



Agribusiness potential in north Bihar a critical analysis

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Abstract

Agribusiness sector of North Bihar has the potential to grow rapidly so as to meet the existing shortages and assume primacy in the national agricultural economy. The following strategy can be adopted to managing risks in agriculture: Organizing dairy producers in reformed cooperatives, new generation cooperatives or producers' companies. The food processing sector can help for these objectives because there is a need of substantial investment in marketing infrastructure, both physical and institutional. The employment potential of agribusiness sector is very high. All these clearly reveal that Bihar has great potential to be a rich State in relation to natural resources employment and income generation for society. Although, horticulture (fruits, vegetables including tuber and mushroom, spices, honey, medicinal and aromatic plants) occupies 15 per cent of land area but income generated from horticulture is much higher. The state has a monopoly in production of litchi and makhana and continues to grow various fruits, vegetables and spices. Floriculture is catching the imagination of people, reflected in their growing interest, across the state, in diversification of horticulture. Over viewing the current status, constraints and potentiality, it is evident that there is ample opportunity for development of horticulture in the state.

Keywords: agribusiness, north Bihar s, agricultural, economy and development, horticulture

Introduction

North Bihar is endowed with varied ago-climate, which facilitates production of temperate, subtropical and tropical agricultural commodities. There is growing demand for agricultural inputs like feed and fodder, inorganic fertilizers, bio-fertilizers. Biotechnology applications in agriculture have vast scope in production of seed, biocontrol agents, industrial harnessing of microbes for bakery products. Export can be harnessed as a source of economic growth. As a signatory of World Trade Organization, North Bihar has vast potential to improve its present position in the World trade of agricultural commodities both raw and processed form. The products line include cereals, pulses, oilseeds and oils, oil meal, spices and condiments, fruits and vegetables, flowers, medicinal plants and essential oils, agricultural advisory services, agricultural tools and implements, meat, milk and milk products, fish and fish products, ornamental fish, forest by products etc. At present processing is done at primary level only and the rising standard of living expands opportunities for secondary and tertiary processing of agricultural commodities. The inland water courses provides enormous opportunity for production of inland fish and ornamental fish culture gaining popularity with increase in aesthetic value among the citizens of North Bihar. The livestock wealth gives enormous scope for production of meat, milk and milk products, poultry products etc. The forest resources can be utilized for production of by products of forestry. Beekeeping and apiary can be taken up on large scale in North Bihar. Mushroom production for domestic consumption and export can be enhanced with improvement in the state of art of their production. Organic farming has highest potential in Bihar and India as the pesticide and inorganic fertilizer application are less in North Bihar compared to industrial nations of the world. The farmers can be encouraged and educated to switch over for organic farming. There is wide scope for production and promotion

of bio-pesticides and bio-control agents for protection of crops. Seeds, hybrid and genetically modified crops, have the highest potential in Bihar and India in the future, since the productivity of high yielding varieties have reached a plateau. Micro-irrigation systems and labor saving farm equipments have good potential for the years to come due to declining groundwater level and labor scarcity for agricultural operations like weeding, transplanting and harvesting. Production of vegetables and flowers under Green House conditions can be taken up to harness the export market.

Opportunities of Agribusiness

This growth will invariably cause major structural shifts in the management of agribusiness enterprises and also will throw up a million opportunities beginning with the agglomeration of land, most likely via lease arrangements with the intent of improving production efficiencies – resulting in expansion of the farm mechanization business, micro irrigation, reorganization of supply chains, investments in food processing, cold chains and agri infrastructure, to name a few. Appropriate change in government policy is already headed in that direction, and one can be sure that more such supportive policies will follow. The corporate sector in India has begun to experience and respond to changes, and one now finds a growing number of interesting career opportunities in agriculture as corporates drive the talent acquisition and retention component. There are a growing number of new companies in the Billion Dollar plus club in the area of processed foods, beverages, nutrition and the plantation sector. Inputs and farm mechanization have several such companies. In the last ten years, PE has invested \$8 billion into Agriculture and the sector is poised to see a further \$50 billion invested by 2020. So perhaps a career in this domain deserves closer attention, particularly since compensation too has been expanding apace and for individuals with the right skill sets, is now at levels that

