



## Opportunities of agro-based industries in Bihar

Kusum Kumari

Ph. D (Economics), Magadh University, Bodh Gaya, Bihar, India

### Abstract

Agriculture based industries provide maximum employment in rural India and help the farmer get better price for his produce, thus increasing substantially, his quality of life. Agro-industries, which are largely village-based industries have the best potential for employment generation and also require less capital. Agro-industries are now considered as the sunrise sector of the Indian economy in view of its large potential for growth employment and income generation. An extended arm of agriculture, agro-industries can make agriculture more lucrative and create employment opportunities, both at the production and marketing stages. The broad-based development of the agro products industry will improve both the social and the physical infrastructure of India. We must realize the significance of the agriculture-based industries for strengthening the economy of Bihar. If our entrepreneurs or farmers are well trained in maintaining quality, attractive packages, promotional activities, knowing taste and preferences of the customers from domestic and international and export procedure, they will succeed.

**Keywords:** agro-based industries, economy of Bihar, poultry farming, organic farming, unorganised sector

### Introduction

Bihar is labelled as a state with backward economy, with structurally and technically least efficient industry and less commercialized agriculture. The vast industrial and agricultural potential is decelerating gradually. It has respectively led to a decreasing level of socio-economic conditions of the people of Bihar. The irony of development over the seventy years of period is that Bihar is inhabited by the largest proportion (42.6%) of people below poverty line having the lowest per capita income, low industrial and agricultural growth and above all poor human development index. The most-sorry state of affairs is that Bihar which has the plenty of human and natural resources has been lagging far behind the development which other states have experienced despite comparatively low endowment of resources. This calls for a clear understanding on the relationship between industry and agriculture in the process of economic development of the state which has the profound bearing on the nature and causes of growth of income and wealth. At a time, when around 60 percent of humanity in Bihar is grappling with problems of poverty, underdevelopment and structural change, the importance of well integration of industry and agriculture can hardly be undermined particularly the syndrome of non-development which has been persisting since long in the state.

The economy of Bihar is mainly based on agriculture. The major agricultural products of the state are cereals, pulses, oil seeds, fruits, vegetables and cash crops. The important cash crops are sugarcane, potato, tobacco, jute and spices. Bihar is the third largest producer of vegetables and sixth largest producer of fruits in India. But the capita annual productions of agriculture is at the lowest level of Rs. 666 only. The reason of this is the use of technology and inputs on low level and less development of agro-based food industry. Food processing is one of the most important factors for boosting growth of any agricultural economy. Bihar has ample scope for development of this sector but it

is still at a nascent stage. For giving the pace of food processing industry, the state government had prepared Food Processing Policy 2008 and establish a food processing Directorate in the state. The state has a large potential of food processing units as fruits, vegetables, dairy, meat, poultry, fishery, food grain and beverages. It consists of all types of value addition to agricultural produce and grading sorting and packaging of food products.

### The Importance of Agro-based Industries

Agro-based industries/ Agribusiness denotes the collective business activities that are performed from farm to fork. It covers the supply of agricultural inputs, the production and transformation of agricultural products. Agribusiness includes all the activities within the agricultural food and natural resource industry involved in the production of food and fiber. Individual agribusinesses may sell items to farmers for production; provide services to other agricultural businesses; or be engaged in the marketing, transportation, processing, and distribution of agricultural products. Agriservice is activities of value to the user or buyer. The activities are an intangible product. Marketing is providing the products and services that people want when and where they want them.

Agribusiness provides people with food, clothing, and shelter. It also provides jobs for millions of people in science, research, engineering, education, advertisement, government agenda and their distribution to final trade organizations, and commodity organizations. Agribusiness pertains to the public and private sectors. The public sector is the economic and administrative functions of dealing with the delivery of goods and services by and for the government. The private sector is the part of the economy associated with private profit and is not controlled by government.

