

Redefining the coconut sector

Scenario analysis and policy perspectives

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Introduction

The plantation sector of the country, especially the coconut sector, is unique in its production systems and value chains. Besides, coconut farming provides adequate interspaces for the intercropping of seasonal crops and thus ensures food security to a great extent. Nevertheless, in India, the coconut sector has been continuously facing the problems of lack of investment and depressed yields and is in great need of modernization. Their total coverage is comparatively less, and they are mostly confined to small holdings. However, the sector, dominated by millions of small and marginal farmers and mainly confined to economically and ecologically vulnerable regions, plays a crucial role as far as the issue of sustainability is concerned. In the present context, the major challenge is to develop an equitable and sustainable coconut economy, ensuring inclusive growth along with international competitiveness. The Indian coconut sector has the inherent strengths of varied agro-climatic conditions, huge domestic demand, the highest productivity, strong research and development, and the transfer of technology systems (Jayasekhar and Hughes, 2018). So far, the sector has not effectively utilised the possible

linkages between them for increasing production and marketing efficiencies. The small holder perspective in research needs to be emphasised in coconuts, considering the structure of operational holdings in this sector. Technologies appropriate for small holdings need to be developed for faster and wider technology adoption in the sector. The synergy from the developmental efforts of the various institutions that exist for specific purposes and crops needs to be channelled through better institutional linkages and a cross-disciplinary approach to address common challenges in the sector. Inclusive growth and sustainability of the coconut economy could be achieved through the integrated development of scientific adoptions in cultivation and industry, coupled with a stable market.

Production scenario

According to the latest production statistics brought out by the ICC, the coconut production in the World is estimated at 67,698 million nuts from an area of 12.56 million ha (ICC 2021). The world productivity of coconut stands at 5397 nuts/ha (Table 1). Notably, the World's area and production of coconuts are skewed by and large, wherein 70 per



Table 1. Area, production and productivity of coconut in the World

Country	Area ('000ha)	% share	Production (million nuts)	% share	Productivity (nuts/ha)
Indonesia	3413	27.2	13994	20.7	4120
The Philippines	3652	29.1	14491	21.4	3969
India	2173	17.3	20309	30.0	9346
Sri Lanka	444	3.5	3086	4.6	6623
Brazil	216	1.7	2331	3.4	11923
Papua New Guinea	221	1.8	1483	2.2	6709
Thailand	124	1.0	645	1.0	4859
Others	2325	18.5	11359	16.8	5195
Total	12568	100.0	67698	100.0	5397

Source: ICC (2021): Statistical year book-2019

cent of the total area and production is concentrated in India, Indonesia, and the Philippines. India is the largest producer of coconuts, with a share of 30 per cent of the total production. In terms of productivity, India is much ahead of the major coconut producers' with an average yield of 9346 nuts/ha.

In India, coconuts contributed about Rs 10,707 crore in crop output in 2020–21, and the coconut industry directly or indirectly employs about 12 million people. Coconut is a major plantation crop in the coastal regions of Kerala, Tamil Nadu, Karnataka, and Andhra Pradesh. These top-four producers accounted for 90 per cent of total production and about 89.5 per cent of total production acreage in the country in the year 2020–21 (Table 2). Other important coconut producing states in the country include West Bengal, Odisha, Gujarat, Maharashtra, Assam, and Bihar, which account for nearly eight per cent of production. Among the four major coconut-growing states, Andhra Pradesh had the highest productivity (13969 nuts/ha), followed by Tamil Nadu with 12280 nuts per hectare. The productivity of the crops varies widely among the coconut growing zones. Kerala, which accounts for the largest share in production in the country, had an average productivity of 9175 nuts per hectare in 2020–21, marginally lower than the all-India yield of 9345 nuts per hectare. The productivity level in Karnataka (6892 nuts/ha) was significantly lower than the all-India average and that of other major producers. On the other hand, several regions have productivity levels that are more than 50% higher than the national average. Several biotic and abiotic factors that affect coconut productivity have been found. However, the extreme weather that the country has seen in the past is a major cause for concern.

