

Policies Towards Development of Agro-industries in India

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This paper has four sections. The *first* section traces the socio-economic environment of the pre-independence era, in which the Indian nationalist view on rural industries got crystallized. Traditionally, Indian agriculture, depended in the main upon input resources of its own. Agriculture provided raw materials to industry; industry's contribution to agriculture was, however, marginal. The agro-industry relationships were uni-directional. The British machine-made products, imported into India, offered a cheap substitute for the Indian cottage and rural industries and handicrafts; this in turn threatened employment opportunities in the countryside. Gandhi's call for *Swadeshi* was designed to undermine the market for machine made consumer goods imports, on the one hand, and mobilize rural support for the struggle for India's political independence, on the other.

The *second* section provides a brief critique of the anti-machine, *Swadeshi* and pro-*Khadi* and village industries approach to rural industrialization. The Mahalanobis strategy, as adopted in the Second Five Year Plan, pleaded for reservation of consumer goods sector for the cottage and small scale production. This strategy saw employment angle as a significant factor along with a reduction of pressure on the limited capital resources of the economy. Specific programmes and schemes were evolved for protection and promotion of village industries, crafts and specified rural activities.

The *third* section traces the developments of the 'eighties under which agro-industries received a new impetus. Foreign direct investment has now been invited to the food processing sector. The process of liberalization has resulted in reduction of regulations and controls. A new Ministry for Food Processing Industries has been established. A significant feature is that some TNCs have shown interest in coming to India for food processing and soft drink manufacturing. It is argued that the Indian middle class and the size of the urban market for processed foods is large enough for economies of scale in the food processing industry. Besides meeting the local demand for processed food, it is also argued, the industry could compete well, as Indian agriculture would have comparative advantage and earn the much needed foreign exchange for India.

The *fourth* section discusses the place and role of agro-industries in the present-day context. It argues that there is a need to have a fresh and comprehensive review and to develop clusters of villages as complexes which specialize in production of specified types of crops along with multiple related activities. The objective of the area approach has to be the introduction of specialization in crop production, installation of wide scale and intensive processing to gain the maximum value addition within the region. To pursue these objectives it would be necessary to adopt a variety of new policies and have a plan for skill formation and information spread. There would be a need for detailed coordination and evolving socio-economic and organizational institutions to make the new policies a success.

SECTION ONE

'Agro-industry' is an omnibus expression. It could cover a variety of industrial, manufacturing and processing activities based on agricultural raw materials as also activities and services that go as inputs to agriculture.¹ The agro-industries corporations, set up during the 'sixties in most states, have mainly been engaged in supply of farm machinery, fertilizers, seeds and other modern inputs available to farmers.² Processing of agricultural produce is, however, a well-known agro-industrial activity. Besides the two-way linkages to agriculture, one would need additional criteria to classify agro-industries. To make no distinction between the nature of economic activity involved in spinning and weaving in modern mills and the traditional village weaver working with home-spun yarn would, for obvious reasons, be not justified. Similarly, while agriculture is undoubtedly the main source of raw materials for cotton textiles, it would appear ludicrous to classify Ahmedabad and Bombay as the centres of agro-industries, because both host cotton textile industry. The same would be true of Calcutta, known for its jute mills, and Hyderabad with its large tobacco industry. From the viewpoint of backward linkages to agriculture also, it would appear odd to label fertilizer and tractor manufacturing units as agro-industries. The need for a more rigorous definition of agro-industries is obvious enough. While doing so, it may be necessary to take note of the nature and extent of two way linkages, location, capital, technology, entrepreneurial characteristics and features of the market structures. The attempt to outline the definitional contours of the concept of agro-industries also calls for spelling out the purpose and the context in which the classification is being evolved.

Traditionally, Indian agriculture drew most of its inputs locally from the village and the farm. Modern inputs, like chemical fertilizers, pesticides, tractors and other agricultural

^{1.} Definitions include: (i) "Agro-based industries are those, which are involved in supplying the farm with agricultural inputs besides handling the products of the farm" -- INDIA, Famine Enquiry Commission, 1944; (ii) "Agro-based industries are those industries which have either direct or indirect links with agriculture" -- S N Bhattacharya, Rural Industrialization in India, B R Publishing Corporation, Delhi, 1980, p 192; (iii) Village industry means any industry located in rural area, which produces any goods or renders services with or without use of power and in which the fixed capital investment per head of an artisan or worker does not exceed Rs 15,000/- -- INDIA (Planning Commission) Village and Small Industries Sector Framework, New Delhi, July 1988, p 7; and (iv) "An agro-industry is an enterprise that processes raw materials, including ground and tree crops as well as livestock. The degree of processing can vary tremendously, ranging from the cleaning and grading of apples to the milling of rice, to the cooking, mixing, and chemical alteration that create a texturized vegetable food. ... agro-industries can be roughly categorized according to the degree the raw material is transformed. In general, capital investment, technological complexity, and managerial requirements increase in proportion with the degree of transformation." See: James E Austin, Agro-industrial Project Analysis, John Hopkins University Press, London, 1981, p 3.

^{2.} For a review of their working, see: N R Kothare, "Agro-industries Corporations", Reserve Bank of India Bulletin, Vol XXXII, No 2, February 1978, p. 80.

implements, pump sets, diesel, gas and power, had little import in the overall agricultural inputs³. Agro-industries were essentially perceived as first level post-harvest processing of farm produce. Agro, village, cottage and rural industries meant the same set of economic activities. The expressions were interchangeable. Even when agro-industries have been assigned a special place in the successive Five Year Plans, a good deal of confusion continues to persist regarding their coverage. It is not very clear whether agro-industries are to denote only the activities directly related to agriculture or the total farm output and related activities. A broad-based classification on this would help appropriate classification of dairy farming, poultry, piggery and other farm activities. Similarly, a clear-cut view should be taken on whether tea, coffee, rubber, spices and other plantations are to be classified as a category separate from agricultural activity.⁴