Agribusinesses process inputs into outputs. An input is a resource used in production. An output is the result of the

production process. Agribusiness denotes the collective business activities that are performed from farm to fork. It covers the supply of agricultural inputs, the production and transformation of agricultural products and their distribution to final consumers. Agribusiness is one of the main generators of employment and income worldwide. Agribusiness is characterized by raw materials that are mostly perishable, variable in quality and not regularly available. The sector is subject to stringent regulatory controls on consumer safety, product quality and environmental protection. Traditional production and distribution methods are being replaced by more closely coordinated and better planned linkages between agribusiness firms, farmers, retailers and others in the supply chains.

If agricultural based industries are gone up, it will lead to:

- More employment opportunity.
- Minimise the food import.
- Substantial food export.
- Save foreign exchange.
- Enhance the village economy-minimize the migration of people to city.
- Farmers are assured to get enough return.
- Customers can enjoy the value-added services.

### **Opportunities of Agro-based Industries**

India in general and Bihar in particular has opportunities to do business with Agriculture are enormous. They include fruit pulp, concentrates, flavors, extracts, frozen fruits, frozen vegetables, pickled products, assorted products. Fruits, Vegetables, Food grains, Mushrooms and Medicinal and Aromatic plants etc. They are discussed in detail hereunder:

### **Vermicompost-Organic Fertilizer Production**

Vermicompost organic fertilizer production has now become a major component of agro-business models across the country with a very low initial investment. An entrepreneur can start this business with the proper know-how of the production process.

### **Dried Flower Business**

Dried Flower Business in specialty flower is a very profitable venture now worldwide. Flower production is one of the fastest growing crop trends in agriculture today with a strong demand for all types of flowers, especially unique and hard-to-grow varieties. The interest in cut dry flowers has increased consistently over the last ten years.

### **Fertilizer Distribution Business**

Fertilizer distribution business in India is highly controlled by Government regulation. It is one of the agriculture business ideas one can start with moderate capital investment.

### **Organic Farm Green House**

An organic farm greenhouse business has a high potential to grow and succeed because steadily the demand for organically grown farm products has grown considerably. Organic farm greenhouse business has been normally done on small, family-run farms. But since the demand for organically grown food products is now increasing, people are investing in land for organic farming.

### **Poultry Farming**

Poultry farming in India has transformed into a techno-commercial industry from the status of backyard farming since three decades. Poultry farming is the fastest growing sector in agriculture and farming business. The annual growth rate is 8-10 in egg and 12-15 in the broiler industry.

### **Mushroom Farming**

A mushroom farming business can be a mean of big profit in just a few weeks with considerably low start-up capital investment to start a business. A person who has a little bit of idea in the science and technology of mushroom growing and has an own building for having the farm – mushroom farming business will be the perfect option for him to start.

### **Hydroponic Retail Store**

A person having passion in plantation technology can start the hydroponic retail store business to turn his hobby into a profit-making venture. Hydroponics is a new plantation technology that has been increasing in demands over the past decades as a soil free way of plantation both for commercial and home use.

### **Snail Farming**

Snail farming business opportunity demands discipline and specific knowledge in modern technology. Snail farming is the process of raising land snails specifically for human consumption. It has a high rate of protein, iron, low fat and almost all the amino acids that are needed for human body.

### **Sunflower Farming**

In starting sunflower farming business, the primary requirement is the land. In India, sunflower is often called a commercial cash crop. Growing sunflower for oilseed with maintaining right process is a viable business opportunity. An entrepreneur passionate about agriculture and having owned land can start sunflower farming business.

### **Guar Gum Manufacturing**

Guar gum, locally called guaran, is a galactomannan. It is basically the ground endosperm of guar beans. The guar seeds are dehusked, milled and screened to obtain the guar gum. It is typically produced as a free-flowing, off-white powder. It is a natural food thickener, similar to locust bean gum, cornstarch or tapioca flour.

### **Bee Keeping**

Beekeeping business opportunity demands day- to-day monitoring with close supervision to the bees. With the increasing awareness about the health, demand for honey is growing globally. Beekeeping for selling honey and other products like wax is a profitable venture to start with less start-up investment.

### **Fish Farming**

Commercial fish farming business is a lucrative investment that can spin money at any time of the year continuously. With the implementation of modern techniques and having owned space, an entrepreneur can start this business with moderate capital investment.

