shown in the 2019 data as reported by the COCOFIRM, which states that “while some 15 billion nuts are harvested annually from 345 million bearing palms, coconut productivity in 2019 was only at 44 nuts per tree,” which only represents half of the potential yield of the native tall variety and a third of the potential yield of local hybrids. In terms of productivity, the Philippines remains the lowest among the top ten producers in the world, having 4.0 MT/ha nuts versus the world's best at 12.5 MT/ha.

Low-quality copra supplied to oil mills is also a challenge, as it reduces the overall mill processing output. An example of this is the by-product of crude coconut oil, polycyclic aromatic hydrocarbons, and aflatoxin, which makes crude oil unmarketable in export markets. The road map estimates that the Philippines risks losing its export markets if the country cannot comply with stricter standards on aflatoxin and PAH allowable limits in coconut oil and copra cake. In this regard, the COCOFIRM proposes the establishment of “agroindustrial corridors for a white copra central (WCC) owned and operated by coconut farmers that will market directly to coco oils” (COCOFIRM, 2022).

More recently, the PCA provided information on the ongoing proposal from the European Union on the inclusion of Mineral Oil Hydrocarbons (MOH) in the contaminants regulation in food and vegetable oils. MOH is categorized into two main groups: Mineral oil saturated hydrocarbons (MOSH) and Mineral oil aromatic hydrocarbons (MOAH), and it can enter food in various ways like environmental contamination, use of lubricants for machinery, release agents, processing aids, food

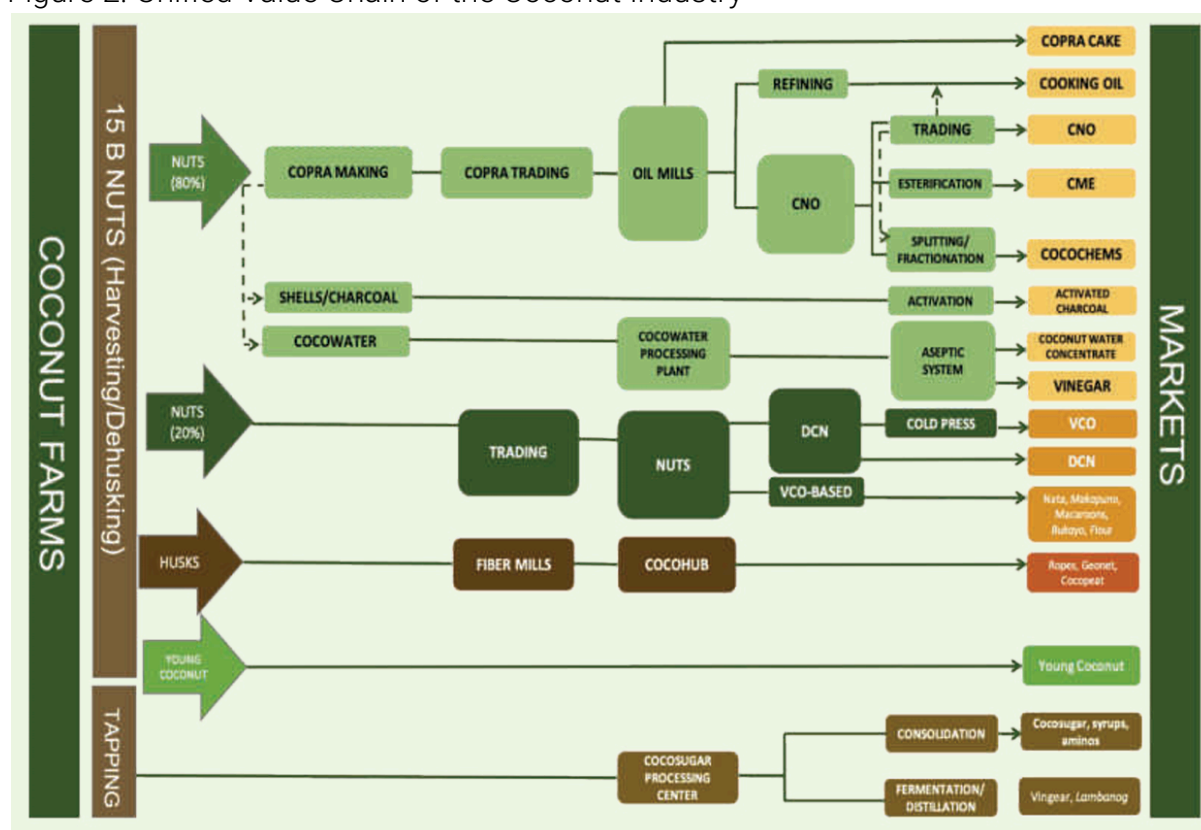
or feed additives, and migration from food contact materials. The European Food Safety Authority (EFSA) said that the highest levels of MOH were found in vegetable oil.

