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Common Agricultural Policy 2020

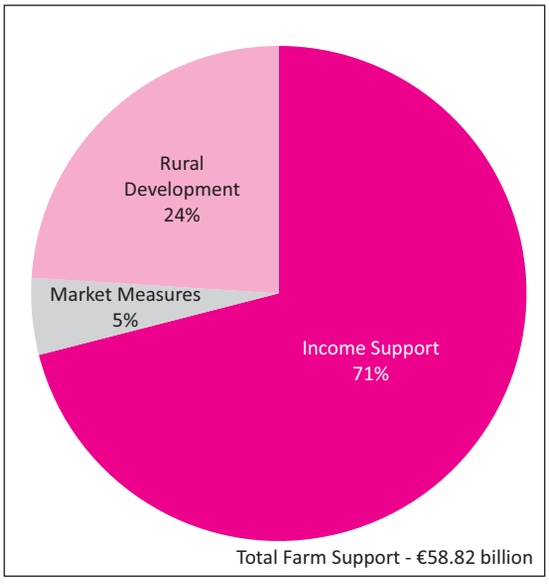
Introduction

Common Agricultural Policy (CAP) of Europe is a partnership between Europe and its farmers. It aims at supporting farmers and improving agricultural productivity, together with ensuring a stable supply of affordable food to Europe's population. It aims at uplifting the rural economy by supporting income creation and upholding jobs in farm sector, agri-food and associated sectors by levelling income of the agricultural workers, which is nearly 40% less as compared to non-agricultural workers. The CAP is a common policy for all EU countries. It is managed and funded from EU's total budget. The support for EU farmers from overall EU budget in 2018 was around 37 per cent, which entailed various variables ensuring continued access to high quality food, including income support to farmers, climate change action, rural development and maintaining vibrant rural communities.

Challenges for EU

The subsidies provided in CAP often leads to overproduction in the EU. They also act as protectionist measures for EU farmers protecting them from healthy competition from global trade. Besides, environmental challenges faced by overuse of agricultural land has also emerged as a cause of concern with CAP. Other challenge with CAP is with respect to the reachability to the envisaged beneficiaries. Reports suggests that nearly 80% of the aid from CAP goes towards only 20% of the EU farmers. The farmers benefitted under CAP represent less than 4% of the population of the EU and contribute around 6% to the EU's GDP, while they receive 30% of the EU's budget.

EU Farmer Support in Budget 2018



Source: europa.eu

Impact on Developing Countries

The CAP often leads to overproduction in the EU leading to underutilization of the produce. The surplus is supplied to other developing countries at lower prices, known as dumping, resulting in considerable trade distortion. CAP has been often criticized for its negative effects on food security in developing countries. EU export refunds has been a significant trade distorting mechanism creating downward pressure on agricultural prices. As the EU is a large importer and exporter of agricultural products, changes in the CAP impact both on the level and volatility of world prices.

The Upcoming CAP 2020

The proposed Common Agricultural Policy beyond 2020 aims towards more responsive policy towards challenges like climate change and generational renewal, while supporting the European farmers at the same time, for sustainable and competitive agricultural sector. The commission also proposed to reduce the budget for CAP by around 5 percent, due to less contributions, from the future union of 27 members.

The major objectives of the future CAP include, ensuring a fair income to EU farmers, increasing competitiveness, working on climate change action, providing quality and healthy food, and to support generational renewal. The new approach is anticipated to give more freedom to the countries of European Union, to let them take decision on the method by which the common objectives, set at EU level, can be met. This is also projected to give opportunity to member nations to efficiently respond to the needs of their farmers and rural communities. In practice, every EU member nation will carry out an extensive analysis of its needs and draw up a so called “CAP strategic plan”. The plan is predicted to set out how each country will use CAP funding to meet their needs, including the tools to be used and establishing its own specific targets while complying with the overall objectives set by the EU.

References:

➢ Ec.europa.eu
➢ Europarl.europa.eu

Shrimp Outlook

Overview

In India, marine product constitutes a major portion of agricultural exports. Shrimps constitute a major portion of Indian marine product exports, and India is among the largest exporters of shrimp globally. Different types and products of shrimp exported includes sea tiger, cultured tiger, sea white, brown shrimp, poovalan, deep sea shrimp and L. vannamei among others.

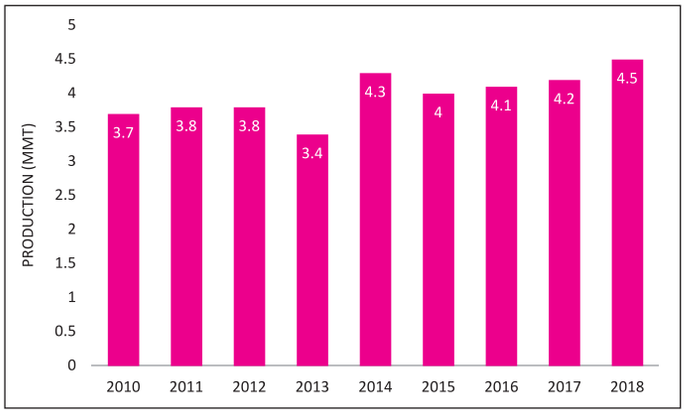
Production

Global Scenario

The global production of farmed shrimp in 2018 was estimated around 3.6 million tonnes. The projected global production of shrimps (farmed and wild) for 2018 is around 4.5 million tonnes. About 75% of the world production of farmed shrimp comes from Asian Countries, leading suppliers being China and

Thailand, closely followed by Vietnam, Indonesia, and India. L. vannamei (shrimp variety) accounts for over 75% of global shrimp production and about 70% of Asian shrimp production[1].

