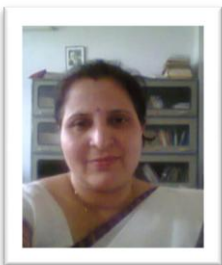


Prospect of Contract Farming and Agro Processing Industry in Assam



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Abstract

Contract farming and agro processing are two inter related concept, which can be classified in to food and nonfood. Food processing is a large sector which includes the activities of agriculture, horticulture, fishery, animal husbandry and plantation. Food processing industry has grown up to offer the mankind with the tastiest and finest food items. The growth of food processing industry depends upon the plenty of raw material and physical and specialized infrastructure. Contract farming has great significance in the supply of raw material. The establishment of Mega Food Park at Tihu of Nalbari district in Assam carries a ray of hope to the farmers as well as to the processors. The processing industry has faces some challenges too. This paper tries to discuss the present status of the industry in the state and prospect of contract farming for the development of food processing industry in Assam.

The study also includes the challenges that it had faced on the basis of secondary data from different published and un published sources.

Keywords: Agro Processing, Infrastructure, Economic Development, Contract Farming, Food Park, Status.

Introduction

Food processing is primarily defined as a process of value addition to the agricultural and horticultural product by various methods like grading, mixing, storing and packaging etc. In a developing country like India the food processing industry is increasingly becoming an important sector for its role in generating employment, income and attracting foreign investment. The industry grew at the rate of 87 percent in developing nations in the period 1980-91 as compared to only 20 percent in developed country. Food processing industry largely depends upon the agricultural and horticultural product. Regular supply of raw material is essential for success of the industry. For this regularity in supplying the raw material to the processors contract farming may plays an important role. It can be define as the agreement between the farm producers and processors for supplying raw materials with pre- negotiated terms and conditions.

The strong agricultural base of our country and infrastructural facilities holds a significant potential for the agro processing industry. It provides a strong link between agriculture and direct consumers. Agro processing is a large sector which includes the activities of agriculture, horticulture, fishery, animal husbandry and plantation, India's position in producing fruits and vegetables lies second in the world after Brazil and China. But sometimes the procurement of raw materials create severe problem to the processors. In such a situation the contract farming may be a measure to solve the problem.

Agro processing can be divided mostly into two subheads, food processing and nonfood processing. Here we discuss about the food processing sector only.

Food Processing may be of primary, secondary or tertiary. Primary processing includes cleaning, grading, sorting. Milling and powdering. Secondary processing includes basic value addition and the process includes mixing with other ingredient, heating, temperature control and then stacking for packaging and the product are tomato puree ground coffee, processing of meat products etc. In the same way the tertiary processing which is nothing but the high value addition includes the same process of secondary processing and the products are Jams, Jelly, sauces, biscuits and other bakery products, beverages, juices, concentrates, pulps, slices.

There are several sub sectors in of food processing sector and produces different products. They are discusses in a nutshell.

Fruits and Vegetables

In this sector Beverages, Juices, Concentrates, Pulps, Slices, Frozen & Dehydrated products, Wine Potato Wafers/Chips etc. are produce.

Fisheries

It includes Frozen & Canned products mainly in fresh form

Meat & Poultry

This includes the frozen and packed mainly in fresh form, Egg Powder etc.

Milk & Dairy

This sector produces Whole Milk Powder, Skimmed milk powder, Condensed milk, Ice cream, Butter and Ghee.

Grain and Cereals

Flour, Bakeries, Biscuits, Starch Glucose, Cornflakes, Malted Foods, Vermicelli, Pasta Foods, Beer and Malt extracts, Grain based Alcohol.

Consumer Industry

Chocolates, Confectionery, Soft/ Aerated Beverages/ Drinks

Plantation

Tea, Coffee, Cashew, Cocoa, Coconut etc.

This type of industry has great contribution to the economic development of a country. In effective utilisation of agricultural product food processing industry plays a vital role. It helps in reducing post harvest losses, create employment. Contract farming is essential for regular supply of raw material to the processors. The demand for processed food is large and the industry contributes to human welfare and economic development. The importance can be studied as follows. Firstly it reduces post harvest losses and helps in diversification of agricultural food grains. Secondly it is labour intensive and very high employment potential (direct and indirect) with significantly lower investment and also enhances the return to the farmers. Thirdly food processing industry induces overall development through its linkages with other sectors and change wage structure cropping pattern and intensity. Fourthly the industry is highly investment attractive. Fifthly utilization of food processing waste and ancillary industry is another area of development and it saves the foreign exchange used in food import. Last but not the least is the Mega Food Park Scheme (MFPS) of Ministry of Food Processing industry (MOFPI), Govt. of India raised the importance of Food processing industry for creating employment and raising income.

