

A Study on Effect of Agriculture on Agro- Based Industries and Impact of Agro-Based Industries on Indian Economy

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Abstract:

The paper is the result of a theoretical study made on agriculture and agro-based industries in India. The paper is an attempt to emphasize the impact of agriculture on agro-based industrial sectors and to analyze the problems and prospects of agro-based industries in India. The paper begins with the discussion of the definition of agro-based industries along with the types of agro-based industries. It has been found that agro-based industries are like the sunrise sector of the Indian economy in view of its large potential for growth and likely socio-economic impact specifically on employment and income generation. Studying the growth of agriculture and agro-based industries, the paper found that it is a joint process for achieving economic development of India having a quite strong agricultural base. In simple words, the paper throws light on the fact that agro-industrial integration is one of the right steps in this direction. Moreover it has also been found that the potential for agro-industrial development in India is largely linked to the relative abundance of agricultural raw materials and availability of low-cost labour. However, a study on the present condition of the agro-based industries of India showed that the agro-based industries of India are in the crisis, in spite of having undoubtedly high prospects for its development. The agro-based are facing various problems regarding lack of technology, non-availability of research lab for quality control, financial assistance and improper marketing channel. Thus, from the extensive theoretical study made on the topic it can be concluded that if this sector is properly developed, it can make India a major player at the international level for marketing and supply of agro-based industrial products opening the door for India's economic development.

Keywords: agriculture, agro-based industries, economic development, income, employment, India

INTRODUCTION:

India, with traditional and agrarian economy, has made rapid strides in the agricultural sector since its Independence in 1947. Agriculture and allied activities is mainstay of the livelihood of three fourth of country's population. Though the country has achieved self sufficiency in general and a good degree of stability in food grain production, the requirement of food security through proper distribution and purchasing power, has created an urgent need for providing diversified activities, based on agriculture and rural economy.

A large number of unemployed and under-employed people may have to find jobs in activities other than direct activity of land and the growing of crops. This is because man-land ratio in many parts of the country

is already high such that engaging more workers on land except for special occupations may not be very productive. Thus, there is a need for creation of non-farm employment opportunities in rural areas to reduce the pressure of population on land and also to provide a wider base for the rural economy. There is an urgent need for integrating organizational, technological with modern industrial and agricultural enterprises which alone can generate new and attractive employment opportunities in villages and can provide substantially desirable prices for surplus agricultural produce. This in turn may have to be based on the processing of agricultural raw materials, by products and waste materials. Agro-industrial integration is one of the right steps in this direction.

REVIEW OF LITERATURE:

From the literature survey conducted for this study it is noted that there are few doctoral studies based on agro processing industries and those studies mainly deal with performance, financial aspects, location aspects, size, structure and socio-economic aspects. Agro based industries are mainly in the small scale sector. Most of this research .work in this field has been done from the point of view of economist and sociologist.

As agro based industries is concerned, Austin categorized agro based industries into three stages on the basis of degree of processing in 1981. He mentioned that higher degree of processing is accompanied by higher capital investment, technological complexity, management requirement and it is characterized by higher value added. Apart from this, Austin also suggested that raw materials are usually the major cost component in agro based industries which are characterized by seasonality, perishability and variability. Backward linkages, concentration of raw material and size of market can be used as important factors in planning size and structure of agro based industry.

The work of V.Venkiah (1987) dealt with manifold aspects of the rural economy and further he gave importance of this industry at a macro level. He also gave a comparison between agro based industries and non agro based industries and it is known that agro based industries are more labour intensive and are oriented to rural development.

Srivastava (1989) observed that Indian agro based industry is divided into mineral mechanical, mechanical, mechanical-chemical and chemical, signifying higher degree of processing of order. He also observed some movement of agro industries from mechanical based to chemical based processing, but still mechanical processing dominates.

Y.G. Reddy (1996) in his study on rural industrialization examines the process of rural industrialization and its potential in the drought prone regions and agriculturally prosperous region. Further he also studied the growth of the rural industries in different agro climatic regions considering the intensity of drought process.

Unni Jeeno observed that agricultural prosperity and nonfarm employment are two inter linked sectors. According to him growth of agricultural production and productivity may create a surplus which may be invested in nonfarm enterprises. He argues that both the generation of agricultural surplus and changing pattern of consumption demand lead to an increase in the demand for labour in the non farm sector.