Global Shrimp Production



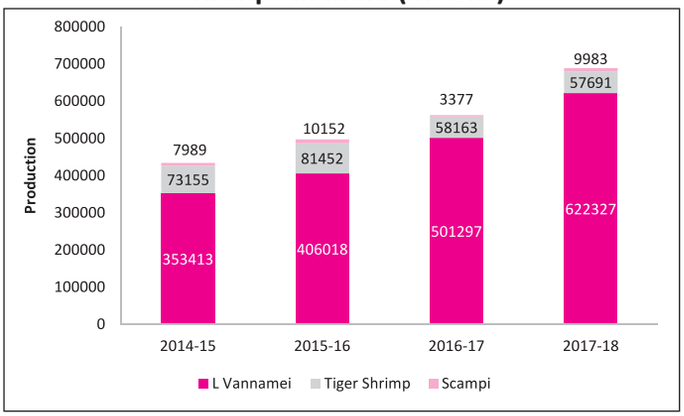
Source: FAO (2018) and GOAL surveys

Indian Scenario

Production of shrimps in India constitutes mainly of tiger shrimp, L. vannamei and scampi, where L. vannamei constitutes a larger portion. During 2017-18, the total production of these three varieties were estimated at 6.9 lakh tons, up by 21% from 2016-17, of which the production of L. vannamei was estimated at 6.2 lakh tons[2]. L vannamei was introduced in India for the first time during 2008 and the area under cultivation as well as production for vannamei has been increasing since then.

In India, 9 states are involved in the cultivation of shrimps, out of which Andhra Pradesh is the largest shrimp producing state. The state has been cultivating shrimps following the aquaculture techniques. The commercial farming of L. vannamei

Stacked Production of Most Produced Type of Shrimps in India (in tons)



Source: MPEDA

Production and Area Under Cultivation of Shrimps in India (prod. In tons and area in ha.)

State		2015-16	2016-17	2017-18
Andhra Pradesh	AUC	42,462	64,243	64,222
	EP	300,278	3,55,970	4,59,181
Gujarat	AUC	4,552	7,982	7,542
	EP	35,499	42,755	56,781
West Bengal	AUC	58,285	56,759	55,211
	EP	72,554	73,472	76,534
Odisha	AUC	10,778	9,494	11,486
	EP	29,936	30,062	42,735
Kerala	AUC	12,622	4,005	107
	EP	3,827	2,436	370
Karnataka	AUC	2,281	1,154	701
	EP	1,727	2,102	1,524
Goa	AUC	10	1,297	42
	EP	33	6,842	106
Maharashtra	AUC	1,413	7,979	1,291
	EP	8,126	6,842	7,536
Tamil Nadu*	AUC	8,263	9,291	11,993
	EP	45,642	49,198	45,234

Note: * also includes production in Pondicherry
Source: MPEDA[3]

[1]Global Aquaculture Alliance Report
[2]MPEDA
[3]EP- Estimated Production
AUC – Area Under Cultivation

started from the year 2009-10 and is the largest cultured shrimp in terms of production and productivity in India. Among the states, Andhra Pradesh tops in area under aquaculture and production of shrimps, followed by West Bengal. Production in Andhra Pradesh was estimated at 4.5 lakh tons during 2017-18 with area under cultivation of 64,222 hectare.

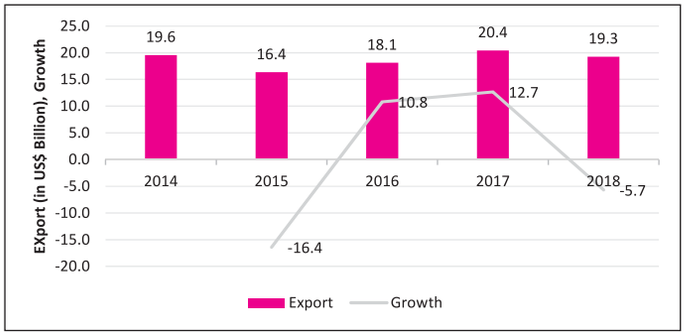
Trade

Global Scenario

For trade classification globally, there are six different Harmonized System (HS) codes for shrimps and prawns: 030613 and 030617 for frozen seawater shrimps and prawns; 030616 for frozen freshwater shrimps and prawns; 030623 and 030627 for fresh, salted or smoked seawater shrimps and prawns; and 030626 for fresh, salted or smoked freshwater shrimps and prawns. Global export of frozen shrimps (freshwater and seawater) were estimated at US$ 20.44 billion and US$ 19.2 billion in 2017 and 2018, respectively. The total export witnessed a decline of more than 5.5% in 2018.