Table 2. State-wise Statistics: Coconut

State/UT'S	Area ('000 Ha)	% share	Pro-duction (million nuts)	% share	Productiv-ity (nuts/ha)
Tamil Nadu	437.57	20.1	5373.21	26.5	12280
Karnataka	624.03	28.7	4300.69	21.2	6892
Kerala	760.78	35.0	6980.30	34.4	9175
Andhra Pradesh	111.38	5.2	1555.82	7.7	13969
Others	221.40	11.0	1718.96	10.3	---
All India	2173.28	100.00	20308.70	100.00	9345

Source: Horticulture Division, Dept. of Agriculture & Cooperation, Ministry of Agriculture & Farmers Welfare, Government of India.

Coconut is predominantly cultivated on small and marginal holdings. These tiny, fragmented holdings suffer from socio-economic and bio-physical resource limitations. They are unable to effectively utilise the potential of available technologies for generating sufficient income to meet the family's requirements. Presently, coconut growers are more exposed to economic risks and uncertainties owing to the high degree of price fluctuations. It is to be noted that the area under coconut has remained stagnant at around 2.1 million hectares since 2011–12, with minor inter-year fluctuations.

Coconut production and yield have been fluctuating in cycles of two years due to climatic and biological reasons. Overall, coconut production has increased at an annual growth rate of 3.3 per cent between 2001 and 2020. The growth in coconut production was largely attributed to an improvement in yield, reflecting the concerted efforts on coconut

research, especially the popularisation of improved varieties.

International trade aspects

In the coconut sector, to cope with market fluctuations, there is a need for product diversification and by-product utilization. India, of late, has been making a concerted effort to penetrate its products in the high-value export segments. According to the data of the Directorate General of Commercial Intelligence and Statistics (DGCIIS), the value of exports of coconut products (excluding coir and coir products) significantly increased by about 30.2 % from Rs. 1,762 crore in 2019–2000 to Rs. 2,295 crore in 2020–2111, while imports decreased by about 5.3 per cent from Rs. 1,196 crore to Rs. 1,132 crore during the same period. Total exports of coconut and coconut products have increased at compound annual growth rate of 2.7 per cent over the last five years but with large inter-year variations. India holds an important position in the global exports of activated carbon. Activated carbon accounted for 66 per cent of total exports of coconut products, followed by coconut oil refined (11%), coconut fresh (8%), coconut dried (5%), copra (1.4%), shell charcoal (1.4%) and desiccated coconut (1.2%). As per the Coir Board, exports of coir and coir products increased significantly from Rs. 2,758 crore in 2019-20 to Rs. 3,779 crore in 2020-21, which is an increase of 37 per cent. The major coir products exported are coir pith (49%), tufted mats (21%), and coir fibre (17%). Exports of coir and coir products have increased at

compound annual growth rate of 13.4 per cent over the last five years.

India's imports of coconut and coconut products have been on an upward trajectory in recent years, increasing from Rs. 495.5 crore in 2016–17 to Rs. 1,196.1 crore in 2019–20. However, in 2020–21, these imports declined by 5.3 per cent to Rs. 1,132.5 crore. With respect to the composition of imports of coconut products, copra oil cake accounted for 45.7 per cent of the total value of coconut products imported by India in 2020–21, followed by imports of activated carbon (34.3%) and copra (8.5%). (Table 3:

The commodity trade matrix for India's country wise exports of coconut and coconut products (Table 3) reveals that the UAE and Middle East are the major export destinations of India's coconut products, where more than 85 per cent of fresh coconuts and about 80 per cent of coconut oil are exported. India's exports of desiccated coconuts (DC) found to be diversified across different export destinations.

Policy impediments

For the past two decades, the plantation sector in India has been confronting a commodity crisis, arguably an offshoot of ongoing trade liberalization. The regional trade agreements such as the ASEAN-India Free Trade Agreement (AIFTA) have made the crisis even worse due to the adverse policy framework in the form of phased tariff reduction and the fixation of import tariffs at extremely low levels. In this context, it would be erroneous to view the coconut sector in isolation because the trade and tariff decisions on competing crops as well as edible oils in general would directly affect the coconut sector as well. In the tariff reduction schedule for the special products according to the AIFTA, the reduction commitment for palm oil (an immediate substitute for coconut oil) is notable. The unprecedented growth rate in palm oil imports in recent times is also a matter of concern in view of the domestic prices of coconuts. The possibility of lowering the existing tariff structure for special products in the forthcoming review meetings of AIFTA is also bothersome.