In a typical Indian village, economic activities were and, to a considerable extent, even today are generally associated with a particular 'caste' and community, which has practised a particular profession for generations⁵. The nature of activity undertaken was, in general, hereditary and occupational mobility within the village nearly non-existent.⁶ Generally, each village had at least one household each of blacksmiths, carpenters, weavers, potters and those engaged in oilseed crushing. Agricultural and non-agricultural activities had direct and strong organic links within the village. Landowners needed manpower to cultivate their lands and help them in the household. They also needed professionals to take care of their plough and other agricultural implements; in return, the village artisans were paid in the form of grains and other farm produce each season. The relationships, sanctified by socio-economic traditions, were thus institutionalized. A typical Indian village in this sense was an organic whole, in which, while each activity had its own distinct identity, there was a considerable degree of inter-dependence.⁷

³. See: Indian Journal of Agricultural Economics, Vol XIII, No 1, Conference Number January-March 1958 for papers on input-output relations in Indian agriculture. In particular, see: P N Driver and D K Desai, "Some Input-Output Relationships in Indian Agriculture", pp 50-57. Of the total costs in agriculture, human labour accounted for 36.60 per cent; bullock labour, 28.70 per cent; seed, 6.36 per cent; manure and fertilizers, 4.16 per cent; and interest on capital, 1.83 per cent. Recent cost data, however, show substantial changes in the significance of modern inputs like chemical fertilizers, pump-sets and electricity. This is more true of Punjab and Haryana. See the various reports of the Agricultural Costs and Prices Commission. The share of modern inputs in 1961 was placed at 30 per cent and 87 per cent in 1980. See: G K Chadha, State and Rural Economic Transformation, SAGE, 1986 and G S Bhalla et al, Agricultural Growth and Structural Changes in the Punjab Economy: An Input-Output Analysis, IFPRI, August 1990, p 24.

⁴. Official agricultural statistics show plantations as an activity separate from agriculture.

⁵. INDIA, Report of the Backward Classes Commission, Government of India Publications, Delhi, 1956; D R Gadgil, Industrial Evolution of India in Recent Times: 1860-1939, Oxford, fifth edition, 1971.

⁶. This was a contributory factor to restrict adaptability to the new situation created by a decline in the demand for products of traditional village industries and crafts. For a discussion on this aspect, see: G Myrdal, Asian Drama, Vol II, Pantheon, 1968, pp 1207-1214.

⁷. "In villages the carpenter, the blacksmith, the potter, the scavenger, the washerman are paid

Under the inspiration of Mahatma Gandhi, the national struggle for India's political independence witnessed a concomitant struggle for the preservation, protection and encouragement of rural industries. The unequal competition from cheap mill-made products threatened employment and livelihood of the rural artisans and craftsmen.⁸ The preference for *Khadi vis-a-vis* mill cloth, and cottage and village industry products *vis-a-vis* the urban and mill-made products was motivated from a realization that the experience of urban handicraft centres might also get extended to rural non-agricultural activity and the cottage and village industries.⁹ Gandhi put a premium on simplicity in life style and consumption. The Gandhian strategy for Indian development was linked to enhanced utilization of the vast mass of surplus manpower and its active involvement in production processes.¹⁰ The Gandhian ideology was not only economic but also social and political. In the Gandhian idiom, cottage and village industries represent a support structure to a life style that is more moral than economic. Villages keep the workers in close touch with balmy open spaces and nature in all its peace and pleasantness¹¹

The view, that village industries and crafts are an important part of rural life and should be vigorously protected to ensure sustenance to a self-reliant village, is essentially an outcome of the traditionalist philosophy, articulated so forcefully by Gandhi. It was, infact, a reactive approach --- a defence mechanism against the onslaught of the British industry. Completing the first stage of industrialization, the British industry was then looking for new markets in the British colonies for its products along with linkages for obtaining raw materials. India was a good opportunity on both counts. The task became easier with improvements in roads, introduction of railways and use of rivers as navigational channels. India's population was large and it had a rich tradition of crafts and village industries. A variety of industrial products were already in use. Low priced substitutes could find ready markets here. On the other hand, India's agricultural base was vast and land was not fully exploited. With a little effort, India could be developed as a dependable source of raw materials. The British imports could be contained, if India had

not by the job but the customary dues consisting of fixed share of produce of the fields; and the service they are bound to perform is measured by kind, not by quantity", Report of Census of Punjab (1881), as quoted by D R Gadgil, op cit, p 169.

8. "This was especially the case in the matter of textiles; and the finer branches of this craft were very readily hit". D R Gadgil, ibid, pp 43-44.

9. A similar sentiment was expressed in the First Five Year Plan: "Products of large scale industries have increasingly limited the market for several classes of artisans. Their occupations now give them only partial employment, so they tend to join the ranks of agricultural workers", p 315.

10. "Our villages are on the verge of destruction owing to the disappearance of village industries. They can be revived only by a revival of village industries", M K Gandhi, Rebuilding Our Villages, Navjivan, 1952, p 4.

11. Gandhi gave political, nationalist and moral interpretations to his plea for protection of traditional crafts and villages. For a detailed discussion on this, see: G Myrdal, Ibid, pp 1207-1240.

gone in for establishment of its own processing industries and other manufacturing capabilities. That would have made it difficult for the British industries to gain hold on the Indian market. This, however, was by no means possible in a colonial set up. The discrimination against the Indian entrepreneurs is well documented.¹² Imported mill products were cheap as also of uniform and better quality. In spite of the fact that raw materials for the British mills were obtained from India, the low processing costs made it possible for the British industry to capture the Indian consumer market. This was particularly so in the case of cotton textiles. The British industry expanded at the cost of the Indian small scale and village industries. A direct consequence of the loss of market was unemployment of the non-agriculturalists.

Indian political leadership identified itself with the Indian artisans and craftsmen, who were being adversely affected by the competition from abroad. The call for *Swadeshi* and boycott of foreign made goods can be well understood only in this context. *Swadeshi* was the strategy to protect employment for millions of the Indian non-agricultural workers. Adoption of traditional consumer goods, made by the cottage and village industries, got associated with the Indian nationalist sentiment and the national struggle for political independence. The lead political party, the Indian National Congress, in fact, made it obligatory on all 'active' party workers to wear hand spun and hand woven cloth. To wear *Khadi*, use *ghani* oil, prefer hand-pounded rice, and buy hand made and locally produced shoes became a symbol of patriotism, nationalism and political commitment against foreign (British) industries. It was thus a preference for hand-made consumer items.