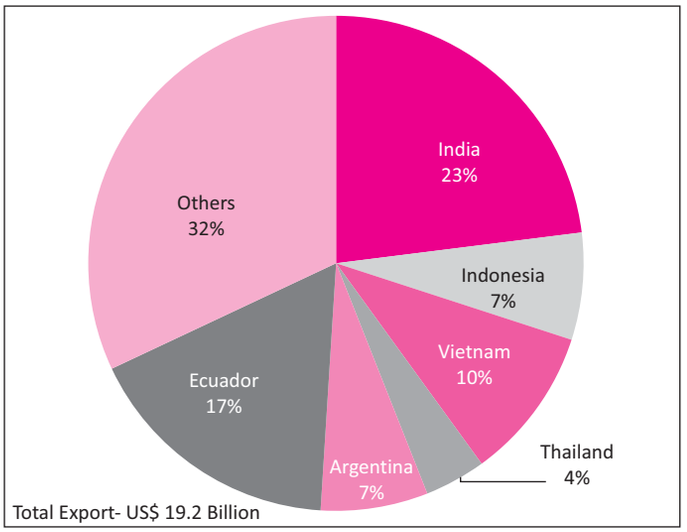
India is the largest exporter of shrimps with exports estimated at US$ 4.4 billion during 2018, as compared to US$ 4.7 billion in 2017. Other significant exporters of shrimps in 2018 were Ecuador (US$ 3.2 billion), Vietnam (US$ 1.9 billion), Indonesia (US$ 1.3 billion) and Argentina (US$ 1.3 billion).

Global Export of Shrimp and Growth Rate



Source: ITC Trade Map

Share in Global Shrimp Export (2016)



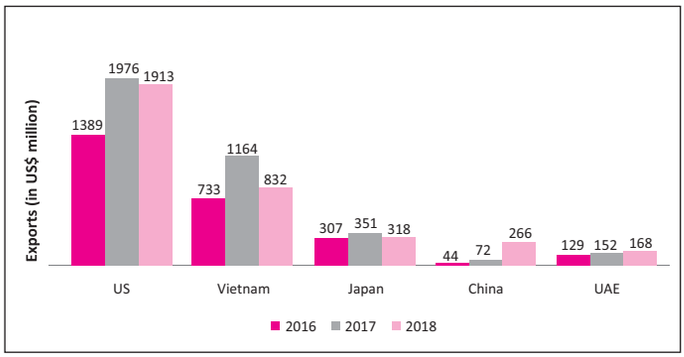
Source: ITC Trade Map

The US is largest importer of shrimp with imports amounting to US$ 4.8 billion in 2018. Other major importers of shrimp include Vietnam (US$ 2.2 billion), China (US$ 1.7 billion), Japan (US$ 1.5 billion) and Spain (US$ 1.3 billion), in 2018.

Indian Scenario

India is the largest exporter of shrimp globally. The largest export destination for Indian shrimps was the US with estimated exports of US$ 1.9 billion during 2018. Other major export destination for shrimp from India in 2018 were Vietnam (US$ 0.8 billion), Japan (US$ 0.3 billion), China (US$ 0.2 billion) and the UAE (US$ 0.16 billion). Shrimp export by India to China is less due to high duties imposed by the latter.

India's Top Export Destinations (value in US$ million)



Source: ITC Trade Map

The domestic demand of shrimp in India is majorly realized by the domestic production. This results in very negligible shrimp imports by India.

Outlook

India has been a major exporter of shrimps globally, and has emerged as the top import source for the US for last 6 years. With ongoing trade war between the US and China, the possibility for Indian exporters to increase exports of shrimps to the US is high. In recent years, major US retailers have been actively sourcing value-added shrimp products, such as breaded shrimps from India. Earlier China has been re-exporting shrimps and shrimp products to the US after importing from India. The Trade and Investment Agreement signed by Vietnam with the EU in 2019, is also envisaged to impact exports of shrimps from India to EU negatively. Lower international prices for shrimps and adverse weather conditions are also predicted to affect the stocking of shrimps in India.

References:

➢ MPEDA
➢ ITC Trade Map
➢ FAO

Microbiome in Agriculture

Microbiome is increasingly emerging as a key intervention area in Sustainable Agricultural Intensification (SAI). SAI is a concept that challenges global agriculture to increase world food production while sustaining the environment. With ever rising human population, increasing agriculture productivity is crucial for increasing food production under stressed soil and climatic conditions. However, maintaining performance requires continuing development and applications of new technology and investment. The impact of earlier agricultural technologies (i.e, synthetic fertilisers, pesticides) has plateaued, and future developments in automation, agronomy and land development requires a systems biology approach that integrates metadata about the host crops, its environment, and the microbiome.

Soil microbiome may be defined as the community of micro-organisms found in soil, which is crucial for soil health. Microbiological investigations establish the diversity and function of the soil microbiome, and the potential for crop production system to harness it as a tool for SAI. The impact of this science is expected to be maximised by policies that recognise the importance of monitoring and managing the biological health of soils and investing in agricultural and soil science skills and research.

Functions of Soil Microbiome

Soil microbiome comprises of archaea, bacteria and fungi that colonises the area around plant roots, known as the rhizosphere, forming mutually beneficial associations (symbioses) with plants. These symbiotic microbes, and other free-living

soil microbes, contribute to crop growth and soil health by:

- Cycling nutrients, including nitrogen and phosphate, which are essential for plant growth. These microbial processes are also important for global biogeochemical cycles.
- Improving soil structure and increasing organic matter content, which are important for fertility, water retention, and minimising erosion and flood risk.
- Conferring disease resistance to crops by out-competing pathogenic microbes and stimulating complex biochemical plant defences.
- Improving the resilience of plants to the environmental stresses, such as fluctuations in temperature and moisture.
- Enhancing root growth and nutrient uptake.