This would greatly affect the Philippines' exports and facilitate the need to improve the existing copra production system. Crude coconut oil (CNO) has been the country's biggest agricultural export, with the Netherlands as the number one export destination. Europe is also the biggest market destination for the country's coconut oil products, accounting for a 49.56% market share of the country's total coconut oil exports.

V. Skills Needs

The Unified Value chain (Figure 2) from the COCOFIRM shows the different segments and functions of the respective coconut products (traditional and non-traditional). Each value chain map is made of three inter-linked components: (1) the different players (i.e., input suppliers, inbound and outbound logistics service providers, coconut farmers, traders, and processors); (2) the business enabling environment (e.g., laws, regulations, and policies); and (3) support services (COCOFIRM, 2022).

Figure 2. Unified Value Chain of the Coconut Industry



Source: Philippine Coconut Industry 2021- 2040

Focusing solely on the “processing” segment, which and using the previous results of the 2023 TESDA consultation report on the coconut industry, the various skills needs

of traditional and non-traditional coconut products can be inferred. The table below shows the type of processed coconut product and job/skills.

Table 3. Summary of the Skills Requirements under the Coconut Processing

Coconut Product Type	Competencies
Nut-Related Products	<ul style="list-style-type: none"> • Copra/White Copra Processing/Making • Virgin Coconut Oil Processing/Making • Coco Water Processing/Making • Desiccated Coconut Processing • Coco Flour Processing • Coco water vinegar making
Sap-Related Products	<ul style="list-style-type: none"> • Coco sugar Processing/Making • Aminos Processing • Liquor (Wine, Tuba, Lambanog) Making • Vinegar Making
Non-Food Products	<ul style="list-style-type: none"> • Coco Peat Processing/Making • Coco Shell (Coco Briquette) Processing/Making • Coco Husk Processing/Making

Source: 2023 Industry Consultation - Coconut

In addition to this, TESDA has been implementing the Area-based and Demand Driven (ABDD) TVET Initiative, in which the respective regional and provincial offices conduct an area scanning of the local labor requirements to produce a list of skills priorities in their respective areas. The table below shows the Regions, Provinces, coconut-related skills requirements, and whether they have any corresponding TVET programs.

Table 4. Summary of the Regional and Provincial Skills Priorities related to Processed Coconut Products

Region	Province	Skills/Job	Corresponding TVET Program
BARMM	BASILAN	COCONUT BY-PRODUCT HANDICRAFT MAKING	NO CORRESPONDING TVET PROGRAM
BARMM	LANAO DEL SUR	COCONUT COIR-BASED PROCESSING	NO CORRESPONDING TVET PROGRAM
BARMM	LANAO DEL SUR	COCONUT SHELL CHARCOAL PROCESSING	NO CORRESPONDING TVET PROGRAM

