

Secondary Agriculture: Building Agricultural Enterprises in Rural India

Shwetha, N.V. and Y.N. Shivalingaiah

Department of Agricultural Extension, University of agricultural Sciences, Bangalore

ARTICLE ID: 41

Abstract

Agriculture has been a way of life and continued to be the single most important livelihood of the masses. Green revolution enabled India to achieve self-sufficiency in food grain production. Food grains production rose from 52 million tons in 1951-52 to 279.11 million tons in 2017-18. India ranks first in the world in the production of milk, pulses, jute and jute-like fibers, second in rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton production, and is a leading producer of spices and plantation crops as well as livestock, fisheries and poultry. Increasing population, declining land holdings, degrading soil and water resources, climate change etc., are causing the scenario further bleak suggesting that primary agriculture by itself would not be able to sustain the agriculture based Indian economy. Primary agriculture is to be complemented by secondary agriculture. Secondary agriculture is basically value addition to primary agriculture. Keeping these aspects in mind, the present article is explaining the concept of secondary agriculture, different avenues of secondary agriculture and different government schemes to promote secondary agriculture.

Keywords: Secondary agriculture, enterprise, income, value addition

Introduction

Agriculture has been a way of life and continues to be the single most important livelihood of the masses. Green revolution enabled India to achieve self-sufficiency in food grain production. Food grains production rose from 52 million tonnes in 1951-52 to 259.32 million tonnes in 2011-12 (Economic Survey, 2012-13). India ranks first in the world in the production of milk, pulses, jute and jute-like fibers, second in rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton production, and is a leading producer of spices and plantation crops as well as livestock, fisheries and poultry (Economic Survey, 2012-13). In spite of this, the share of agriculture in the national GDP has continuously declined in the past ten years (from about 30 per cent to 13.9 per cent at present) while the number of people (54.6



per cent of workforce) depending on it almost remains the same. Increasing population, declining land holdings, degrading soil and water resources, climate change *etc.*, are causing the scenario further bleak suggesting that primary agriculture by itself would not be able to sustain the agriculture based Indian economy. Primary agriculture is to be complemented by secondary agriculture. Secondary agriculture is basically value addition to primary agriculture.

The preface “secondary” to any activity, is used to typically imply the next step or higher level of operations – for example, secondary education in school, or secondary processors in computers, or secondary processing in the agro-processing sector, etc. The term secondary agriculture would therefore indicate and refer to an elevated level of agricultural operations, or those linked to agricultural activities. However, it is observed that the term ‘secondary agriculture’ is mainly non-existent around the world, and even then, where it finds limited use, the term is understood differently

In India, ‘secondary agriculture’ is spoken of, but is not clearly defined, though it is commonly used to identify the agro-based manufacturing sector. The Planning Commission of India had constituted a Technical Advisory Committee on Secondary Agriculture (TACSA) in 2007. The TACSA submitted its report in October 2008, but did not define the term ‘secondary agriculture’. Instead, it states that the term “is very broad as it includes all food and non-food bio-resource-based products for human and industrial use”. The term is seen to be used as an omnibus expression to relate to the product of agro-based processing activities of the secondary sector. Effectively, TACSA detailed the output from the activities to explain the term “secondary agriculture”. In fact, by correlating secondary agriculture to all food and non-food products it seems the term would encompass all types of industries as long as its input is a bio-resource – making secondary agriculture another terminology for all kinds of agro-industry.

What is Secondary agriculture?

Secondary Agriculture is defined as a production activity and devised a strategy that includes sustainability of production, monetization of farmer's produce, straightening of extension service, and recognizing agriculture as an enterprise. Any activity on the farm that is done beyond the kharif, rabi and zaid seasons is secondary agriculture i.e. Income-generation activities that use crop residues -- paddy straw, fodder blocks and crop residue briquettes.