Impact of Intensive Agriculture on Soil Microbiome

Intensive agricultural practices often underutilise and degrade the diversity and function of the beneficial soil microbiome and or promote undesirable microbial activity leading to reduced crop yields, increased costs of production and environmental impacts.

Soil degradation and erosion: Intensive use of heavy machinery and ploughing disrupts both the soil pore spaces disrupting the microbial habitat and the fungal networks that help maintain soil structure and store organic matter. Impacts of degraded soil structure and organic matter content include reduced fertility; poorer water and nutrient retention; and soil loss to wind and water erosions.

Disease: Intensive cropping increases the susceptibility of crops to soil-borne diseases. Take-all disease in wheat is a serious fungal root disease of wheat mostly appearing in the second or third year of continuous cropping. It is estimated to affect half of UK's wheat crops reducing yields by an average of 5% to 20%, costing farmers tens of millions of pounds each year.

Nitrogen crisis: The intensive agriculture relies characteristically on large inputs of nitrogen fertilisers for high yields. The usage is often inefficient. Nitrogen-cycling soil microbes convert the excess fertiliser into nitrate, which then run off into watercourses, causing environmental damage, particularly groundwater pollution. Microbial nitrogen-cycling also releases nitrous oxide, a greenhouse gas. Nitrogen fertiliser use has been the key driver of global nitrous oxide emissions.

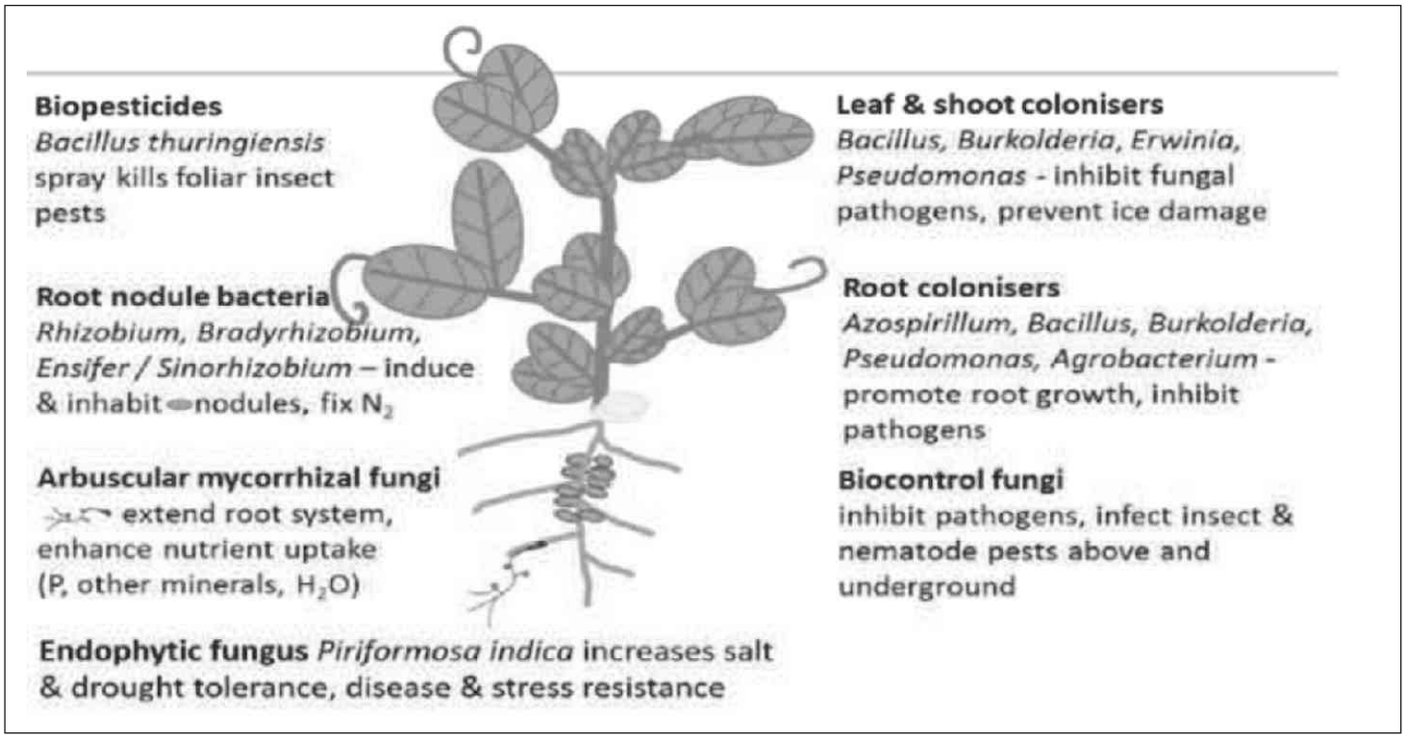
Microbiomes for Agricultural Improvement

Establishing better microbiomes for agricultural improvement falls broadly into two categories: pest or pathogen management and yield improvement, while reducing fertiliser and biocide inputs. Harnessing crop–microbe associations that increase resilience to water stress, may also help to mitigate impacts of climate change on crop production.

