

TRADE AND MARKET DEVELOPMENTS OF TRADITIONAL AND EMERGING/ NON-TRADITIONAL COCONUT PRODUCTS IN THE PHILIPPINES

Yvonne T.V. Agustin

Introduction

Ten years ago, Philippine export of coconut products consisted of 40 products and by products shipped to 103 destinations. Revenue then was USD618.4 million. Fast forward, in 2011, the number of products was about the same at 38 but destinations expanded to 115 and revenue rocketed to nearly USD2 billion, at USD1.96 billion to be exact.

Mainstay products then were coconut oil, copra meal, desiccated coconut, the major oleochemicals, coco shell charcoal, activated carbon and destinations were US, Europe, China, and Japan. Now we have new products like coco flour, virgin coconut oil (VCO), coconut water, coconut sugar, among others, and new outlets in Azerbaijan, Croatia, Lithuania, Slovakia, Ukraine in Europe and Australia, New Zealand, Korea, Malaysia, Indonesia, India among others in Asia, and the Pacific countries.

Importing countries then were more protective, levying high import duties on various products. Now, we have forged FTAs (Free Trade Areas) with selected countries and tariff walls were gradually eliminated and about to see extinction shortly. Nevertheless, new constraints also come via other non-tariff barriers to trade like SPS requirements.

The Philippines leads in the export of a number of coconut products, though not the biggest producer of coconuts. Our annual production comes to 15.5

billion nuts (2008-2010 average), according to data from the Bureau of Agricultural Statistics, harvested from 340.42 million bearing coconut palms planted in 3.453 million hectares. In copra equivalent, coconut production averages 2.538 million MT per year (2009-2011 average).

Bulk of our annual production at about 90% is processed into copra for the oil milling sector producing an average 1.45 million MT of coconut oil for the export market and for processing into edible oil, oleochemicals and biodiesel. A smaller part of production is consumed as mature husked nuts and young coconuts. The former's biggest consumers are desiccated coconut manufacturers, followed by coconut milk/cream producers, VCO producers, and the households. The young coconuts are mainly utilized for salads and for its water. The

coconut husk and coconut shell also have their respective uses in industry and contribution in domestic and export trade.

Profiles Major Coco Exports Coconut Oil

Coconut oil export from the Philippines totals 1 million MT annually and earned USD1.085 billion per year in foreign exchange. Coconut oil export represents 68.7% of total coconut oil production. The share of export has declined from 78.7% seven years ago prior the Biofuels Act of 2006 as significant volume has gone to biodiesel production for blending with fossil diesel for the transport sector. Major markets are still the US and Europe which account for 38.6 % and 45.9%, respectively of total trade. Outside of these two markets, key importers are China and Japan.

Top 10 Non-Traditional Exports of the Philippines
(Volume in MT, Value in FOB US\$)

| Commodity | 2011 | | 2010 | | 2009 | | 2006 | |
|-------------------------------|------------|--------------------|-----------|-------------------|---------|-------------------|---------|-------------------|
| | Volume | Value | Volume | Value | Volume | Value | Volume | Value |
| 1) Glycerin (1) | 28,445 | 28,043,542 | 28,305 | 22,592,807 | 20,127 | 17,778,581 | 11,290 | 8,072,170 |
| 2) Virgin Coconut Oil (3) | 4,914 | 22,498,130 | 2,737 | 8,340,742 | 1,801 | 5,587,572 | 504 | 1,488,172 |
| 3) Toilet/ Bath Soap (2) | 6,496 | 16,185,937 | 8,242 | 16,577,591 | 1,915 | 4,782,799 | 2,942 | 8,010,929 |
| 4) Coconut Water (liters) (8) | 16,685,350 | 15,113,152 | 1,807,583 | 1,841,716 | 483,772 | 368,141 | 462,340 | 318,066 |
| 5) Coco Milk Powder (5) | 2,481 | 10,268,206 | 1,154 | 3,133,327 | 1,791 | 5,696,462 | 2,717 | 5,936,773 |
| 6) Nata de Coco (4) | 6,346 | 6,650,032 | 5,337 | 5,894,719 | 6,051 | 6,034,433 | 4,675 | 3,507,306 |
| 7) Liquid Coco Milk (7) | 2,919 | 5,304,712 | 1,119 | 1,983,972 | 1,932 | 3,228,410 | 1,782 | 2,192,239 |
| 8) Fresh Coconut (14) | 7,338 | 3,335,215 | 2,449 | 627,377 | 1,638 | 358,829 | 2,112 | 642,304 |
| 9) Shampoo (6) | 687 | 2,816,967 | 546 | 2,508,825 | 551 | 2,062,998 | 1,175 | 3,701,549 |
| 10) Coir Products (8) | 7,635 | 2,578,267 | 8,551 | 1,946,133 | 7,980 | 1,327,882 | 6,207 | 1,605,199 |
| Total Value | | 112,794,160 | | 65,447,209 | | 47,226,107 | | 35,474,707 |