Failure of continuous supply of raw materials is one of the important problems faced by food processing industry in Assam. Contract farming is one of the important techniques with the help of which the supply of raw materials can be kept constant. It is a two way mechanism. A grower of crops on the one side and the processor on the other side enter into an arrangement to maximize returns on investment for both of them by reducing market risk. It may be defined as an arrangement in which a buyer purchase the crop product from independent farmers at pre-negotiated terms and conditions. Roy (1963) defines contract farming as the contractual arrangement between farmers and companies specifying one or

more conditions of production and marketing of an agricultural product. But the technique sometimes creates problems to the farmers and the processors.

In Assam the technique of contract farming may be encouraging or discouraging for the processors as well as for the farmers. In some cases the contract may be break by the processors or by the farmers which one is most powerful. Moreover the general people (farmers) may not accept the agreements in fear of losses or in possibilities of breaking the agreement by the processors in the middle of the terms.

Objectives

The main objectives of the study are given below-

1. The first objective of this paper is to discuss the condition of food processing industry in Assam.
2. Second objective is to analyze the prospect and advantages of contract farming for the development of food processing industry in Assam.
3. Another objective of the study is to discuss the challenges that contract farming has to face.
4. To suggest some policy measures to solve the problems.

Methodology and Data Source

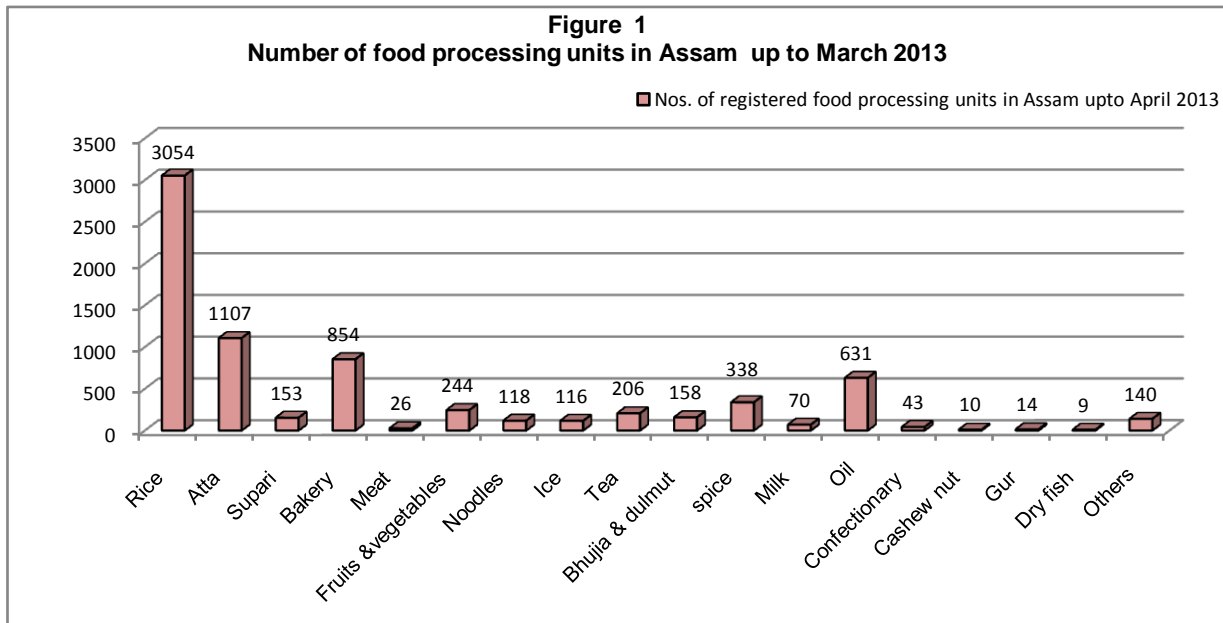
The analysis is based on secondary data. The data are mainly taken from secondary published sources. Notable among these sources are Annual Report of the (MOFPI) Ministry of Food Processing Industries, directorate of industries (GOA), ministry of agriculture, Economic survey of Assam, Statistical hand book of Assam and the data published in different books and Newspapers.