Understanding soil microbiome diversity and function: Advances in genomics enables increased understanding of the diversity and functions of soil microbes and their interaction with plants. Such research has the ability to uncover novel microbes that can be used as biofertilizers and biopesticides, or that produce useful compounds, such as antibiotics.

Promoting crop–microbe associations: The crop varieties bred for an intensive agricultural environment often exhibit a reduced ability to associate with beneficial microbes. Consequently, the microbiome techniques are capable of breeding crop varieties with root systems that selectively encourage beneficial crop–microbe associations.

Exploiting Beneficial Microbes



Source: Hirsch, P.R. (2017) Soil Microorganisms role: role in soil health. In Managing soil health for sustainable agriculture (Ed. D Reicosky) Burleigh Dodds Science Publishing Cambridge. With minor changes.

Research in microbiome also establishes development and optimisation of microbial inocula (e.g. microbe-coated crop seeds) to introduce beneficial microbes to the rhizosphere.

Soil management: Microbiome technique also enhances beneficial soil microbiome diversity and function through optimising soil management methods, such as crop rotation, intercropping and tillage.

Way Forward

Future opportunities to apply knowledge of the microbiome to agriculture include creation of modular microbiomes that protect plants against stress, personalised plant medicine, and microbiome-optimised plants.

Opportunities

Prime area of intervention is envisioned to be restoring microbial diversity, moving from high-input low diversity agriculture to low-input, high-diversity. Establishing microbial inputs and synthetic microbial communities from wild crop varieties and restoring indigenous plant microbiota is predicted to be a prospect. This is envisaged to be achieved by direct inoculation of the synthetic microbial communities in the field using a single strain or low-diversity synthetic community, or complex microbial inoculants with high taxonomic diversity. However, it would ensure invasion and persistence of microbiota in the field, without disturbing the indigenous communities.

This technique currently is challenged by the commercial acceptance, despite societal awareness and acceptance. However, it is envisaged that with successful trials and licenced products, perception of the microbiome will change so much so that larger pharmaceutical or agribio companies will collaborate with biotech, providing the resources to bring products to markets.

The agricultural industry in the developed countries could be significantly different in next 5–10 years with many microbiome-based agricultural products available in the market, but their applications will call for major changes in strategies and policies. Progress is underway in many countries, and some of the first products are in commercial agriculture already in the US.

There is an opportunity for the plant breeding and crop genetics communities to adopt microbiome-plant interactions as a new trait or series of traits and ensure that our crop varieties are optimised for interactions with soil and endophytic microbiomes. Soil and plant microbiomes could be used for more productive, sustainable, and lower input agriculture, for example, by reducing or replacing chemical pesticides, herbicides and fertilisers. It is also predicted that current crops will be integrated with older varieties that need lower levels of nitrogen fertiliser and gain nitrogen more efficiently from soils, providing that optimal microbiomes are exploited.

Challenges

Due to the scale and complexity of the biological data, most challenging area for the industry is the need for multidisciplinary and cross-sector collaboration and resource sharing among academia, biotech, and large companies on delivering scientific understanding and successful translation. High cost involved, and computational requirements of large-scale data coupled with skill gaps poses further significant challenges. There are also problems associated with the storage of live microbiota over the time periods and in the environments associated with farming and crop production.

Public responses to the application of live bacteria and fungi to crop plants and soils can be a deterrent, especially in stringent markets of Europe, where sensitivities to interventions in environments and food sources remain high and have major effects on policy.

References:

- The Royal Society Conference Series - Breakthrough science and technologies: Transforming our future
- Microbiology Society Briefing – Food Security from the Soil Microbiome

An Overview of Coconut Industry in India

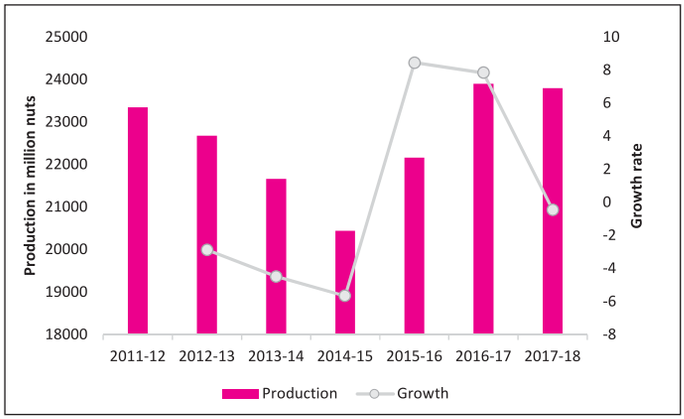
Production

India is among the major coconut producing countries globally, with production of 11.46 million tonnes, which accounted for 19% of the total global production of coconut during 2017. The other major coconut producers include Indonesia and Philippines with a share of 31% and 23% in the global coconut production, respectively[4]. Around 75% of the global coconut production takes place in these three countries.