Source of Basic Data: Philippine Coconut Authority (PCA) and United Coconut Associations of the Philippines (UCAP)

There are three types of coconut oil products exported namely crude coconut oil which accounts for 73.2% of total coconut oil export, cochin oil (refined, bleached oil) which accounts for 23.9% and RBD oil at 2.9%. Interestingly, though limited in volume, RBD oil has had a growing number of importing countries.

At export destinations coconut oil is not consumed as cooking oil like we do in the Philippines. It is further processed mainly as feedstock for oleochemicals such as fatty alcohols, fatty acids, methyl ester which in turn are processed further into high value consumer products such as shampoos, detergents, surface active agents, cosmetics, pharmaceuticals, plastics, synthetic resins, etc. Utilization in the food sector is only as specialty oil for specific uses. As confectionery fat, it is used in the preparation of ice creams, in imitation chocolates where it is used in place of cocoa butter along with cocoa powder, as spray oil for crackers.

Demand therefore for coconut oil in these sectors is inelastic because it is based from its unique chemical properties rather than physical properties. Coconut oil competes directly with palm kernel oil in these markets because both oils can be used interchangeably in almost all uses in industry due to their similar fatty acid composition. Both oils are called lauric oil because of their high lauric fatty acid content.

In contrast, in the Philippines, coconut oil is mainly used as cooking oil; raw material for margarine, shortening and other specialty fats; as replacement for milk fat in reconstituted milk; spray oils for crackers and biscuits, among others. In the non-food sector, it is used mainly as biodiesel, for soaps and

detergents, and oleochemicals production.

In world trade, coconut oil competes with 16 other fats and oils where market leaders are palm oil, soybean oil, rapeseed oil, and sunflower oil. Coconut oil accounts for only 3.2% of total oils and fats traded globally. However, the Philippines takes leadership in the coconut oil trade responsible for 48.5% of world coconut oil trade.

Being a minority in oils/fats trade, it is only a price taker and largely takes cue from price movements in the international market, notably in soybean oil and palm oil futures markets which in turn are also influenced by external factors such as but not limited to the petro oil, metals and other commodities, and financial markets, and global macroeconomic developments. Currently, the market watches developments in Eurozone notably in Greece, Italy, Spain as well as economic indicators in the US and China for guidance.