Results and Discussions**Food Processing Industry in Assam**

Assam is rich in agricultural and horticultural production. The value of production of agro based and food processing industry during 2010-11 was Rs. 17574.85 lakh, total sales Rs.19859.82 lakh, employment 12, 3000 and wages Rs. 9926.51 lakh. The production of fruits and vegetables processing sector in Assam during 2010-11 and 2011-12 was Rs 73.20 lakh and total sales Rs.80.40 lakh. Moreover there are several achievements in case of food processing sector. Some of these are discussed here.

Number of Processing Units

As per record of directorate of industries (GOA) total numbers of food processing units in Assam up to March 2013 are 7291 and out of these there are 3054 rice processing units, 1107 atta chaki mills, 153 supari units, 854 bakery units, 26 meat processing units, 244 fruits and vegetables, 118 noodles making units, 116 ice making units, 206 tea packaging units, 158 bhujia and dalmug, 338 spice, 70 milk, 631 oil, 43 confectionary, 10 cashew nut, 14 gur, 9 dry fish and 140 other types of food processing units. All these units are represented by the following bar diagrams in figure 1. Though there are 7291 units are recorded in the office record yet in practical situation the numbers are less then these. Most of them either closed down or could not trace out.



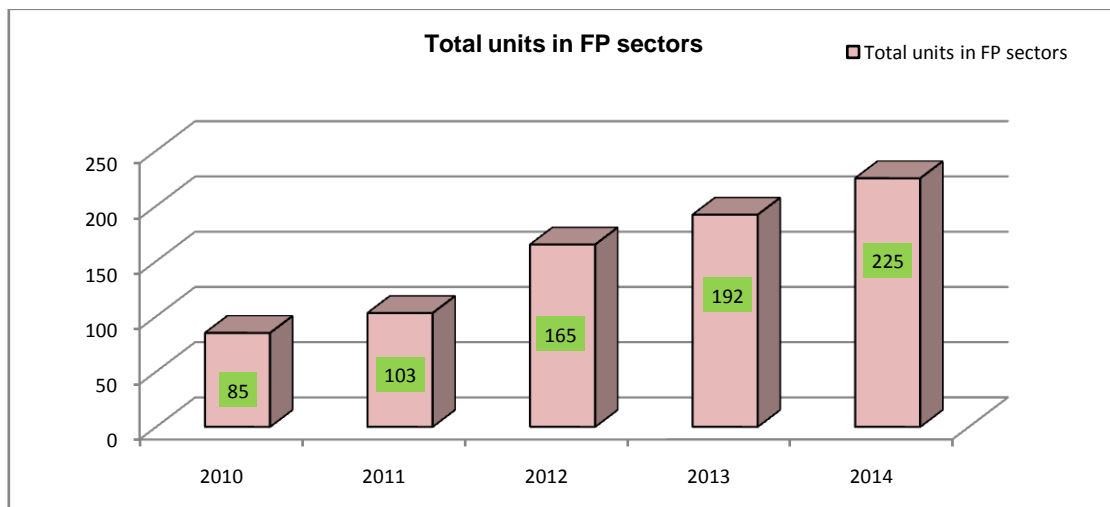
Source: Directorate of industries (Government of Assam)

Trend of Registered Food Processing Units in Assam from 1st January to October 2014

Year	2010	2011	2012	2013	2014 (October)
Total units in FP sectors	85	103	165	192	225

Source: diccassam/admin

The above record of food processing industry can be represented with the help of bar diagram Figure-2



Source:

Assam alone contributes more than half of India's tea production. The estimated production of tea in Assam was 508.7 thousand tons in 2011. There are more than 50000 small tea growers in Assam.

Mega Food Parks

Ministry of Food Processing Industry (MOFPI) has approved one Mega Food Park project in the state. The project is located in Tihu town of Nalbari district and it is currently under implementation. The Park will have a Central Processing Centre (CPC) at Nathkuchi, Tihu covering 50 acres of land supported by a network of Six Primary Processing Centre (PPC) and 19 Collection Centre (CC) spread across the entire NE Region. The

PPCs are Badarpur, Tinsukia, Nagaon, Chaygaon, Barapani and at Kajalgaon. The collection centers collect the product from different remote areas from self help groups, farmers group and individual farmers.