Bhattacharya S.N. (1985) studied economic growth and its problems in five backward districts of North Bengal, and concluded that in order to achieve higher economic growth, the potential exists for developing smaller and more disbursed agro related industries. These should be systematically identified for each local area and to be exploited to the fullest extent. Puttaswamaiah favored the establishment of those

industries, which are local resource based. He also pointed out that the aim should be to create more opportunities per unit of output and investment.

This study pointed out the industrialization which leads to an increase in agricultural productivity as a consequence of change in structure and the intensive use of given resources in association with industrialization and high agricultural productivity, leading to better living standard.

Apart from this some models of dualism have been analyzed to know the problem correctly. We should agree with those economists, who advocate food sufficiency, importance of generating surplus for agro based industries, for labour intensive, employment for upgrading land augmenting technology, for orderly transfer of redundant population from the sector and for increasing the product market and factor contributing to agriculture.

Some other economists like Lewis, Nurks, Rostan, Mellor, Kuznets etc., have argued that transformation of agriculture is a pre-condition for the development of industrial sector as well as for the overall development of the economy. If agricultural sector expands it provides cheap food, cheap and abundant raw material for agro based industries and will provide a vast market to industrial sector.

The Central Food and Technological Research Institute (CFTRI), Mysore also made pioneering contribution in the area of food packaging. A profile on food packaging was published by Dr. V. Prakash (1995). In his report he also covered all the updated information on the subject of food packaging especially applicable to India.

OBJECTIVES:

The main focus of the study is to emphasize the impact of agriculture on agro based industry in India. Therefore, the study is based on the following objective:

1. To study the definition, characteristics and types of agro based industry in India.
2. To study the impact of agriculture on agro based industry of India.
3. To examine agro based industry of India.
4. To highlight the importance of agro based industry in India.
5. To analyze the problems and prospects of agro based industry in India.
6. To suggest the remedial measures to improve the status of agro based industrial units for effective development of economy.

METHODOLOGY:

This seminar paper is mainly based on the collection of reliable secondary data and this study is mostly descriptive in nature. The sources of the data are published and unpublished sources like books, journals, research papers, internet sources etc.

DEFINATION, CHARACTERISTICS AND TYPES OF AGRO BASED INDUSTRIES:

A common and traditional definition of agro-based industry refers to the subset of manufacturing that processes raw materials and intermediate products derived from the agricultural sector. Agro-based industry thus means transforming products originating from agriculture, forestry and fisheries.

Today, however, it is becoming even more difficult to provide a precise demarcation of what should be considered an agro-industrial activity: the impact of innovation processes and new technologies suggests a widening of the range of agro-industry inputs that could be considered, including biotechnological and synthetic products.

Agro based industries are unique because of three characteristics of their raw materials:

- (a) Seasonality
- (b) Perishability and
- (c) Variability. (James E. Austin)

But all agro based industries do not share these characteristics equally

Seasonality

Agro industries are biological and their supply of raw material is seasonal. It is available at the end of the harvest or livestock - reproduction cycle. Although raw material supply is usually available only during one or two brief periods during the year, the demand for the finished product is relatively constant throughout the year.

Perishability

The raw materials used in agro-industries are biological and raw materials are perishable and quite fragile. For this reason, agro-industrial products require greater speed for processing and care in handling and storage, which can also affect the nutritional quality of food products by reducing the damage or deterioration of quality of raw materials.

Variability

Agro industries have variability in the quantity and quality of raw materials. Quantity is uncertain because of fluctuations in weather, in soil condition etc. Quality varies because of standardization of raw materials remain elusive even though there have been advancement in animal and plant genetics. These variations exert additional pressure on agro-industrial units in terms operations related to production, scheduling, and quality control

The food processing industry in India comprises of three groups. The first group consists of primary food processing units mainly rice mill, oil mills etc. The second group consists of unorganized cottage industries including of traditional food units, processing units of fruits, vegetables and spices. The last group is the organized sector of food processing units with further division into the following sub sectors

- (a) Primary food processing
- (b) Fruit and vegetables processing
- (c) Dairy and live stock products
- (d) Fish and fish products and
- (e) Consumer goods industry (processed foods)

The Annual Survey of industries (ASI) is the principle source of industrial statistics in India. It covers all factories registered under section 2 m (I) and 2 m (ii) of the factories Act 1948. The factories are classified into two sectors i.e. the census and the non census or sample sectors. The factories employing 100 or more workers constitute the census sector. The remaining factories constitute the sample sector. Along with this, the NIC of 1987 is being followed from ASI 1989-90. All the factories in ASI frame are accordingly classified in their appropriate industrial groups on the basis of the value of the principle product manufactured by them.