Swadeshi was a positive and powerful assertion against foreign and mill-made products. Gandhi had the insight to understand well that the *Swadeshi* movement could sabotage the economic interests of the British as also help mobilize mass support for the national struggle for independence. The movement against mill-made products would not have held well, if the consumer goods industry in the mill sector of India had already been well developed. It would have been difficult to pursue this line, if Indian mills and textile industry were owned and managed by Indian economic interests. This was, however, not the case, for most of the large industrial complexes were under the British Managing Agents.¹³

The support to rural industries and hand-made products was not only a reaction and a defence but tended, in practice, also to become a basis, and a near habit for a good many nationalists to oppose modern industrialization. Associated inevitably with this philosophy was a choice in favour of the old but less efficient techniques of production. The self-reliant village philosophy might have had an element of romance but it would be wholly out of place in the present context, when space is drastically and distances, in terms

^{12.} See: M Kidron, Foreign Investments in India, Oxford University Press, London, 1965; G Myrdal, Asian Drama: An Inquiry Into the Poverty of Nations, Pantheon, New York, 1968; and Amiya Kumar Bagchi, Private Investment in India: 1900-1939, Orient Longman, 1972.

^{13.} See Asoka Mehta, Who Owns India, Chetana Prakashan Ltd, Hyderabad, 1950.

of time, are getting drastically reduced because of improvements in transport and communication technologies. Each village seeking to develop self-sufficiency in as many products as possible, implied non-aggregation of demand at the state, regional or national levels. The fragmented demand would not permit adoption of production processes that thrive on the economies of scale and permit specialization. Most of the traditional techniques of production are labour intensive; hence employment-oriented. Continuance of emphasis on the traditional way of life, technology and the value system does imply acceptance of monotony, drudgery at the work place and low productivity.

The vision of agro-industries/rural industries, as projected by the political leadership during the pre-independence era, had some serious limitations, the most significant ones being that it did not project itself to the likely impact of: (i) the spread of literacy and technical education, (ii) availability of alternative technologies, (iii) the growth of mass media, (iv) the changing aspirations of the people and the youth in particular, and (v) easy availability of power and electricity. The truth is that agro and village industries were seen in terms of production in a traditional village and not the village of the future in a free and modern India. It was not comprehended that occupational structure, employment of women and a variety of gainful employment opportunities, especially in the service sectors, could grow rapidly with cheap and efficient transport, recognition of environmental and other factors associated with large industrial complexes, and urbanization.¹⁴ Agro-industries, as traditionally understood, could also not accommodate regional specialization to exploit comparative and locational advantages. It also remained un-appreciated that techniques of production are not always independent of the socio-economic system. Continuance with the traditional technologies could only help provide protection to the caste system and whatever goes with its justification.

Agro-industries have also been viewed as a safety valve that needs to be built within rural areas to absorb surplus labour and provide relief to the problem of large scale disguised unemployment. A good many Indian official reports and other important writings make a plea for agro-industries in the context of rural-urban migration. Absence of employment opportunities within the village, it is suggested, is the main push factor

^{14.} Cf V K R V Rao, "Industrialization and Integrated Rural Development", Man and Development, Vol I, No 2, July 1979. He noted :

No one can stop the march of modernity and we cannot have an iron curtain separating the rural sector from the urban sector, nor will the rural population tolerate a dual market with second-class goods for themselves and what they consider first-class goods for the urban population. It is this basic fact of life that brings about the current phenomenon of the rural drain of purchasing power and non-agricultural employment and also the brain-drain that creates a vicious circle and accentuates the proletarianization of the rural population. One has, therefore, to think in terms of establishing an industrial extension service in rural areas for the purpose of improving the skills, the know-how and the efficiency of rural industrial labour. p 18.

responsible for the rapid movement of youth towards cities. Emergence of slums in metropolitan towns of the country and arrival of unattached young without gainful employment is the direct and inevitable consequence. These developments have a variety of social, law and order, and political implications. During the 'fifties, Indian planners entertained a hope that promotion of agro-industries would help avoid furtherance of industrial concentration and achieve a more balanced regional dispersal of industrial activities and employment. They also hoped that the widely distributed industrial activity could help reduce pressure on transport and other economic and social infrastructure.

The traditional viewpoint did not, however, realize that migration of population is not a mere change of residence and profession. It is also a process that permits inter-mix of people with differing socio-economic and cultural backgrounds. Industrial centres become the crucibles and melting pots where differing cultures merge and fuse with one another to give birth to new cultures and new personalities with more rational, logical and scientific value systems than those prevailing in the feudal and caste ridden traditional village societies. Value systems and social institutions change with urbanization. It is no surprise, therefore, that urban centres always attract the poor and members of the lower castes. Urbanization in India has promoted vertical occupational mobility. An untouchable could become a cook in a city environment. Could he be ever permitted to become a cook or socially accepted as such in a traditional village? To the extent agro-industries were being suggested to preserve the identity of the village, its social structure and the production system, it was a denial of the merits that would come with urbanization. In India, urbanization has rarely, if ever, been appreciated; if at all, it has been accepted as a necessary evil.

SECTION TWO

Soon after India's independence the Congress Party constituted the Economic Programmes Committee to provide a broad direction to the Congress Governments at the Centre and State levels. The Committee, headed by Jawaharlal Nehru,¹⁵ reported in January 1948. In its recommendations on industries it observed:

Industries producing articles of food and clothing and other consumer goods should constitute the decentralized sector of Indian economy and should, as far as possible, be developed and run on a cooperative basis. Such industries should for most of the part be run on cottage and small scale basis¹⁶.

^{15.} The other members of the Economic Programme Committee were: Maulana Abul Kalam Azad, Jaya Prakash Narayan, N G Ranga, Gulzarilal Nanda, J C Kumarappa, Achyut Patwardhan and Shankarrao Deo.

^{16.} All India Congress Committee, Economic Programme Committee: Report 1948, Section IV, para 1.

