

Skill Gap and Programme Requirement: A Review of Food Processing Sector in Assam

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Abstract

Assam has an establishment of 3,900 registered manufacturing units. Most of the units are associated with food processing activities such as flour mills, food and fruit processing etc., varying from medium to small sized units. Some of the units are focused on the production of cakes and biscuits for large multinationals namely, Britannia and GlaxoSmithKline. The manufacturing units employed around 1.4 lakh people in Assam and still, there is a shortage of adequate manpower. The present paper attempts to assess the requirement of skills and talent in the food processing sector of Assam due to the competition and growth opportunities in this sector. The purpose of the paper is to identify the type of skilling required in the area of food processing sector in Assam. Secondly, it will also analyse the skill gap and the programme requirement for the development of skills. In order to achieve the objectives, secondary data is collected. Secondary data from the census, the economic survey of Assam, and National Skill Development Corporation (NSDC) in the area of food processing sector is used to fulfill the study objectives.

Keywords: Skill Gap, Food Processing, Programme, Human Resource, Assam

Introduction

Assam has 3,900 registered manufacturing units distributed across all the districts. Majority of the registered units are in food processing. These units are associated with food processing activities namely, flour mills, food and fruit processing. The units vary from medium to small sized. Moreover, some of the units are focused on production of cakes and biscuits for large multinationals such as Britannia and GlaxoSmithKline. The food processing

units employed 1.4 lakh people across Assam covering the regions of upper Assam, lower Assam, middle Assam, and Barak Valley. The Gross State Domestic Product (GSDP) of Assam have seen a continuous growth from the year 2004-05 to 2010-11 (see Table 1) consisting primary, secondary, and tertiary economic sectors. Moreover, Assam has better infrastructure compared to other northeast states. In addition, Assam has nine polytechnics and 23 ITIs for vocational training courses. The courses and trades offered are though in line with domestic demand but is much higher than the number of seats available in these institutes. With increasing competition and growing opportunities, there is a shortage of adequate manpower and requisite skills in food processing sector. The National Skill Development Corporation (NSDC) reports highlighted that from 2011 to 2021, there is an increase of human resource requirement in food processing sector in Assam. Hence, the present study is an attempt to analyse the skill gap of food processing sector in the state of Assam.

Table 1: Sector wise GSDP (in INR, Crores)

Year	Primary	Secondary	Tertiary	Total
2004-05	1365	1470	2503	5338
2005-06	1400	1418	2702	5520
2006-07	1427	1417	2933	5777
2007-08	1467	1427	3161	6055
2008-09	1560	1474	3435	6469
2009-10	1626	1510	3855	6991
2010-11	1725	1539	4243	7507

Source: Central Statistical Organisation; IMaCS Analysis

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Objectives

The objectives of the study are:

- To identify the type of skilling required in the area of food processing sector in Assam.
- To analyse the skill gap and programme requirement for the development of skills in food processing sector.

Methodology

The present study is based on secondary information. Secondary data has been collected for the period of 2011-2021 from Indian statistical handbook/ organisation, National Skill Development Corporation (NSDC), and ICRA Management Consulting Services Limited (IMaCS) survey and analysis in the area of food processing sector to satisfy the study objectives.

Findings and Discussion

Food processing sector is identified on the basis of few key factors namely, endowments, policy thrust, market potential, historical presence, availability of trained manpower, availability and quality of training centre, time taken to train and employment opportunities. The key focus of food processing sector is on skilling and skill up gradation for their manpower. This sector is going to see an increase of employment opportunities by the year 2021 in several district in Assam.

Types of Skilling

Three main categories of skilling are required for the improvement of human resources in business sectors. These are speciality, new skills, and skill up gradation. The speciality skills focuses on technical or specific knowledge base essential, new skills emphasis on training centres largely non-existent and skill-up-gradation concentrates on outdated techniques and knowledge base. However, food processing sector require new skills and up gradation of skills (IMaCS Analysis) to empower the manpower of units.

Skill Gap

The key entity in food processing sector is 'food processing unit' and there are two roles namely, bakery,

and processing of fruits and vegetables by adding value to them. To perform on the role, bakeries have to be competent in mixing different ingredients according to specified proportions, technical aspects such as temperature settings, turbulence settings, etc. and should have the ability to follow specifications, take special care of burner working and maintenance, cut in different shapes; package and do marketing (mostly there are tie ups), maintain hygiene, speak in English. The skill gaps that the bakery have included:

- Inability to follow specifications
- Inability to maintain hygiene
- Inability to speak in English
- Lack of maintenance skills, fitters and electricians
- Inability to use modern machines

The competencies required for processing of fruits and vegetables by adding value to them includes ability to visually examine fruits/ vegetables and separate rotten fruits/ vegetables, ability to differentiate between different quality grades based on size and other normative approaches, ability to appropriately size/ dice as well as the ability to make end product visually appealing, knowledge of latest preservation and processing technologies, ability to adapt to newer storage technologies, sensitisation to quality control, branding knowledge, strong negotiation skills, packing, selling and marketing skills. The skill gaps that the processing of fruits and vegetables by adding value to them are

