

SCOPE AND GUIDELINES FOR ESTABLISHMENT OF AGRO-BASED INDUSTRIES

Chitrika. D, Deepika. J, Paul Mansingh. J & Nisha. A

Research Scholar, VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore, India

Research Scholar, VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore, India

Associate Professor, VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore, India

Assistant Professor, VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore, India

Received: 05 Jul 2020

Accepted: 07 Jul 2020

Published: 15 Jul 2020

ABSTRACT

Agro-based industries are focused in maximum utilization of resources from the agriculture sector which is the largest supplier of inputs for most of the industries. Agro-based industries generate employment and contribute to the growth of the economy. Thus, these industries can extensively play a role in eradicating employment and poverty. This article discusses comprehensively the importance, types, guidelines to start an industry, and constraints of agro-based industries.

KEYWORDS: Agribusiness, Agriculture, Agro-Based Industry, Rural Areas

INTRODUCTION

Agribusiness indicates a group of business activities, performed from the farmer's field to the consumer's fork. Agribusiness uses raw materials and the basic inputs from agriculture. The raw materials used in these industries are mostly perishable, variable in quality, and regularly available. These are important employment contrivers all over the world. Agriculture and industry are symbiotically associated as agriculture provides inputs to the industry and output of the industry is used in agriculture to expand production thus becoming the integral components of the development process. This inters- dependence should be centralized to meet the gaps of our state and country. Rapid advancement in output and employment in agro-industries is mainly due to the stabilization and growth in agricultural production. The cumulative growth of agriculture and agro-industries generated greater opportunities for industrial growth as well as the integration of the different sectors of the economy. The sector is subject to precise regulatory controls on consumer safety, product quality, assurance and environmental protection. The conventional methods of production and distribution were replaced by more closely organized and better- planned linkages between agribusiness firms, farmers, retailers, and others in the supply chain.

MATERIALS AND METHODS

The method of data collection completely relies on secondary sources. Relevant and recent literature were reviewed and organized thematically for the effectiveness and comprehensiveness of the subject. The significance of agro-industries in India, different types and steps in establishing agro-based industries are discussed in this paper.

DISCUSSIONS

Importance of Agro-Based Industries

Availability of the raw materials is the key pointer in establishing agro-based industries, which are predominately present in rural areas. Thus lifting up of rural livelihood could be made possible by the rural agro-based industries which generates employment and income. Also, the potential for demand-based industries is increased by generating income and improving the economic condition of rural people. The typical nature of focusing industries at a particular place was restored by agro-based industries, which introduces an opportunity for the dispersal of industries. Minimizing the cost of finished products by reducing the transportation cost of agricultural inputs, ameliorating the nation's economy by bringing more areas under agricultural production were the prominent works of agro-based industries.

Agro-Based Industries in India

| Description | Factories | Fixed Capital (Rs. In Lakhs) | Productive Capital (Rs. In Lakhs) | Invested Capital (Rs. In Lakhs) | Workers | Total Persons Engaged | Wages To Workers (Rs. In Lakhs) |
|---|-----------|------------------------------------|---|---------------------------------------|-----------|--------------------------|---------------------------------------|
| Food Products | 37,833 | 21,119,573 | 30,189,073 | 40,423,091 | 1,371,958 | 1,772,399 | 1,720,053 |
| Textiles | 17,958 | 16,669,310 | 18,120,852 | 23,606,558 | 1,429,168 | 1,768,671 | 1,909,848 |
| Rubber and Plastic Products | 14,187 | 9,592,356 | 14,882,660 | 13,528,794 | 561,191 | 713,214 | 881,687 |
| Paper and Paper Products | 7,109 | 5,859,566 | 6,675,100 | 7,519,709 | 224,756 | 284,057 | 338,892 |
| Tobacco Products | 3,591 | 608,951 | 1,064,126 | 1,346,611 | 441,117 | 461,335 | 208,382 |
| Beverages | 2,329 | 3,386,731 | 3,936,514 | 4,470,717 | 126,196 | 161,065 | 195,835 |
| Leather and Related Products | 4,617 | 1,123,972 | 1,992,471 | 2,220,371 | 328,699 | 387,134 | 396,018 |
| Wood and Products of Wood and Cork, except Furniture | 4,565 | 688,936 | 1,121,840 | 1,194,258 | 74,887 | 98,674 | 84,625 |
| All India | 92,189 | 59,049,395 | 77,982,636 | 94,310,109 | 4,557,972 | 5,646,549 | 5,735,340 |