This was a large area earmarked for rural, cooperative and small scale industries. The general direction indicated for state intervention was for imposing restrictions on large scale manufacturing of most consumer goods while extending support to traditional systems of production¹⁷.

The Indian National Congress took over the reins of power after India's independence in 1947. Most of the Congress leaders came to occupy responsible positions in the Central and State Governments. It was, therefore, expected that the sanctity bestowed on *Khadi* and village industries by Gandhi would be preserved and adopted unhesitatingly as a national and public policy in free India. It was also expected that the ideals of building self-reliant villages was a commitment that had to be discharged faithfully by the Party and the followers of Gandhi. Because of the then prevailing political environment, especially the place and the role Gandhi played in the struggle for independence, there was no serious debate on or critical scrutiny of the issues Gandhi was associated with and had expressed his clear views. There were, however, many who were extremely critical of the Gandhian philosophy for socio-economic development of the country.

Since Gandhi stood for a decentralized administrative system, in which village was to be the basic unit of management, planning and administration, it was proposed by the Gandhians that it should be made obligatory for the state to pursue Gandhian ideals with regard to village and cottage industries. Reacting to them while speaking on the Directive Principles of State Policy, Dr Bhim Rao Ambedkar¹⁸ observed that Indian village to him was "a sink of localism" and "a den of narrow minded-ness"¹⁹. Similarly, opposition from many other veterans that did not permit adoption of another Directive Principle requiring the state to endeavour "to promote cottage industries on cooperative lines in rural areas".

^{17.} The Economic Programme Committee was against market domination. Regarding protection for cottage industry the Committee observed:

Certain lines of manufacture should be reserved for cottage industries. In order to avoid competition between production so reserved for cottage industries and large-scale production the State may bring under its control such competing large-industry. Where a cottage industry is allowed to operate in the same field as large-scale mechanised industry its output should be protected from the competition of the latter by subsidies or some method of price equalisation. This applies equally to cotton textile industry. In this and similar cases, further expansion of large-scale machine industry should be restricted except where it is considered necessary. In such cases it should be undertaken under State auspices.

(*Ibid.*, Section IV, para 2.

^{18.} Article 40 of the Constitution of India, dealing with the Directive Principles of State Policy reads: "The State shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self- government".

See: INDIA, Ministry of Law and Justice, Constitution of India (as modified upto the 15th August 1989), p. 21.

^{19.} Ambedkar is known to be the undisputed leader of the backward castes and depressed classes.

The modified version reads: "the state shall endeavour to organize agriculture and animal husbandry on modern and scientific lines". The reference to "cottage" and "cooperatives" was quietly dropped.²⁰

The post-independence years represent a period of turmoil, when the slogans and emotional ideals of the period of India's struggle for independence came under critical scrutiny. It was natural. If none had questioned Gandhi and his philosophy earlier, many now doubted the relevance of Gandhian concepts in independent India.²¹ As long as Indian industry was dominated by the British, it made political sense to damn machine; but in the changed situation, machines needed as much a priority as any other programme of development. The organized industry was no more controlled by the British nor was there a threat to the Indian village industries from the textile mills located in Britain. During the post-War period a number of foreign companies changed hands.²² The character of conflict had changed. Instead of the foreign and organized interests *versus* Indian artisan, it was now the large Indian industrialists *versus* those who supported village and small scale industries. Both sides were represented by Indians.

The pre-independence view that the cottage and small industry faced direct competition from the big industries stood revised. The big was not a substitute for the small and *vice versa*. Both were to grow; in fact, in a mutually supportive manner. With a view to reducing the areas of direct confrontation, the Government of India adopted a number of specific measures such as a favourable treatment to *Khadi*, cottage and village industries.²³ During the period, 1952 to 1954, the All India Khadi and Village Industries Board and a Board each to promote silk, coir, and handicraft, handloom and small scale industries were instituted. These Boards were required to recommend general policies and prepare action plans for promoting activities in their respective areas through preference in Government purchase and distribution of raw materials, fiscal and monetary concessions, and supportive administrative policies. There was, however, no special category of industries called agro-industries. The earlier position thus stood revised. Machine was no more a synonym of colonial exploitation. Indications of the change in emphasis surfaced up

20. T T Krishnamachari described the Directive Principles as: "Veritable dustbin of sentiment" and "sufficiently resilient as to permit any individual of this House to ride his hobby-horse into it". See: B Shiva Rao, The Framing of India's Constitution: A Study, Indian Institute of Public Administration, 1968, p 331.

21. Nehru was not hesitant to express his doubts even on Khadi. In his An Autobiography he wrote: "In spite of all these present day advantages of Khadi movement in India it seems to me after all a transitional affair. It may continue even later on as an auxiliary movement easing the changeover to a higher economy. But the main drive in future will have to be a complete overhauling of the agrarian system and the growth of industry". See G Myrdal, Asian Drama, Volume II, p 1219.

22. See: S K Goyal, Monopoly Capital and Public Policy, Allied, New Delhi, 1979. Chapter V deals with trends in business concentration during 1937-1976.

23. Karve Committee recommended fiscal protection and reservation of market. See: INDIA, Planning Commission, Report of the Village and Small Scale Industries (Second Five Year Plan) Committee, 1955. D G Karve was the Chairman of the Committee.

soon²⁴. *One*, instead of taking the responsibility of promoting and protecting village and cottage industries directly, the Central Government shifted it to State Governments. *Secondly*, a somewhat ambiguous position was taken in statements such as "cottage industry could produce industrial components to be assembled at the factory level". The role of the small and large units was thus envisioned not as one of conflict but of complementarity. The first official declaration of Independent India observed:

The healthy expansion of cottage and small scale industries depends upon a number of factors like the provision of raw materials, cheap power, technical advice, organized marketing of their produce, and where necessary, safeguards against intensive competition by large scale manufacture, as well as on the education of the worker in use of the best available technique. Most of these fall in the Provincial sphere and are receiving the attention of the governments of the Provinces and the States.²⁵

It added that the Central Government would investigate how far and in what manner these industries could be coordinated and integrated with large scale industries. The Industrial Policy Statement (1948) promised to examine:

