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Prospects of Food Processing Industry in Kokrajhar District of Assam: An Envisioning Study beyond its Present Position

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Abstract: Through this paper a discussion is carried out on prospect of food processing industry in Kokrajhar District of Assam. With a view to systematizing the discussion on the topic referred to here the entire paper is divided into three part. The first part entitled theoretical approach includes an introduction, objective and methodology of the study. The second part entitled an envisioning study on prospects of food processing industry is a comprehensive study where various factors of prospect from the demand side and supply side are discussed for depicting a scenario of prospect in the concern industries of the District. In this part further various factors are measured for the purpose of ranking taking feedback from the 90 number of selected respondent. The third part entitled conclusion provides some major findings as identified throughout the Study and some suitable recommendation are put forward along with an overall conclusion.

Key Words: Assam, BTAD, Food Processing Industry, Kokrajhar, Prospect.

PART – 1

Theoretical Approach

Introduction

The availability of both human and material resources in the Kokrajhar District indicates an ample

prospects of food Processing industries in the District. But, notwithstanding its bright prospect, the devoid of efficient marketing system, financial support, research and development stand on the way of materializing these prospects in enhancing the productivity of food processing industries in the Kokrajhar District. It is observe that the gap in

between prospects and development in the food processing sector has been increasing year after year. This gap adversely impact in the overall development of the agriculture, horticulture, industrialization and socio-economic development, so far as the Kokrajhar District is concern. The growth of food processing sector would need to be a significant component of this strategy and considering its possible role in achieving increased agricultural production by ensuring better remuneration for farmers. The food processing sector makes it possible by not only ensuring better market access to farmers, but also reducing high level of wastages.

A developed food processing industry will reduce wastages, ensure value addition, generate additional employment opportunities as well as export earnings and thus lead to better socio-economic condition of millions of farm families. Food Processing industries contribute significantly to the economic and social development and acts as a bridge between the agriculture and allied sector. Hence, all of these circumstances warrant a careful research work on the topic referred to here.

Objective of the Study

The general objective of the study is to identify various prospective factors as prevailing in the Districts and to examine as how by framing an effective policy guidelines, these prosperous factors can be productively implemented in greater interest of socio-economic development of the District. Keeping in achieving this general objective, the following specific objectives are taken under study.

- (i) To identify various prosperous factor from demand side of the food processing industry.
- (ii) To find out various prosperous factor from supply side of the food processing industry.
- (iii) To formulate policy guidelines for attachment of these prosperous aspects of the food processing industries with their development.

Methodology

By nature the study is analytical. The study is based basically both primary and secondary data. The primary data are collected by the technique of questionnaire cum schedule. In this regard it is estimated that there are total 90 number of food processing industries of five categories such as rice mill (53), oil mill (06), flour mill (12), bakery (12) and fruits and vegetable processing industry (07).

With a view to obtain a total picture, all of these 90 number of industries are taken as sample. Hence in the study population is equal to sample as because total population 90 is not a too much for conducting questionnaire and schedule. Regarding the prospect of these industries all question related to prospect are put to the 90 industry as sample. Of course to elicit the causes of these population questions are put to 90 number of respondent consisting of 05 categories of industries. In compiling primary data in addition to field survey and personal interview the study mostly depend on questionnaire analysis. With a view to eliciting their views and attitude of 90 number of respondent regarding prospect, a close questionnaires has prepared.

The opinion obtained from the 90 number of respondents are presented and analyzed through weighted mean by using the following formula.

$$\text{(Weighted Mean)} \bar{x} = \frac{n_1w_1 + n_2w_2 + \dots + n_kw_k}{n_1 + n_2 + \dots + n_k}$$

Where w_1, w_2, \dots, w_k be the ranks or weight of 1st, 2nd, ..., k^{th} series with n_1, n_2, \dots, n_k observations.

On the other hand, secondary data are compiled from different books, journals, government report and relevant website etc. as and when it is found to be needed.

PART – II

An Envisioning Study on Prospect of Food Processing Industry in Kokrajhar District of Assam

There are a sizeable number of factors of prospect of Food Processing Industries. The quest on prospects of these factors as discussed basically from two points of view so far as the Food Processing Industries of Kokrajhar District is concerned. These are from demand side and supply side.

Quest on Prospect of Food Processing Industries from Demand Side

In order to reflect the scenario of prospects, consideration of factors emerging from demand side is immensely important. It is because of the fact that demand side always plays an independent role in enhancing the volume of business operation of the Food Processing Industries. Demand side show automatically leads the expansion of supply side. That is why, keeping in purpose this importance of demand aspect, some of each prevailing factors in case of food processing industries are discussed below.

Rapid Increase Demand of Process Food/ Change in consumer Taste

The demand for processed food is increasing due to rise in personal income, change in life style, increasing standard of living, social change, increasing number of hotel, restaurant, hostel etc. Of the region. Rapid urbanization, increase in the number of nuclear families, increase in the number of working women have change a lot of consumption habits of the Indian families. Increased literacy and rising per capita income have induced the customers to increase their spend on value added food, which has a higher shelf life, packs greater nutritive value and takes less time to cook. Kokrajhar district also became the headquarter of Bodoland Territorial Area Districts (BTAD.) since its formation in 2003. Due to this reason in this area urbanization are growing very rapidly in the last 10 years. It indicates positive sign for this industry sector. Alongwith these, the expansion of hostel, hotel, various central and state government offices, bank, insurance company etc. has led to the growth and development of the food

processing industry. Alongwith these Kokrajhar District became the education hub of the entire Lower Assam. Due to these reason many students, staff and working group of people are migrated to Kokrajhar. This has led to change in consumer tastes and preferences towards processed food. This is identified one of the important prospective factor for food processing sector in the concern District. This reflect that there exist a market in the District itself with a change in the taste habit of the people and opportunities for marketing these products within the district along with the entire Assam.

