

Agri-business in the rural sector:

Scope and challenges of incubation

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“India does not live in its towns but in its villages”, Mahatma Gandhi wrote in Young India (23-4-1931; 46:12.). Even after nine decades, his visionary statement has not lost relevance, as above 60% of the country’s population still resides in rural areas. India’s target to become an economic power globally (a five trillion dollar economy by 2024) should thus be attained by integrating and strengthening the rural economies and focusing on overall faster growth rates. Crucially, rural areas offer the potential for untapped economic growth and investment. A recent example in this regard is the huge success of Pradhan Mantri Jan Dhan Yojana that was launched to banking the unbanked. This success also points out that the strategies have to be grounded with an understanding of the external environment in which the rural region is embedded. Innovations are the driving force to achieve a surge in the economy. Nevertheless, many innovations that emerged from the rural front have not seen the limelight and thus were not nurtured. Further, the rural innovators are often not having enough experience or exposure to translate their innovations into viable commercial propositions. Here lies the decisive role of technology and business incubators.

Keywords: ABIs, Agribusiness incubation, Agri-business incubators

AGRIBUSINESS Incubation in India started only in the recent past. Under the National Agricultural Innovation Project (NAIP) supported by World Bank, the Indian Agri-business Incubators (ABIs) network started in 2008. It was

further strengthened in 2013 by establishing Business Planning and Development Units in 13 institutes, including one at ICAR-Central Plantation Crops Research Institute (CPCRI), Kasaragod. Further investments in ABIs had come from

the Department of Science and Technology and Rashtriya Krishi Vikas Yojna - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR) for selected institutions in the country.



Fig. 1. Kalpa ABI processing centre.



Fig. 2. Facilities for in-house incubation: Inside the processing centre; coconut vegan delicacy unit and activated carbon plant.

Agribusiness Incubation

It is challenging to enter the agribusiness sector due to the significant risks and unpredictable returns. The average gestation period for agribusiness ventures is very long, and credit availability also needs improvement. The uncertainty in returns and long breakeven time in the case of resource poor entrepreneurs make rural agribusiness ventures a risky proposition. Added to this is the high drop rate of new enterprises, often for reasons other than technology and credit. Some of the contributing factors are the lack of knowledge and experience on the correct mix of investments (credit, equities, etc.), inadequately skilled workforce (at the processing level and marketing). Furthermore, poor management skills, lack of access to raw materials, and sub-optimal scientific knowledge exacerbate the situation. Often the technology accessed by the entrepreneurs required refinements for scale-up, and also, they may not be aware of the accepted norms of packaging and staking. These

limitations are observed to be more in units operated by women Self Help Groups and rural entrepreneurs.

While these challenges remain, the agriculture sector start-up community grows exponentially, with over 500 Agri-tech initiatives in India. The annual rate of growth has been recorded at 25%. Rock-solid backups, and continuing innovation by the incubators, are essential for the

sustenance of the sector.

Agricultural reforms

Realising the need for more investment in the agriculture sector, the government brought reforms in 2020 by enacting the laws of (i) commodity trade (farmer can sell the product to any buyer within the country), (ii) contract for future sale, a boom for the processing industry,

Table 1. Technologies transferred till August 2021

Category	Technologies	No. of licensees
Food	Virgin Coconut Oil (VCO)	54
	Coconuts chips	38
	Kalparasa ^(R) and coconut sugar	52
	Frozen coconut delicacy	4
	Carbonated tender coconut water	8
	Trimmed tender coconut	4
Machinery	Vinegar, chocolate, cocoa nibs, Kalpa Krunch	8
	VCO/coconut chips machinery; trimmed tender coconut; snowball tender coconut; punch and cutter;	13
Nursery related	Coconut varieties	12
	Tissue/organ culture protocols	3
Farm inputs	Kalpa Gold and Kalpa soil care (composting technologies)	13
	Bio-agents/bio-formulations	22
	Nanomatrix for pheromone delivery, etc.	4



Fig. 3.a. Panel of start-up founders and angel investors participated in the Rural India Business Conclave.