The total coconut production in India in 2017-18 was estimated at 23,798.23 million nuts. Production of coconut in India witnessed an increase during 2015 to 2017, before witnessing a slight dip in the

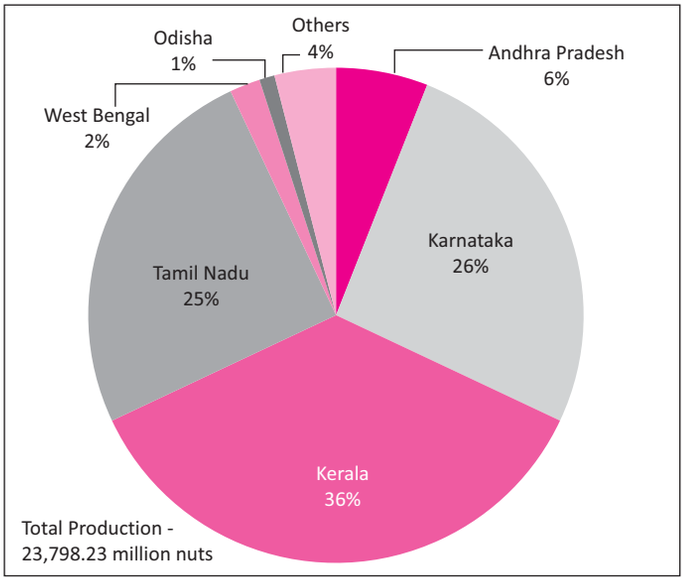
[4]Food and Agriculture Organization(FAO)

Production of Coconut in India (million nuts)



Source: Coconut Development Board

State-wise Coconut Production in India (million nuts) (2017-18)

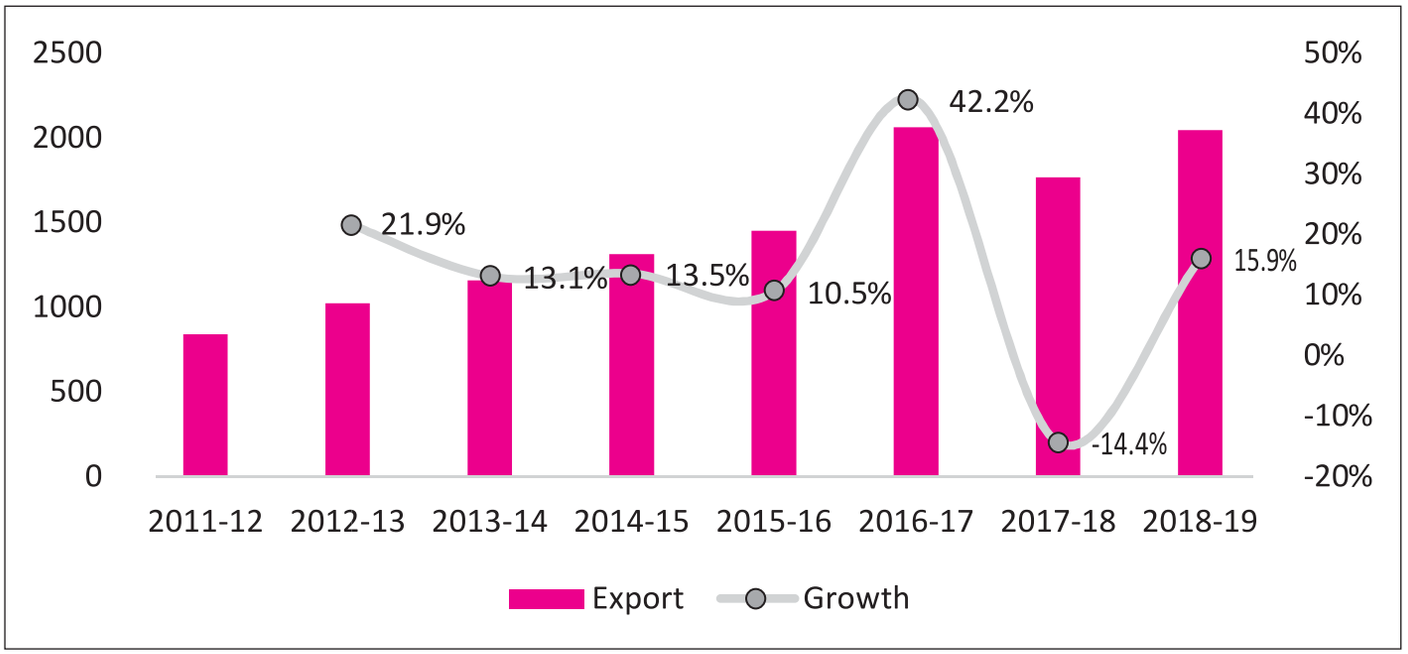


Source: Coconut Development Board

year 2017-18[5]. However, the total area under coconut production decreased from 2088.4 thousand hectare in 2015-16 to 2082.1 thousand hectare in 2016-17, before increasing to 2096.7 thousand hectare in 2017-18. Despite an increase in the area under production in 2017-18, the total production decreased.

The coconut production in India is concentrated in the southern parts of India. Kerala was the leading producer of coconut in 2017-18 with production of 8,452 million nuts, a 36% share in total coconut production in the country. Other major coconut producing states in India are Karnataka with 6,273.8 million nuts (26%) and Tamil Nadu with 6,020.4 million nuts (25%). Andhra Pradesh contributes around 6% to the total coconut production.