Table 1: Principal Characteristics by Major Industry Group in Annual Survey of Industries (ASI) 20172018)

Source: http://mospi.nic.in/asi-summary-results/844

Table 2: Principal Characteristics by Major Industry Group in Annual Survey of Industries (ASI) 20172018

| | Total | Total Input | Total Output | Depreciation | Net Value | Rent Paid | Interest |
|--|----------------|--------------------|---------------------|--------------|----------------|------------------|-----------|
| Description | Emoluments | (Rs. In | (Rs. In | (Rs. In | Added (NVA) | (Rs. In | Paid (Rs. |
| | (Rs. In Lakhs) | Lakhs) | Lakhs) | Lakhs) | (Rs. In Lakhs) | Lakhs) | In Lakhs) |
| Food Products | 3,421,585 | 99,866,767 | 110,989,863 | 1,735,555 | 9,387,541 | 188,213 | 1,980,505 |
| Textiles | 3,131,894 | 34,776,772 | 41,912,041 | 1,540,819 | 5,594,45 | 64,227 | 1,496,037 |
| Rubber and Plastic Products | 1,802,443 | 22,554,366 | 27,928,238 | 1,047,068 | 4,326,804 | 88,781 | 536,402 |
| Paper and Paper Products | 681,274 | 9,172,796 | 11,338,867 | 437,444 | 1,728,626 | 29,622 | 267,637 |
| Tobacco Products | 294,121 | 2,671,391 | 4,381,051 | 69,906 | 1,639,754 | 9,256 | 29,883 |
| Beverages | 415,455 | 5,714,581 | 7,656,224 | 314,242 | 1,627,401 | 19,455 | 151,048 |
| Leather and Related Products | 684,473 | 4,308,903 | 5,531,381 | 130,987 | 1,091,491 | 35,494 | 86,488 |
| Wood and Products of Wood and Cork, except Furniture | 163,465 | 1,800,687 | 2,229,374 | 60,037 | 368,650 | 8,516 | 52,033 |
| All India | 10,594,710 | 180,866,763 | 211,967,039 | 5,336,058 | 25,764,718 | 443,564 | 4,600,033 |

Source: http://mospi.nic.in/asi-summary-results/844

Scope and Guidelines for Establishment of Agro-Based Industries

Contribution of Agro-Based Industries to National Economy

Cotton and Jute Textiles, Sugar manufacturing, Edible oils, plantation industries (tea, coffee, and rubber), and many agrobased cottage industries depend on the agricultural sector for their raw materials. These agro-based industries generate about 50 % of income in the manufacturing sector, thus contributing to the national economy.

Types of Agro-Based Industries

The four types of agro-based industries are (Anwar, 2017)

Agro-Produce Processing Units

The raw materials are just processed so that it can be preserved and transported at a cheaper cost. No new product is manufactured. Ex: Rice, Mills, Dal mills, etc.

Agro-Produce Manufacturing Units

New products are manufactured and finished goods are entirely different from their original raw materials. Ex: Sugar factories, bakery, solvent extraction units, textile mills, etc.

Agro-Inputs Manufacturing Units

Industrial units that produce goods for mechanization of agriculture and increasing productivity come under this category. Ex: Agricultural implements, seed industries, fertilizer and pesticide units, etc.

