October 2014 | Vol. IX No. 2 | ISSN: 0973-4503 | RNI : UPENG 2006/17831

Responsibility of Agro Processing Industries in Rural Development

Amrit Parashar
Research Scholar, Uttarakhand Technical University, Dehradun.

Abstract

Most important point in the agro-processing is that a sizeable portion of raw material processed in them being rural based it has a very high employment potential with significantly lower investment. Agro-industry generates new demand on the farm sector for more and different agricultural outputs, which are more suitable for processing. On the other hand, development of these industries would relax wage goods constraints to economic growth by enhancing the supply of their products. In this context there is a need for improving the capacity of the agro-industries to harness backward linkages with agriculture and allied activities in order to efficiently convert part of the output to value added products acceptable to the domestic and international markets. This would generate employment opportunities for different types of skills through food processing, packaging, grading and distribution. At the same time this will transfer a size margin to farmers through market linkages.
Keywords: *Agro-Industry, agricultural transformation.*

1. INTRODUCTION

Agro industry has historically been given high priority in Indian Policy of development programmes. The focus on agro-industry as an agent of rural development and employment generation was present in Mahatma Gandhi's emphasis on village-based agro-industry during India's independence movement and is today a central component of the national development plan. There is optimism concerning its continuing development. The FAIDA report of the confederation of Indian Industry (CII) and Mackinsey & Company (2014) both show that there is great potential for development of food processing and other agro-industries in India.

However, India's agro-industry, development is today faces tough challenges, including costly raw material, supply chain inefficiencies and market demand constraints? There is skepticism about whether and market multinational firms contracting small farmers will help or hurt small farmers and local small agro-industrial firms? This debate is generalized in developing countries. There is skepticism whether the cooperative movement can effectively promote agro-industrial development for small firms? The private sector as well as government is at cross-roads in the choice of the best models for agro-industrial development. The crucial questions pertain to of institutional and organizational arrangements/models which are appropriate for overcoming current constraints, and maximizing their contribution to rural development and safeguarding the small farmer interests?

2. APPROACHES TO AGRO-INDUSTRY DEVELOPMENT IN INDIA

The movement for political independence up to the late 1970s under the leadership of Mahatma Gandhi included the strategy and encouragement of village agro-based industries. The objective was to involve rural people in development and the independence movement and to reduce external dependence. The ideology was economic, social and political. Though the model involved the rural poor in development action, it later failed because it became a blanket basis for nationalists to favour less efficient techniques of production and oppose modem industry, which did not meet consumer' needs and demands.

Between 1950 and 1980 agro-industry policy was dominated by Prime Minister Nehru and his

economic think-tank led by Mahanalobis. They argued that India needed larger capital goods industries for the capital goods sector, while the consumer goods sector was primarily for small scale rural agro industries which are labour intensive and capital saving. This was consistent with the need to reduce demands on limited capital and savings, and to expand employment. However, such small scale agro industries, because of old technology, inadequate management and weak capacity to invest, often failed to meet the expanding and changing market demands for quality goods, coming from the rapid production and rising incomes.

Starting in 1980s, there has been a new effort for promotion of agro industries in India with emphasis on market demand, state of the art technology and efficient management of the supply chain. There has been a substantial relaxation of government restrictions of technology import and private foreign direct investment. However, these current trends towards large private agro industrial units have risks of bypassing small farmers and the rural poor. Rudrani Bhattacharya in her paper "Agro-industry, inequality and sectoral growth" concludes that the impact of agricultural development on industrialization in the presence of a third sector namely, agro-industry which directly interface with both agriculture and industry and thereby provides a link between the two sectors. Rudrani also concludes that an agricultural productivity gain promotes industrialization in a small open economy while it may not promote industrialization in a closed economy. We also find that in the presence of agro-industry, a small primary exporting country can develop comparative advantage in manufacturing through agricultural productivity increase. These are more empirically plausible results for developing countries, which are indeed small open economies.

Table 1 : Importance of Agro-industrial Sector in India

Industries	Percentage Share		
	No. of Factories (2013-2014)	Employment (2012-2013)	Net Value (2013-2014)
Agro based Food Industries	16.69	13.67	5.85
Agro based Non Food Industries	29.09	29.23	15.74
Total Agro based Industries	45.78	42.89	21.59
Non Agro Industries	51.22	57.11	78.41

Source : Annual Survey of Industries.