Export of Coconut Products by India (value in crore ₹)



Source: DGCIS

[5]Coconut Development Board

Export of Coconut Products

The export of coconut products from India includes desiccated coconut, copra, shell charcoal, coconut oil, activated carbon, coconut dried among other products. Total coconut export in 2018-19 was estimated at ₹2045.3 crore[6], an upsurge of 15.9%, led by increased price of activated carbon in global market. The total coconut export in 2017-18 was estimated at ₹1,764.31 crore. The major exporting items include activated carbon, fresh and dried coconut, coconut oil and desiccated coconut. The major export destination for Indian coconut products were the UAE, the US, Malaysia, Sri Lanka, Brazil and China.

The total export of activated carbon was ₹951.2 crore for the year 2017-18 as compared to ₹811.1 crore for the year 2016-17, a growth of 17.2%. Activated carbon forms the major share in coconut products export from India with share of 53.9% of total exports for the year 2017-18 and 39.3% of total exports for the year 2016-17.

The activated carbon is prepared from any carbonaceous material (having carbon compound) like coal, wood, lignite, paddy husk, coconut shell etc. It is used for purification purpose like air purification, gold purification, water purification etc. It is also used in refining and bleaching of vegetable oil and chemical solutions.

Coconut Fresh and Dried

The fresh coconut and dried coconut have many health benefits, which increases the demand for both fresh and dried coconut. The combined export of fresh and dried coconut excluding Desiccated Coconut (DC) and Endocarp stood at ₹350.5 crore for the year 2017-18. Export for the same in 2016-17 was ₹363.7 crore as compared to ₹258.64 crore in 2015-16.

Coconut Oil

Coconut oil is used extensively in the food, toiletry and industrial sector for its unique characteristics. It is made from dried copra and is used in the

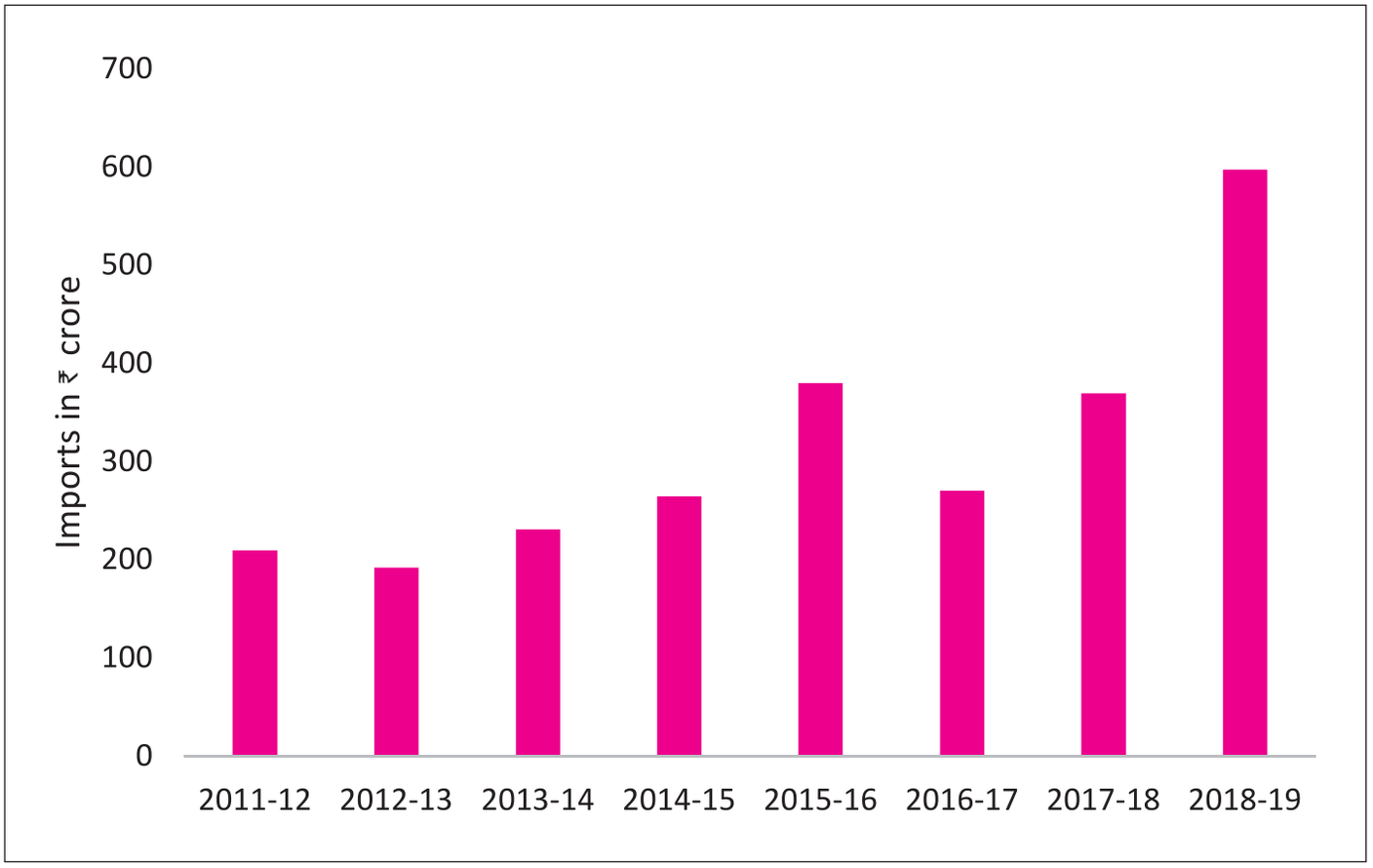
Export of Coconut products from India (in crore ₹)