Tourism Prospect

This region has greater potentiality on tourism sector because of its geographical, natural beauty and cultural heritage and this will help to promotion of tourism sector in this area. It is inhabited predominantly by Bodo language speaking district ethnic group: Boros, Assamese, Rabha, Koch-Rajbongshi, Garo and other Indigenous Mongoloid tribes. The Bodos are the largest ethnic and linguistic community of the Brahmaputra valley and early settlers of Assam in the North Eastern Region of India. Bodo tribal group is known for their rich and diverse culture. Cultural exuberance of the whole of the society of the Bodo tribal community incorporates elements like dancing, singing, language etc. The main festivals of Bodos include Kherai—the colourful function which includes drumming, singing and dancing to the rhythms of the drums. This festival have greater potentiality to attract the tourist. BTAD is well endowed by a number of tourist attraction. It has variety in its stock to attract tourist. It has religious, cultural, natural tourist spots. The most important religious tourist spot in BTAD area is the Mahamaya Temple and Mahamaya Snanghat Temple.

Another important in BTAD area is Chakrachila wildlife Sanctuary. This place is situated five km North West of Kokrajhar town and this area is declared home of Golden langur in 2002, a rare and endangered primate species found only on this part of the world. Chakracila is a unique spot for

which rich biodiversity with extra ordinary and breath taking and scenic beauty with large lush green valleys, streams, lakes, lofty hills and waterfalls. It is an unknown and mysterious hidden tourist spot,so near to human habitat attached to it. The another important tourist destination in BTAD area is Diplai Beel. It is situated about 15 km southward of Kokrajhar, this is water body locally known as Diplai bill covering area of 1285 bighas during dry season. This place is home to many well-known spices of flora and fona. Besides many local and resident birds, many non-nonresident bird and migratory bird spices also do visit the beel every year during different seasons. This place is popular picnic spot for the resident of Kokrajhar town especially during new year celebrations and the festive seasons of Bwisagu. The wet scenic beauty of this park with lush green hills all around makes it the favourite tourist destination in and around Kokrajhar. There is also a scope of boating in this park . The another important tourist place is Ultapani Reserve Forest. Ultapani which literally means reverse water is a part of larger landscape of Manas Biosphere : is just 36 KM from Kokrajhar.

The rural tourism as an element of tourism as a tourism product is a complex rural supply of a given settlement which involves the special elements hospitality and attractiveness and these elements are organized into special products. Therefore, the rural tourism includes heritage tourism, farm tourism, pilgrim tourism, adventure tourism, natural tourism or folkways and ancient culture tourism. Therefore, the Bodo culture, Bodo festival and important tourist place of BTAD is the important source of rural tourism in BTAD area. So tourism sector and food processing industry sector have positive relationship each other.The growth of tourism sector indicates the growth of food processing industry sector. So growth rate of tourism sector is identified one of the positive factor affecting the growth of food processing industry sector because we have seen that after formation of BTAD the growth rate of tourism sector is increasing in the District.

Employability Prospect

The food processing industries are labour intensive. They will provide more employment opportunities to the local rural communities. It will also help in solving the unemployment problem in the region. Food Processing Industries can be set up even with lower capital investment as compared to large scale industries. As capital is scarce in this region, food processing industries are feasible option for the region and another significant of these industries is that, there is less time gap between capital investment and production of goods. Thus, it brings quick return to the entrepreneur. That is why, it is identified one of the major source of employment provider in the economically backward region like Kokrajhar.

The following table reflected the selected 90 number of food processing industries of Kokrajhar district in terms of investment wise employment and no of worker.

Table 1
Distribution of Selected Food Processing Industry in terms of Investment and Employment of Labour

Sl. No.	Cost of Investment (in Lakh)	No of Industry	No of Worker	Average Employment per Industry
1.	0-1 Lakh	04	19	4.75
2.	1-2	27	57	2.11
3.	2-3	15	39	2.6
4.	3-4	20	59	2.95
5.	4-5	07	27	3.85
6.	5-6	01	04	04
7.	6-7	03	21	07
8.	7-8	01	06	06
9.	8-9	01	04	04
10.	9-10	01	05	05
11.	10-11	03	17	5.67
12.	11-12	0	0	0
13.	12-13	0	0	0
14.	13-14	01	07	07
15.	14-15	06	61	10.16
Total		90	326	3.62

Source: Field Survey and District Industries Centre and Commerce, Kokrajhar.

After going throughout the table the following points are highlighted. Against the investment range of 1-2 Lakh, there are highest number of industry (27) as well as second highest number of employment. On the other hand, against 14-15 lakh of investment highest number of employment against 06 number of industries.

Demographic Prospect

Kokrajhar District is one of the important District of Assam and can be described as the gateway to the North Eastern Region of India. Both rail and road touches this District at Srirampur before they go to other Districts in Assam and the other North Eastern States. The District has a total area of 3,169.22 sq. K.M. and a total population of 8, 87,142 according to the census 2011. The District is bounded on the north by the Himalayan Kingdom of Bhutan, by Dhubri district on the south, Bongaigaon District on the East and Indian States of West Bengal on the west. The District can be easily reached as both the main line road and rail passes through this District. There are beautiful places to visit in the District, especially in the northern side, where the natural scenario is exquisite. The Kingdom of Bhutan is intricately linked with the district of Kokrajhar in many vital aspects of life of the people living both in the Bhutan hills and the plains of Kokrajhar. There is a hassle-free movement of the people across the international border for the purpose of business and tours. Kokrajhar is also the headquarter of the Bodoland Territorial Area District which was created in 2003. This kind of demographic opportunity is identified one of the great strength of food processing industry sector.