deserve closer attention. As mentioned earlier, so far, agriculture was generally seen as a livelihood. People with competence in technology or the capability to deal with a range of issues across the value chain was limited. Agriculture is an industry that has its own and unique uncertainties, making it an area with high complexity. Various dynamic variables influence agriculture outcomes. Vagaries of weather, incidence of diseases and pests, price movements, shortages, oversupply impact due to changing global trade flows, interest and oil rates and perhaps just about anything can impact supply. Each product value chain has its own dynamics and nuances, It is therefore necessary that food and agri professionals learn to handle uncertainty effectively and that they factor these issues into their planning and execution to allow them the flexibility to deal with such surprises and non-visible risks. Today's talent places big value to emotional well-being. Loyalty and commitment to organizations is on the decline and work/life balance is emerging as a prime concern. Most Agribusinesses need to focus on the long term since reaching out to the customer, communication and creation of farm and rural networks is physically demanding and time consuming. Moreover, agriculture is seasonal and corrections to contracts, their administration and execution can only happen once annually, hence the need to "get it right the first time," to grow and build at a pace that allows midstream remodeling of contracts, processes required for farmer engagement and consequent building of results. Long business cycles, therefore, necessitate the importance of building retention and rewards to key resources over the long term^[3]. Training of individuals on quality of inputs, methods of generating resources, structuring contracts, etc. are of critical importance. Marketing, Finance and Human Resources are the mainstream of any business enterprise, and cross-functional exposure is imperative to develop an understanding that facilitates adjustments to maximize returns and minimize risks. Trained human resources in agriculture and allied sciences will take on agricultural extension system due to dwindling resources of state finance and down-sizing 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. Models of procurement based on price, quality, availability and seasonal variation should find prominence in training and education. In bringing product to market, the need for value addition, storage, and delivery should form a strong part of the learning. Training should cover government policy, tariff and nontariff barriers and operational tax structures. Given our institutional voids, a thorough understanding of how rural Bihar operates and thinks is, to my mind, of seminal importance for a successful Agri professional. Focus on customer behavior both uneducated and educated at the same time requires knowledge of what is feasible in time and circumstance.

Agribusiness Potential in North Bihar:

The food processing sector can help for these objectives because there is a need of substantial investment in marketing infrastructure, both physical and institutional. The employment potential of agribusiness sector is very high. All these clearly reveal That Bihar has great potential to be a rich State in relation to natural resources employment and income

generation for society. Although, horticulture (fruits, vegetables including tuber and mushroom, spices, honey, medicinal and aromatic plants) occupies 15 per cent of land area but income generated from horticulture is much higher. The state has a monopoly in production of litchi and makhana and continues to grow various fruits, vegetables and spices. Floriculture is catching the imagination of people, reflected in their growing interest, across the state, in diversification of horticulture. Over viewing the current status, constraints and potentiality, it is evident that there is ample opportunity for development of horticulture in the state. Agriculture is the mainstay of the state's economy. About 60% cultivated area under the rainfed condition and rest of that irrigated condition. This state grown all type of crop but the major agricultural products of Bihar are cereals, pulses, oilseeds and cash crops. Most dominated cropping system in cereals. The rice-wheat cropping system occupies more than 70 per cent of the gross cropped area but productivity has remained low despite favorable soil, water and climatic conditions. The productivity of rice 1000 kg ha-1 against the national average productivity 2100 kg ha. Rice and wheat are the staple food of the peoples of this state. The climatic conditions of this state have good scope of pulses. In case of pulses, productivity in Bihar have more productivity of pulses in comparison to national productivity it was 735 kg/ha in case of Bihar while in case of India it was 616 kg/ha in the year 2016-17. Gram, tur and lentil are the major pulses grown in the state. In case of horticultural crops, major fruits grown in the state are mango, litchi, guava, pineapple, citrus, banana, papaya and ber. Bihar has the 3rd rank in vegetable production in the country and produces a variety of traditional and non-traditional vegetables. Climatic and soil conditions of the state are congenial for production of different types of vegetables in the state. A variety of spices are produced in Bihar. At present, Bihar produces about 20 thousand tonnes of spices annually from an area of nearly 15,081 ha. The important spices are ginger, turmeric, chilly, coriander, and garlic. The chilli accounts for 47.6 percent of the area under spices and 39.5 per cent of the production followed by turmeric, which occupies 26.3 per cent of the area under spices and accounts for 36.4 per cent of the production in the state.