Agro Service Centers:

Agro service centers are industrial units or service centers that are tied up in repairing and servicing of pump sets, diesel engines, tractors, and all kinds of farm equipment.

Examples of Agro-Based Industries Textile Industry

The textile industry is the only self-reliant industry in the country. It occupies a unique position in the Indian economy because of its contribution to industrial production (14 %), employment generation (35 million persons directly which is the second largest after agriculture), and foreign exchange earnings (24.6 %) (Gupta and Naidu, 2018). Since this industry uses basic raw materials like cotton, jute, silk, woolen, etc, which all have the agriculture origin, the textile can be termed as an agro-based industry. Different types of agro-based industries based on textile industries are:

- Cotton textiles
- Woollen textiles
- Silk textiles
- Synthetic fibers
- Jute textile industries

Sugar Industry

India is the second largest producer of sugar in the world. There are 460 sugar mills in the country distributed in Uttar

Pradesh, Bihar, Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat, Punjab, Haryana, and Madhya Pradesh. Uttar Pradesh and Bihar occupy sixty per cent of these mills (FAO, 1997). The sugar industry is seasonal and ideally preferable as the cooperative sector. The sugar industry uses sugarcane for the production of sugar. After all, sugarcane is an agricultural product and the industry can be called as an agro-based industry.

Paper Industry

About 4 per cent of the world's paper production is contributed by Indian paper industry. The industry serves 500,000 individuals directly and to around 1.5 million indirectly. Globally, India has a very fast growing market for paper, where the use of paper is directly synced to the economic growth. Since the paper industry uses a variety of raw materials *viz.*, wood, bamboo, recycled fiber, biogases, wheat straw rice husk *etc.*, for the production of paper, which is an example of the agro-based industry (IPMA, 2018).

Vegetable oil industries, tea, and coffee industries are also examples of agro-based industries that add to the economic growth and development of nation. India is the 5th largest oilseed crop producing country in the world Over fifty per cent of the India's total agricultural import is contributed by the vegetable oils. Tea and coffee represents one of the oldest organized industries of India. India contributes 1 billion kg of tea to the total global production of tea. The states of Karnataka, Tamil Nadu and Kerala produce over 90 % of total coffee in India with 170,000 coffee farms (Ngenko, 2020).

GUIDELINES TO START AN AGRO-BASED INDUSTRY

Steps for Setting up an Industry

Selection of Product / Industry

The following institutions or persons may be contacted to get directions for the selection of a product or industry.

- Chief Information Officer (Technical Information) Guindy, Chennai-32.
- Industrial and Technical Consultancy Organization of Tamil Nadu Limited (ITCOT), Chennai-6.
- Small Industries Service Institute (SISI), Guindy, Chennai–32.

Approval

The SSI units should obtain the Provisional Registration certificate from the District Industries Centre of the concerned district.

- In the case of medium scale or large scale units, they shall obtain Security Industry Association (SIA) registration.
- If the product comes under a compulsory license, the same shall be obtained.
- An import license should be obtained provided that the project involves foreign currency for importing capital goods.

If the plot where the industry has to be frame-up is agricultural land, it has to be redirected for industrial use. To accomplish this, the Town Planning Officer, The Tahsildar, and the Deputy Commissioner or the Assistant Commissioner should be approached.

Allocation of shed - For the allocation of the shed in the enterprise zone, the entrepreneur has to approach Tamil Nadu Small Industries Development Corporation Ltd. (SIDCO) or State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT).

Scope and Guidelines for Establishment of Agro-Based Industries

Industrial Promotional Agencies in Tamil Nadu

The promotional agencies in Tamil Nadu are Director of Industries & Commerce, Electronics Corporation of Tamil Nadu Limited (ELCOT), Tamil Nadu Small Industries Development Corporation Ltd. (SIDCO), State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT), Small Industries Service Institute (SISI), Industrial and Technical Consultancy Organization of Tamil Nadu Limited (ITCOT), Tamil Nadu Adi Dravida Housing Development Corporation Ltd. (TAHDCO), and Tamil Nadu Industrial Development Corporation Ltd. (TIDCO), etc.