Hence, in support of these potential opportunities emerged from demographic dimension, the selected industries can be benefited to a large extent. With a view to materializing these opportunities the selected industries should consider seriously different demographic prospects in time

of framing their production, planning, marketing policies and financial budget. Further, to make these policies and planning successful, necessary training to concern employees, adequate control in general management and production and application of proper production technology should be implemented at proper time with appropriate way.

Supply Side

With a view to effective implementing the available demand factors, it is urgently needed to examine and identify factors of supply side whether these are available in proportion of demand for or not. To justify this fact here, an attempt is being taken to discuss on some selected factors derived from supply angle in respect of food processing industries of Kokrajhar District.

Plentifulness of Raw Material

The agro-climatic condition of the Kokrajhar district along with the state favours the growth of variety of fruits, vegetables and spices. In Assam agricultural productivity is satisfactory and more than 35 per cent of state domestic product comes from agriculture at constant (1980-81) prices. The production of major horticultural crops in Kokrajhar district of Assam are shown in the table 2.

The table reflects that most of the raw material produced by the district is basically used for processing industry sector. There are great possibilities of establishing fruit processing (orange, Pineapple, papaya) in Kokrajhar district of Assam depending upon the local fruits and vegetables. This helps in accelerating the agricultural production and improving the socio-economic condition of farming community.

The trend of Agricultural crop can be understand from the data given in the following table. The production of different types of crops in Kokrajhar district is shown in the table 3.

Table 2
Trend of Horticultural Crops in Kokrajhar District of Assam (in Tonne)

<i>Year and Crops</i>	<i>Tomato</i>	<i>Banana</i>	<i>Orange</i>	<i>Guava</i>	<i>Pineapple</i>	<i>Lemon</i>	<i>Jackfruit</i>	<i>Papaya</i>	<i>Lichi</i>
2003-04	6996	13683	862	2727	4725	1311	9615	6078	605
2004-05	7208	16874	18	2938	4652	1380	10820	6303	650
2005-06	7858	1444	18	3124	1050	1383	3673	6048	502
2006-07	7879	18852	677	2155	1019	1395	3687	5825	515
2007-08	7879	20165	695	3432	4686	2190	4690	5753	1134
2008-09	8421	18657	741	3471	2726	2452	4803	5541	1184
2009-10	8848	20053	1017	3455	4546	2617	4905	5616	1180
2010-11	9656	20733	4451	3790	7452	2617	4905	31031	1180
2011-12	9044	23604	4547	3888	7420	2754	4974	9609	1214
2012-13	9216	21848	4774	3988	8536	3364	5925	10049	1327

Source: Report prepared by Directorate of Economics and Statistics, Assam on Area, Production, Price and Value of some Horticultural Crops in Assam from 2003-04 to 2012-13.

Table 3
Trend of Agricultural Crops in Kokrajhar District of Assam (in Tonne)

<i>Year and Crops</i>	<i>Total Rice</i>	<i>Potato</i>	<i>Rape and Mustard</i>	<i>Sugarcane</i>	<i>Wheat</i>	<i>Masur</i>	<i>Mati Kalai</i>
2003-04	119328	28335	9178	2779	2727	N/a	502
2004-05	107991	30139	10229	28880	2481	N/a	545
2005-06	130563	18575	11133	2901	3032	394	884
2006-07	112686	26172	11151	3805	3607	402	1217
2007-08	131035	24894	12832	3884	3546	381	1065
2008-09	112131	28504	8486	4567	3106	265	1617
2009-10	158273	33292	15812	6727	3416	333	558
2010-11	192738	39147	17413	5647	5876	564	1029
2011-12	185448	36474	17149	6855	4433	639	1062
2012-13	181125	69427	16243	6980	4093	675	1051

Source: Report prepared by Directorate of Economics and Statistics, Assam on State/District wise Area, Production, Price and Value of some Major Crops in Assam from 2003-04 to 2012-13.

This table shown that the entire Kokrajhar District for its agro-friendly climate and agrarian roots have the potential to be a sunrise zone for processing industry sector and other agri –business. That is why; we can conclude that such type agricultural product is a great input for development of such industry in this region.

Availability of Human Resources

The availability of human resource is also one of the positive factors for setting up such type of Industry. The ingenious knowledge and skill of the labour is sufficient for food processing industry so it is available in Assam. Therefore, cheap labours are identifying one of the main strength of setting up

such type of industry which is proof from the data compiled from the 90 proprietors of the industries of five categories as presented in the table 4.

Out of the above table it is revealed that out of 90 industries 68 (75.56%) is of the opinion that they have abundant labour, where 21 (23.33%) and 01 (1.11%) are of the opinion that they have adequate and scarce labour supply respectively. Hence this table reflected that in case of majority industry the supply of necessary labour is satisfactory. So, hereby, it can be justify that in case of Kokrajhar District there is an ample prospect of labour supply as needed for the available selected food processing industry. Keeping in view the specific needs of the industries, manpower can be made available as per the increased demand of the food processing industries, by imparting sustainable training to these workers.