3. CHARACTERISTICS OF THE AGRO-INDUSTRIAL SECTOR IN INDIA

Data from annual survey of industries show that 46 percent of all factories in India are agro-industrial (Table 1.1), and they contribute 22 percent of the manufacturing value added and nearly 43 percent of manufacturing industry employment. Table 1.1 indicates that 37 percent of the agro industrial firms produce food and 63 percent produce nonfood products. Table 1.2 show that 44 percent of the food related factories are in milling (mainly grain), another 13 percent are in edible oil, 10 percent are in sugar, and 33 percent in other foods such as higher value food with higher income elasticity of demand. The "other food" category accounts for 49 percent of total net value added and 20 percent of employment comes from grain milling.

Table 1.3 shows that only 18percent of total industrial fixed capital is in agro-industry, compared to agro-industry's 43 percent share in industrial employment. Thus, agro-industry continues to be relatively labour-intensive and capital saving. The labour share of value added is 48 percent in agro-industry versus 35 percent in other industries. Agro industry, on average, generates employment for 14 percent per investment of Rs.100,000.

Table 2 : Performance of agro-industry: comparing pre-reform with post-reform periods

Industries	Growth of valued added (GDP) by industries	
	No. of Factories (2012-2013) to (2013-2014)	Employment (2012-2013) to (2013-2014)
Agro based Food Industries	16.75	13.67
Agro based Non Food Industries	29.09	29.23
Total Agro based Industries	45.78	42.89
Non Agro Industries	51.22	57.11
All Manufacturing Industries	100.00	100.00
Agriculture	5.67	2.68

Source : Annual Survey of Industries.

Currently, over a quarter of the world's population lives on less than a dollar a day. The sustainable reduction of this number to half of its 1990 level is the primary goal of development agencies around the world. "Pro-Poor" development has become the current mantra of poverty reduction, and it is this notion that it is possible to find economic and public policy strategy which will unlock the capabilities inherent in the poor that they might produce, process, market and trade their way out of poverty. Backed by the overwhelming evidence that education plays a central role in sustainable poverty reduction, donors and policymakers alike pay much attention to the development of education sectors in developing countries. In a large number of developing countries, education retains the greatest proportion of national budgets. The goal of achieving universal primary education by the year 2014 has dominated the policy debate and has narrowed the focus of policy strategies to this area.

In addition the policy discourse on skill development has been largely influenced by the challenges and opportunities brought about by globalization. Inspired by the access of the East Asian "Tigers", strategies out of poverty emphasise the importance of moving away from traditional comparative advantages in resource based activities to new 'technological' comparative advantages in niche production, implying the massive up grading of skill levels for advanced technology sectors. The rapid industrialization experiences made by a few countries in East Asia, however, are not necessarily replicable in other developing counties, as the increasing gap in development between Asia and Africa highlights. Rather than favoring skill strategies to move into new technology sectors, donor and government interventions need to support strategies to exploit the full potential of that sector in which most developing countries have a traditional comparative advantage, "agriculture".

Agriculture is the single most important sector in many low-income countries, where a large number of people depending directly or indirectly on it for their livelihoods. In about two-thirds of the low-income countries, agriculture accounts for GDP shares of between 30 to 60 percent and about three-fourth of all poor people in the developing world live in rural areas. Agriculture, thus, represents a key target for any successful poverty reduction strategy. For instance, promoting agricultural growth does not only increase farmers income, but it also creates new employment opportunities in the farm and off-farm sectors and can contribute positively to increased food security on the national level. In addition, globalization opens up new opportunities in the sense of providing new markets and inflows of foreign direct investments, but, at the same time, it also poses important challenges and dangers.

4. POVERTY AND AGRO-PROCESSING IN INDIA

India is a large country, which is characterized by spatially uneven economic and social development. Poverty is still a widespread problem, especially in rural

areas. More than 44percent of the population has to live with less than a dollar a day, 2/3 of whom are situated in rural areas. With a human development index of 0.577, India ranks 124 out of 173 counties in the year of 2005 and in terms of human development, India shares the same low ranks as many African states. The data on agriculture indicates that agriculture is an important economic sector. In 2000, it contributed a quarter of the country's GDP. In 2010, nearly 2/3 of the population is dependent on agriculture, which in only a moderate decrease compared to 1970 (75 percent). Agricultural growth rates were much higher throughout the 2005 than in the 2014's, but still positive, which is also outcome of increased farm intensification. The importance of the agricultural sector in also reflected in the size of agro-based industries. More than 45 percent of all industries are agro-based, with a value added of nearly 22 percent, food processing industries account for 16.75 percent of all industries in India. Traditionally, Indian agriculture is largely an activity of rural areas. Consequently, India's development efforts focus on strengthening the village economy as an instrument to increase food security and to reduce rural poverty and creating new employment opportunities.