With the ongoing liberalisation process across the world, the proliferation of regional free trade agreements (RTAs) has become inevitable. There will be a differential impact of such trade agreements on different sectors, and it is important to safeguard the plantation sector in general and the coconut sector in particular in the forthcoming RTAs. In view

Table 3. Commodity trade matrix (exports): From India to other countries (export share in %)						
Country	Coconut (Fresh)	Coconut (Dried)	Coconut (endo-carp)	Oil (re-fined)	DC	Shell charcoal
UAE	55.5	1.4	9.9	50.2	18.2	1.8
ME (others)*	30.1	--	--	27.2	15.7	2.6
EU	6.8	4.7	--	--	8.6	38.9
Malaysia	--	43.7	--	--	--	--
Afghanistan	--	40.1	--	--	--	--
USA	--	2.1	36.3	2.4	10.0	1.5
Vietnam	--	--	17.2	5.2	5.3	--
Nepal	--	--	13.4	3.2	10.2	--
Canada	--	--	8.0	--	3.3	--
Singapore	--	--	4.9	--	--	--
Sri Lanka	--	--	--	--	--	43.5
Others	7.7	8.0	10.4	11.9	28.6	11.7
Total (Rs Lakh)	16059.2	11922.7	3202.5	14003.5	1176.7	3462.1
* Other Middle East countries						
--Nil/Meager to be accounted						
Sourced from Department of Commerce, Export Import Data Bank (Tradestat, 2021)						

of this, it is imperative to conduct studies on the challenges faced by the coconut sector at micro and macro levels to bring out plausible strategic action plans for sectoral reorientation. It is also crucial to envisage appropriate policy options with regard to the trade and tariff structures of the coconut sector and to ensure such sectoral details are appropriately represented in the national and international dialogues.

It is always better to have a floating import duty structure on edible oils, so that the tariffs can be adjusted in relation to the international prices of edible oils to stabilise the domestic price fluctuations. But in the case of palm oil in India, the import duty was always hovering around five per cent, irrespective of the international price movements. The country's domestic price scenario (and movements) of coconut oil had been negatively impacted by the flawed tariff fixation of such a pattern. Therefore, it is vital to regulate the edible oil tariff structure, so that the state machinery can adopt flexible policy options to control the price fluctuations of coconut oil.

In general, the farmer prefers to sell fresh coconut when the price is attractive, as he receives a remunerative sum in his hand immediately and can get rid of processing and transportation charges. On the other hand, if the prices of copra and oil are good, farmers would rather do at least primary-level processing, which would increase copra production at the farm level. Therefore, the MSP for copra fixed at higher levels would certainly influence and act as an incentive for the primary value addition in coconut. It should be structured in such a way that the MSP provides an incentive for processing to coconut farmers when compared to selling fresh coconut. Other pertinent factors in this context of discussion are the lack of effectiveness and efficiency in copra procurement by the agencies and inadequate infrastructural facilities for the storage of copra. The regional trade agreements have compelled the fixation of import tariffs at an extremely low level (especially for palm oil, the major competitor for coconut oil) and have made the commodity price in India more vulnerable, which in turn affected the production as well. It is also noteworthy that the primary processing of coconuts into copra is not done by many farmers, and they sell fresh coconut. Therefore, a large share of farmers do not benefit from the market intervention by the government in the form of MSP. As a result, the desired influence of MSP on market price regulation is not realised in the case of coconut.

Future strategies

The strategy for revitalising coconut sector in the country needs to revolve around interventions for ensuring adequate care and management of coconut palms in the existing gardens to enhance productivity. Systematic coconut based cropping/farming system as a strategy to make coconut farming economically viable in small holdings needs to be highlighted.