Fig. 3.b. Agri-tech hackathon organised as part of Rural India Business Conclave.

Case Study

Success story of a small scale business aspirant

'Follow your passion, and the success will follow you'; the case study of a young aspirant we narrate here endorses this popular quote. Abhilash K.S is a native of Kudlu village, Kasaragod, who lives with his parents and two siblings. After completing his graduation in the year 2016, he has joined the event management business run by his family, named '*Ushas Dreams Event Management*'. His dream was to become a successful entrepreneur, and his passion, too, was the same. Subsequently, he has acquired field level experience in services such as wedding catering, decorations and light and sounds in the locations of Kasaragod and Mangalore. Although he excelled in the family business, his inherent passion pushed him to transcend the boundaries to experiment with new ventures. In 2020, he stepped into a new sector, wherein he introduced the curry mix and spices for all types of non-veg dishes made available to customers in curry mix paste. His mother made the tasty recipes, which made cooking very easy for even beginners. Initially, they made these products for their catering purposes, but it has received an overwhelming response. Now it is available in more than 300 stores around Mangalore and Kasaragod, employing five employees currently in the production unit. Being a keen observer, the popularity of sugar candies and chocolates in wedding receptions gave him a newfound opportunity to attempt his own chocolate-making units. In 2021, he started a small chocolate manufacturing unit at Chowki and initiated processing chocolates from cocoa, but he initially faced shelf-life issues, packing issues, etc. In search of ideas to resolve this issue, he approached CPCRI. On March 16, 2021, he signed MoA with CPCRI and bought the Bean to Bar technology developed by CPCRI. He registered with the KALPA incubation centre and started working on his goal. With proper training and supervision from CPCRI he started making 30 g bar chocolates named '*Seek out*' and introduced them into the market. Nestle, Cadbury, Campco, Amul were competitors, but the business and distribution network he already had with curry masala paste boosted his confidence. Presently, in Kasaragod and Mangalore areas *Seek out* bars are widely available in retail stores, and there is a huge demand for this product in CPCRI outlets. Currently, he manufactures 120 -150 kg of chocolates monthly, employing two labourers. He desires to increase the quantity to 500 kg and spread the business across 500 or more stores in northern Kerala and Dakshina Kannada districts. He has plans to sell through online stores and launch an app purely designed to provide an exclusive online platform for his products. His new product line is an assorted chocolate box named '*Subru*', containing mixed chocolates with varying compositions. He is also planning to introduce coconut sugar added premium chocolates to the market shortly. The CPCRI developed virgin coconut oil, chips, and coconut ice cream technologies are on his bucket list. Needless to say, so far, he has excelled in his endeavours, and he could, in a humble manner, place his small village to the outside world of big entrepreneurs and, therefore, deserves appreciation and encouragement for what he has done. Abhilash's '*Ushas dreams*' motivates all budding entrepreneurs who believe in their passion and confidence to work in a sector they love and create their own business identity.



Seek out bar chocolate and the processing unit of Sh. Abhilash.

and (iii) amendment of Essential Commodities Act which allows storing of commodities, an important requirement of the industry again. The 'Atmanirbhar Bharat' package announced along with the agricultural reforms further enhanced the scope of agribusiness in the country. The assistance from the government in terms of renovation of food processing industries, formation

of Farmer Producer Organisations (it is planned to form 10,000 FPOs), 'operation green scheme' for perishable fruits and vegetables and integration of 'mandis' with e-NAM (the one nation one market) are expected to leverage the agribusiness in India. The digital drive that is accelerating information access and money transactions make a paradigm shift in rural business.

The Ministry of Food Processing Industries is establishing common incubation centres in different institutions both in the public and private sectors, including Krishi Vigyan Kendras, and mandis. This central assistance is under Prime Minister Formulation of Micro Food Enterprises (PMFME) and is linked with ODOP – One District One Product. The established ABIs are

acting as mentor institutes for this venture. Human resource development to meet the requirement of the industry is also taken into account under PMFMFE. In summary, the government is keen to achieve convergence of efforts by different ministries to accelerate agriculture business, which directly bears the prime minister's vision of doubling farmers' income by 2022.