In the 1980s increased attention was paid to the promotion of agro-industries in India. The main argument was that inspite of high poverty in India, there is an upper middle class of around 80-100 million population with high demands for processed food products, Rs. 100,000 for other industries. Moreover, these figures do not include added employment generated in agriculture and input supply through backward linkages. Finally, agro-industry requires less fixed capital and more working capital compared to other industries. On average, agro-industry annually generates 51 percent value added over fixed capital, as compared to only 39percent in other industries.

India launched significant economic liberalisation reforms in 1991. What effect have reforms had on agro-industry? Available data give a preliminary idea of agro-industry's response. Table 1.4 shows pre reform and post reform, GDP growth by sub-sector before and after liberalization in constant prices, and in non-food agro-industry growth rates doubled from 3. percent to 7.7percent. For the agro-industrial sector as a whole there was an increase in the growth rate from 5.2percent to 8.3percent, indicating a positive impact of the reforms. Interestingly, other industries actually show a deceleration from 12 percent to 7.2 percent.

Table 3 : Importance of Selected Food Industries in the Agro-food Industry Sector

Industries	Percentage Share		
	No. of Factories (2013-2014)	Employment (2012-2013)	Net Value (2013-2014)
Grain Milling	41.38	20.30	7.05
Edible Oils	13.11	7.74	21.48
Sugar	9.58	28.57	23.03
Other Foods	32.93	43.40	48.45
Total Foods	**100.00**	**100.00**	**100.00**

Source : Annual Survey of Industries.

Employment growth differs over agro-industrial sub-sectors. Table 1.5 provides data for 2012 to 2014, showing employment is growing fastest in dairy, fish canning and presentation, edible oils, chocolate, and cashew processing. In aggregate terms, with some exceptions, a positive trend is evident for food agro-industry employment in the recent period just before and during early implementation of the economic reforms. Again this does not include employment generated in the agriculture/fishery *I* cattle-rising sectors through backward demand linkages, which typically adds significantly to total employment creation in the food chain.

Table 4 : Some Structural and Financial Features of Agro-Industry in India (2013-2014)

Industry	Share of Fixed Capital	Total person employed per factory	Fixed Capital Per Factory	Emoluments as a percent of net value added	Percent of physical working capital to invested capital	Net value added to fixed capital
Agro based Food Industries	1.40	55.60	8.07	45.16	57.24	51.90
Agro based Non Food Industries	13.15	70.82	13.82	49.13	31.30	49.50
Total Agro based Industries	17.55	65.14	11.73	47.75	41.40	51.30
Non Agro Industries	82.85	79.96	46.50	35.31	23.39	39.40
All Manufacturing Industries	100.00	72.85	30.58	38.21	27.22	41.30

Source : Annual Survey of Industries.

Also, it was judged that India had a competitive advantage for processed foods would contribute more value added to the economy than unprocessed raw materials. This new interest for agro-based industries was accompanied by the gradual and controlled opening of India's huge internal market for foreign food processors, mainly with the aim of establishing joint-ventures and linkages leading to spin-offs for domestic firms.

Table 5 : Structural and Financial Features of Agro-Industry in India

Labour to fixed capital ratio per Rs. 100000 (2012-2013)	Material consumed to value of output (2013-2014)
11.98	71.68
11.18	55.57
11.38	61.00
2.98	51.34
3.55	55.03

Source : Annual Survey of Industries.