The project ideas from Network Consultancy Services Pvt. Ltd., Smt. Amin Savitaben presented at the National Seminar on food and Agro based industries at Hyderabad in 1991 classified ABI into seven broad categories as follows

- (a) Marine and animal products
- (b) Cereal and confectionery products
- (c) Biotechnology products
- (d) Dairy products
- (e) Fruit and vegetable products
- (f) Edible oils and non conventional source
- (g) Miscellaneous items

The Central Food Technological Research Institute, Mysore had given a list of major processed product groups which they classified as ABI and food processing industries into nine groups as follows:

- (a) Animal Products
- (b) Beverage products
- (c) Cereal products
- (d) Confectionery and convenience food
- (e) Equipment and machinery
- (f) Fruit and vegetable products
- (g) Microbial and fomentation technology
- (h) Plantation and spice products
- (i) Protein and specialty foods

All the classifications given by different government and non government agencies for food processing and agro based industries come under three broad groups i.e.(1) Primary food processing, (2) unorganized cottage industries and (3) organized food processing units.

IMPACT OF AGRICULTURE ON AGRO BASED INDUSTRIES IN INDIA:

Agriculture and industry have traditionally been viewed as two separate sectors both in terms of their characteristics and their role in economic growth. Agriculture has been considered the hallmark of the first stage of development, while the degree of industrialization has been taken to be the most relevant indicator of a country's progress along the development path. Moreover, the proper strategy for growth has often been conceived as one of a more or less gradual shift from agriculture to industry, with the onus on agriculture to finance the shift in the first stage. This view, however, no longer appears to be appropriate. Agriculture and industry are the two wheels of an economy. The development of one sector depends on the development of the other sector. Improvement in the productivity of agriculture is one of the most solid means of promoting industrialization. Similarly, the assistance of industry is obligatory for making fuller modernization of agriculture with adequate supply of tractors, pumping sets and other agricultural machinery so that productivity in agriculture may be increased. Instead of discussing the issue of industrial development versus agricultural development, the need of the hour is that the current thinking may be devoted to consider how best agriculture and industry contribute to each other and to study the inter-relationships between the two. The role of agriculture in the process of development has been reappraised and re-valued from the point of view of its contribution to industrialization and its importance for harmonious development and political and economic stability.

In India, agriculture is the backbone of the economy. Agriculture plays a significant role in the overall economic development and its contributions to the Indian GDP were at around 17.9% in the year 2014. India is the 2nd larger producer of agricultural output. India accounts for 7.68% of the total global agricultural output. Contribution of agricultural sector in Indian economy is much higher than the world's

average (6.1%). In addition to this, Indian agriculture has also assumed significance as a supplier of raw material to the agro based industries. Agriculture in India has been the major source of supply of raw material to various important industries of our country. There is a strong linkage between the development of agriculture and the growth of agro-based industries. Growth in agricultural production creates surplus in the agricultural sector which if invested in developing agro-industrial enterprises would lead to the growth of agro-based industrial units. The development of agro based industries would in turn stimulate the growth of agricultural productivity via investment of surplus back to agriculture and thus establishes a sort of inter-linkage between agriculture and agro-based industry. Looking at from the other side, agro based industry draws raw material inputs from agriculture and processes agricultural raw materials adding value to the farmers' produce. Agro-based industry thus provides agriculture-industry linkage which helps to accelerate agricultural development.