Most profitable business ideas in agriculture

Here are the top Most Profitable Agriculture Business Ideas: Agricultural Farm One can start an agricultural farm by investing reasonable money. We can produce items as per the local demand and sell them locally. For far areas we can even supply the product through distribution channels.

Vermicompost Organic Fertilizer Production

It requires a very low investment and hence can be considered profitable for the startup agricultural business. You can simply start this business by the proper know-how of the production process.

Poultry Farming

It has transformed into a techno-commercial industry from the status of backyard farming for three decades. It is considered to be the fastest growing sector of agriculture and farming business.

Mushroom Farming Business

By doing this business you can make good profits in just few

weeks. It requires a low start-up capital investment. Even with a little knowledge of mushroom growing and with a farm mushroom farming business can be done.

Sunflower Farming

The land is the primary requirement to start sunflower farming. Growing sunflower for oilseed requires the small investment. It is also known as Commercial Cash Crop.

Bee Keeping Business

It demands day to day monitoring with close supervision of the bees. Beekeeping business is done for selling honey and other products like wax. Not to forget, as the demand for honey is growing globally. Opting for this business is a profitable venture which requires the small investment.

Fish Farming

This business can be done at any time of the year. It requires modern techniques and moderate capital investment.

Fruits and Vegetables Export

One can start the export of fruits and vegetable business by collecting them from local farmers. It can be done through easy communication means like a telephonic conversation, computer with internet connection.⁸

Florist

It requires a retail space and connection with the flower growers. It is one of the most profitable retail agriculture business ideas that can also be done online by providing customers with doorstep delivery of flowers.

Basket Weaving

One requires a thoughtful planning and a high level of creative mind having a flair for design. It can simply be done from a home location with moderate capital investment.⁸

Flour Milling

Establishing your own brand product is highly profitable in this business.

Some Other Profitable Agriculture Business Ideas:

- Fruit Juice Production
- Fish Hatchery
- Piggery
- Vegetable Farming
- Chicks Hatchery
- Medicinal Herbs Farming
- Dairy Farming
- Goatery Farming
- Horticulture Crop Farming
- Potato Chips Production

Review of Literature

The literature review reveals that there is great scope to do agribusiness. Before we come other aspects of the study, let us observe the important studies already completed in this area.

Kumar et.al. (2014) ^[1] Agribusiness Industry can be widely grouped under the following kinds. Village industries comprise those that are run with minimal industries with very little machinery and a maximum of manual labour manufacturing products like papad, pickle etc. Small scale industries refer to those that are managed with a medium

level of investment and machinery like oil mills and rice mills for instance. Large scale industries involve huge investments and extreme levels of automation producing commodities like jute, sugar and cotton products.

Prakash, K.C. (2014) ^[2] direct procurement of tomato by the suppliers and training the workers for proper grading and packaging methods can solve the problems of sourcing in tomato supply chains.

Bairwa *et al.*, (2014) ^[1] Agribusiness is also a corporate method of farming. The term agribusiness industry includes not only the farm itself but also the entire chain of agriculture related business including seed supply, food processing, Machinery.

Negi, Saurav & Anand, Neeraj (2015) ^[4] Losses in vegetables may reach 25% of total production also. Negi S. & Anand N carried out an extensive study and found various factors which pose challenge for supply chain of fruits and vegetables in India. To mention a few, the authors have highlighted cold chain facilities, Infrastructure availability, transportation, market accessibility, packaging etc. Various researchers have also presented different models or ways of identification and modeling of the factors impacting supply chain.

Objectives of the study

The primary objectives of the study is based on Agri-Business, Marketing structure, opportunities, problems and prospects. The study is mainly based on:

1. To study the Potential of Agribusiness agribusiness in North Bihar.
2. To Identify the constrains in Agri-Business.

Methodology of the Study

The methods of the study is analytical and critical supplemented by statistical surveys and empirical studies. The research is mainly based on Secondary Data. The secondary data have collected from Journals, Reports and Books. The secondary data have collected to cover aspect of the study.