### **Fruits and Vegetables Export**

An entrepreneur can start an export business of fresh fruits and vegetables by collecting them from local farmers. one

can start this business from a home location only having a phone and computer with internet connection.

### **Micronutrient Manufacturing – Folier and Soil Application**

Micronutrient has an immense potential in agriculture business. Having a strong distribution strategy, one can start this manufacturing business with substantial capital investment.

### **Florist**

One of the very profitable agriculture business ideas. Having a retail space and connection with the flower growers, one can start this business. An entrepreneur also can generate a substantial online sale by offering customers door-step delivery.

### **Livestock Feed Production**

This business is small scale manufacturing. Having confidence in distribution, one can start this business to make money out of livestock feed production.

### **Frozen Chicken Production**

Frozen chicken is a hot product now. The demand for this product is increasing globally. An entrepreneur living in a metro or suburban city can start this business with proper planning.

### **Botanical Pesticide Production**

The botanical pesticide is one of the most profitable agriculture business ideas. It is an essential and mandatory product for organic farming and the demand for this product is increasing highly.

### **Basket and Broom Production**

Basket and broom are very common products in rural agriculture scenario. An entrepreneur can start this business by sourcing these products from rural makers and after giving ornamentation, it can be sold as utility or decor item through retail and online both. To start profitable basket-weaving business one requires thoughtful planning and a high level of creative mind having a flair for design. Using a wide range of raw material an entrepreneur can initiate customized basket-weaving business from a home location with moderate capital investment. Broom production technical process is simple and the project can be initiated with proper planning and moderate capital investment. Broom has been used from centuries to sweep up dirt and dust, in and around homes and workplaces.

### **Flour Milling**

Flour milling business has many diversified fields. An entrepreneur can start this business with a proper business plan. Establishing your own brand product is highly profitable in this business.

### **Fruit juice-Jam-Jelly Production**

Fruit juice-jam-jelly production business has the huge market opportunity. Most important thing is the production process is not that complex and can be initiated small-scale basis.

### **Groundnut Processing**

Having confidence in the source of raw material ground nut

an entrepreneur can start this business with moderate capital investment. Processed groundnut has very good market potential globally.

### **Cashew-nut Processing**

Processed cashew nut is a consumer durable product and has huge market potential. An entrepreneur can initiate this venture semi-automatic small scale basis.

### **Quail Egg Farming**

Commercial quail farming is all about raising quails commercially for the purpose of profitable eggs and meat production. Globally quail farming is playing an important role in fulfilling the daily family nutrition demands and earning livings.

### **Shrimp Farming**

Shrimp farming is an aquaculture business that exists in the freshwater environment, producing shrimp or prawn for human consumption. The demand for this product is increasing globally.

### **Fish Hatchery**

A fish hatchery is a place for artificial breeding, hatching and rearing through the early life stage of finfish and shellfish in particular. Hatcheries produce larval and juvenile fish primarily to support the aquaculture industry where they are transferred to on-growing systems.

### **Piggery**

Having a sufficient landholding an entrepreneur can start a piggery business. Among the various livestock species, piggery is most potential source for meat production and pigs are more efficient feed converters after the broiler. The major facility is pig farming requires a small investment in buildings and equipment.

### **Soya Beans Processing**

Commercially soya beans processing to produce milk, soy flour, soya sauce, soya bean oil, natto etc is a very profitable agriculture business ideas to start with moderate capital investment. With proper marketing strategy, an entrepreneur can start this business in small scale also. Spice

### **Spice Processing**

Rising global demand gives a boost to spice processing industry recently. Good quality processed spice has very good demand. Processing and packaging methods are not very complex. The margin is also very satisfying in spice processing business.

### **Vegetable Farming**

Vegetable farming is one the most profitable agriculture business ideas. Having sufficient land an entrepreneur can start good quality vegetable farming with quality seed and fertilizers.

### **Chicks Hatchery**

Chick's hatchery business is all about making money by selling commercially produce chicks to local egg and poultry farmers. It is a highly profitable business to start with a small capital and as such no specialized knowledge is required.