At the policy level, it is always better to have a floating import duty structure on edible oils, so that the tariffs can be adjusted in relation to the international prices of edible oils to stabilise the domestic price fluctuations. The flawed tariff fixation system had detrimentally affected the domestic price scenario (and movements) of coconut oil in the country. Regulating the edible oil tariff structure allows the state to implement several policy alternatives to limit coconut oil price variations

Satellite micro-level procurement hubs (connected to big hubs at the district/region level) for both raw coconuts and copra should be established, utilising the existing three-tier FPO system in coconuts, with an autonomous council comprised of representatives from Krishi Bhavan, cooperatives, and CPSs responsible and accountable for efficient procurement.

It is essential to identify and prioritise value chains and strengthen the most viable ones. For instance, the desiccated coconut (DC) industry in the country is a vibrant sector. The growth rate in exports of DC powder for the last five years stands at a stupendous 26.8 per cent. India has a huge chance to increase its share of the global market for DC by making sure the products meet the quality and safety standards for a high-value market.

Measures are to be taken to support the value chain by strengthening the e-marketing platform that ensures the virtual interface between consumer and producer and a robust data analytics system that ensures market intelligence. More online marketing platforms need to be created. The e-auction platforms, with modifications, seek to link farmers directly to the traders by removing the need for physical samples at the auction centre and providing means for digital image-based samples to the traders. This can enable farmers to trade from their homes or through farmer collectives.

A regional trade agreement among major plantation crop producing countries should be facilitated at the policy level. The modalities for such a commodity-specific trade agreement should be

Study Visit of Parliamentary Committee on Office of Profit at Kochi



Parliamentary Committee on Office of Profit headed by Shri.SatyaPal Singh, MP(Loksabha), Baghpat Constituency, UP and Members of the committee Shri.ShyamSingh Yadav, MP(Loksabha), Jaunpur Constituency, UP and Ms.Dola Sen, MP(Rajyasabha) from West Bengal made a study visit to Kochi and held discussions with senior officials of Coconut Development Board, Coffee Board, National Shipping Board, Agriculture and Processed Food Products Export Development Authority and Government of Kerala on 10th November

2022. Dr. N. Vijayalakshmi, IAS, CEO, Coconut Development Board, Dr.K.G. Jagadeesha, IAS, CEO, Coffee Board, Dr.Malini V Shankar, Chairperson, National Shipping Board and Shri.R.Ravindra, General Manager, Agriculture and Processed Food Products Export Development Authority interacted with the committee. Dr.V.P. Joy IAS, Chief Secretary along with Dr. Raju Narayana Swamy IAS, Principal Secretary, Parliamentary Affairs and Shri.Hari Nair, Secretary (Law) represented Government of Kerala in the deliberations.

worked out with utmost care, wherein we should end up in a win-win situation. In this respect, we need to thoroughly analyse the existing tariff structure of each country on the specified plantation crops, and an unbiased tariff reduction schedule should be proposed. It is also essential to consider the existing tariff structure of close substitutes/competing products of each country, thereby arriving at a consensus.

Conclusion

Presently, coconut growers are more exposed to economic risks and uncertainties owing to the high degree of price fluctuations. To improve the future prospects of a sustainable coconut sector, it is critical to wean the sector off its reliance on coconut oil and increase production of diverse value-added products. Further, to ensure the livelihood security of those dependent on the sector, it is of paramount importance to strengthen the value chain of the coconut through appropriate forward and backward integration of the chain. Relatively low proportions of family labour participation in farming and the consequently higher share of the wage labour component in the cost of production render coconut farming costly and debilitate its competitiveness. The inherent rigidities in the cost structure make it difficult to adjust when prices fall, indicating that farmers will

refrain from coconut cultivation unless and until they find the enterprise profitable. Keeping abreast of the race in productivity alone cannot guarantee success or even survival in an activity exposed to unmediated global competition. It is imperative to think beyond the periphery of production and productivity, especially when a wide range of other issues plague the coconut sector. Finally, it is imperative to recalibrate the import duty structure and it is essential that within the framework of permissible limits the tariff rates for the import of palm oil, both crude and refined palm oil are enhanced to protect the interests of coconut growers.

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