The term 'secondary' has a bearing on climate change adaptation and its mitigation, small farm viability and profitability, food security, nutrition, sustainable utilisation of natural resources, and optimal usage of produce from primary agriculture and farm incomes. Secondary agriculture is 'processing and adding value to the basic agricultural commodities. Value addition to farm produce can be done at three levels viz., post-harvest primary processing (cleaning, sizing and packaging especially suitable to fruits and vegetables), secondary processing (basic processing, packaging and branding; e.g.: packed *atta*, *suji*, rice, etc.) and high-end processing (complex processing technologies involving big equipment and finances; e.g.: potato chips, breakfast food, noodles, macaroni, etc.).

Despite the fact that India is doing remarkably well in terms of output, extent of value addition to raw food material is only 7 per cent (NAAS, 2002) while only 2.2 per cent of horticulture products are processed (TACSA Report, 2008). About 8-10 per cent of food grains, 20-40 per cent of horticultural produce and 10-12 per cent of the animal and fisheries production are lost annually in India due to non-availability of appropriate processing and preservation technologies and improper or insufficient facilities for their handling, transportation and storage. CIPHET (Central Institute of Post-Harvest Engineering & Technology), Ludhiana, has estimated that the harvest and post-harvest losses of major agricultural produces at national level was of the order of Rs.44,143 crore per annum at 2009 wholesale prices. The magnitude of the post-harvest losses can be better appreciated by the fact that we waste more fruits and vegetables than what the United Kingdom consumes every year.

Secondary agriculture is defined as a productive activity at enterprise level that,

- Utilizes as raw material the primary product and by-products of agriculture and other biological resources available locally in its rural agrarian neighbourhood; and/or
- Deploys locally available skills or a high level of rural manpower, to operate/manage/maintain the production of goods and services;
- Can be categorized appropriately under the Micro, Small or Medium Enterprises Development (MSMED) Act 2006

How would Secondary agriculture supplement farmers' income?

Secondary agriculture, as is defined, can help drive the growth of primary agriculture, and three avenues have been identified that adequately help utilise capital, human resources, technology, organisational capabilities, and risk management:



- ✚ **Value-addition to primary agriculture production systems:** It can be achieved by improving livelihood enhancement action plans that are implemented by farmer-based/community-based organisations. Linking farmers with the market through aggregation and assaying/grading of agricultural produce can help them in value enhancement and appropriation. Collectivisations, cluster farming, financial literacy, marketing skills are important to build this avenue.
- ✚ **Alternative enterprises, but linked to rural off-farm activities:** It is based on utilisation of alternative enterprises to primary agriculture, but is associated with rural off-farm activities. For example, poultry, bee-keeping, duck farming and livestock management are off-farm enterprises that can be promoted as part of integrated farming system. Integrated farming can hedge farm risk in the period of crop failure, or ease out the seasonality in the stream of cash flows.
- ✚ **Enterprises that thrive on crop residues and waste materials of primary agriculture:** These are such enterprises that strive on crop residues, or by-products of primary agriculture. For example, after recovering sugar from cane, cane can be used as bagasse for molasses production. Similarly, cotton stalk and seed (after ginning) can be used for de-oiled cake preparation or utilised in the secondary/tertiary sector.

To explain inclusions and exclusions some examples are rendered below:

- ✚ A Cotton ginning unit, to separate lint and seed from locally grown cotton, using local human resources and within norms for capital investment under MSME rules would be qualified as secondary agriculture. However, a cotton textile factory, sourcing its raw material across borders and with high capital investment may not be qualified as secondary agriculture.
- ✚ A Jaggery making unit, in the sugarcane growing area would be secondary agriculture, but not a processing unit that procures cane molasses from another region
- ✚ A cottage scale unit employing local labour at a village, to create jams, pickles, chips, khadi products, etc., would be secondary agriculture, but not an automated aseptic pulping and juicing factory that sources tomato puree from other countries, or other locations within the country.

Potentials of secondary agriculture

- Adding value to the commodity: Ragi malt, Millet malt.



- Creating employment in rural area: Sericulture
- Improving farm economy in long run: Agro-tourism
- Promoting rural agro-industries: Dairy industry
- Making agriculture globally competitive: High-Tech Floriculture