BARMM	LANAO DEL SUR	COCONUT SUGAR PROCESSING	NO CORRESPONDING TVET PROGRAM
BARMM	LANAO DEL SUR	COCONUT WATER PROCESSING	NO CORRESPONDING TVET PROGRAM
BARMM	LANAO DEL SUR	VIRGIN COCONUT OIL PROCESSING	NO CORRESPONDING TVET PROGRAM
BARMM	MAGUINDANA O	VIRGIN COCONUT OIL (VCO) PROCESSING	FOOD PROCESSING NC II
BARMM	MAGUINDANA O	COCONUT BRICKS FABRICATOR	NO CORRESPONDING TVET PROGRAM
BARMM	MAGUINDANA O	COCONUT VINEGAR PRODUCTION	FOOD PROCESSING NC II
BARMM	MAGUINDANA O	COCONUT COOKING OIL PROCESSING	FOOD PROCESSING NC II
BARMM	MAGUINDANA O	COCONUT COIR PROCESSING	NO CORRESPONDING TVET PROGRAM
BARMM	MAGUINDANA O	COCONUT CHARCOAL BRIDGETTE PRODUCTION	NO CORRESPONDING TVET PROGRAM
BARMM	MAGUINDANA O	HYBRIDIZATION OF COCONUT	NO CORRESPONDING TVET PROGRAM
BARMM	MAGUINDANA O	COCONUT CACAO INTERCROPPING	AGRICULTURAL CROPS PRODUCTION NC II
BARMM	MAGUINDANA O	COCONUT MORPHOLOGY	NO CORRESPONDING TVET PROGRAM
BARMM	TAWI-TAWI	HANDICRAFT: COCONUT HANDICRAFT	NO CORRESPONDING TVET PROGRAM
BARMM	TAWI-TAWI	COCONUT PROCESSOR (VCO PROCESSING)	FOOD PROCESSING NC II
BARMM	TAWI-TAWI	COCONUT PROCESSOR (BRIQUETTE MAKING)	NO CORRESPONDING TVET PROGRAM
BARMM	BASILAN	COPRA PROCESSOR	NO CORRESPONDING TVET PROGRAM
BARMM	LANAO DEL SUR	COPRA PROCESSORS	NO CORRESPONDING TVET PROGRAM
BARMM	SULU	COPRA TRADING	NO CORRESPONDING TVET PROGRAM

CARAGA	AGUSAN DEL SUR	COCONUT OIL PROCESSOR	FOOD PROCESSING NC II
CARAGA	AGUSAN DEL SUR	VIRGIN COCONUT OIL PROCESSOR	FOOD PROCESSING NC II
CARAGA	DINAGAT ISLANDS	VIRGIN COCONUT OIL PROCESSORS	NO CORRESPONDING TVET PROGRAM
CARAGA	DINAGAT ISLANDS	VIRGIN COCONUT OIL PROCESSORS	NO CORRESPONDING TVET PROGRAM
CARAGA	SURIGAO DEL SUR	COCONUT FARMER, COPRA PROCESSOR	NO CORRESPONDING TVET PROGRAM
CARAGA	SURIGAO DEL SUR	COCONUT FARMER, COPRA PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION IV-B	PALAWAN	COCONUT PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION IV-B	ROMBLON	COCONUT STRIPPER	NO CORRESPONDING TVET PROGRAM
REGION IV-B	ROMBLON	COCONUT SHELL CRAFTS MAKER	NO CORRESPONDING TVET PROGRAM
REGION IV-B	ROMBLON	COCONUT SHELL CRAFTS DESIGNER	NO CORRESPONDING TVET PROGRAM
REGION IX	ZAMBOANGA DEL SUR	COCONUT PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	VIRGIN COCONUT OIL PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	VIRGIN COCONUT OIL PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	COCONUT HONEY AND SUGAR PRODUCERS	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	COCONUT HONEY AND SUGAR PRODUCERS	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	COCONUT VINEGAR PRODUCERS	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	COCONUT VINEGAR PRODUCERS	NO CORRESPONDING TVET PROGRAM
REGION V	ALBAY	COCONUT/ CACAO PROPAGATION	NO CORRESPONDING TVET PROGRAM