Palm kernel oil production has grown exponentially with phenomenal growth in palm oil output as it is a co-product of

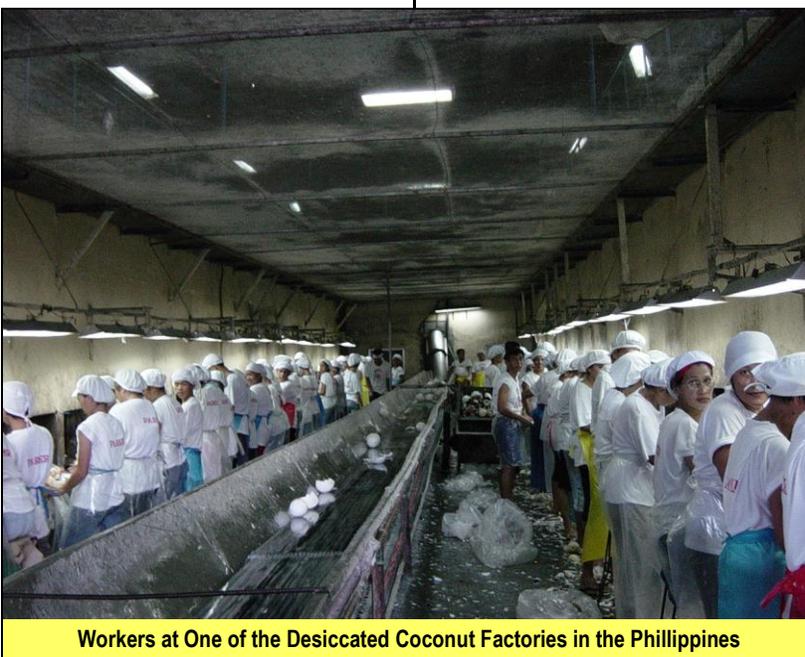
palm oil production. Since 2003, it has overtaken coconut oil production. In terms of prices, coconut oil used to enjoy price advantage vis-à-vis palm kernel oil but this price relationship has become erratic lately. As against palm oil and soybean oil, however, coconut oil is still priced higher.

Copra Meal

Copra meal is by-product of copra milling. It is used mainly as animal feed ingredient especially for cattle. The Philippines exports around 479,499 MT of copra meal a year with Asia as its market. It turns in USD61.681 million per year. Korea and Vietnam are two leading markets for copra meal because of the growing livestock industry there.

Desiccated Coconut

Desiccated coconut is white, hygienically dried coconut meat presented in various cuts such as fines, medium, extra fines, macaroons, rice, flakes, threads, and other special cuts. It is used as toppings for cakes and pastries as well as fillers in chocolate candy bars, among others.



Workers at One of the Desiccated Coconut Factories in the Philippines

Practically all of Philippines' desiccated coconut production is exported, with the US as a primary market. Merely less than 3% is retained for domestic consumption mainly by institutional users like hotels, pastry and bakery industries. Household consumers in the country are mostly expatriates familiar with desiccated coconut in their countries. The Philippines is the world's biggest supplier of desiccated coconut. Other exporters are Sri Lanka, Indonesia, Malaysia and Vietnam.

The desiccated coconut industry is the country's biggest consumer of husked nuts, its raw material. There are presently 10 desiccated coconut plants in the country located mainly in Southern Tagalog and Mindanao with aggregate installed production capacity of 132,709 MT. If operating at full capacity, this industry sector could aggregately consume about 1.0 billion husked nuts in one year.

The price of desiccated coconut is influenced largely by the price of husked nuts which is derived from the price of copra which in turn tracks coconut oil prices. So, even desiccators also watch coconut oil price movements as husked nuts account for over 75% of processing cost. Among the major coconut export products, desiccated coconut has the most diverse market penetrating about 40 countries all over the world last year. It also commands the highest price among the major coconut export products.

Going by the aggregate volume of export of major desiccated coconut producing countries, Philippine and Sri Lanka, in the last three years show increased participation of other desiccated coconut producing countries on the export market. Annual export volume of the two

countries averaged 149,073 MT. In 2006, however, their total export stood at 177,838 MT, a decline by 16.2%. The Philippines' principal market is the United States while that of Sri Lanka's is the European Union. Desiccated coconut is a major coconut export of Sri Lanka as opposed to the Philippines whose top export is coconut oil.