India's agriculture includes rice, wheat, pulses, tea, coffee, fresh vegetable, fresh fruits, dry fruits, coconuts, major spices, millets, cotton, jute, castor oil seed etc. India ranks among the five producers of many agricultural items like coffee, cotton, etc. India ranks 2nd largest producer of wheat and rice in the world. In items like fresh fruits, spices, jute, millets, etc. India is the largest producer. India is one of the largest producers of sugarcane in the world. Moreover the sixties witnessed the beginning of the green revolution in some parts of India such as Punjab, Haryana and western Uttar Pradesh, agricultural output per hectare rose markedly due to the enhanced canal and well irrigation, widespread adoption of new and improved seed varieties, enlarged inputs of chemical fertilizers and use of pesticides etc. While managerial practices are important, it is undisputed fact that the green revolution was a direct consequence of high levels of agro inputs per unit of land. It was recognized that with the increase in the agricultural products, large numbers of agro based industries have developed in India such as cotton textile, silk industry, woolen industry, jute industry, food processing plants etc. Thus, these industries are regularly fed by agricultural products of the country. Location of agro-based industries is expected to be influenced by the comparative advantage/ efficiency in the production of the crop. Alternatively cultivation of a crop might be advantageous to the farmers because of the location of agro-industry even when the region does not enjoy comparative advantage in the cultivation of the crop. About 50% of income generated in the manufacturing sector comes from all these agro-based industries in India. Depending on its huge agricultural products, India has a potential to become agro processing hub of the world.

SOME AGRO BASED INDUSTRIES OF INDIA:

A brief description on some of the important agro based industries is given bellow:

Tea industry: The tea industry is an agro based labour intensive industry. The tea industry in India has a 170 years old history. Today, Indian tea industry is having 1692 registered tea manufactures, 2200 registered tea buyers and 9 tea auction centers. India is the second largest producer of tea in the world with production at 979 million kg in 2009. The export market for Indian teas is mainly in the Russian and CIS countries with 90 million kg of the total export to these countries. This is equivalent to 43% of the India's tea exports. India exports tea to most of the European countries, U.S.A., Japan, West Asia and the Asia Pacific Region. It provides direct employment to over 1 million persons. Through its forward and backward linkages another 10 million persons derive their livelihood from this industry. In North-east India alone, the tea industry employs around 900,000 persons on permanent rolls.

Cotton Textile industry: Cotton textile industry is one of the oldest and firmly established major agro based industries of India. At present, Mumbai and Ahmadabad is the two major centre's of cotton textile industry in India. The other important centers for the production of textiles are Sholapur, Kanpur, Kolkata, Nagpur and Indore. The cotton textile in India is having its three following distinct categories in the organized sector: a) spinning mills b) coarse and medium composite mills and c) fine and super fine composite mills. It accounts for 20% of total industrial output and provides employment to 20 million people. The cotton textile industry is occupying a very unique place in the world export market. In respect of total quantity of export of India's position is 2nd after Japan and catering to the needs of more than 16% of world's exports. During 2011-12, cotton textile exports amounted to Rs. 87,237 crore, which shows an increase of 32.1% over the previous years.

Paper industry: India continued to rein as one of the fastest growing paper market in the world. As per the present policy, FDI up to 100% is allowed on the automatic route for the pulp and paper sector. There are around 800 units which manufacture paper, paper board and newsprint with an installed capacity of nearly 22million tones out of which nearly 3 million tones are lying idle. The total operating capacity is around 19 million tones. The Indian Paper Industry is fragmented, consisting of small, medium and larger paper mills having capacity ranging from 10 to 1,500 tonnes per day. The production share of these units is around 30%, 20% and 60% respectively.

Jute industry: Jute industry occupies an important place in the national economy. It is one of the major industries in the eastern region, particularly in West Bengal. At present, there are 73 jute mills in India with nearly 44,990 looms out of which only 70 units are in operations. As on January 2012, total number of looms installed in Jute industry stood at 49,529. During 2012-13 (April- March), total production of jute goods was at 1591.3 thousand MT compared to 1584.4 thousand MT in the corresponding period of 2011-12 showing a marginal rise of 0.6% over the previous year. During 2012-13, domestic consumption of jute goods was 1399 thousand MT (87.9% of the production). Annually, the export of jute products ranges between Rs 1400 to Rs 1500 crore. This jute industry is providing direct employment to 2.5 lakh persons and nearly about 40 lakh rural families are regularly deriving their livelihood from jute cultivation.