... how far the textile mill industry can be made complementary to rather than competitive with the handloom industry, which is the country's largest and the best organized cottage industry. In certain other lines of production, like agricultural implements, textile accessories, and parts of machine tools, it should be possible to produce components on a cottage industry scale and assemble these into their final product at a factory.²⁶

The First Five Year Plan made a distinction between village industries, small industries and crafts. Village industries were defined in terms of activities which are, in the main, an *integral part of the village economy*.²⁷ The small industries and crafts were distinguished on the basis of (i) *traditional skills* and crafts, and (ii) the ones which have recent origin and have an intimate *connection with the corresponding large scale industries*.²⁸ It was recognized that while the then existing village industries were of a rudimentary character, rural electrification was likely to transform them significantly. Agricultural development and village industries were looked upon as Siamese twins that could hardly be separated from each other. The First Plan also visualized that an increase in agricultural production would raise farmers' incomes and expand opportunities for processing raw materials in the villages. In order to satisfy the increased demand from the farmers, more persons could get employment within the village itself. The First Plan

²⁴. INDIA, Industrial Policy Statement, 1948.

²⁵. Ibid, para 8.

²⁶. Ibid.

²⁷. INDIA, First Five Year Plan, p 315.

²⁸. Ibid.

envisaged as below:

Amenities in rural life such as supply of pure drinking water, street lighting, sanitation, hospitals, recreation grounds, community centres and roads increase the field for village industries. The possibility of turning waste into wealth, for instance, production of gas from cow dung and other refuse of the village through gas plants in so far the operations prove economic, production of bone manure through bone digesters, soap making out of non-edible oils, etc will further provide scope for the development of village industries²⁹.

The Planning Commission decided to draw up Village Industry Programmes in consultation with experts. For this, the industries covered were:

- (i) village oil industry;
- (ii) soap making with neem oil;
- (iii) paddy husking;
- (iv) palm gur industry;
- (v) gur and khandsari;
- (vi) leather industry;
- (vii) woollen blankets;
- (viii) high grade hand-made paper;
- (ix) bee keeping; and
- (x) cottage match industry.

Other industries assigned special priority were: *Khadi*, coir, sericulture, fisheries, forests, dairying and horticulture.

It is not necessary in this paper, given its limited focus, to dilate upon the Second Plan strategy. In addition to stressing the role of heavy industry, the Second Plan also assigned a special place to rural, cottage and small industries. It envisaged that the expanding demand for consumer goods sector would be met from outside the large units. This would reduce pressure on the capital and the limited savings of the economy and the strategy would fit in well with the need to expand employment opportunities. Explaining the Second Plan strategy, Mahalanobis observed:

In view of the meagreness of capital resources there is no possibility in the short run for creating much employment through the factory sector.... Now consider the household and cottage industries. They require very little capital.³⁰

The objectives of the Second Plan programmes and the Industrial Policy Resolution, 1956, were to create :

... immediate and permanent employment on a large scale at a relatively small capital cost, meet a substantial part of the increased demand for consumer goods and simple producers' goods, facilitate mobilization of resources of capital and skill,

^{29.} Ibid.

^{30.} P C Mahalanobis, "Approach to Planning in India", as quoted in G Myrdal op cit, p 1219.

which might otherwise remain inadequately utilized and bring about integration of the development of these industries with the rural economy, on the one hand, and large scale industry, on the other. They also offer a method of ensuring more equitable distribution of the national income and avoiding some of the problems that un-planned urbanization tends to create. With improvements in techniques and organization, these industries offer possibilities of growing into an efficient and progressive decentralized sector of the economy, providing opportunities of work and income all over the country.³¹

It is obvious that the cottage and small scale industries were visualized as a panacea for most economic ills. It was probably the emotional appeal and romance of the heroic memories of the national struggle for independence that mesmerized the planners so that very few questioned the *raison d'etre* of small scale and village industries in the long-term scenario of national development. There were many Gandhian thinkers, who were unhappy at the manner in which official policies and plan programmes betrayed, according to them, the confidence of the poor. This is best illustrated by a Planning Commission note of August 1961, which had been prepared by Jaya Prakash Narayan and outlined the Gandhian philosophy of rural industrialization³². The note underlined:

- (i) Plan efforts have contributed very little to (a) create more employment, and (b) enhance wealth of the rural communities and raising the standard of living, particularly of the backward sections, who constitute the overwhelming majority of India;
- (ii) Given the high population growth and limits to absorption of labour in agriculture, rural industrialization alone can provide an effective remedy for the rural unemployed;
- (iii) Industrialization need not be only an urban phenomenon. It can equally be a rural one. Its nature, however, would be different.
- (iv) Rural industrialization should not be confused with setting up of a few large industries in rural areas. Rural industrialization must mean an even spread of industries throughout the countryside all over the country;
- (v) Nor should rural industrialization be limited to mean what at present are termed as 'rural industries' or to only agricultural industries, such as the processing of agricultural commodities. There can be and should be infinite variety of industries for rural India;
- (vi) Rural industrialization will have to be based on two factors: (a) local resources, both human and material, and (b) local needs. Local does not, however, mean only a village; it might mean a village, a group of villages, a block, or

³¹. INDIA, Planning Commission, Third Five Year Plan, p 426; Also see: INDIA, Planning Commission, Second Five Year Plan, pp 429-458.

³². Planning Commission, (Rural Industries Planning Committee), Project for Intensive Development of Small Industries in Rural Areas, July 1962, pp 28-30.

a district;

- (vii) There are to be no pre-conceived limitations or inhibitions of a doctrinaire or sentimental type in this regard to such matters as the use of power and technology. The only concern should be: (a) to maintain a balance between employment and efficiency, and (b) to preserve and nurture certain social values as those of political and economic self-government, minimizing, if not eradicating, economic exploitation; promoting economic and social equality, and preservation and development of producers' personality.

Jaya Prakash suggested that the aim and total long term effect of rural industrialization should be to convert the present lopsided purely agricultural communities into balanced agro-industrial communities.

The Planning Commission identified consequently 40 rural areas for intensive development of small industries. The primary objectives of its programme were to:

- (a) Bring about a cooperative agro-industrial economy; and create employment opportunities to enable a higher standard of living; and
- (b) Mobilize rural communities and seek diversification of rural economy in a manner that contributes to the welfare of the landless and the weaker sections of village communities.