REGION V	CAMARINES NORTE	COCONUT MANUFACTURER	NO CORRESPONDING TVET PROGRAM
REGION V	CAMARINES SUR	COCONUT SAP COLLECTOR	NO CORRESPONDING TVET PROGRAM
REGION V	CAMARINES SUR	HYBRID COCONUT FARMER	NO CORRESPONDING TVET PROGRAM
REGION V	SORSOGON	VALUE ADDING OF AGRI-CROPS(VIRGIN COCONUT OIL (VCO) PROCESSORS)*	NO CORRESPONDING TVET PROGRAM
REGION V	CAMARINES SUR	COPRA MAKING/ PROCESSING	NO CORRESPONDING TVET PROGRAM
REGION VI	AKLAN	COCONUT SPECIALIST	NO CORRESPONDING TVET PROGRAM
REGION VI	AKLAN	COCONUT HUSK PRODUCTION	NO CORRESPONDING TVET PROGRAM
REGION VI	CAPIZ	COCONUT PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VI	ILOILO	COCONUT PROCESSOR (HIGH VALUED CROPS), VIRGIN COCONUT OIL PROCESSOR	FOOD PROCESSING NC II
REGION VI	AKLAN	COPRA CRUSHER OPERATOR	NO CORRESPONDING TVET PROGRAM
REGION VII	BOHOL	INTEGRATED COCONUT AND CASH CROPS PRODUCTION AND PROCESSING (BY PRODUCTS LIKE SHELL,DUST, COIR)	NO CORRESPONDING TVET PROGRAM
REGION VII	SIQUIJOR	COCONUT SHELL CHARCOAL MAKING	NO CORRESPONDING TVET PROGRAM
REGION VII	SIQUIJOR	COCONUT BY-PRODUCT PROCESSING	NO CORRESPONDING TVET PROGRAM
REGION VII	SIQUIJOR	COCONUT WINE HARVESTING	NO CORRESPONDING TVET PROGRAM
REGION VIII	BILIRAN	COCONUT COIR PRODUCTION WORKERS	NO CORRESPONDING TVET PROGRAM
REGION VIII	EASTERN SAMAR	VIRGIN COCONUT OIL PROCESSING	NO CORRESPONDING TVET PROGRAM
REGION VIII	NORTHERN SAMAR	VIRGIN COCONUT OIL PROCESSOR	NO CORRESPONDING TVET PROGRAM

REGION VIII	NORTHERN SAMAR	COCONUT COIR PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VIII	NORTHERN SAMAR	COCONUT COIR PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VIII	NORTHERN SAMAR	VIRGIN COCONUT OIL PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VIII	SAMAR	VIRGIN COCONUT OILS PROCESSORS	NO CORRESPONDING TVET PROGRAM
REGION VIII	SOUTHERN LEYTE	VIRGIN COCONUT OIL PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VIII	SOUTHERN LEYTE	COCONUT WATER VINEGAR PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION VIII	SOUTHERN LEYTE	DESICCATED COCONUT PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION X	MISAMIS OCCIDENTAL	COCONUT PRODUCTS PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO CITY	COCONUT DEHUSKER	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO DE ORO	COCONUT FIBER MATTRESS MAKER	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO DE ORO	COCONUT HUSKER (2)	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO OCCIDENTAL	COCONUT FARMER, COCONUT PROCESSOR	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO ORIENTAL	COCONUT-BASED PRODUCT PROCESSORS	NO CORRESPONDING TVET PROGRAM
REGION XI	DAVAO ORIENTAL	COCONUT PRODUCERS AND PROCESSORS	NO CORRESPONDING TVET PROGRAM
REGION XII	SOUTH COTABATO	COCONUT-BASED FOOD PROCESSING	NO CORRESPONDING TVET PROGRAM
REGION XII	SULTAN KUDARAT	COCONUT BY-PRODUCT PROCESSING	NO CORRESPONDING TVET PROGRAM

Source: Consolidated Regional/Provincial R/PTESDP Action Programming

It can be inferred from the table that four regions identified copra processing/processor as a priority, these were BARMM, CARAGA, V and VI ; similarly, at least three (3) regions identified VCO processing/processor and coconut product processor.