Silk industry: India's Silk Industry continues to be the world's second largest after China, contributing to 18% of the total raw production. The total production of silk in India stood at 28,708 MT in the year 2014-15. India produces four varieties of silk produced i.e. mulberry (21390 MT), eri (4726 MT), tasar (2434 MT) and muga (158 MT). Sericulture provides gainful occupation to around 63 lakh persons in rural and semi-urban areas in India. The total export of silk and silk products from India stood at USD 369.88 million for year 2015. Readymade silk garments formed the largest segment generating around 67.7% of silk export earnings, while natural silk yarn, fabrics and made-ups comprised 27.8% of silk export earnings. The UAE and the US are the major markets for the export of India silk goods. The UK, France, Italy and Germany are other major export markets.

Woolen industry: The Indian Wool Industry is the 7th largest in the world and it accounts for about 1.8% of total world production of wool. The first woolen textile industry (mill) was set up in 1876 at Kanpur, because Kanpur was the principle depot for the British Indian Army. The woolen textiles industry in India is partly a cottage industry and partly a factory industry. Most of the woolen textile mills in India are

situated in Punjab with Dhariwal being the largest centre. The other centers are Amritsar and Ludhiana. The other important centers are Kanpur and Agra in Uttar Pradesh, Jaipur in Rajasthan, Gwalior in Madhya Pradesh, Jamnagar in Gujarat, Mumbai in Maharashtra, Bangalore in Karnataka and Srinagar in Kashmir. There are about 958 woolen units in India; the majority of them are in the small scale sector. In 2014-15, exports of woolen readymade garments registered exports worth of USD 300.53Mn.

Food processing plants: Food processing industry is another recently developed industry of the country. Presently, food processing is one of the most heterogeneous sectors of manufacturing covering marine products, dairy products, grain, meat products, fruits and vegetables, sugar, edible oils and beverages. This sector has proved itself as one of the fastest growing segments in the year 2011-12 contributing 27% to average industrial growth. Total foreign investment inflow in the sector till October, 2000 is around Rs 2595 crore. During the period January 2000 to March 2006, top 20 foreign companies have invested an amount of Rs. 1711.22 crore in FPI of the country. Domestic Product from manufacturing food products and beverages in registered sector has grown from Rs 15,472 crore in 2000-01 to Rs 19,086 crore in 2003-04 and that in unregistered sector, it has grown from Rs 12,075 crore to Rs 15,540 crore during the same period.

Others: Besides above mentioned agro based industries, there is many other agro based industry in India such as coffee industry, vegetable oil industry, sugar industry, cigarette industry, rubber industry etc. Indian sugar industry is the 2nd largest agro based industry. The rubber good industry excluding tyre and tubes consists of 4550 small and tiny units generating about 5.50 lakh direct jobs. The turnover of this industry in 2015-2016 was Rs 41,965 crore.

IMPORTANCE OF AGRO BASED INDUSTRIES IN INDIA:

Viewing in a historical prospective agro based industries are pioneering types in the initial stage of economic development of developing countries like India. In the initial stage, such industries are usually dispersed in rural areas using simple techniques of productions. These are labour intensive industries based on local raw materials. There is an urgent need to develop ABI to reduce the problems of pressure of population on land, under-employment, unemployment in rural areas on one hand and overcrowding, environmental problems in urban areas on the other hand. The development of ABI will check people from migration from rural areas to urban nodes. Some of the importance of agro based industries is discussed below:

1. Door towards Agriculture Resources

The agro based industry is regarded as an extended arm of agriculture. The development of the agro based industry can help established and make agriculture more lucrative. India cannot fully use its agronomic resources without the development of agro-industries. The demand and necessity for agro processing services increase, when the agricultural production increases. Agro-based industries are not merely reactionary, they also generate new demand in backward linkages to the farm for more or different agricultural output e.g. when backward linkage occurs they generally increase farm employment. Agro processing plants can open new growth of crop to farmers and by doing so, create additional farm revenue (Austin E.J). In some instances this has permitted farmers on subsistence level to increase their income by

entering the commercial market. In other cases it has enabled new land which is unsuitable for traditional crops to be brought under cultivation of new crops.

2 .Milestone of the Manufacturing Sector

The importance of agro-based industries in the manufacturing sector of India is often not fully realized. Agro-industries are important to India for further industrialization. The initial stages of industrialization draw on the countries natural agricultural endowment. A large percentage of the commercial sector is engaged in distributing agro industrial products Agro industries similarly contribute to financial sector and other service industries. Finally, industries manufacturing materials for agro industry such as agro chemicals and farm machinery depend on the demand for agricultural produce and this demand in turn depends on a viable food processing industry.