Rural industrialization was then seen to have two components, namely (i) location, and (ii) linkages with large industries as ancillaries. The Rural Industries Programmes were to cover all kinds of small industries and processing industries based on agriculture. It was recognized that:

With the increase in the production of cereals, pulses and a number of cash crops like sugarcane and oilseeds visualized in the Third Plan, there will be considerable scope for the expansion of processing industries in rural areas. With a view to providing fuller employment and strengthening and diversifying the rural economy, it will be desirable to develop these industries to the maximum extent in the decentralized and small scale sector and on a cooperative basis.³³

Different varieties of the decentralized sector (cottage, rural, small or agro) continued to enjoy a special place in the successive Five Year Plans. The inherent strength and weakness of the policies towards small and village industries are now better appreciated. The cottage industries and products of the rural crafts have found a good market among the Indian urban elite; a large part of the consumer goods market has, however, been captured by the organized and large enterprises.³⁴ The official patronage to small scale, rural or cottage industries does not appear to have made a noticeable impact on the problem of rural-urban migration. The establishment of cottage and village craft

^{33.} Third Five Year Plan, *op cit*, pp 442-443.

^{34.} S K Goyal, et al Small Scale Sector and Big Business, Corporate Studies Group, Indian Institute of Public Administration, 1984.

emporia and training of artisans and design workshops has also not mitigated the situation.³⁵ The *Khadi* and handloom sectors do seem to continue providing an additional source of income in villages. It is, however, doubtful if these industries, left to themselves, have the inherent strength to face competition by the modern mill sector. The problems responsible for the poor progress of village industries were well summed up by the Third Five Year Plan (1961-62 to 1965-66):

Rural artisans are usually dispersed in a large number of scattered villages and this, combined with their low standard of literacy and poor economic condition, is a considerable impediment to rapid implementation of development programmes. Among the other factors responsible for the slow progress of village industries' programmes have been the general lack of previous experience in regard to the development of these industries, lack of trained and qualified staff, location of production centres in unsuitable places, lack of adequate funds and organization for procurement of raw materials in bulk and failure to introduce more efficient techniques of production. Even such technical improvements as were introduced did not go far enough to secure a material increase in productivity. They did not, therefore, gain general acceptance³⁶.

Two schools of thought seem to have dominated the policymaking levels during the early 'sixties, --- one represented by the official circles and the other by those who sought to have integrated rural development. The main concern of the official policy has been to pursue Plan objectives of growth and sectoral targets, whereas the non-official view is replete with a deep concern for the rural development, in general, and the rural poor, in particular.

SECTION THREE

The 'sixties witnessed the beginning of the green revolution in some parts of India. In the Punjab, Haryana and western Uttar Pradesh, agricultural output per hectare rose markedly due to the enhanced canal and well irrigation, widespread adoption of new and improved seed varieties, enlarged inputs of chemical fertilizers and use of pesticides. While managerial practices are important, it is an undisputed fact that the green revolution was a direct consequence of high levels of agro inputs per unit of land. The enlarged inputs were not obtained from the farm itself or from traditional sources. The switchover to electricity, diesel and pumpsets was almost dramatic; the high-yielding seeds were brought in from research centres; and tractors and agricultural implements, supplied by national and international sources. The green revolution brought Indian agriculture in close contact with

^{35.} Ibid.

^{36.} Third Five Year Plan, op cit, pp 441-42.

industry, the nature of agro-industry relationships extending themselves to supply of industrial inputs instead of agriculture playing the raw material supply function only. The prosperity of farmers was also bound to generate new consumer demands produced by industry. The demand for a variety of industrial inputs had to be satisfied, if agricultural development was to be optimized. With a view to reducing problems of procurement of industrial inputs for agriculture, the State Governments were advised by the Centre to set up Agro-industrial Corporations.³⁷ With the following principal objectives:

- (a) Promotion and execution of industries undertaking production, preservation and supply of food;
- (b) Enabling persons engaged in agricultural and allied pursuits to own the means of modernizing their operations;
- (c) Distribution of agricultural machinery and implements as well as equipment pertaining to processing, dairy, poultry, fishery and the industries connected with agriculture;
- (d) Undertaking and assisting in the distribution of inputs for agriculture; and
- (e) Providing technical guidance to farmers and persons concerned with agro-industries with a view to enabling efficient conduct of their enterprises³⁸.

The Agro-industrial Corporations were to promote agro-processing and generate additional employment opportunities in rural India. These objectives did not, however, find a priority in their actual working, for they chose the easier course of promoting sales of tractors, agricultural machinery, fertilizers, pesticides, etc. None could have been happier than the large enterprises manufacturing tractors and other agricultural machinery, when they found these state-sponsored corporations were most willing, even anxious, to undertake marketing for the private sector. Most State Agro-industries Corporations make profits. In some states, beginning with the early 'seventies, subsidiary corporations were also set up to provide cold storage and crop processing facilities.³⁹ The variety of activities undertaken by the Agro-Industries notwithstanding, their the main operations continue to be organizing modern inputs to agriculture.

The official efforts at promoting village, rural and agro-industries were grossly inadequate compared to the magnitude of the task involved. They were only too thinly spread both in relative and absolute terms. Except for the Second Plan, the expenditure on

^{37.} INDIA, Ministry of Food and Agriculture (Dept of Agriculture), Annual Report, 1964-65, p 11.

^{38.} N R Kothare, Ibid, p 80.

^{39.} In 1971-72 Gujarat established Agro Foods Ltd for providing cold storage and fruit processing; in 1970-71 Gujarat Oil Extractions was set up for production of oil from rice bran; Kerala set up Meat Products of India (March 1973) to process buffalo meat and undertake export of the same; Himachal Pradesh took up marketing and processing of apples with World Bank support; Karnataka set up a number of subsidiaries of the KAIC in the field of maize processing, production of quality seeds, tobacco and for organizing composite manure from the city waste. The West Bengal Corporation has also diversified its activities.