- Inability to make end product visually appealing
- Lack of knowledge of preservation and processing technologies
- Inability to adapt to newer storage technologies
- Lack of branding knowledge
- Lack of strong negotiation skills
- Lack of packing, selling and marketing skills

Skills Description

The skills are used to improve the performance of an individual in the services of his/ her activities. The skills are basic skills, skill category level I, skill category level II, specialised skills (see Table 2). Basic skills is the minimal qualification of an individual or the 5th to 8th class pass. Skill category level I indicates about vocationally trained. Skill category level II includes engineering, arts,

science, and other professionals with some experience. In addition, specialised skills indicate about highly qualified and specialised persons.

Table 2: Skilling Opportunities in Food Processing Sector

<i>Sector</i>	<i>Basic skills</i>	<i>Skill category level- I</i>	<i>Skill category level- II</i>	<i>Specialised skill</i>
Fruit processing	Drying and processing	Distribution, Packaging	Entrepreneurial activity	Food technology

Source: ImaCS Analysis

Human Resource Requirement

The increase of demand in tertiary sector have an impact on the services. Thus, Assam has an estimated requirement of 12.34 lakh human resources from 2011-2021 in various sectors. In addition, retirement of persons may generate additional 7% in the demand sectors (IMaCS Analysis). Projected human resource requirement in food processing sector for the period of 2011-2021 is 27,015 out of total 12.34 lakhs in various sectors (see Table 3). The district wise skill level wise projected human resource requirement from 2017-2021 highlighted (see Table 4).

Table 3: District-Wise Human Resource Requirement 2011-2021 for Food Processing Sector

<i>District</i>	<i>Human resource requirement</i>	<i>Total</i>
Baksa	175	3,597
Barpeta	35	59,751
Bongaigaon	40	37,085
Cachar	1496	36,185
Chirang	18	1,663
Darrang	384	53,835
Dhemaji	29	11,817
Dhubri	154	27,714
Dibrugarh	3937	48,919
Goalpara	59	30,082
Golaghat	2101	47,838
Hailakandi	432	21,028
Jorhat	1790	64,730

Kamrup	-	95,877
Kamrup (M)	1177	101,647
Karbi-Anglong	97	37997
Karimganj	426	32,611
Kokrajhar	215	62,041
Lakhimpur	716	72,099
Morigaon	65	45,515
N.C. Hills	22	11,171
Nagaon	1299	69,004
Nalbari	28	53,990
Sivsagar	2992	60,068
Sonitpur	3082	44,386
Tinsukia	5161	99,546
Udalguri	-	4161
Assam	27015	1234357

Source: ImaCS Analysis

Table 4: District-Wise, Skill Level-Wise Human Resource Requirement 2017-2021 for Food Processing Sector

<i>District</i>	<i>Minimal Education</i>	<i>Skill category level II</i>	<i>Skill category level I</i>	<i>Specialised skills</i>
Baksa	79	12	2	1
Barpeta	16	2	0	0
Bongaigaonn	18	3	1	0
Cachar	677	105	19	8
Chirang	8	1	0	0
Darrang	174	27	5	2
Dhemaji	13	2	0	0
Dhubri	70	11	2	1
Dibrugarh	1781	276	49	21
Goalpara	27	4	1	0
Golaghat	950	147	26	11
Hailakhandi	195	30	5	2
Jorhat	810	125	22	10
Kamrup	-	-	-	-
Kamrup(M)	533	83	15	6
Karbi Along	44	7	1	1
Karimganj	193	30	5	2
Kokrajhar	97	15	3	1
Lakhimpur	324	50	9	4
Marigaon	29	5	1	0

North Cachar Hills	10	2	0	0
Nagaon	587	91	16	7
Nalbari	13	2	0	0
Sibsagar	13	2	0	0
Sonitpur	1394	216	38	17
Tinsukia	2335	362	64	28
Udalguri	491	76	14	6

Source: IMaCS Survey and Analysis

Conclusion and Direction for Future Research

Food processing sector of Assam have a great potential for the upcoming years. NSDC skill gap study revealed about the increase of employment opportunities or human resource requirement in this sector by 2021. A projected total of 27,015 out of 12.34 lakh human resource required in the food processing sector for the period of 2011-2021 in Assam. The key types of skilling required for food

processing sector are new skills and skill up gradation for an improvement of human resources to increase efficiency in the unit. The skills such as basic class, skill category level I, skill category level II, specialised skills are used to improve the performance of an individual activities in the manufacturing unit. In addition, the present study is limited to food processing sector, however, similar research can be conducted in other business sectors to analyse the situation and requirement in Assam.

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