**Tea Growing**

Tea growing business has huge potential and demand for the product is increasing globally. Tea plants typically fare best in acidic soil and regions with heavy rainfall around 40 inches per year, although they can be grown anywhere from sea level to altitudes as high as 1.3 miles above sea level.

**Grocery E-Shopping Portal**

Grocery E-shopping portal is a most trending business in recent phenomena. This tech-based business opportunity demands proper planning and strong online marketing strategy to start.

**Medicinal Herbs Farming**

Growing medicinal herbs commercially are one of profitable agriculture business ideas. Having sufficient land and knowledge about the herbs marketing, an entrepreneur can initiate medicinal herbs farming with moderate capital investment.

**Cactus Arrangements**

Cactus is the most favourable item as plant decor item. This is ideal for table top gardens, and many plants can coexist happily in the same container. Creating and selling cactus arrangements is a very profitable and self-rewarding business to start. It can initiate from a home location with low start-up capital.

**Dairy Farming**

Commercial dairy farming is one of the most profitable agriculture business ideas. Apart from milk, it produced a quantity of manure. There is a tremendous scope/potential for increasing the milk production through profitable dairy farming.

**Goatery Farming**

Goats are among the main meat-producing animals in India. This meat is one of the choicest meats and has huge domestic demand. Due to its good economic prospects, goat rearing under an intensive and semi-intensive system for commercial production has been gaining momentum for the past couple of years.

**Jatropha Farming**

Commercial jatropha farming for Bio-diesel is one of the most trending agriculture business ideas. By exploring the modern technology marginal farmers and cultivators can produce jatropha as a raw material for bio-diesel.

**Potato Powder**

Potato powder has wide application in the processed and snack food industries, it can be used in any recipe which requires mashed potatoes. Potato powder is used as a thickener or base for the preparation of ready to eat vegetable gravies and soups. The processing method is also not very complex. Potato powder processing business can be initiated semi-automatic small scale basis.

**Corn Farming**

Corn (Maize) is one of the most versatile emerging crops having wider adaptability under varied agro-climatic conditions. Globally, maize is known as the queen of cereals because it has the highest genetic yield potential among the cereals. Commercial corn farming by using modern

technology with quality seed is one of the most profitable agriculture business ideas.

**Certified Seed Production**

Seed certification is a quality assurance system whereby seed intended for marketing is subject to official control and inspection. At its simplest, the system certifies that a sack, packet or box of seed contains what it says on the label and that the seed was produced, inspected and graded, in accordance with the requirements of a Certification Scheme. To initiate this business, you don't have any requirement of land, just start the venture by contract farming.

**Soil Testing Lab**

Soil Testing is agronomically sound, beneficial and environmentally responsive tool used for monitoring the nutrient as well as making precise fertilizer recommendations for various crops and cropping sequences ensuring no damage to the environment. Establishing a soil testing lab with a Government certification is one of ideal agriculture business ideas.

**Horticulture Crop Farming**

Horticulturists produce fruits, flowers, and plants in greenhouses and nurseries. Selection of the crops and method is important in this business.

**Fodder Farming for Goats and Cows**

Fodder is any agricultural foodstuff used specifically to feed domesticated livestock, such as chickens, horses, pigs, cattle and goats. The term refers to food given to animals, rather than the food they forage for themselves. Types of plants typically grown for fodder include alfalfa, barley, oats, clover, grass and wheat.

**Agriculture Consulting**

As with other consulting services, agriculture consulting requirement is surely expected to grow with coming days. People with experience and knowledge in a specified field of farming activity can consider offering consulting services to organizations and farmers.

**Rabbit Rearing**

There is no law prohibiting the keeping of rabbits in Towns and Cities. A backyard can serve as a good source of additional income, food and employment; thus, reducing poverty, hunger and idleness. Rabbit do not compete with humans for food, as kitchen leftovers, cut grasses and formulated or compounded feed can sustain them. Rabbit keeping does not require much capital for investment and maintenance. As little space is needed, most rabbits could be kept in the backyard or in the abandoned sheds.

