

Agri-Business Incubation

for Small-holder Plantation Crops

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Coconut, arecanut and cocoa are the important small-holder plantation crops of India which exert profound influence on the rural economy by supporting the livelihoods of 25 million people in the country. They also support the national agrarian economy, with annual contribution to the tune of ₹ 14,200 crores to the national GDP and foreign exchange earnings of about ₹ 2,440 crore, besides supporting subsidiary industrial development. Owing to traditional methods of processing and product utilization, the sector is alien to modernization which hampers sector's vertical growth. This leads to greater price instability and lesser input use efficiency, which is felt more after global integration in the post World Trade Agreement (WTA) and ASEAN treaty era. To ensure the livelihood security of those dependent on the small-holder plantation crops, it is of paramount importance to strengthen the commodity value chains through appropriate forward and backward integration. Keeping abreast of the race in productivity alone cannot guarantee success or even survival in an activity exposed to unmediated global competition. It is, thus, imperative to think beyond the periphery of production and productivity and there lies the importance of technology driven agri-business initiatives.

Key words: Arecanut, Coconut, Coconut chips, Samrudhi

‘ONE tree – several products’ goes the byline in the wrapper of coconut products developed at ICAR-Central Plantation Crops Research Institute (CPCRI). But the coconut products in Indian market are only copra, oil, desiccated coconut and tender coconut. Of the total production of 20 billion coconuts in the country, 85% are harvested as mature coconuts (10-12 months old) and the remaining as tender coconuts (7-8 months old). More than half the quantity of mature nuts produced (54%) are utilized for domestic and religious purposes; 40% for making copra and only a meager 6% is absorbed by the industry for converting into value added products, chiefly the desiccated coconut. The coconut industry had developed in the country without much institutional/academic support except for few gadgets such as manually

operated coconut dehusker, copra dryers and copra moisture meter. In other words, the market alone influenced the quality standards, type of packaging, and disposal/utilization of byproducts. Since the focus was on domestic market, coconut products from India failed to make an entry into the world trade.

As a result, the commodity has a very unfavourable market in India characterized by frequent price-crashes and declining productivity in the traditionally cultivated regions. To make a turn-around in the sector, value addition and product diversification were suggested from many quarters. Responding to this requirement, ICAR-CPCRI had initiated research on coconut value addition and product diversification since 2000. The Institute had developed processing protocol for coconut chips in 2004 and conducted 23 training programmes for

imparting skill and knowledge on its preparation to 200 beneficiaries during the period 2004 to 2009. However, few chips making units were only established despite the fact no fee is being charged for technology transfer. The reasons for not using the chips-technology include non-awareness on industrial source for procuring gadgets and machinery, non-availability of appropriate packaging material, lack of technology backstopping while scaling up the production, and marketing issues. These issues are common to any new entrepreneur. Making a decision on product portfolio and input capacity of the unit to be started, sourcing technology, procurement of machinery, preparation of detailed project report and avail credit, seeking government incentives, and complying with policy and legal framework are the other common

challenges a new entrepreneur would face. It can be observed that a number of new entrepreneurs in coconut and other sectors had failed and eventually closed in the initial years itself for one or the other aforesaid reasons. To equip the new entrepreneurs to reduce their learning curve and risks associated with availing credit and marketing, the Indian Council of Agricultural Research (ICAR) established a number of Agri-Business Incubation (ABI) Centres under National Agricultural Innovation Project (NAIP) during the period 2009-2013 and subsequently strengthened further. The ABI Centre at ICAR-CPCRI started during June 2013. The primary objective of CPCRI-ABI is to promote entrepreneurship with selected business models using proven and potential technologies developed at the Institute.

Agri-Business Incubation

ICAR-CPCRI ABI provides both in-house and distant incubation. The in-house incubation facilities are available at ABI centre for the following products: (i) Virgin coconut oil; (ii) Coconut chips; (iii) Coconut palm sugar; (iv) Desiccated coconut; (v) Vegan coconut frozen delicacy; (vi) Bean to bite chocolate; and (vi) Activated coconut shell charcoal production unit. Terms and conditions for availing these facilities in the ABI centre can be seen from the Institute website (www.cpcri.gov.in) or the website of ABI (www.cpcriagribiz.in).

There are many entrepreneurs who wanted to test and validate their concepts with the Institute support. For instance a street vendor approached for perfecting the technology for coconut water jelly. Another young entrepreneur standardized packaging protocol for short-duration storage of fresh coconut gratings. Formulating unique combination of frozen coconut delicacy is another example in this regard. Institute also signed MoAs for joint development of air blast sprayer, Unmanned Aerial Vehicle applications for spraying and surveillance, mobile applications, and



Interface programme on science, innovation and entrepreneurship at CPCRI.

detection of pests using acoustic tools.

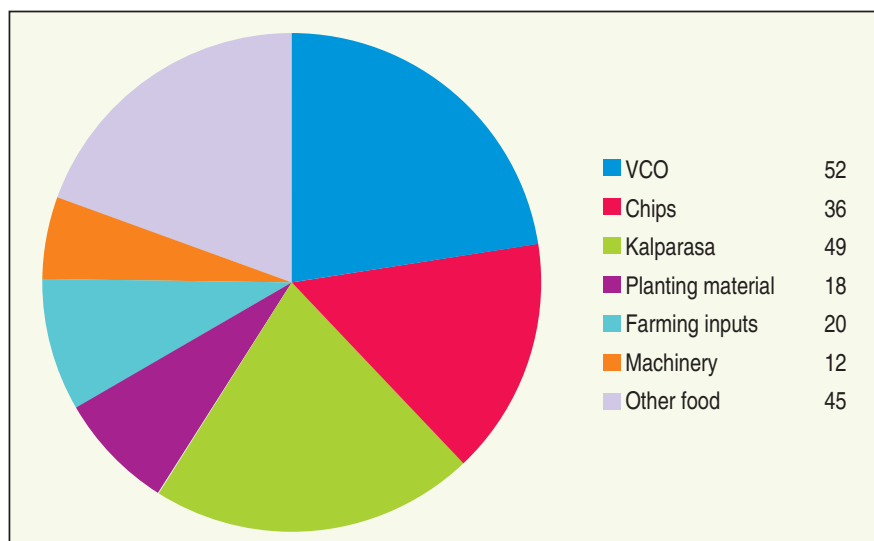
The distant-incubation is chiefly for technology support, which is the most valued strength of the ABI.