VI. Results of the Validation Meeting

With the coconut-related skills requirements identified by the respective regions as well as the previous results of the coconut industry consultation, the industry identified the following tables that show the skills requirements for Training Regulation Development and Competency Standards Development.

Table 5. Skills/Jobs for the Development of Training Regulation (TR) Development.

Coconut Product Type	Skills Requirements
Nut-Related Products	<ul style="list-style-type: none">• Copra/White Copra Processing/Making• Virgin Coconut Oil Processing/Making• Coco Water Processing/Making• Desiccated Coconut Processing• Coco Flour Processing• Coco Water Vinegar making
Sap-Related Products	<ul style="list-style-type: none">• Coco Sugar Processing/Making• Aminos Processing• Liquor (Wine, Tuba, Lambanog) Making• Vinegar Making• Nata De Coco Making
Non-Food Products	<ul style="list-style-type: none">• Coco Peat Processing/Making• Coco Shell (Coco Briquette) Processing/Making• Coco Husk Processing/Making

Based on the discussion, PCA does not have any references on the coconut furniture, though it has some similarities in the competencies needed in carpentry. The difference is in the preparation of materials and the operation of equipment. Additionally, PCA stated that the organization lacks the necessary infrastructure for coconut handicrafts and furniture making.

The PCA also notified TESDA about the possible inclusion of buko (young coconut)-related processing as a priority skills requirement. Upon rechecking, only Region V has identified buko-related skills requirements in their R/PTESDP Action Programming. The said qualifications (Buko processing, Coconut Handicrafts, and Furniture Making) were identified to be for Competency Standards (CS) development.

Table 6. Skills/Jobs for Development of Competency Standards (CS) Development.

Coconut Product Type	Competencies
Nut-Related Products	<ul style="list-style-type: none"> • Buko (Young Coconut) Processing
Non-Food Products	<ul style="list-style-type: none"> • Coconut Handicrafts Making • Coconut Furniture Making

The representatives also reiterated the importance of strengthening skills in the production industry, particularly in the skills needed on the farms, and increasing capability-building activities. New industry products such as VCO were also highlighted as a priority skill as these types of coconut products were seen as having high market value.

The table below shows the mapping of the identified coconut skills vis-à-vis the existing TESDA qualifications. It should be noted that some of the identified qualifications have corresponding existing area-based competency standards (CS).

Table 7. Equivalent Qualifications for Identified Priority Requirements in the Coconut Industry

Coconut Product Type	Skills Requirements	Corresponding Qualifications
For TR Development		
Nut-Related Products	Copra/White Copra Processing/Making	
	Virgin Coconut Oil Processing/Making	Virgin Coconut Oil Processing (Centrifuge Method) Level II
	Coco Water Processing/Making	
	Desiccated Coconut Processing	
	Coco Flour Processing	
	Coco Water Vinegar Making	
Sap-Related Products	Coco Sugar Processing/Making	Coconut Sugar Processing Level II
	Aminos Processing	
	Liquor (Wine, Tuba, Lambanog)	

	Making	
	Vinegar Making	
	Nata De Coco Making	
Non-Food Products	Coco Peat Processing/Making	
	Coco Shell (Coco Briquette) Processing/Making	
	Coco Husk Processing/Making	
For CS Development		
Nut-Related Products	Buko (Young Coconut) Processing	
Non-Food Products	Coconut Handicrafts Making	
	Coconut Furniture Making	

VII. TVET Capacity and Infrastructure

As stated in the previous sections, TESDA and PCA have collaborated in the development of coconut-related programs, namely the development of a national competency standard (CS) - Coconut Production Level II, which was approved by the TESDA Board to be developed into a Training Regulation. TESDA, through its ABDD strategy, facilitates the development of area-based CS, which will be offered for that specific region/province. The following tables show the capacity and infrastructure of the coconut-related programs.