Government schemes and policies

The Ministry of Food Processing Industries is the key central agency of the Government responsible for developing a strong and vibrant food processing sector with a view to creating increased job opportunities in the rural areas, enabling the farmers to reap benefit of modern technology, creating surplus for exports and stimulating demand for processed food. To create an infrastructure for food processing sector the Ministry of Food Processing Industries (MOFPI) has launched new scheme during 11th Five year plan. Among these Mega Food

Park Schemes, Schemes for cold Chain, Value addition and preservation infrastructure and scheme for modernization of existing food processing units. They also given incentives for investments and under this scheme government reduce the excise duty on food processing and packaging machinery from 10% to 6%, in the current budget.

The government also generate special fund of Rs. 2000 crore in NABARD has been created to provide affordable credit to food processing units to set up in the designated Food Parks. Under the Mega Food Park scheme in Assam mega food park is under construction at Nathkuchi area of Tihu town under the Nalbari District, under a scheme of The Ministry of Food Processing Industries (MOFPI) during 11th Five year plan. It carries a ray of hope to the farmers as well as to the small processors as it provides adequate infrastructure along with the value chain from the firm to the market. The park will have a central processing Centre (CPC) at Nathkuchi, Tihu covering 50 acres of land supported by a six primary processing centers (ppc) and 19 collection centre(CC) spread across the entire region. Intead of these there are many organization like Central Food Technology Research Institute (CFTRI), Indian Institute of Crop Processing Technology (IICPT), Indian Institute of Packaging, National Institute of Food Technology Entrepreneurship and Management (NEFTEM) etc. are the Central Government organization ready to help this industry sector. Agricultural Processed Food Products Export Development Authority (APEDA) and North

Table 4
Distribution of Food Processing Industry in terms of Availability of Labour/Human Resource

<i>Sl. No.</i>	<i>Position</i>	<i>Rice Mill</i>	<i>p/c of Empt</i>	<i>Oil Mill</i>	<i>p/c of Empt</i>	<i>Flour Mill</i>	<i>p/c of Empt</i>	<i>Bakery</i>	<i>p/c of Empt</i>	<i>F and V</i>	<i>p/c of Empt</i>	<i>Total</i>	<i>Total P/c</i>
1.	Aboundant	41	77.36	06	100	09	75.00	06	50.00	06	85.71	68	75.56
2.	Adequate	12	22.64	0	0	03	25.00	05	41.66	01	14.29	21	23.33
3.	Scarce	0	0	0	0	0	0	01	8.34		0	01	1.11
	Total	53	100	06	100	12	100	12	100	7	100	90	100

Source: Compiled from Field Survey.

Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC) have also been playing an important role for development of this industry sector. Export promotion, organizing buyer-seller meet and market development for agricultural commodities, processed food is undertaken by APEDA. NERAMAC assist farmers in obtaining remunerative price for their agri-horti produces and assist small food processing units in marketing their exotic products of the region. The following two table shows some of the list of institution and government scheme and policy which help the food processing industry sector.

After formation of BTAD many organization are come forward to provide training to entrepreneur who run the small scale industry like food processing industry sector. The Indian Institute of Entrepreneurship, Guwahati, Department of Science and Technology have conduct many skill development programme. Along with these in support of BTAD government many exhibition, trade fair are held in every year in Kokrajhar District. Intead of these there is permanent training institute of UCO Bank–Rural Self Employment Training Institute (RSETI), which also conduct many

Table 5
List of supportive Institution/organization for Food Processing Industry

<i>Sl. No.</i>	<i>Name of the Institute/Organisation</i>	<i>Address</i>
1.	Central Food Technological Research Institute	Mysuru -57020, Karnataka
2.	National Dairy Research Institute	Karnal, Harayana
3.	Central Potato Research Institute	Shimla, Himachal Pradesh
4.	Central Plantation Crop Research Institute	Kahikuchi, Kamrup, Assam
5.	National Institute of Rural Development	Hyderabad
6.	Indian Agriculture Research Institute	New Delhi
7.	Indian Institute of Horticulture research Institute	Bangalore, Karnataka
8.	National Research Centre for Mushroom	Chandigarh, Himachal Pradesh
9.	Indian Institute of Packaging	Andheri East, Mumbai, Maharastra
10.	National Institute of Nutrition	Hyderabad, Tamilnadu
11.	Indian Institute of Crop Processing	Thanjapur, Tamilnadu
12.	Indian Institute of Entrepreneurship Guwahati	Guwahati, Assam
13.	National Institute for Micro Small and Medium Enterprise	Hyderabad, Andhra Pradesh
14.	Entrepreneurship Development Institute of India, Ahmedabad	Ahmedabad, Gujrat
15.	National Institute for Small Business and Entrepreneurship Development, Noida	Noida, New Delhi
16.	North Eastern Regional Agricultural Marketing Corporation Ltd. (NERAMAC)	G.S. Road, Ganeshguri, Guwahati
17.	North Eastern Development Finance Corporation Ltd. (NEDFI)	Guwahati, Assam
18.	National Institute for Food Technology and Entrepreneurship	Sonepat, Harayana
19.	Food Safety and Standards Authority of India	Kotla Road, New Delhi -02
20.	Agriculture and Processed Foods Export Development Authority	New Delhi -16
21.	All India Food Processors Association	Hauz Khas, New Delhi-16

Source: Ministry of Food Processing Industry Website.