Oleochemicals

Oleochemicals produced in the Philippines are derived from coconut oil. These are mainly the intermediate chemicals such as methyl ester, fatty alcohol, fatty acid, glycerin, amides. Glycerin is the by-product of oleochemicals production. Coconut oil-based biodiesel, which we call coco-biodiesel, is basically methyl ester.

There is only limited use for oleochemicals in the country, save for coco biodiesel which accounts for around 140,000 MT in equivalent coconut oil feedstock at the current 2% blend with fossil diesel. The government is studying the possibility of increasing the coco biodiesel blend to 5%. This should utilize some 350,000 MT of coconut oil feedstock to support the 5% requirement. There are nine biodiesel producers accredited by the Department of Energy with aggregate installed capacity of 373,000 MT.

The oleochemicals sector ships out an average 29,357 MT in copra terms worth USD21.818 million. This accounts for less than 1% (0.49%) of total foreign exchange revenue from coconut. Major markets are Asia and Pacific, Europe and the US, in that order.

Copra

The Philippines still export limited amount of copra since the

ban on exportation was lifted many years ago. Shipment, however, is not on regular basis as other major products. This is delivered mainly to Korea.

Coco Shell Products Exports

➤ Coco Shell Charcoal

Export of coconut shell charcoal averages 29,548 MT annually valued at USD10.103 million. It is shipped mainly to Japan, China and Korea.

➤ Activated Carbon

Activated carbon is high-value coco shell product derived from coconut shell charcoal. Its market is more diversified when compared with charcoal. Leading destination is Japan with Europe, US, Korea and Ghana comprising the top five markets.

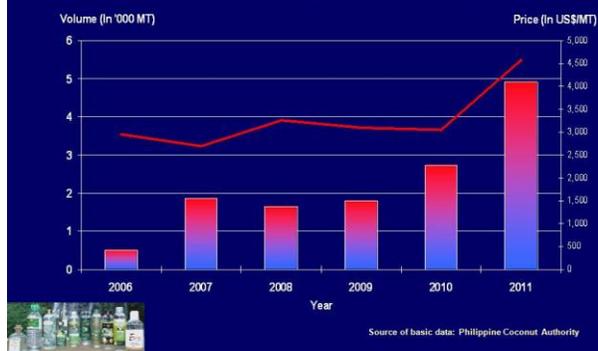
This sector turns in USD34.375 million from shipment of 24,195 MT a year.

Non-Traditional Exports

There are a number of other coconut products and by-products exported from the Philippines which we call non-traditional exports. This group contributes a total USD81.806 million in revenue and accounts for 1.8% of total coconut export income. For purposes of this paper, we will dwell only on the top 10 major exports, basis performance in 2011.

Though not in the top ten export, however, the Philippine coconut industry has begun shipping coconut sugar since 2009 to various countries. A product from coconut sap, coconut sugar, is another coconut product which is good for the health, especially for diabetics. A natural sweetener, coconut sugar has a glycemic index of 35 and is classified as a low glycemic index food. Consumption of

Export Volume and Price of Virgin Coconut Oil: Philippines



Export Destinations of Virgin Coconut Oil from the Philippines

(In MT)

| Destination | 2011 | % Share | 2010 | % Share | 2009 | % Share |
|---|---------------|--------------|--------------|--------------|--------------|--------------|
| USA | 2,577 | 52.4 | 1,498 | 54.7 | 1,082 | 60.1 |
| Canada | 947 | 19.3 | 569 | 20.8 | 496 | 27.6 |
| Europe | 779 | 15.8 | 370 | 13.5 | 137 | 7.6 |
| Taiwan | 290 | 5.9 | 28 | 1.0 | 6 | 0.3 |
| Australia | 113 | 2.3 | 157 | 5.7 | 23 | 1.3 |
| Asean (Brunei, Indonesia, Malaysia, Singapore, Thailand, Vietnam) | 40 | 0.8 | 28 | 1.0 | 12 | 0.7 |
| Japan | 30 | 0.6 | 5 | 0.2 | 3 | 0.1 |
| New Zealand | 22 | 0.4 | 8 | 0.3 | 1 | 0.1 |
| Others | 116 | 2.4 | 74 | 2.7 | 41 | 2.3 |
| TOTAL (MT) | 4,914 | 100.0 | 2,737 | 100.0 | 1,801 | 100.0 |
| ('000 US\$) | 22,498 | 100.0 | 8,341 | 100.0 | 5,588 | 100.0 |