Table 8 shows that there are currently three developed coconut programs, with one being a national competency standard (CS) and the other two being area-based competency standards, both developed by Region VIII. The results show that in 2024, there was no data on enrollees and graduates under the three coconut-related programs. It should be noted that the two area-based competency standards were developed in 2025, and the national CS (Coconut Production Level II) was developed in 2024, which could explain the lack of data.

Table 8. Total Number of Enrolled, Graduated by Coconut-related Competency Standards (National & Area-based) by Sex, As of 2024

Competency Standards (CS)	2024					
	Enrolled			Graduated		
	Male	Female	Total	Male	Female	Total
Coconut Sugar Processing Level II	0	0	0	0	0	0
Virgin Coconut Oil Processing (Centrifuge Method) Level II	0	0	0	0	0	0

Other than the developed program, there are also coconut-related NTRs, or No Training Regulations, which do not have a national certification. Table 9 shows that from 2022 - 2024, the total number of enrollees and graduates for coconut-related programs registered under NTR accumulated to 1630 and 1531, respectively. This resulted in a 93.93% completion rate for the last three fiscal years. Among the programs, the following had data in 2024, this are: Coco Husk Production Processing And Marketing, Coco Shell

Accessories Production And Marketing, Coco Sugar Processing, Coconut Sugar Processing, Coconut Vinegar Processing, and Livelihood Improvement Of Coconut Farmers.

Table 9. Total Number of Enrolled, Graduated by No Training Regulation (NTR) Program by Sex, from 2022 to 2024

No Training Regulation (NTR) Programs	2022						2023						2024					
	Enrolled			Graduated			Enrolled			Graduated			Enrolled			Graduated		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Basket Weaving Using Coconut Midrib (Tukog)	0	0	0	0	0	0	59	33	92	59	33	92	0	0	0	0	0	0
Coco Coir Processing	99	67	166	98	65	163	0	0	0	0	0	0	0	0	0	0	0	0
Coco Husk Production Processing And Marketing	0	0	0	0	0	0	69	29	98	69	29	98	75	41	116	59	32	91
Coco Shell Accessories Production And Marketing	0	0	0	0	0	0	0	0	0	0	0	0	93	57	150	93	57	150
Coco Shell Production And Marketing	0	0	0	0	0	0	51	20	71	51	19	70	0	0	0	0	0	0

No Training Regulation (NTR) Programs	2022						2023						2024					
	Enrolled			Graduated			Enrolled			Graduated			Enrolled			Graduated		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Coco Sugar Processing	124	66	190	104	55	159	3	2	5	20	10	30	64	81	145	53	67	120
Coconut Sugar Processing	0	0	0	0	0	0	35	15	50	35	15	50	0	0	0	0	0	0
Coconut Vinegar Processing	0	0	0	0	0	0	35	15	50	35	15	50	13	12	25	13	12	25
Nata De Coco Production	0	0	0	0	0	0	63	12	75	63	12	75	0	0	0	0	0	0
Virgin Coconut Oil Processing	189	93	282	154	80	234	53	37	90	68	33	101	0	0	0	0	0	0
Total	412	226	638	356	200	556	368	163	531	400	166	566	252	209	461	224	185	409

Source: Consolidated Data of EG Output from TESDA

In terms of infrastructure, Table 10 shows the number of trainers and registered programs under the coconut-related National and Area-based CS. Only Coconut Production Level II has trainers and registered programs, which are 17 and 11, respectively; the other two programs have none. As stated previously, the two area-based CS were just recently developed, thus the lack of TVET infrastructure data.