3. Integration with Global Markets

By introducing and accelerating technical innovations, promoting entrepreneurship and improving business practices along the agro value chain, agro-based industries not only provide access to new domestic market outlets, but can essentially act as a launching pad for the integration of India into global markets. India has a natural comparative advantage in global markets in many agro-industry sectors. They have shown that they can be competitive in traditional tropical crops, but also in non-traditional exports and in components of the animal protein complex. Non-traditional food exports such as fruits, horticulture and fish products, as well as livestock products, have already become an important part of exports. However, due to protective trade regimes and distorted tariffs in developed countries, India have been unable to increase their overall market share in world agricultural trade (including agricultural raw materials, fisheries, processed food, beverages and high-value products). Despite continuing barriers to trade, it is believed that India can identify and explore export market opportunities by developing their agro-industry

4. Income and employment generation:

Agro based industries is crucial for generating employment and income opportunities. Agro based industries are mainly set up at rural areas where raw material are available in plenty. Thus, it helps in the up-liftment of the rural economy by providing employment opportunities to the rural population. Agro based industries have the potential to provide employment to the rural people not only in farming, but also in off- farm activities such as handling, packaging, processing, transporting and marketing of food and agricultural product. Moreover by generating income, agro based industries improves the economic condition of the people and also reduce the disparity between rural and urban areas. Hence, agro based industries can play a crucial role in eradicating poverty of the country by raising the standard of living of the people.

5. The Nutrition Dimension

By generating income and providing employment to low income workers, agro industries can improve diet of people and if agro industries stimulate increased food production for the domestic economy, they can furnish a country with a better chance for people to survive. The food processing industry is also important to the nutritional well being of the urban poor because of their dependence on commercial food channels The income of the farmers from cash crops may or may not be large enough to improve family's

diets In any case the nutrition of low income, landless workers or urban consumers may suffer from such a rise in the price of staple food. Alternatively higher prices in the international market can lead to an increase in the export of staple food and a decrease in the domestic supply. Finally, some forms of processing can decrease nutritional value of food products.

6. Promotion of Socio-Economic Development

Strong synergies can exist between agro-industry, agriculture and poverty alleviation. Agro-industry provides capital and services to farmers (e.g. seeds and equipment, training, production and market information), promotes entrepreneurship, raises demand for agricultural products and connects farmers with markets through the handling, processing, marketing and distribution of agricultural products. As a result, productivity and quality of agricultural production, farm returns, and economic stability for rural households; food security and innovation throughout the value chain can be enhanced. Efficient agro-industry can therefore spur agricultural growth, and – accompanied by a strong link with smallholders – reduce rural poverty. As economies become more sophisticated, economic structures are transformed and capital and labour are transferred from agriculture to the expanding agro-industrial and related service sectors. Accordingly, the agribusiness-to-agriculture ratio increases.

Major Problems and Prospects of ABI in India

Agro processing industries contribute to the rural society with dynamic economic institutions and linkages which motivate farmers for better productivity, leadership, entrepreneurship and cooperative qualities in the rural society. This brings about changes in cultural attitude also. The development of agro processing is essential for the creation of employment in the rural areas and the resultant emergence of positive rural-urban linkages. But ABI in India face several constraints. Those are as follows. There is a lack of adequate infrastructural facilities i.e. road transportation facilities etc., non availability of right quality of raw materials in required quantity at world market prices over a long period of the year. The existing units are using obsolete technology of processing old managerial techniques and are operating at lower uneconomic scales. About 70 percent of processing units are in cottage and small scale sector and are suffering from marketing problem on account of resources, skilled and quality labour. The high cost of packaging material of ABI is related to irregular supply, high incidence of taxes and excise duties, poor transportation and handling facilities and absence of quality on line, large capacity of packaging machinery, absence of proper guidance, failure of monsoon may hit the raw material supply etc. The major problem is inadequate supply of water facility and of high rate of electricity charges.