Khadi and village industries, including the small scale industries, has never exceeded three per cent of the total expenditure by the Centre, State and Union Territories (see Table-1). It was four per cent during the Second Plan. Actual expenditure during the Seventh Plan and the outlay in the Eighth Plan are less than one-and-a-half per cent. Understandably, the share of the *Khadi* and village industries sector has been less than one per cent during most of the period since independence.

Table 1
Expenditure (Actual) on Village & Small Scale Industries
during Various Plan Periods (Centre, States & Union Territories)

(Rs crore)

Plan Period VSI	Village & Small Scale Industries (VSI)	Total Expenditure	Expenditure on a % of Total
First Plan (1951-56)	48.0	1,960.0	2.45
Second Plan (1956-61)	187.0	4,672.0	4.00
Third Plan (1961-66)	240.8	8,576.5	2.81
Annual Plans (1966-69)	126.1	6,625.4	1.90
Fourth Plan (1969-74)	242.6	15,778.8	1.54
Fifth Plan (1974-79)	592.5	39,426.2	1.50
Annual Plan (1979-80)	255.7	12,176.5	2.10
Sixth Plan (1980-85)	1,945.1	1,09,291.7	1.78
Seventh Plan (1985-90)	3,249.3	2,18,729.6	1.49
Eighth Plan (1992-97)*	6,334.2	4,34,100.0	1.46

* Outlay.

- Sources: 1. INDIA, Central Statistical Organization, Basic Statistics Relating to the Indian Economy, 1987 for the First and Second Plans.
2. INDIA, Ministry of Finance, Economic Survey : 1992-93 for the Third to the Seventh Plan.
3. INDIA, Planning Commission, Eighth Five Year Plan.

In relative terms, the allocation of funds for *Khadi* and village industries, as per cent to total Plan outlay, came down from 0.8 in the First Plan to 0.3 in the Seventh Plan even though it had gone up to 1.8 in the Second Plan. This is a cause for concern, especially when the Government swears by priority to rural development and creation of employment opportunities. The actual release of funds for *Khadi* and village industries (KVI) has been slightly even less than the Plan allocation throughout except during the Sixth Plan period, when it was slightly more. The general problem in the country is not poverty *per se* but poverty born out of unemployment. The KVI sector is the cheapest option for generation of employment, as it requires only Rs. 5,000 for *Khadi* and around Rs 10,000 for a village industry per employment.⁴⁰

The low investments on the sector, spread thinly over different states, are

⁴⁰ INDIA, Planning Commission, Village & Small Industries Sector Framework : Policy Issues & Perspective, 1988, p 71.

accompanied by an absence of any attempts to arrive at a relationship with regional resource endowments.

The 'eighties witnessed a strong plea for promotion of agro-industries in India. The orientation and the context of the assertion, however, has been vastly different from the arguments of Gandhi, Karve, Mahalanobis and Jaya Prakash Narayan. Agro-industries of the 'eighties are essentially understood in terms of food processing industries. The arguments, briefly put, are:

One, in spite of a very low per capita income, India has an estimated population of around 80-100 million constituting the middle upper class that supports a reasonably high consumption standard. This offers a large market for modern durables and agro-based products, especially semi-processed and convenience foods.

Two, in addition to the large internal market there exists a huge unexploited potential in the international market, where India has competitive edge over many other supplier countries.⁴¹

Three, growth of food processing industries would provide expanding demand for farm produce, vegetables, fruits and other greens that would help improve agricultural incomes.

Four, the industry would give consumers in having access to vegetables, fruits and other farm products throughout the year and, equally important at low and stable prices. This would, of course, mean better returns and incentives to Indian farmers.

Five, establishment of modern plants with sophisticated technology would help reduce crop wastage due to seasonal gluts and the perishable nature of farm products.

Six, urban centres are witnessing a substantial change in the intensity of woman employment. In families with both husband and wife doing formal jobs, as per modern life-style, there is a growing potential for consumption of convenience and semi-processed foods.

And *seven*, the demand for processed food is likely to be enhanced because of the growing problem of obtaining full-time household assistance.

The case for establishing food processing industries rests on the premise that there exists a large potential for products of the industry at home and abroad.⁴² It is a matter of more than coincidence that the initiation of the interest (in India) in promoting agro-industries has been simultaneous with the efforts made by some transnational corporations to seek entry into the Indian food and soft drink market.⁴³

^{41.} See, for instance: Ruth Rama, Foreign Direct Investment in the Food and Food Packaging Industries in India, OECD Development Centre, February 1990.

^{42.} Baldev Singh, "Development of A Self-reliant Agro-Food Industry", Economic and Political Weekly, 2-9 April, 1988, pp 683-687.

^{43.} The attempt by Pepsi to enter the Indian market in the early 'eighties is a case in point.

The post-1985 period has witnessed a substantial change in the official policy towards technology import and role of private foreign capital, in general, and in the food industries, in particular. The change is evident from the fact that, of the 111 foreign collaborations in food related industries approved during 1951-1985, more than 60 per cent of the agreements were for technical know-how and only 40 per cent for financial collaboration. The distribution of the collaborations in 35 years in term of the nature of processes shows that nearly 40 per cent of the collaborations were for "plant and machinery". As a single product area, "marine" was the main sector, which enjoyed a dominant position. Table 2 shows the distribution of the number of collaborations approved in 35 years prior to 1986. Fruits, vegetables, edible oils and other food-related products did not have much of a place.

Table 2
Product-wise Number of Technical & Financial Collaborations in
Food-Related Industries (1951-1985)

	Product	Technical	Financial	Total
1.	Plant & machinery	37	7	44
	- Sugar	18	2	20
	- Dairy	5	2	7
	- Poultry	1	2	3
	- Oil	2	-	2
	- Marine	1	1	2
	- Others	10	-	10
2.	Marine	12	20	32
3.	Fruits/vegetables	5	1	6
4.	Poultry	2	4	6
5.	Seeds	2	2	4
6.	Dairy	2	2	4
7.	Oil	3	-	3
8.	Sugar	1	1	2
9.	Others	3	7	10
	TOTAL	67	44	111

In contrast to the pre-1986 period, the number of collaborations in the area of food- related industry approved during the past seven years (1986-93) stood at 293 (Table 3).