The plan of the approached premises must be approved by the local administrative authority such as the Village Panchayat, The Municipality, The City Corporation, Madras Metropolitan Development Authority (MMDA), etc. as applicable.

Approval shall be obtained from the Government of Tamil Nadu.

If the unit is to be set up in any hilly areas like Nilgiris, Yercaud, Kodaikanal, *etc.* special permission has to be claimed from the Government of Tami Nadu.

An application should be made to the Executive Engineer, Tamil Nadu State Electricity Board for the required power supply for the unit.

Registration of Application

Application Form- The application form should be obtained by the entrepreneurs from the Head Office of the Corporation free of cost along with the particulars essential for the processing of the Application.

Where to Deposit the Application Form - The entrepreneurs are supposed to submit their application forms at the concerned Branch Offices by paying a non-refundable charge of Rs.500/-.

Investigation Fees-Once the application form and the required particulars are accepted, a non-refundable investigation fee which is based on the amount of loan applied has to be paid to TIIC. The investigation fees range from Rs.250 to Rs.5.00 lakes based on the amount of loan applied.

Details to Be Furnished While Submitting Application

Details of Remitted Investigation Fees

Authenticated photographs and detailed appraisal of the promoters / Directors including the list of Associated Companies. Audited financial statements or the past 3 years is to be furnished, provided the unit is an existing company. Assets and Liabilities Statement of Promoter / Director duly signed. If the promoter is a Non-Resident Indian (NRI), the necessary approval from Reserve Bank of India (RBI) is required.

The names of the principal Bankers of applicant concern and associate concerns.

Copy of Small Scale Industries (SSI) registration/ Secretariat for Industrial Approvals (SIA) registration/ Industrial License as applicable.

Copies of various permissions, approvals, and licenses form Government / local authorities are required. Detailed estimates of the constructions to be made and approved building plans.

Copy of sale deed/ lease deed, copy of the plan layout.

Structural outline indicating the sequence of operations involved in the fabrication with a concise explanation of

the process. Quotations for the machinery tendered to be purchased and reasons for selection besides competitive quotations of machinery.

Raw material link up letters with price substantiation.

Market Survey Report and tie-up letters.

Details of available infrastructure viz., water, power, fuel, labor, etc.

Copies of returns submitted for income tax/ wealth tax by proprietor/ partners for the last 3 years. If they are not assessed, a declaration to that effect should be submitted. If the unit is located in SIDCO/SIPCOT/ government Industrial Estates, a copy of the allotment letter along with terms and conditions of the allotment should be submitted. Several assumptions made in the devising of projected profitability statements and evidence thereof. If any director, proprietor of the applicant concern is a Directory of The Tamil Nadu Industrial Investment Corporation Ltd (TIIC), or is in any way related to any directory of TIIC, the details thereof shall be furnished.

Preparations Made for Working Capital Finance and its Assessment.

- Details of collateral security.
- Selling price proof from prospective customers.
- The basis for arriving at installed capacity.
- Copy of collaboration and detailed curriculum of collaborator.
- Pollution Control Clearance from the Pollution Control board.

Partnership Concerns: Partnership deed and firm Registration Certificate from Registrar of Firms

Limited Companies: Memorandum and Articles of association of the company Incorporation certificate from the registrar of companies.

Co-Operative Societies: By-laws of the society.

Associated Concerns: Brief history or details of the concerns, Banker's name and Address, audited balance sheet and profit and loss accounts for the past 3 years, whether availed any assistance from TIIC/ Banks, etc. and if so, the details.

Imported Machinery (New and Second Hand): for new imported machinery, copy of import license and rate of import duty should be presented as evidence.