Agricultural Marketing in North Bihar

Bihar's agricultural sector has shown an impressive growth compared to other progressive states. However, income growth has not been commensurate with this trend and the challenges ahead are (i) ensure that more value is added to production and (ii) that some of the extra value is channeled to farmers. Marketing is crucial for a successful diversification and commercialization of Bihar agriculture and accelerated farmer income growth. Further income generation from Bihar's agriculture and food sector will require addressing product quality, delivery and pricing, despite some technical, institutional and organizational barriers. A very small share of local production finds its way to the regulated markets in Bihar. Just as for other Indian states, Bihar has 95 regulated markets (mandis), 67 principal market yards, and 855 rural hats that handle some of the marketing of major agricultural commodities in the state. They are supervised and controlled by the state Agriculture Produce Marketing Board under the provisions of the Bihar state Agriculture Produce Marketing Act (1960). Data on market arrivals indicate that a very small share of agricultural production finds its way to the markets. This is because (a) the amount and quality of market infrastructure and support services are poor, and (b) the transportation costs and

informal transaction costs discourage farmers from going to the markets. A recent study shows that the quality and quantity of marketing outlets in Bihar is among the worst in the country. Furthermore, a World Bank analysis of some commodity supply chains has shown that up to 40 per cent of the margins along with value chains are lost to wastage and transportation costs. Crop diversification, especially into the relatively more perishable fruits and vegetables, will increase the need for effective marketing linkages supported by modern marketing practices, including introduction of grading, post-harvest management, cold chains, etc. Standard quality grades for fruits and vegetables are currently not used in Bihar. It is in this context that it has long been argued for redefining agriculture as „the science and practice of activities relating to production, processing, marketing, distribution and trade of food, feed and fibre“. Strengthening strategies and policies towards development of agribusiness in Bihar. In Bihar, there is low average yields of most commodities, the huge gaps between the real and potential yields, the low farmer 's income and widespread rural poverty on one hand, and the richness of the natural resources and the socio-political expediency to liberate the people of Bihar from the poverty and hunger trap on the other hand, a focused strategy and policy direction needs to be adopted on a priority basis. A holistic system based approach, is therefore, needed to simultaneously enhance productivity, profitability, equity and environmental sustainability through synergistically integrating crop, horticulture, livestock, fisheries, agro forestry, watershed-based soil and water management, social capital formation, agro processing and marketing infrastructure. The primary objective of any planning in livestock should be to double the animal protein availability in about a decade and additional increase per year to support the increasing human population. This can be achieved by using the sustainable production system while maintaining environmental and animal biodiversity. This will also be plank for sustainable rural employment and socio-economic upliftment in rural India. Lack of appropriate leasing policy over the years has been one of the major factors of the ineffective utilization and development of these water bodies for aquaculture. Though certain positive initiatives have been taken by the government in the form of the Bihar Fish Jalkar Management Act 2006 for short and long term leasing of these community water bodies, it needs effective implementation at Gram Panchayat levels. Community approach for integrated development shall aid in the development of aquaculture in these ponds. The poor marketing infrastructure in fisheries sector has also depleted the incentive and returns of the fishermen. Therefore, a package approach should be comprising stocking, monitoring, equitable and just royalty arrangements, market intervention through cooperatives / corporations and quick transport/distribution channels etc., should be evolved.

All these would require considerable efforts on monitoring and evaluation of implementation of various development projects under the proposed strategies and policy direction. Since the proposals are based on ground reality evaluation, which has come out after detailed deliberation with all the stakeholders, there would be a need for developing implementable projects with a time frame, integrating all the efforts together in a „Mission Mode“ to address all the issues identified. Since the state has a poor infrastructure for delivery, it would also need strengthening. Therefore, with mission objectives, an empowered apex organization should

be created which shall oversee the development, provide guidance and ensure effective implementation of the programme. The programme shall have midterm appraisal for its impact and midcourse correction.

North Bihar; at a glance

North Bihar is a term used for the region of Bihar, India, which lies north of the Ganga River, west of Mahananda River and east of Gandak River. Maithili is the mother tongue of most of the people from North Bihar. Different variances of Maithili is spoken in the region. Bajjika variety of Maithili or the Western Maithili is spoken in East Champaran, West Champaran, Muzaffarpur district, Vaishali district, Sitamarhi district, Sheohar district. Central dialect or the Standard dialect of Maithili is spoken in wider region including Darbhanga division, Kosi division and Purnia division. However, some linguists classify the Maithili spoken in Purnia division as Eastern dialect of Maithili.