Table 10. Total Number of Registered Programs and Competency Assessors by Program by Sex, As of 2024

Qualification	2024	
	Trainers	Registered Programs
Coconut Sugar Processing Level II	0	0
Virgin Coconut Oil Processing (Centrifuge Method) Level II	0	0

Source Consolidated Data of EG Output from TESD

VIII. Ways Forward

As the Philippine Coconut Authority (PCA) and other partner agencies continue to implement and monitor the programs mandated in R.A. No. 11524, otherwise known as the "Coconut Farmers and Industry Fund Act," lingering challenges could still affect the coconut processing industry's prospects. From low farm productivity due to aging trees, low quality copra production, coconut tree diseases, pests, fluctuating market prices, inefficient supply chains, the threat of deforestation, and the new proposed policy on MOSH/MOAH affecting the coconut oil supply to the European markets. TESDA can strengthen the coconut processing industry by standardizing the tasks and processes for each coconut product, which could improve the quality of the products being produced. It has done similar collaborations previously with the PCA, such as the ongoing development of the coconut production training regulation (TR)

The following are recommendations for TESDA:

For the Qualification (QS0)

Development of Coconut Processing Related Programs

Based on the industry validation, there is a need to standardize and certify skills in the processing value chain to assist in providing quality coconut products. The skill/job recommended for the development of a full-blown Training Regulation (TR) is provided in the table below.

Coconut Product Type	Skills Requirements
Nut-Related Products	<ul style="list-style-type: none">● Copra/White Copra Processing/Making● Virgin Coconut Oil Processing/Making● Coco Water Processing/Making● Desiccated Coconut Processing● Coco Flour Processing● Coco Water Vinegar making
Sap-Related Products	<ul style="list-style-type: none">● Coco Sugar Processing/Making● Aminos Processing● Liquor (Wine, Tuba, Lambanog) Making● Vinegar Making● Nata De Coco Making

Non-Food Products	<ul style="list-style-type: none"> • Coco Peat Processing/Making • Coco Shell (Coco Briquette) Processing/Making • Coco Husk Processing/Making
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Additionally, while waiting for the presentation to the TB-DSC and its approval, the development of a Competency Standard may be done as a parallel activity to support industry demand. Furthermore, the development of the said program, once prioritized, shall be facilitated by the Qualification and Standards Office (QSO).

The validation meeting yielded skills for the production and processing segments for CS Development that may assist the farmers in increasing their profitability and market share. The skills recommended for Competency Standards (CS) Development are listed in the table below.

Coconut Product Type	Skills Requirements
Nut-Related Products	<ul style="list-style-type: none"> • Buko (Young Coconut) Processing
Non-Food Products	<ul style="list-style-type: none"> • Coconut Handicrafts Making • Coconut Furniture Making

It is also recommended that the development of the above-mentioned standards consider the results of the Area-Based and Demand Driven TVET, identified priority skills, industry, and experts from regions/provinces with identified related requirements. Notably, four (4) regions (Regions 5, 6, CARAGA, and BARMM) identified Copra processing/processor/making, and five (5) regions (Region 5, 6, 8, CARAGA, and BARMM) identified virgin coconut oil processor/making.

For the Planning Office (PO)

Assist in the preparation of the TESDA Board - Direction Setting Committee (TB-DSC)

Relative to this and as part of the prioritization process, the Planning Office shall assist the determined industry champion in preparing for the presentation to the TESDA Board - Direction Setting Committee (TB-DSC).

The Regional Operations Management Office (ROMO)

Scholarship Allocation

With the ongoing implementation of the Coconut processing-related programs covered under the partnership between the PCA and TESDA in support of the RA

11524, the ROMO must consider the identified skills requirements as a priority in the allocation of the scholarship funds.

For the Partnership and Linkages Office (PLO)

Continue its monitoring of the actions and activities under the 2022 Memorandum of Agreement between TESDA and the Philippine Coconut Authority.

The PLO must continually monitor TESDA's ongoing MOA with PCA and ensure that all stipulated activities are done and coordinated, especially the provision of scholarship allocations and the development of coconut-related programs. As aligned with R.A. 11524, the MOA requires that PCA and TESDA collaborate in various activities, including the development of coconut-related programs.

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