Table 6
List of Various Government scheme for food processing industry sector

<i>Sl. No.</i>	<i>Scheme</i>	<i>Objective of the Scheme</i>
1	Mega Food Park	Providing mechanism to link agricultural production market by bringing together farmers, processors and retailers to ensure maximizing value addition, minimizing wastages, increasing farmer's income and creating employment opportunities particularly in the rural sector. These include collection centers, primary processing center, Central Processing Centre and Cold Chain Infrastructure.
2	National Mission on Food Processing (NMFP)	Centrally Sponsored Scheme for implementation through State/UT Governments. A number of schemes which were implemented by MOFPI were sub summed with the Mission. This envisages establishment of a National Mission as well as corresponding Mission in State and District Level.
3	Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	This is the flagship scheme of the Ministry of Skill Development and Entrepreneurship. The objective of this skill certification scheme is to enable a large number of Indian Youth to take up industry –relevant skill training that will help them in securing a better livelihood. Individual with prior learning experience or skills will also be assessed and certified under Recognition of prior learning. Under this scheme, training and assessment fees are completely paid by the Government. This scheme impart training on soft skills, Entrepreneurship, financial and digital literacy.
4	Make in India	100 % FDI is permitted in this sector and provide many benefit in terms of financial support including tax subsidy, income tax benefit, rebate from custom duty and excise duty and many promotional scheme under the guidance of Make in India.

Source: Ministry of Food Processing Industry Website.

awareness cum skill development programme related to food processing industry. This is also identified one of the great prosperous factor in Food processing industry sector in concern area.

Technological Prospect

In order to enable and proper implementation of technology the food processing industry access to new technologies for increasing their competitiveness in the international market, it is imperative to give them a conducive environment, which includes

- (a) formulation of appropriate national policies and programmes
- (b) building up technological capacity
- (c) knowledge flows and technology databases and
- (d) R&D and inter firm linkages.

Networking offers an important route for individual's entrepreneur to address their problems as well as to improve their competitive position. Evidence from developed and developing countries shows that networking is more likely when enterprise operate in proximity and share business interests such as market for product, infrastructure needs or challenging external competition. Within such group or clusters, enterprises joint initiatives are stronger, because of critical mass of interest parties, more cost effective due to shared fixed cost and easy coordination with proximity fostering mutual knowledge and trust. Ever since the time of independence, the scientific and the technological base of the country has grown considerably. Today it consists of a wide spectrum of infrastructure in terms of laboratories, R&D institutions, in- house R&D establishments' *etc.* covering several disciplines. The chain of laboratories/ institutions under CSIR,

DST, ICAR *etc.* Besides academic institutions like IIT, NIT *etc.* too play a crucial role in responding to the technological demands from the food processing industry sector. The Ministry of Micro Small and Medium Enterprises, Ministry of Skill Development and Entrepreneurship keeping in view the concentration of such enterprises has also specially established several Tool Rooms and common facilities. Besides, different Ministries have set-up their own R&D institutions to address the technological and training/skilling requirements of agro based industry sector.

The need for cooperation is to bring about value addition to the products through endogenous resources/skills; environmentally clean and economically viable processes; closely held technologies that are commercially denied to Indian industry; strategic/dual-use technologies. The following are the various government ministry which have taken various scheme for up gradation of technology in the food processing industry. The following are some of the important scheme implemented by the Government of India for technology support in the food processing industry sector.

Along with the above mentioned scheme in case of Kokrajhar District some other Institution also taken initiative for support of technology enhancement in selected industry sector. The DICCC kokrajhar, KVK Gosaigaon, Director of Agriculture, CIT Kokrajhar, KVIB Kokrajhar also taken many initiative for technology support of the food processing industry sector. So it is reflected that technology support is one of the great advantage for these industry sector which help them to diversify their product in near future: Necessity of proper application of technology in food processing industries is emerged basically from two points of view. One is by virtue of implementing technology this industries can improve the quality and quantity of products that can compete with national and multinational producers. Secondly, by applying proper technology this food processing

Table 7
List of Technology Support Ministry/organization

Ministry of Human Resource Development	<ul style="list-style-type: none"> • Industry-Institute Partnership Cell (AICTE) • NAFETIC (AICTE) • Polytechnics/Community Polytechnics • Support to Training and Employment Programme for Women (STEP) • Rashtriya Mahila Kosh
Ministry of Science and Technology	<ul style="list-style-type: none"> • Science and Society Programme • S&T Entrepreneurship Development Programmes
Ministry of Information Technology	<ul style="list-style-type: none"> • Training programmes offered by STQC
Ministry of Food Processing	<ul style="list-style-type: none"> • Food Processing and Training Centers • Entrepreneurship Development Programme
Ministry of Agriculture and Cooperative	<ul style="list-style-type: none"> • Cooperative Education and Training • Intensive Dairy Development Programme (IDDP) • Fisheries Training and Extension
Ministry of Chemicals and Petrochemicals	<ul style="list-style-type: none"> • Programmes by Central Institutes of Plastics Engineering and Technology (CIPET)
Ministry of Labour and Employment	<ul style="list-style-type: none"> • Vocational Training Programme • Industrial Training Institutes • Instructor Training Institute • Craftsmen Training Scheme
Ministry of Tribal Affairs Ministry	<ul style="list-style-type: none"> • Vocational Training Centers of Rural Development • Swarnjayanti Gram Swarozgar Yojana (SGSY) • YUVAJYOTI-Preparing young professionals in Rural Areas
Ministry of small scale Industries (SSI) and Agro and Rural Industries	<ul style="list-style-type: none"> • Training and Manpower Development • Entrepreneurship Development Programme • Skill Development Programme • Management Development Programme

Source: Relevant Government Website.

industries can control their cost of production up to a great extent. It will be further helpful for controlling price in the market.