Northern Plains

The region covers an area of 32, 61000 ha, comprising of districts like Bettiah, Mothari, Gopalganj, Siwan, Chhapra, Vaishali, Muzaffarpur, Samastipur, Sitamarhi, Sheohar, Madhubani, Darbhanga. The average annual rainfall of the region is 1275 mm. Large area in this region remains under water also called, Chaur, Maun & Tal lands. The region is known for quality litchi production. Mango and makhana are other specialty crops of this region. Setting up of cold storage and processing units of litchi at Muzaffarpur and Samastipur districts, and processing units of mango at Madhubani, Muzaffarpur and Darbhanga, and processing units of makhana in Darbhanga district would be highly remunerative ventures. Setting up of Agri-Export –zone for litchi in the Hajipur area has further given fullip to horticulture development in this region. Samastipur region is also known for quality papaya production. Expansion of area under papaya can be effectively carried out in this district. Quality seed production of papaya varieties in the region holds promise. Expansion of more area under makhana and water chestnut will help in proper utilization of the water congested areas and wet lands. The interspaces of old orchards of mango and litchi in this region can be effectively utilized by growing shade-tolerant crops like ginger and turmeric, while intensification of floriculture in Muzaffarpur area can also be taken up ^[1].

Northeast Plains

This region covers an area of 19, 56,000 ha comprising of districts like Madhepura, Purnea, Katihar, Khagaria, Begusarai, Saharsa, Araria, Kishanganj, Bhagalpur. The Soil is sandy to silty loam, medium to strongly acidic, large area in this region comprise of Tal and Diara Lands. Mango, bael, banana, papaya, cucurbits, chilies, Cole crops and turmeric are the main horticultural crops grown in this region. Expansion of area under high density planting of different fruit crops can be taken up in this region. Setting up of processing facilities of banana, papaya, and mango in Bhagalpur and Saharsa district and for bael in Begusarai region could be highly profitable venture. Quality seed production of papaya and different vegetable crops holds promise in this region. Setting up of nursery for production of quality planting material of different fruit crops can also be a profitable venture. The natural water bodies can be utilized for production of makhana and water chestnut.

Intensification of cucurbit cultivation for vegetable as well as seed in diara lands particularly during spring summer period can also be highly remunerative.

Conclusions

Agribusiness sector of Bihar has the potential to grow rapidly so as to meet the existing shortages and assume primacy in the national agricultural economy. The following strategy can be adopted to managing risks in agriculture: Organizing dairy producers in reformed cooperatives, new generation cooperatives or producers" companies. Strengthening veterinary services by training and involving the rural youth. Evolving a proper feed supply programme taking into account nutrient deficiency in each region. Evolving a breeding plan with an emphasis on identifying and propagating superior local breeds. Training farmers to undertake scientific fishery; and Promotion of paddy-fish combination in areas practicing flooded paddy. Insurance of fish production and organization of cooperatives of fish farmers. Ensuring the availability of credit and technical support for scientific storage. Construction of at least one fish seeds hatchery in each district; in public-private mode. Timely supply of quality fish seeds. Determining and adhering to a proper stocking rate and scientific fish production. Strategic intervention for the development of aqua culture to meet the demand and generate surpluses for the fishermen and renovation and deepening of ponds. Establishing links between small poultry keepers and marketing firms both within and outside the state.

References

1. Kumar L, Bairwa P, Madguni SLOP, Bairwa S. Emerging business opportunities in agroforestry. Edited by Rai and Goyal "Agriculture and Rural Development in India". M.R.F. Publication, Varanasi (U.P.), 2014, 134-136.
2. Prakash KC. An analysis of supply chain of tomato from farm to retail outlets for spencers retail outlets in Bangalore city. International Journal Commerce & Business Management. 2014; 7(2):243-250.
3. Bairwa Shoji Lal, Kushwaha S, Lakra Kerobim, Meena LK. Women empowerment through agriclinics and agribusiness centres scheme in India. Internat. J. Comm. & Busi. Mgmt. 2014; 7(1):181-185.
4. Negi S, Anand N. Issues and Challenges In The Supply Chain Of Fruits & Vegetables Sector In India: A Review. International Journal of Managing Value and Supply Chains, 6(2), U.S.A, 2015, 162-165.