Source of basic data: Philippine Coconut Authority

coconut sap sugar is good for people who wanted to reduce and maintain weight, and most importantly in the proper control and management of diabetes mellitus. It may also lower serum cholesterol and thus lower, if not prevent, risk for cardiovascular and coronary heart disease.

Similar to virgin coconut oil, coconut sugar export grew from 11,200 kg in 2009 to 36,310 kg in 2010 and exponentially to 70,000 kilos in 2011, PCA data show. Destinations also have expanded from Japan and the US in 2009 to the Middle East, Asia, and Europe last year.

The top 10 non-traditional exports in 2011 based on foreign exchange generated were as follows: (1) Glycerin, (2) Virgin coconut oil, (3) Toilet/Bath soap, (4) Coconut water, (5) Coconut milk powder, (6) Nata de coco, (7) Liquid coconut milk, (8) Fresh coconuts, (9) Shampoo, and (10) Coir products. The group turned in US\$112.794 million during the year, a sharp leap from US\$65.447 million earned by these products in the prior year. The increase was driven by massive rise in export of virgin coconut oil, coconut water, coconut milk powder, liquid coconut milk, and fresh coconuts.

Market Opportunities in FTA Markets

FTA is an agreement between two or more countries to establish a free trade area where commerce in goods and services can be conducted across their common borders, with reduced or no tariffs or hindrances.

Reasons for Philippine participation in FTAs are to: maintain competitiveness, cross border industrial complementation, sustain inflows of investments, mutual support on issues of common interest, and re-enforce one another's strength and weakness.

The Philippines currently is party to six Free Trade Areas (FTAs), the first being AFTA (Asean Free Trade Area) whose implementation has been completed since last year, thus import duties in trade in goods mostly within ASEAN have been eliminated since 2010 especially for vegetable oils. ACFTA (Asean-China Free Trade Area) started in 2006 and was fully implemented in 2010 as well for most products. AKFTA (Asean-Korea Free Trade Area) followed in 2007, and AANZFTA (Asean-Australia-New Zealand Free Trade Area) was operational in 2010. There is also AJCEPA (Asean-Japan Comprehensive Economic Partnership Agreement) and the PJEPA (Philippine-Japan Economic Partnership Agreement), as well as the AIFTA (Asean-India Free Trade Area). AIFTA was the latest. It should be noted that

the Philippines only has one bilateral trade agreement which was forged with Japan (PJEPA) and the rest were FTAs with Asean as vehicle.

The Philippines ships various coconut products to these markets. A cursory look at the performance of Philippine coconut products to these markets revealed the following:

ASEAN 6 - Before AFTA, coconut oil and oleochemicals were the major exports to ASEAN. There has been a declining trend in coconut oil export but this was because of the rising palm kernel oil production in Indonesia and Malaysia, major importers of coconut oil in ASEAN. As earlier mentioned palm kernel oil and coconut oil are interchangeable in almost all uses in industry. World production of palm kernel oil has overtaken that of coconut oil since 2003. The decline in oleochemicals was also due to similar reason.

On the other hand, a number of products have shown exaggerated growth like activated carbon (+54.8%), toilet bath soap (+183.7%), glycerin (+396.6%), desiccated coconut (+675.5%), coconut milk (+2,087.5%) and virgin coconut oil (+3,900.0%).