Banana Parks

A banana park has been set up at Industrial Growth Centre, Matia of Goalpara district to facilitate value addition and marketing of Banana fresh and Banana derivatives. A Banana Export Development Centre is being set up in the state to encourage commercial cultivation of Banana and to facilitate production of fresh and processed Banana.

Agri Export Zones (AEZ)

For fresh and processed ginger Agri Export Zones have been proposed in various parts of the Assam. Different district namely Kamrup, Nalbari, Barpeta and Nagaon are important.

Several investors showing their keen interests in Bhot Jolokia, Assam Lemon or Nemu , Carombola or Kordoi, Passion fruits or Lota bel , Olive or Jalphai, Elephant Apple or Ou-tenga, Birds Eye Chilli or Kon Jolokia, Bamboo shoots or Bahor Gaj, Ginger, Turmeric, Black Pepper, Orchids etc. which are traditional product of Assam.

Number of persons employed under food processing industry in Assam and some other states are shown below.

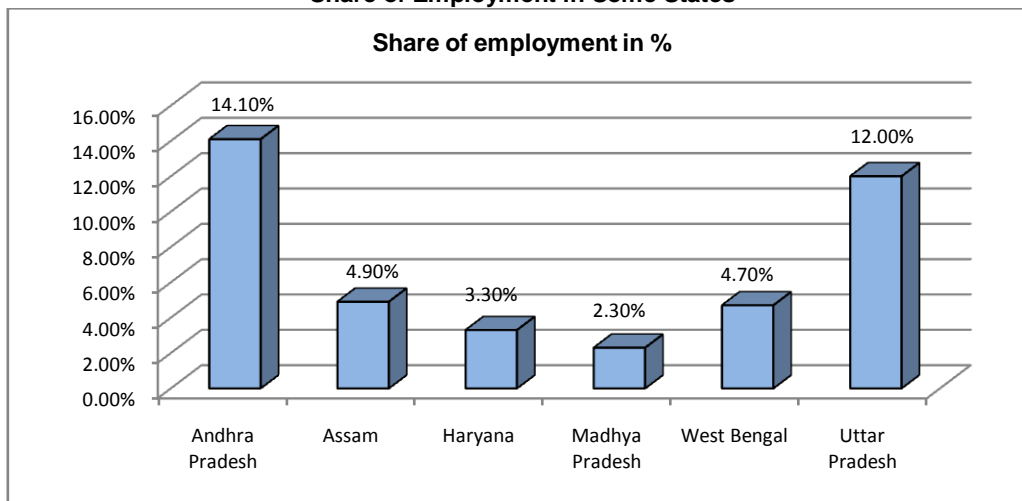
Table - 1
Share of Various States in Employment in Food Processing Industry (2010)

Sl.No.	Name of the State	Share of Employment in %
1	Andhra Pradesh	14.1%
2	Assam	4.9%
3	Haryana	3.3%
4	Madhya Pradesh	2.3%
5	West Bengal	4.7%
6	Uttar Pradesh	12.0%

Source: study on mapping of human resource skill gap in India, New Delhi

This can be represented in the following diagram.

Figure-3
Share of Employment in Some States



Source:

Prospects and Necessity of Contract Farming

The irregular supply, seasonality and heterogeneity (size, weight, maturity) of horticultural product creates problem in the regular supply of agricultural product. Contract farming may solve this problem to some extent and it has several other advantages.

1. Contract farming allows exploitation of full potential of land. It creates a competitive mind among the producer to supply the product.
2. Secondly it tries to build smooth linkages through the value chain – linking the farmers directly with the processors and the marketers.
3. The system provides the remunerative prices to the farmers reducing the over production.
4. It helps in economic development of farmers and entrepreneur.

With the improvement of technology that the industrial partner may bring the efficiency in processing will increase giving further benefits to the farmers.

In Assam due to several factors like natural factor (flood, drought etc), seasonal production by the farmers, lack of transport facilities, migration of workers from agriculture to other prestigious job, transfer of horticulture production to other product like tea reduces the supply of raw material for processing purposes. The introduction of BPL and APL card which provide the rice at cheap rate (Rs. 2.00 or Rs

6.00) to the people reduce the work culture and the production of horticulture reduces. Therefore the contract farming is necessary for the development of food processing industry.