Opportunity for establishing agro-based industry in the country is very bright owing to the availability of plenty of raw materials within the country. The ABI sector has high prospects for development of rural economy as well as regional development. The other areas of development which may be contributed to rapid growth of population in urban and rural areas with increased better standard of living with higher purchasing power. India is a significant producer of many horticultural and agricultural crops. All these give it a natural advantage to invest in grain processing, fruit processing and fish processing. The growth potential of these sectors are enormous and it is expected that food processing industries will increase substantially in the coming decades with the growing demand for the processed food products emanating from rapid increase in the consumption of value added items of food products. Grain processing is the biggest component in the food-processing sector. Grains produced in India include cereals like rice, wheat, maize, barley and a variety of pulses like arahar, masur, moong, gram and khesari. In rice, India produces

wide range of varieties which offers scope for investing in paddy processing industry, particularly, rice milling. There already exists a large number of rice processing units in the country which produce mainly Indian snacks like puffed rice, flattened rice and Indian rye. Most of these units are small-scale units and fall under the unorganized sector. On the basis of analysis of secondary data, the present study reveals that food processing sector as a whole witnessed higher growth rate as compared to the nonfood sector both in the organized and unorganized segments. Paddy processing is a traditional agro-based activity in the country. However, the activity faces problems in its day-to-day operations. The industrial units in future can take advantage of the growing demand for the value added processed product in India as well as abroad. This would be possible if the units have access to information network to keep track of raw materials prices and availability. Apart from rice milling, the potential areas of investment in this sector are commercial processing of rice which includes products like pre and semi-cooked rice, rice powder, puffed rice, flattened rice and rice crispies. Commercial utilization of by-products of rice milling such as processing of rice bran for oil and processing of paddy husk are also important sectors of investment. The country is a significant producer of fruits and enjoys comparative advantage for setting up fruit processing units. The processed products of this sector include Jam, Jelly, Juice, Squash, Slice, chutneys. Processed fruits and vegetable products have considerable export potentials and if it is properly utilized, growers, processors, traders as well as national economy will benefit. It requires correct assessment of world market, high quality of raw produce, high quality of processed product and competitive production cost. With the growth in urbanization, rising economic well being and spread of education, there has been a shift in the pattern consumption expenditure away from food items towards non-food items such as those based on textiles, wood, paper and leather. As revealed from the analysis of secondary data, although there has been an expansion in the number of non-food processing units both in the organized and unorganized segments of agro-based industry, the rate of expansion is lower as compared to food processing units. Within the group of non-food industries, textile and leather units have shown relatively better performance in terms of their numerical strength. Amongst non-food processing enterprises, paper-based manufacturing units gave highest net return and thus there exists good opportunities for investment in units manufacturing paper-based products. At the macro-level for the country as a whole, the production in the jute industry increased marginally. Overall, the textile industry is faced with a slow moving internal market because of the low purchasing power of the people and unequal competition from the decentralized sector specially the power loom sector. Leather, a natural raw material, lends itself to a variety of conversions. Hide based leather particularly bovine is used to make shoes, soles and variety of footwear. Goat and sheep leathers go into making excellent dress shoes for ladies and gents. Other important leather-based products are luggage-ware, travel-ware, handbags, belts and fashion accessories etc. But they also face the problem of marketing of their products. Thus the common problem faced by the entrepreneurs of leather and textile units reported to be the absence of network for the marketing of their products. Obviously, the units could enhance their numerical strength if they are provided with better infrastructure purveying marketing information for their processed product. To sum up, shortage of capital is the major problem faced by the unorganized sector manufacturing enterprises followed by other non-specified problems inclusive of technological and institutional handicaps. Among other problems, one major problem faced by the enterprises, was tough competition from the larger units.

SUGGESTIVE MEASURES:

Some of suggestive measures with regard to development of agro based industries are:

1. The growth and expansion of agro based industries should form an inseparable part of the overall programme of economic and industrial development of the country.
2. The related groups of agro based industries should be set up in a co-ordinate manner so that the utilization of by-products is simultaneously possible.
3. The new institutional framework must enable a large number of small farmers to participate in and benefit from agro processing. This underlines the need to develop a co-operative network of the producers, processors and consumers and to avoid excessive dependence on private corporations and multinationals.
4. Advanced management and marketing methods should be introduced in agro-based industries which cater to the export demand.
5. Both backward and forward linkages should be ensured in respect of agro-based industries so that maximum growth impulses are generated.
6. Adequate steps should be taken to develop the economic and basic infrastructural facilities which includes power, transport and communication facilities etc. Without sound infrastructural facilities, India cannot develop the agro based industries on the basis of its agricultural product.
7. Proper agencies and scheme should be developed for supplying raw materials to agro based industries at convenient time and rates. In order to increase agricultural production, steps should be taken to modernize the agricultural sector by using modern technology, using HYV seeds etc. Moreover steps should be taken to develop the irrigation facility of the country so that it no longer has to depend on monsoonal rain.
8. Government should take necessary steps to develop information cell or data bank for updating the knowledge on new products, new process , sources of raw materials, market linkages etc.