Kalpa Agribusiness Incubator

Kalpa Agribusiness Incubation Centre at ICAR-CPCRI focuses on coconut business ventures by providing structured and formal entrepreneurship programmes, technology backstopping, financial and marketing guidance, and technical consultancy to establish production / processing units. Nevertheless, the principal activity remains to be technology incubation, as with most ABIs under ICAR. A new culture evolved in the research sphere with ABI activities that transformed the Institute into more entrepreneur-friendly. The processing facilities created at Kalpa ABI are for the production of virgin coconut oil, desiccated coconut, coconut chips, coconut sugar, bean to bar chocolate, frozen coconut delicacy, and activated carbon provided to the in-house incubates at a nominal rate (Figs 1,2). The period of incubation is usually six months to one year. These facilities are created over time, and till now, 14 incubatees utilised these facilities. However, the majority of incubates availed the services from their respective locations.

Among the technology-related services provided to incubatees, nearly 90% were related to the Institute's technology use, upscale and marketing (technologies commercialised from ICAR-CPCRI are provided in Table 1). In a limited number of cases, exclusive products as per the requirement of the entrepreneurs were developed and transferred. The majority of entrepreneurs are of limited resources

and do not have enough risk-taking capacity. Their operating area is mostly confined to smaller extents, part of a district to 2-3 districts. Having said that, passionate and committed small scale entrepreneurs have scripted success, even with their limited resources and confined space of operations. One of such motivating experiences has been depicted as a case study here. Professional support for market promotion and expansion, appropriate packaging, better price realisation, business negotiation, quality compliance, achieving optimum product portfolio, and assessment of investment and realisation has to be institutionalised with the ABIs for making a visible change in agribusiness in the country.

Towards promoting entrepreneurship among rural youth, the Kalpa ABI has conducted several programmes in the past. The Kalpa Green Chat is one such programme conducted monthly in which expert talks, interaction with successful entrepreneurs, question and answer sessions with scientists, and briefing on government schemes and incentives are included. The Rural India Business Conclave was conducted in collaboration with Kerala Startup Mission from 27 February to 2 March 2020 with multiple stakeholders. Participation was another major event where many start-ups directly related to the rural sector participated (Figs 3 a,b). Another important event was the Agritech hackathon in which 15 teams participated in the announced problem areas.

SUMMARY

In the agrarian sector, the focus has rapidly shifted from a production-oriented system to a farmer welfare one. Doubling the farm income by 2022 is the target fixed by the Indian Government. Promoting entrepreneurship among farmers through the formation of Farmer Producer Organisations is a

thrust area of the government. The agricultural reforms ensure the farmers are freed to grow crop of their choice and sell anywhere in India. This changed scenario highlights the need for research reorientation, providing timely advisories to farmers, providing market intelligence, and continuous innovation in post-harvest handling. Nevertheless, shifting away from a production-oriented regime, the sector, of late, had confronted with newfound challenges, especially the dwindling farm income. Hence, it is imperative to provide the farmer opportunities to upgrade himself from a food provider to an entrepreneur. Introducing the concept of Business Incubation in our NARES has been pertinent in view of the shifting dynamics experienced in the agricultural sector. A very important group of people, entrepreneurs, became important stakeholder of the system. Although the primary objective of Kalpa ABI is to promote entrepreneurship with selected business models using proven and potential technologies developed at the Institute; as it is reflected from the activities of ABI, the most significant achievement is its large customer base that includes a large number of entrepreneurs especially the rural youth who are in continuous proximity of the Institute to understand the scope as well as the intricacies of starting an Agri-Business. It is highly appreciable that the reforms and policies envisaged by the government have the right focus to address the livelihood of our farmers and agri-business aspirants, and in the present context, the major challenge is developing an equitable and sustainable plantation sector that ensures inclusive growth and international competitiveness.

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