Product	2014-15	2015-16	2016-17	2017-18	2018-19
Activated carbon	557.8	747.5	811.1	951.2	1344.1
Coconut Fresh*	89.2	112.7	145.4	194.4	179.2
Coconut Dried*	212.4	145.8	218.3	156	199.9
Coconut Oil	146	138.1	222.4	137.8	136.4
Desiccated Coconut	26.4	31.5	144.5	112.1	14.1
Other coconuts**	55.8	71.1	113.3	60.7	39.4
Shell Charcoal	59.6	26	68.2	73.1	54.1
Copra	80.9	36.4	129.7	34.6	34.5
Other Endocarp	2.3	1.8	9.5	14.2	17.1
Fresh Endocarp	10.6	7	13.5	8.6	17.6
Miscellaneous	70.9	132	185.3	21.6	8.95
Total	1312.3	1450.2	2061.7	1764.3	2045.3

Note: * except DC and Endocarp, ** excluding fresh and dried and DC and Endocarp
Source: Coconut Development Board

[6]DGCIS, Kolkata

Import of Coconut Products by India (in ₹ crore)



Source: DGCIS

manufacturing of chocolates, biscuits, ice cream and pharmaceutical products as well. The total export of coconut oil from India stood at ₹137.8 crore for the year 2017-18 and ₹222.4 crore for the year 2016-17.

Desiccated Coconut

It is prepared and preserved by drying the coconut and removing its natural moisture. It usually contains about 3% of moisture, and is produced from the white part of fresh, mature coconut kernel. It is mainly used for confectionary and bakery products and is used as a substitute for raw grated coconut. The exports of desiccated coconut was valued at ₹112.1 crore for 2017-18, ₹144.51 crore for 2016-17 and ₹31.5 crore for 2015-16. The exports for desiccated coconut increased by nearly four times since 2016-17 due to increase in global demand.

Import of Coconut Products

Total imports of coconut products by India were estimated at ₹597 crore in 2018-19. Total imports of coconuts witnessed an increase of 61.66% in 2018-19, from ₹369.3 crore in 2017-18. Oil cake expeller variety was the largest imported product in the coconut products category as it accounted for 58.96% of the total imports in 2018-19. Other major products include shell charcoal, copra, desiccated coconut and button of coconut shell.

References:

➢ Coconut Development Board
➢ DGCIS

News Focus

Kisan Maan-dhan Yojana launched

Kisan Maan-dhan Yojana, the old age pension scheme for farmers was launched on 12 September, 2019. Under this scheme, small and marginal farmers, who have attained the age of 60, will get a minimum pension of ₹3,000 per month. To avail the pension scheme, monthly contributions can be made by a farmer, ranging from ₹55 to ₹200, depending on the age at the time of entry in the pension fund till they reach the retirement date. Equal contribution of the same amount will be made by the Central government, in the pension fund.

Eligible farmers can join the scheme by visiting the nearest Common Service Centre (CSCs) along with the required documents. The registration process online, is done by Village Level Entrepreneurs (VLEs), who manage the CSCs. The activities of this scheme will be managed by the Life Insurance Corporation of India (LIC).

Source: The Times of India

Tamil Nadu enacts law on contract farming

Tamil Nadu has become the first State in the country to enact a law on contract farming with the Agricultural Produce and Livestock Contract Farming and Services (Promotion and Facilitation) Act. The law would safeguard the interests of farmers when there is a bumper crop or during major fluctuation in market prices. In such a scenario, the farmers are anticipated to be paid a predetermined price arrived at the time of signing agreements with buyers. However, any produce that is banned by the Central government or the State government or by the Indian Council of Agricultural Research, would not be covered under contract farming. Here contract farming refers to varied formal and informal agreements between producers and processors or buyers. It may include loose buying arrangements, simple purchase agreements and supervised production with input provision, with tied loans and risk coverage.

Source: Business Line

FSSAI launches licencing, registration drive for FBOs for 3 months till Dec 31

FSSAI (the Food Safety and Standards Authority of India) has started a special drive for licencing and registration of food businesses since October 1, 2019 and directed the state food safety departments to take it up to ensure food safety compliance under their jurisdiction. The drive is projected to continue for three months (i.e., till December 31). FSSAI, in this regard, has issued an order, stating that the purpose of the present special drive is to achieve enforcement in respect of non- or wrong registration or licensing. However, this does not prevent the licencing authority from identifying or taking action on any other irregularity.

Meanwhile, the regulator, for FBOs' convenience, has launched the Food Products Identity Verification System (FPIVS), wherein FBOs can check standards of the food products they manufacture online. They also can identify the proprietary and novel foods. The order stated that the intent was to ensure that only standardized/approved food items were manufactured by FBOs.

Source: FnBnews

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