FINDINGS:

From the above analysis, we have the following findings:

1. The study shows that India is an agricultural country. Many important crops are grown here such as rice, wheat, tea, sugar, jute etc. In fact, India is the 2nd largest producer of agricultural output which accounts for 7.68% of the total global agricultural output. It shows a good indication that the country is having good resources for the manufacturing industry.
2. The study have found that agro-industry is one sub system of agro business that has a strategic position in the new paradigm because it has several important roles that accelerate economic development in India while improving income distribution as well. Agro based industry is an industry that uses or process agricultural output as raw material in its production process. This will help in the further development of the agricultural sector of the country through the increased demand for agricultural output.
3. This study shows the real picture of rural economy and transformation of rural economy in the light of change in life style, occupation, social and cultural aspects and overall regional development in terms of facilities as a consequence of the setting up of ABI. This study gives information about backward (raw material, labour, power etc.) and forward (market, transportation etc.,) linkages of major agro based industry. In other words, relationship between development potential areas and agro based industry has been pointed out.

4. The study shows that ABI in India are labour intensive, small scale and relatively efficient enterprise systems. Their expansion has favorable linkages to small scale agricultural sectors, improving their incomes and providing employment for rural and poor farmers. Agro based industries can be started with small amount of investment, and are therefore suitable for rural people with little capital. The total number of agro based industries has increased from 28548 in 2006-07 to 30514 in 2011-12 with only 0.38% growth rate. ABI were providing employment to 14,10,102 persons in 2011-12. Among different categories of ABI, the manufacture of food products and beverages is providing the highest share of employment i.e. 38% which is followed by manufacture of textile i.e. 34.18%.
5. The study found that despite the remarkable performance of some agro based industrial sectors, particularly in exports, the general lack of organized infrastructure to foster a cluster environment has resulted in breaks in the value adding chain as processing often only goes halfway or less. This indicates that the economic linkages between the producers and the industrial firms are not well exploited.
6. The paper shows that existing ABI are generally devoid of the presence of some important government and non-government institutions whose regular linkages with industry leads to great results. For effective productivity, industrial sites must have quick linkages with government and non government institutions with representations within location. Such institution includes Ministry Of Industry, Ministry of Trade, Ministry of Agriculture, security and police stations etc. It is possible to conclude that the linkages of the firms and institutions are not properly managed.
7. Agro-based activities being predominantly a house of small-scale enterprises are highly heterogeneous in terms of capital investment, technology in use, scale of operation, quality and quantum of output, composition and level of employment. Distressingly, levels of productivity among tiny and small enterprises are also low. There must be a host of institutional, technological and marketing constraints that are holding up productivity of the agro-industry units to low levels. There is therefore need to address these constraints so that productivity of the agro-industry sector may be improved

CONCLUSION:

The whole study was done theoretically by extensive literature study. It appears from the above study that India have a huge potential for the development of the Agro based industries depending on its strong agricultural base. Agriculture itself cannot fulfill the employment in rural areas; it can only provide partial employment. Thus, agro based industries should enter the canvas of the study. Agro based industries has the vast potential in the development of an economy through its multiplier effect. The potential becomes manifold when the processing possibilities of entire economy are taken. The process of agro-based industrialization is already on in our country in response to increasing demand for various agro-based products for direct consumption, industrial use and export. Therefore the significance of agro-industry in India's industrial sector needs to be underlined. Recognizing the important role that agro based sector play in the national economy, government have to take active steps to develop, promote and foster their growth. Agro based industries are suffering from a number of problems; some are more or less common to a wide range of industries while other have particular relevance to a group of industries located in rural and backward areas. The opportunities for establishing ABI are vast in the region but we still need a holistic approach for overall development of the economy of India.

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