**Grass Cutter Farming**

Grass cutter is worth considering for use in husbandry in the humid forest where poor grazing and harsh environment limits the performance of conventional livestock. Ranching of grass cutter as a backyard mini livestock would therefore improve the lot of the peasant farmers, provide an alternative source of animal protein and create job opportunities for urban dwellers.

**Coconut Juice Production**

From fresh chunks of meat to milk, creams, and powders,

the flavour of coconut is a distinctive addition to hundreds of sweet and savoury recipes. One can make good money by selling in wholesale to retail outlets and supermarket, but make sure the product is well branded, with company's name and contact.

### Local Drinks or Dry Gin Production

A lot of villagers has come to the city and still love to take local drinks, if well packaged, and accessible, you can start making money by selling to some beer parlour, while Ogogoro can be supplied to some companies that uses this product as one of their raw materials.

### Agricultural Brokerage and Consulting

One can start a business in agricultural brokerage by linking sellers of agricultural produce with buyers and get commission for it. One can also become a consultant and offer expert advice or organize trainings and seminars.

### Conclusion

Agro-based industries is one of the important components of industrialization which promotes small scale and cottage industries in the rural areas. The benefits of industrialization may be shared by the rural population through agro-based industries. Agro-industry also plays a crucial role in the industrialization process of the developing countries also. There are so many opportunities available in Bihar for Agro-based industries. Production of vegetables and flowers under greenhouse conditions can be taken up to harness the export market. Trained human resources in agriculture and allied sciences will take on agricultural extension system due to dwindling resources of state finance and downsizing the present government agricultural extension staff as consulting services. The enhanced agricultural production throws open opportunities for employment in marketing, transport, cold storage and warehousing facilities, credit, insurance and logistic support services.

The agro-industrial potential becomes manifold when the processing possibilities of the entire commodity system are taken into account. For example, a farmer cultivates paddy on his farm and the paddy plants produce paddy, straw, husk, bran and rice kernel. Thus, with an initial investment for growing paddy, producer of paddy has potential of supporting a complex of processing industries rice mills, solvent extraction plant for rice bran oil, processing of husk for variety of products and straw paper/board mills, etc. Similarly, in animal-based products we get the raw materials like meat, bones, hides, skin, wools, etc. and thus, the processing of these raw materials opens up large value addition possibilities. In India, the processing units based on grains, horticultural products, livestock products, fish have ample opportunities.

The agro industries helps in processing agricultural products such as field crops, tree crops, livestock and fisheries and convert them to edible and other usable forms. The private sector is yet to actualize the full potential of the agro industry. The global market is huge for sugar, coffee, tea, and processed foods such as sauce, jelly, honey and other products. Agro-industries are involved with post-harvest activity involving processing of fruits and vegetables. These activities are only two percent compared to eighty percent in United States and forty percent in china. The food processing sector is an important segment of the economy, constituting a share of around 9.0 to 10.0 percent

of the Gross domestic product. Studies suggest that the setting up of an agro-industry in a rural area sets in motion forces which positively impact the socio-economic structure of the areas.

It is to be noted that if the economy of Bihar is to be inspired on sustainable basis 'agro processing industries' under 'unorganized manufacturing sector' should be suitably and adequately promoted and strengthened. This is more so desirable as the state has no other sector of industrial activities, which has 'required inputs available so abundantly' as existing in case of agricultural sector (both related with 'agro food' and 'agro non-food commodities').

### References

1. Agrawal AN. Indian Agriculture, Vikas Publishing House, New Delhi, 1980.
2. Economic Survey, Finance Development, Government of Bihar, Patna, 2017-18.
3. Food Processing Policy, Government of Bihar, Patna, 2008.
4. Sharma Arpita. Agro Based Industries and Rural Development, Kurukshetra, 2014, 62(7).
5. Singh SR. Bihar on Move, APH Publishing Housing, New Delhi, 2013.
6. www.ahd.bih.nic.in
7. www.dse.bih.nic.in
8. www.krishi.bih.nic.in
9. www.nabard.org