Infrastructure Prospect

Development of any region depends very much on the availability of its infrastructural facilities. The development of agriculture and industry depends solely on its infrastructure. Without having a sound infrastructural based a country cannot development of agriculture and industry. The infrastructural facilities are playing an important role in promoting economic development of a country. In Indian planning high priority was given to the development of infrastructure from the very beginning, thus a huge amount of fund was allocated in different plan for building various infrastructural facilities.

The infrastructural facilities for the food processing industries of Kokrajhar District can be discussed under two categories. One is preformation of BTAD and post formation of BTAD. It is found that the position of Infrastructural facility the pre-formation of BTAD was not so developed. But it is to be mention that after formation of the BTAD in year 2003, the Kokrajhar is recognized as a head quarter of the BTAD. Being a headquarter of BTAD the Kokrajhar Districts has enjoyed lot of privilege apart from which many priority are given to the development of infrastructure.

It is very important that quality infrastructure facilities are available for development of food processing industries in the region. This would facilitate setting up and running of the industries without any interruption at a low cost. These facilities would help not only in promoting trade and industrial activities, but also boosting the possibilities of healthy competition, attracting capital investment, generating employment opportunities and developing the social framework in the state. Hence growth rate infrastructure is a positive sign for the selected food processing industry sector.

Financial Prospect

The financial prospect of the selected food processing industry of Kokrajhar Districts are hereby basically justified from various schemes introduced by Government of India and Assam. It is because of the fact that behind this schemes there are available financial opportunities to the industries in terms of subsidy, incentives, rate of interest etc. Taking into consideration this schemes here a study is carried forward to examine available various policy and scheme implemented by the Government of India

Micro units Development and Refinance Agency (MUDRA) is an important scheme for promoting small scale industry sector. MUDRA provides refinance support to Banks/MFIs for lending to micro units having loan requirement up to 10 lakh. Mudra provides refinance to micro business under the scheme of Pradhan Mantri MUDRA Yojana. Under this scheme they provide Shishu loan up to Rs. 50000.00, Kishor loan covering loans above Rs. 50,000 and upto Rs. 1 Lakh and Tarun covering loan above 5 lakh and upto 10 lakh. In this scheme in case of food processing sector they have support in various activities such as papad making, achaar making, jam/jelly making, agriculture produce preservation at rural level, sweet shops, cold chain vehicle, cold storage, ice making units, ice cream making units, biscuit, bread and bun making, grading, sorting, aggregation of agro industries etc. NEDFI also play an important role for providing financial support ho these industry sector. Along with these NABARD also came into existence for promoting agro based industry like food processing industry to provide financial assistance. The BTAD government along with state government are take appropriate steps including an array of concessions, financial assistance and grant for attracting investment towards food processing sector and sustaining growth of industries and competitive spirit. Along with these DICC Kokrajhar in support of various commercial bank come forward to support this industry sector.

Hence, financial support is identified one of the greatest supportive strength for food processing industry sector.

Questionnaire Analysis

In addition to explanation and observation made on various factors of prospect of Food Processing Industry from demand as well as supply dimension, further an attempt is taken to elicit the views and attitudes from 90 number of respondents to draw a complete picture so far the total prospect of these industries is concerned. In doing so the feedback of respondent are compiled only on the ten factors as adopted in discussion on demand and supply factor in previous discussion.

Various responses compiled from the 90 number of owners of selected Food Processing Industries are analyzed in order to determine the prospect of food processing industry in terms of relevance of various prospective factor. In doing so five point rating scale is used which indicate no relevant, less relevant, somewhat relevant, relevant and very much relevant, with score 1, 2, 3, 4, 5 respectively. After recording the rank of the opinion of selected respondent a weight mean score is calculated for ascertained the relevant aspect of prospect. The weighted mean is calculated from the feedback obtained from 90 number of respondents against 10 number of factors as depicted in the following table.

Table 8
Degree of response perceived by Entrepreneur/Owner of selected Industries regarding various aspects of Prospect of Food Processing Industry.

Sl. No.	Factors of Prospect	No Relevant (Rank = 1)	Less Relevant (Rank = 2)	Some What Relevant (Rank = 3)	Relevant (Rank = 4)	Very Much Relevant (Rank = 5)	Weighted Mean	Rank
1.	Availability of Customer	0	0	0	0	90	5.00	1
2.	Help in Increasing employment opportunity	23	24	18	14	11	2.62	10
3.	Benefit from Tourism Development	06	09	19	24	32	3.74	9
4.	Benefit from Demographic position	04	06	25	26	29	3.77	8
5.	Availability of Raw Material	0	0	13	14	63	4.55	3
6.	Availability of Labour	06	10	20	12	42	3.82	6
7.	Supportive Government Policy	03	12	23	14	38	3.80	7
8.	Technology Support	0	08	15	20	47	4.17	5
9.	Benefit from Infrastructural facility	0	05	03	14	68	4.61	2
10.	Financial Support	0	11	10	05	64	4.35	4

Source: Compiled from field survey.

In the light of the above table, it is observe that against the factor of availability of customer got highest weight mean (5.00) is obtain from the selected 90 owners respondent. It clearly reflect that the availability of customer plays one of the significant role for the growth of Food Processing Industries. Hence on the basis of these fact it can be

justified that there is very high prospect of the food processing industries in Kokrajhar District so far as available customer is concern. Further, from the table it is clear that benefit from infrastructure facility has been ranked second followed by availability of raw material, financial support, technology support, availability of labour, supportive government policy,

benefit from demographic prospect, help in increasing employment opportunity, benefit from tourism development. Therefore we conclude that several factor helps in the growth of food processing industry in Kokrajhar district of Assam.