In some cases, the period of incubation would be of short-duration, while in other cases (e.g. arecanut tissue culture), it is of two to three years. The ABI has recently signed an MoA for developing coconut nursery with duration of Agreement as 15 years.

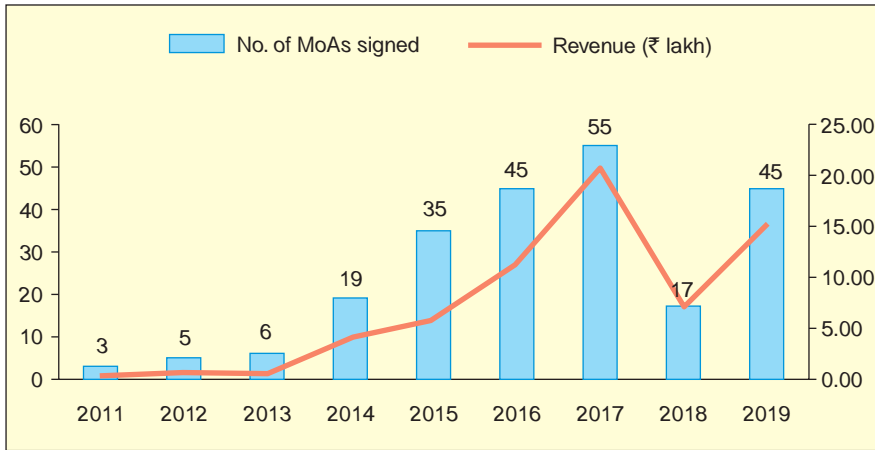
Other than technology support, the ABI also provides marketing assistance. The service in this regard varies from incubatee to incubatee. Generally the newly initiated food processing entrepreneurs use the exhibitions in which the Institute

participates at different locations in the country for marketing their product, on an average, in an year, the Institute participates in 30 exhibitions. Facilities are being created for online sale with the help of an exclusive incubatee for that purpose. In few cases the product launching is done in a big manner. The vegan coconut frozen delicacy was launched by then Union Minister for Agriculture and Farmers' Welfare Shri. Radha Mohan Singh and the Kalpa Soil Care with brand name 'Samrudhi' by Shri. Justice (Rtd.) P. Sathasivam.

The centre also provides services such as preparation of detailed project report, credit linkages, and licensing with local bodies etc. One



Pattern of technology utilization.



Number of MoAs and revenue generated (in lakh rupees).

of the noteworthy services provided in this regard is the export of packaged tender coconut water to Italy (brand name: Push).

Promotion of entrepreneurship

To popularize the technologies and opportunities with agri-business ventures, large number of seminars, interface programmes and awareness camps are being organized at different places every year. Some of the unique programmes conducted by CPCRI ABI are: (i) Dream-Big Kalpa, the Institute-Industry interface programme conducted every year (ii) Innovators meet (iii) Startup Green to promote agripreneurship

(iv) Competition for innovative business models for coconut value addition (v) Interface programme on science, innovation and entrepreneurship. The incubatees are scouted from such forums.

The CPCRI ABI had signed MoU with Kerala Startup Mission to foster entrepreneurship in agricultural sector. One of the joint initiatives in this regard was 'Kalpa Green Chat' in which entrepreneurs will get an opportunity to interact with successful businessmen/faculty. One of the key personalities interacted with local entrepreneurs was Mr. Nagaraja Prakasam, renowned angel investor.

Technology Utilization

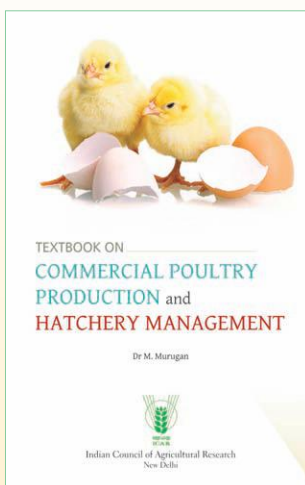
Among the technologies commercialized by CPCRI, largest number of MoAs was signed in the area of coconut value addition, 182 out of 232. VCO, coconut chips and Kalparasa® are the most popular technologies. The efforts of the Institute in coordination with other agencies to bring changes in Excise Act also helped to expand business with 'kalparasa'. Over the years, number of entrepreneurs approaching for buying Institute technologies increased.

Bottom line

The Agri-Business Incubation Centre at ICAR-CPCRI attracts on an average two entrepreneurs every working day and play a mentor's role in choosing business ventures, sourcing technologies and providing marketing guidance. From infancy, it has now got established to serve the cause for it is created. As of now, we are certain that the gap between technology generation and utilization has blurred; we envisage seamless technology scale-up and entrepreneurial capacity building.

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Textbook of Commercial Poultry Production and Hatchery Management



The textbook on Commercial Poultry Production and Hatchery Management has been brought out by ICAR, keeping in mind the importance of poultry industry in the current agricultural scenario. It is a major industry in livestock sector offering promising employment opportunities throughout India for veterinary and animal science graduates.

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TECHNICAL SPECIFICATIONS

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