Appraisal of the Project

Before according to sanction, the TIIC appraises the applications for the technical feasibility and economic viability of the project. Sufficient profits should be generated by the project to service the loan. The applicant should satisfy the TIIC regarding the marketability and commercial viability of the project. The market potential will be assessed with the help of market surveys. Financial viability of the project can be assessed by witnessing the details of the cost of production and profitability and cash flow statement for the loan period are to be furnished to estimate the payback period, debt service coverage ratio and break-even production level. TIIC will also be evaluating the promoter's background through field inquiry.

NAAS Rating: 3.00 – Articles can be sent to editor@impactjournals.us

Security Documents

The financial assistance will be sanctioned by the corporation by having the first charge on the fixed assets (*viz.* land, building and plant, and machinery) of the unit. The charge is secured through a registered mortgage/ equitable mortgage. For consortium finance with other financial Institutions/ Banks, the first charge will be on Pari Passu basis with participating institutions. Hypothecation of machinery in respect of loans involving the purchase of machinery will be accepted by the corporation. TIIC's charge shall be marked on the RC book of the vehicle for getting transport loans.

Legal Documentation

Registered mortgage, equitable mortgage, deed of hypothecation, personal guarantee, deed of the undertaking, deed of Power of Attorney are the security documents that will be obtained. In case of, industrial term loans in respect of SSI units, the first Rs.50,000/- and in other cases the first Rs.1,00,000 is secured through registered mortgage and the balance loan is secured through an equitable mortgage.

Disbursement-Guidelines

Disbursement for land: Reimbursement of building cost will be done in stages in proportion to the amount spent on the building subject to compliance f capital upfront clause and after inspection and valuation by our panelengineer.

Disbursement for plant and machinery: Plant and machinery should be purchased only from the standard/ approved suppliers of the corporation. For the purchase of machinery, the advances remitted by the borrowing unit to the machinery supplier should be routed by way of a corporation. Usually, a commitment letter will be issued to the machinery supplier requesting them t supply the machinery to the entrepreneurs. TIIC will pay out the amount to the suppliers after inspection and valuation as required.

Release of Subsidy: Subsidies will be released as per the norms of the respective incentive schemes

Insurance coverage: Insurance coverage is mandatory for the assets created and will be affected on the higher of the engineer's value or the book value for buildings and manufactured or second-hand machinery. Insurance coverage should be affected on the invoice value, provided the machinery is new.

The Applicant May Have To Register the Industry with the Authorities Listed Below As Applicable

Commissioner of Commercial Taxes Regional Provident Fund Commissioner, Collector, Central Excise Secretariat for Industrial Approvals (SIA), New Delhi (in Respect of medium & Large Scale Industries) Drug controller (Pharmaceutical Concerns) Director of Plant Protection, Central Control and Insecticide Cell, Faridabad (for pesticide manufacturing concerns) Director, Food and Vegetable Products (for fruits processing concerns) F.P.O License, Tamil Nadu Pollution Control Board, (for Pollution Clearance).

Constraints of Agro-Based Industries

Agro-based industries face different constraints in the process of progress which includes,

- The responsibility of agro-based industries is to develop the backward area. This aim overshadowed the efficiency consideration of such industries and also policies were created for industrial dispersal which created sick units.
- · Lack of information, awareness about opportunities, and limited technical knowledge and production systems

have become a crucial entry barrier for rural entrepreneurs.

- The rural culture, the available skills and training, and the capital intensity of the projects determine the productivity of rural labor. Under the existing conditions, the productivity of rural labor is low and this slightly lower wage rates in rural areas do not payback for this low productivity.
- Under the incident, the subsidies and incentives on capital investment even in agro-industries and had a deleterious impact on labor-intensive manufacturing.
- Usually, the organizational institutional mechanism translates policies and programs into reality. Grievously, the rural entrepreneur is left without any support systems of any consequence.
- No constructive attempt was made to involve the rural privilege, those who own capital and human resources to mobilize the developmental process.