China - Major exports prior FTA were coconut oil, copra meal, oleochemicals, glycerin, coir products, and charcoal. With

FTA, tariff on coconut oil was reduced to the level of Indonesia, its major source of lauric oils. During this period (2010) volume of import grew to nearly fourfold. Last year, however, purchases dropped sharply due to low coconut production and high prices but nonetheless volume was still almost double the level prior FTA. Similarly, decline in copra meal imports in 2011 can be attributed to limited crushing activity in the Philippines due to low copra production.

In contrast, other products continued to see increased volume like glycerin (+22.5%), oleochemicals (+26.0%), and coir products (+76.0%). There were two products though that showed incredible growth: activated carbon (+229.0%) and fresh coconuts (+679.2%).

Korea - The country's coconut import comprise mainly copra meal, coconut oil, desiccated coconut, activated carbon, coconut shell charcoal, oleochemicals, and coir products. It appeared that the FTA in this case only helped sustain export for most these products. However, glycerin was seen as promising export product to Korea with substantial improvement in traded volume after FTA. Meanwhile, it remained the principal importer of copra meal.

Australia-New Zealand - Export to Australia and New Zealand was led by desiccated coconut and copra meal prior FTA. While delivery of desiccated coconut to this market remained steady during the operation of the agreement, copra meal exportation declined very sharply. On the other hand, coconut oil (+22.7%), activated carbon (+133.1%), coco flour (+172.9%), and virgin coconut oil (+462.5%) have so far shown the best performance in terms of growth.

Japan - The Japanese market remained an important outlet for coconut oil, glycerin, activated carbon, coco shell charcoal, nata de coco, copra meal and desiccated coconut. The FTA may have aided in the significant rise in export of activated carbon (+41.5%), glycerin (+57.3%), and coconut milk powder (+78.5%).

India - The newest FTA trading partner was India. There have been limited coconut export products, mainly oleochemicals and derived products, to this market. Coconut oil is less likely to penetrate this market as the country has to protect its coconut farmers, currently via high tariff of 100%. Though it is the world's biggest importer of vegetable oils, coconut oil is not in the buying list but palm oil and soybean oil. Coconut oil has been included in India's sensitive list, which mean highly protected. However, copra meal is its biggest coconut product import from the Philippines.

Finally, the performance of the various products was also examined for FTA utilization level in FTA partner markets. The following were observed:

Major exports such as crude coconut oil, cochin oil and desiccated coconut, and a few non-traditional exports such as coconut water, virgin coconut oil, coconut flour have low utilization level in FTA markets for the reason that these products have already established markets in the US and Europe. For instance, these markets together account for 89.0% of Philippine crude coconut oil export, 81.7% of coconut water, 79.2% of cochin oil, 68.2% of virgin coconut oil, 63.3% of desiccated coconut, and 57.2% of makapuno. In the case of desiccated coconut, in addition to having established markets

outside of FTA countries, the product is also produced in FTA partner countries like Indonesia, Malaysia, and Vietnam.

Products with high utilization rates in FTA markets were coconut shell charcoal, glycerin, Nata de Coco, coir products, fresh coconuts and copra meal. Those which have moderate utilization rates were RBD oil, toilet/bath soap, activated carbon, alkanolamide, and oleochemicals.

Summing up

1. Traditional markets US and Europe still are principal outlets for Philippine crude coconut oil (89.0% combined market share), cochin oil (79.2%), desiccated coconut (63.3%) and a few non-traditional exports such as coconut water (81.7%), virgin coconut oil (68.2%), and makapuno (57.2%).
2. Products with high utilization rates in FTA markets are copra meal, coconut shell charcoal, glycerin, Nata de Coco, coir products, and fresh coconuts.
3. Products with moderate utilization rates are RBD oil, toilet/bath soap, activated carbon, alkanolamide, and oleochemicals.

Though some products reflected increments in volume during the FTA period under review, it may need to establish databases for longer time frames to say with certainty that FTAs have indeed improved markets access for specific coconut products.

Yvonne T.V. Agustin is Executive Director, United Coconut Associations of the Philippines.