The Proprietor View about the Future Prospects Available for the Selected Food Processing Industries are Depicted in the following table.

Table 9
Distribution of food processing industry interms of future prospect

<i>Sl. No.</i>	<i>Factors</i>	<i>Rice Mill</i>	<i>Oil Mill</i>	<i>Flour Mill</i>	<i>Bakery</i>	<i>F and V</i>	<i>Total</i>	<i>Per centage</i>
1.	Bright	18	01	03	06	02	30	33.34
2.	Expanding	07	01	07	04	02	21	23.33
3.	Unstable	13	02	01	01	0	17	18.88
4.	No Future	04	01	01	01	0	07	7.78
5.	Cannot Say	11	01	0	0	03	15	16.67
Total		53	06	12	12	07	90	100

Source: Compiled from field survey and questionnaire.

In the above table it is reflected that out of 90 industries the highest number of industries, *i.e.*, 30 (33.33%) has given their opinion as bright so far as their future prospect is concern. On the other hand, 07 (7.78%) which is the lowest per centage of industries has offered their opinion that they have no future prospect. In between these two range of opinion 21 (23.33%), 17 (18.88%) and 15 (16.67%) has given their opinion regarding their future prospect as expanding, unstable and cannot say respectively. Further, it is calculated that the total per centage of respondent against bright and expanding is 56.66%. On the other hand, total per centage of respondent against untable, no future and cannot say is 43.34 %. Hence, regarding the future prospect of these industries a mixed feedback is obtain.

systematizing the presentation of the discussion, the findings have been presented separately for demand side and supply side.

Findings elicited from demand side

Throughout this paper following findings have been detected–

1. Various emerging factor such as increase of PCI, enhancing the standard of living, social change and availability of Hotel, Restaurant, Hostel etc. increase migration to Kokrajhar from various parts of the country lead to increase the demand of various products of food processing industry.
2. The importance of Kokrajhar District as a tourism place has been gradually increasing. Especially, since the formation of BTAD in 2003, various natural spot, old temples, forest area etc. are became attractive for different potential tourist. Consequently it provides the market potentiality of various products of food processing industries.
3. It is observe that the gradual development of food processing industries in Kokrajhar District

PART – III

Conclusion

Findings

From this paper the following points of prospects in the selected food processing industry of Kokrajhar District are elicited as its findings. With a view to

also provides a platform for employability. Further it is observe that there is an ample opportunity of employability especially in food processing industries so far as these fact is examine in case of selected food processing industry of Kokrajhar District.

4. From demographic point of view of Kokrajhar District, it is found that the number of various categories of people in the total demographic composition of Kokrajhar District has been gradually increasing which include both national and international sphere.

Findings elicited from Supply side

Following findings have been revealed throughout the paper from supply side–

1. By grace of its natural favourism the kokrajhar District has been recorded to be occupy a top most position in production of various fruits and horticultural crops in Assam which directly leads to increase of supply of raw material so far as required as input for food processing industry.
2. Another findings has been identify that different category of skill and efficient labour and worker needed for food processing industry are available in Kokrajhar District.
3. It is observe that Ministry of Food Processing Industry has perpetually monitoring the programme of food processing Industries of entire India and accordingly framing and implementing various schemes behind which there are a number incentives for promoting the food processing industry sector. This kind of facilities not only provides financial support but also leads to enhancement of human resource skill through training and research and development.
4. In the light of various steps and initiatives adopted by different Institution, government Ministry etc. it can be said that there is a

satisfactory supply of technological based which help in up gradation of technology and technical skill for the entrepreneurs which are very much essential for run the food processing industry successfully.

5. So far as various factor of infrastructural facilities of Kokrajhar District are concern it is seen that majority of these factors are in the path of progress especially since the formation of BTAD in 2003. Particularly power system is improve since the establishment of NTPC at Salakathi, improvement transportation system etc. are noticeable factor lead in the up gradation of infrastructure facility. Further, it is seen that the food processing sector of the Kokrajhar District is either directly or indirectly benefited more or less by these activities of up gradation of Infrastructural facilities.
6. During the observation of level of awareness among the proprietor of the selected food processing industries it was revealed that no one proprietor has any knowledge about various attractive financial scheme as introduced by the present central government.

Policy Implication

In the greater interest of resolving various drawback as observe throughout the paper, the following policy implication has been put forward to be implementation immediately.

Policies implementation to be exercised in prospect of demand dimension

1. It is right time for the selected food processing industry to diversify their product properly with maintaining quality as like quality of national and multinational products keeping in various needs of growing customers demand in view.
2. It is suggested selected food processing industry to design and implement product planning

strictly considering the taste and needs of various outsider along with tourist and seasonal variation, various festival etc.

3. It is suggested to increase the awareness among the educated and trained up youth to engage themselves in various food processing industry. Further, government is to pay serious attention in successful implementation of some attractive schemes pertaining to food processing industry behind which there should have a great opportunity of employability.
4. During the designing and implementing production planning, marketing policy and selling decision the selected industries seriously look into the matter of composition of demographic and its growing trend so that the industries can able to produce right types of goods at right amount in right time.

Policy implementation to be made from supply side

1. The selected industry should immediate formulate a policy for full utilization of raw material available in the District will efficient and effective way. In designing and implementing this plan most emphasis should be given on the application of food production technology and use of human resource as because these two aspect are most essential for quality production of food items.
2. The selected industry should deeply pay their attention in framing recruitment and selection procedure, compensation policy along with imparting scientific training in a work culture environment created within their respective industries.
3. Both the employers and employees of the selected industries should be interested towards the prevailing scheme of Ministry of Food Processing Industry and they much be fitted from all possible aspects to capture the

advantages of these schemes and they much devout their effort for achieving the goal and objectives for which these scheme have been formulated and introduce in the District of Kokrajhar.