CONCLUSIONS

Agro-based industries can be the power boosters in up liftment of rural livelihood with sustainable development. They can acts as safety valve in generating employment and income. Motivating and training young entrepreneurs to establish more agro based industries can help to solve the constraints of development in rural sector, which can use the locally available natural resources most favorably. Policy makers and development agencies need to intervene and implement schemes understanding the socio economic rural culture.

REFERENCES

- 1. Anonymous. (2020, May 10). Lectures notes on Agro-based industries in India. (Online). Available: http://ecoursesonline.iasri.res.in/mod/page/view.php?id=123644.
- 2. Anonymous. (2020, May 18)The Tamil Nadu Industrial Investment Corporation Ltd. (Online). Available: https://www.tiic.org/.
- 3. Martin, L, Westgren, R., & van Duren, E. (1991). Agribusiness competitiveness across national boundaries. American Journal of Agricultural Economics, 73(5), 1456-1464.
- 4. D.K. Sinha. (2020, June, 3). The Agro-based Industries In India (With Maps). (Online). Available: https://www.yourarticlelibrary.com/geography/industries-geography/the-agro-based-industries-in-india-withmaps/42361.
- FAO (Food and Agriculture Organization) (1997). A Quantitative Market Outlook for Sugar to 2005 in Major Asia and Pacific countries. Fiji/FAO Asia Pacific Sugar Conference. (Online). Available: http://www.fao.org/3/x0513e20.html.
- 6. Gupta et al., Manufacturing Industries. Me n Mine CPM Social Science Revised Edn, New Delhi, India, Vikas Publishing House, 2018, pp. 262-284.
- 7. H. Aditya. (2019). Agro-Based Industries: Meaning, Constraints and Suggestions. (Online). Available: https://www.economicsdiscussion.net/india/industries-india/agro-based-industries-meaning-constraints-andsuggestions/21659.

NAAS Rating: 3.00 - Articles can be sent to editor@impactjournals.us

- 8. IPMA (Indian Paper Manufacturers Association). (2018). Overview on Paper Industry. (Online). Available: http://ipma.co.in/overview/.
- 9. J. Reddy. (2019). India agro based industries and types and problems. (Online). Available: https://www.agrifarming.in/india-agro-based-industries-types-and-problems 2019. 2019.
- K. Shah. (2020). Edible Oil Industry of India A Brief Overview. Food, Industry & Sector Reports. (Online). Available: https://www.alphainvesco.com/blog/edible-oil-industry-of-india-a-brief-overview/.
- 11. Live Mint. (2020). Editorial analysis: An Overview of Agro Based Industries in India. (Online). Available: https://aspirantworld.in/editorial-analysis-an-overview-of-agro-based-industries-in-india-2/.
- 12. Ministry of Statistics and Programmed Implementation, Government of India. (2017). (Online). Available: http://mospi.nic.in/asi-summary-results/844.
- 13. Lusk, J. L., & Hudson, D. (2004). Willingness-to-pay estimates and their relevance to agribusiness decision making. Applied Economic Perspectives and Policy, 26(2), 152-169.
- 14. Ngenko Investments, Mumbai. (2020 June 28). Plantation Industry Tea & Coffee. (Online). Available: https://www.ngeninvest.com/tea#:~:text=Tea%20and%20coffee%20are%20one,1%20billion%20kg%20of%20tea.
- 15. .&text=Over%20170%2C000%20coffee%20farms%20mostly,of%20total%20coffee%20in%20India.
- S. Anwar. (2017). Agro-Based Industries in India. Available: https://www.jagranjosh.com/general- knowledge/agro-based-industries-in-india-1448702789-1.
- 17. TNAU Agritech portal. (2020, May 25). Agro Industries Guidelines to Start an Industry. (Online). Available: http://agritech.tnau.ac.in/agricultural_marketing/agrimark_AgroIndustries.html.