In India several states namely Karnataka, Andhra Pradesh, Tamilnadu, and others introduces the system of contract farming for production of high value, more labour intensive crops. In Assam a beginning has been made by NABARD with bamboo farmers. National Bamboo Mission had identified the state for bamboo production on contractual basis. They are encouraged to grow specific bamboo with contractual arrangement from the Cachar Paper Mill and Nagaon Paper Mill. There are tremendous scope for cultivation of ginger, pineapple and other horticultural crops in contract agreement in Assam. Moreover it also offers scope for animal husbandry to grow through contract farming which help the farmers as well as the processors.

Major Challenges for Food Processing Industry and Contract Farming in Assam

Various constraints have been indentified in Assam as well as for North east India. The main reasons for poor food processing in the Northeastern India are:

1. Lack of plain land for production of plenty of horticultural and other products may create problem in processing as well as for contracted parties.

2. Lack of awareness about the rich potential of different processing industry like fruits and vegetables industry for employment and economic upliftment of the region.
3. Lack of awareness about the potential of fruits and vegetables and other raw materials.
4. Lack of arrangement in processing, glut situation occurs which become a disincentive for production
5. Lack of quality standards and HACCP practices narrow down the quality of fruits and vegetables products
6. Lack of awareness /training about the quality standards among the consumers and sweet makers reduces the scope food processing
7. Lack of connectivity from city to city in hilly and forest coverage
8. **Power Supply:** Generation and supply of power is a serious problem in Assam. The main problem is low power generations due to several causes. Some project has low generation capacity as given below in table 2

Table - 2
Reasons for Low Generations of Power

Generators	Reasons for Low Generations
Kathalguri TPP	Average supply of gas, Gas compressor problem
Namrup TPS	Inadequate supply of gas
Doyang HEP	Inadequate raw water level at site
Ranganadi HEP	Inadequate raw water level at site
Kopili-1 HEP	Average raw water level at site
Koplii-11 HEP	Average raw water level at site
Khandong HEP	Average raw water level at site
Loktak HEP	In adequate raw water level at site
Lakwa TPS	Inadequate supply of gas
Karbi-Langpi HEP	Average raw water level

Source: - North Eastern Regional Load Dispatch Centre (NERLDC) & State Load Dispatch Centre) SLDC, Assam

Natural Problems

Most of the entrepreneur faces the problem of regular supply of raw material during the rainy season. The monsoon, the flood damage the crops and break the supply chain from field to industry. Even the drought creates problem to the entrepreneur to collect the raw materials. These factors make weak supply chain network between supplier and the processing units.

Financial Problems

Finance is a major problem faced by the fruit and vegetable based units of Assam. To examine the extent to which the growth of Food Processing Industry is aided by support of financial institutions we collect the opinion of the entrepreneur during field study.

In several cases large number of processing units does not receive any institutional finance either for starting the industry or for running the processing activities. On the other hand some units have received financial assistance but the amount is very negligible for the development of the unit.

Marketing Problem

Several marketing problems arise in case of food processing industry in Assam. These are given below.

Marketing Research

Lack of market research hinders the processors in case of availability of raw materials, market for food products.

Lack of up-to-date marketing information, up to date information about the market is necessary for the development of food processing industry. But the absence of up to date information of the processor hinder the development of the industry in Assam.

Problems on marketing due to lack of knowledge, experience etc. lack of information and knowledge about the structure of processing sector create problems. On the other side the Government has no transparent norms for establishment and run the enterprise.

Policy Implications

In Assam in order to encourage the adoption of contract farming the Government should develop suitable policy measures and increase the confidence level of the farmers. As the state has been identified for development of ginger product by APIDA and bamboo by National Bamboo Mission, it would be necessary for the Government to come forward with specific policy measures for use of contract farming for these crops in Assam.

Most of the produces go waste during the production due to lack of processing and storage facilities and inadequate infrastructural facilities. There is great potential of processing these products and interactions with food processing units in Northeastern region.

Government should offer special measures to remove this problem for the development of the industry. Efforts have been made by APEDA to build external market linkage for food processing units in Northeastern region with major players in food sectors like Hindustan liver, Dabur, ITC and other companies, APEDA is also setting up model organic farms for Joha rice and sugarcane in Assam, passion fruit in Manipur and pineapple in Tripura

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