4. Along with the selecting food processing industry all other food processing industry should immediate adopt the various technology based scheme with a purpose of improvement of their food products and items.
5. Along with BTAD Government the Government of Assam and Central Government should have a combine and co-ordinate effort based on long term vision towards the development of all necessary dimension of infrastructure within the District of Kokrajhar. The Directorate of Industries should emphasis to established special economic zone in different potential place of the District in the greater interest of overall development of Food Processing Industry.
6. There is a need of knowledge communication among the proprietor of selected industry with banking sector, government department, agencies and knowledgeable person in this fields. So that by virtue of these communication they will able to Know all about financial and other facility available behind schemes introduced either by central or state government. In this regards it is suggested to have a training facilities among the proprietor of the selected industries.

Conclusion

After throughout study, the both demand and supply side factor of prospect, it can be concluded that out of four demand factors, availability of customer as a factor of relevance of demand prospect score highest weighted mean which indicates availability of customer plays a significant role for the growth

of any industry and our analysis we have found that Kokrajhar District has the enough customer. The observation of the supply side elicit the fact that out of 06 factors, the obtaining of highest score benefit from infrastructure facility followed by availability of raw material indicates that these two are the most significant factor for the growth of selected industry and we found that these two factor have the enough opportunity in Kokrajhar District. But we have found that inspite of having available customer, the growth rate of selected industries are very slow because they measurably fail to formulate an effective marketing system for smooth delivery of their goods and services in the hand of potential customer at their satisfaction.

Further, it is observe that this kind of the selected food processing industries decline their marketing share day by day on one hand and provide opportunity to enter more and more MNCs engaged in food processing industries in the Kokrajhar market on the one hand. Hence in the light of these final observation, it is to be put forward a conclusion that immediate a master plan is to be formulated strictly taking all of factors both demand and supply side by reconciliation their needs and availability for the selected industries. So that all factors can accordingly contribute at maximum level towards the overall development of food processing industry at proportion of their existing available capacity.

REFERENCES

- Bhattacharyya, B. and Goswami, N. (2015), "Prospect of Contract Farming and Agro Processing Industry in Assam", *Remarking*, Vol II, Issue V, pp 44-48.
- Bhattacharyya, B. (2013), "Problem and Prospects of Fruits and Vegetables Processing Industry : A study in Kamrup District of Assam", *Asian Resonance*, Vol II, Issue IV, Pp. 38-44.
- Dhiman, P.K. and Rani, A. (2011), "Problem and prospect of Agro based Industries: An Analysis of Patila District", *International Journal of Multidisciplinary Research*, Volume 1, Issue 4, August.
- Das, Dinesh. (2014), "Prospects and Problems of Agro based Industries in Assam", N L Publications, Guwahati-781001.
- Dhar, P. K. (2013), "Urbanization Its Challenges and Environmental Degradation", EBH Publishers, Guwahati-781001.
- Directorate of Economics and Statistics, Assam (2015), *Statistical Handbook of Assam, 2014*, Guwahati: Government of Assam.
- Directorate of Economics and Statistics, Assam (2015), *State/District Wise Area, Production, Price and Value of the Major Crops in Assam from 2003-04 To 2012-13*, Guwahati: Government of Assam.
- Directorate of Economics and Statistics, Assam (2014), *Area, Production, Price and Value of Some Horticulture Crops in Assam from 2003-04 to 2012-13*, Guwahati: Government of Assam.
- Kiumarsi, S. and *et. al.* (2014), "*Marketing Strategies to improve the Sales of bakery products of Small and Medium enterprise(SME) in Malaysia*", *International Food Research Journal*, Vol 21, Issue 6 .
- Mahapatra, A. K. (2015), "Rural Development Initiatives and Interventions", Regal Publications, New Delhi.
- Pandey, J. K., Chintu A. K. and Nourzi M. R. (2015), "Gender Equality A way to women Empowerment", New Generation Press, Delhi-110089.
- Roy, Anuradha (2010), "Food Processing", Yking Books, Jaipur.
- R. Mohammad, A. Shatroopa and V.W. Gary (2014), "Food Processing Industry : Opportunity in North East Region of India", *The NEHU Journal*, Vol 12, No. 1, January-June.
- Singh, M. (2012), "*Marketing Mix of 4P's for competitive Advantage*, *IOSR Journal of Business and Management*", Volume 3, Issue 6.
- Shelly, Ms. and Kaur, K (2015), "*Impact of Food Processing Industry on Economic Growth, FDI and Exports in India*", *Pacific Business Review International*, Volume 7, Issue 12, June 2015, pp. 63-72.

- Sarma, G. and Devi, M., (2016), “*An Analytical Study on Food Processing Industry in BTAD Area of Assam and Its Future outlook for Inclusive Growth of the Region*”, Indian Journal of Social Development, Vol 16, No. 03, July-December, Pp. 137-149.
- Sarma, G. and Devi, M., (2016), “*An Evaluative Study on the prospect and problem of Fruits and Vegetable Processing Industry in Kokrajbar District of Assam*”, Journal of Development Research, Vol. 09, No. 01, pp. 7-14.
- Thakuria, K. (2016), “*Problem and Prospects of Agro based Small Scale Industries: An Analysis of Barpeta District of Assam*”, Chinaky–A Research Journal On Humanities and Social Science, Vol 5, No. 3, pp 39-50.