India's agro-industrialization is already more advanced than in many African countries. As a consequence, skill requirements are more diverse and also have to take into account the challenges brought about by the gradual opening of markets. The role of agriculture in economic development is long debated issue. From time immemorial there is an emphasis is the literature, on the positive linkages between agriculture and industrialization. Three channels are recognized. First the income elasticity of demand for the agricultural goods being less than one, an increase in the agricultural productivity in a closed economy releases labour for manufacturing employment and thus contributes towards growth of the manufacturing sector. Second, higher income raises the demand for manufacturing products. Third, aggregate savings increase and finance industrialization. Moreover, these theoretical analyses of the process of development have viewed agriculture and industry as two separate sectors in terms of their characteristics. Apart from the demand side, two sectors are linked only through the labour market. There is a common pool of labor, which is allocated between two sectors. However in more recent decades another prominent sector in a developing economy has emerged, namely the agro-industry, which directly interfaces with both the agriculture and industry and thereby provides a link between the two sectors. This industry, as the name suggest, refers to the subset of manufacturing that processed raw materials and intermediate products

derived from the agricultural sector. For instance, it transforms products originating from the agriculture, forestry and fisheries, and processes them into canned food, beverages, fruit juice, meat and dairy products, textile and clothing, leather wood and rubber products, animal feed etc. The relative importance of the agro-industry sector compared to manufacturing as well as overall GDP, contributes to coverage, 37.6percent of the total manufacturing value added and 30-40percent of GDP of the developing countries for instance, agro-industries in Asia and Pacific account for 36percent of the total manufacturing value added. Data from the annual survey of industries show that 46 percent of all factories in India are agro-industrial and they contribute 22 percent of the manufacturing value added.

5. CONCLUSION

In matters of future perspectives of this sector, the perceptions of 71 percent entrepreneurs was that it will depend on maintaining regular supply of power. Initiating measures for timely supply of raw material has been noted as the second most factor for achieving increasing growth of this sector by 60 percent entrepreneurs, The measures of introduction of easy process in lending finances from the part of different financial institutions was the perception of another 50 percent of entrepreneurs for achieving further growth in this sector. The perceptions of a sizeable numbers of entrepreneurs of different organized and un-organized agro industries were also that introduction of providing subsidy in capital investment at establishment of units, transport subsidy as was available earlier for procurement of raw material from railhead and from its origin of supply, to abolish the mandi tax, provision of reducing cost in supply of raw material though reducing certain taxes which are imposed in its procurement from different departments of various states Governments and improving the facilities of different infrastructure and its easy accessibility could be some of the additional important measures for healthy growth of agro-processing industry in the state.

REFERENCES

1. Agarwal, A. K. (1991), Rural Development Through Agro-based Industries in North East India - A Perspective, Khadi Gramodyog, Vol. 37, No. 3.
2. Bhatia, Gurbachan Kaur (2008), Rural Industrialisation in Punjab:Role of Village Industries, in Globalisation and Punjab Economy: Issues in Agriculture and Small Scale Industry, (eds.), R.S. Bawa, P.S. Raikhy and Paramjeet Kaur GNDU Publications, Amritsar.
3. Dalip, Saikia (2010), Trends in Agriculture-Industry Inter-linkages in India: Pre and PostReform Scenario, Available at http://mpra.ub.uni-muenchen.de/31204/ MPRA Paper No. 31204, posted 31 May 2011.
4. Gandhi, Vasant P. and Dinesh Jain (2011), Institutional Innovations and Models in the Development of Agro-Food Industries in India: Strengths, Weaknesses and Lessons, W. P. No. 2011-04-03, Indian Institute of Management, Ahmedabad.
5. Khan, Abdur Rashid (2004), Economic Feasibility of Investment in Agro-based Industries Using AIES, International Journal of Agriculture and Biology, Vol. 6, No. 1.
6. Khosla, Rajiv and Karuna Sharma (2009), Scope of Agro-Processing Industries in Haryana-A Comparative Study, Political Economy Journal of India, Vol.15, No. 2.
7. Patro, Bhagabata and Preyasi Nayak (2002), Employment Implications of Agro-based Industries in India, in Agro-Industries and Economic Development-A Vision for the 21st Century, (eds.), B.Mishra; G.C.Kar and S.N.Mishra, Deep and Deep Publisher, New Delhi.
8. Raikhy, P. S. and Anjali Mehra (2000), Industrial Development in Punjab: Pattern, Constraints and Challenges, in, Punjab Economy: Emerging Issues, (eds.), R. S. Bawa and P.S. Raikhy GNDU Press, Amritsar.
9. Randhawa, Grupreet (2008), A Study of An Agro-Processing Complex in Punjab, in Globalisation and Punjab Economy: Issues in Agriculture and Small Scale Industry, (eds.), R.S. Bawa, P.S. Raikhy and Paramjeet Kaur Dhindsa, GNDU Press, Amritsar.