One, the number of collaborations approved in seven years was more than two-and-a- half times the ones approved in the 35 preceding years!

Two, financial collaborations during the recent years were far more frequent than in the earlier period. The relative significance of financial collaborations got reversed, as they accounted for 60 per cent of the total compared to 40 per cent earlier.

Table 3
Product-wise Number of Technical & Financial Collaborations in
Food-Related Industries (1986-1993)

Total	Product	Technical	Financial	
1.	Plant & machinery	11	4	15
2.	Marine	25	60	85
3.	Seeds and tissue culture	22	14	36
4.	Fruit & vegetable processing	4	16	20
5.	Alcoholic and soft drinks, etc	6	12	18
6.	Chocolates, confectionery, etc	6	5	11
7.	Vegetable oils	3	8	11
8.	Spices, food flavours, etc	2	8	10
9.	Soya preparations, excl oils	3	7	10
10.	Mushrooms	2	7	9
11.	Poultry	3	4	7
12.	Flowers, etc	2	2	4
13.	Dairy	2	1	3
14.	Packing	2	1	3
15.	Herbs & preparations	1	1	2
16.	Others incl unspecified	12	37	49
	TOTAL	106	187	293

Source: Tables 2 and 3 are based on ISID database on foreign collaborations.

Three, while "marine" continued to be an important area for foreign collaborations, seeds and fruits emerged as new areas during the past seven years.

Four, "machinery" as a classification of collaborations was significant during 1951-85 (44 out of 111 collaborations were for machinery); it accounted for only 15 out of 293 during the later period *i.e.* just five per cent.

Five, the soft areas such as alcoholic beverages, soft drinks, chocolates, and confectionery accounted for as many as 29 collaborations and are next in importance to only marine products and seeds. More importantly, in these areas too there was a preponderance of financial collaborations.

Six, several foreign collaborations have been approved permitting entry of foreign technology and capital for seeds. For various reasons, seeds had hitherto been a preserve of public agencies, agricultural universities and specialized research establishments. This special exclusive preserve is now open to foreign private initiative.

And *lastly*, the technology import or entry of foreign capital has been permitted without the collaborating enterprises having been placed under any obligations or commitments.

The full impact of the implementation of the agreements can only be assessed after some time. For the present, it is clear that agro-industries and food industries have become

a well sought-after area for foreign technology and capital. "Food processing" and "agro-industries" seem to mean the same in most of the present day Indian policy debates.

The 'eighties witnessed a keen interest in investments in the area of food processing and soft drinks. The TNCs visibility in this area is indeed a marked one. For instance, Pepsi entered into collaboration with Punjab Agro Industries Corporation and the Tatas to establish processing facilities for tomato juice and paste along with soft drink concentrates. Though a failure, General Foods of US also entered India during this period. Kellogg has evinced interest in production of breakfast foods. Nestle, known for its interest in coffee, has started marketing "Maggie" convenience foods, ketchup, chocolates, etc; Hindustan Lever, the first entrant to the hydrogenated edible oil industry in India, handed over the *Dalda* production and marketing to its sister company, Lipton. The Levers, however, have acquired control over another large manufacturer of soap and oil products, TOMCO. They have also taken over Kissan, a company known nation-wide for jams and squashes, and are reported to have acquired rice-milling facilities. Brooke Bond, an associate of the Levers, has entered marketing of *masalas*. Among the new entrants to the edible oil industry are ITC and Britannia. Parle, the market leader in the soft drinks segment, which had fought tooth and nail against the entry of Pepsi, was obliged to abandon its fight with TNCs and join hands with Coca-Cola. It appears that the withdrawal of restrictions on the use of foreign brand names has speeded up the process of domination of the Indian consumer goods market by transnational corporations.⁴⁴

The entry of the U.S. based TNCs has coincided with the Indian policy to give high priority to private foreign direct investments and revision of the licensing policies to permit entry of large Indian companies and TNCs into the food processing industry. The establishment of the new Ministry of Food Processing Industries (MFPI) at the Centre is an indication of the Government's thinking. The rationale given for the creation of the new Ministry is that the food industry has adequate market potential within India and a large scope for exports.⁴⁵ Given the agenda set for the MFPI and the nature of enterprises,

^{44.} There is another dimension to the entry and consolidation of transnational corporations in the agro-industrial sector. It is well known that, while developing countries dominate the production of a variety of commercial crops, it is the TNCs of developed countries, which have a dominant position in their processing as also marketing. Mention can be made in this regard of tobacco, coffee, tea and cocoa. The UNCTAD observations in this respect are quite pertinent:

In such an economic framework of oligopolistic power, the developing countries are totally at the margin in the marketing decision process. Developing countries supply 55 per cent of world leaf tobacco through foreign oligopsony-controlled marketing channels; their processed exports are almost non-existent; they have no influence whatsoever in the design, output and innovation of machinery; their aggregate receipts from the tobacco industry are based, almost exclusively, on the demand response and marketing decisions determined, in the short medium and long run, by the TTCs (Tobacco Transnational Conglomerates).

(See: UNCTAD, Marketing and Distribution of Tobacco, United Nations, 1978, p ix).

^{45.} The main objectives of the Ministry of Food Processing Industries are:
(i) to take the lead and act as a prime force in creating a strong and effective food processing

which are likely to be established under the new policies and the changed Industrial Policy environment, especially with regard to foreign private capital⁴⁶, the extent to which the

sector;

- (ii) to successfully create a mode of operation and management in the food processing sector that would ensure increased incomes accruing directly to the producers, who are in the main concentrated in the rural areas;
- (iii) to create increased job opportunities in the rural areas with specific reference to women and unemployed youths by development of primary produce through a network of processing units in the various sectors;
- (iv) to bring the power of modern technology and marketing techniques in the aid of the farmers;
- (v) to take the initiative in mobilizing cost effective technologies for storage, processing and marketing of agricultural produce;
- (vi) to think in terms of organizational restructuring of the domestic market so that overall demand is stimulated which, in turn, will lead to the growth of the food processing sector; and
- (vii) to ensure that adequate surpluses are created consistent with price and quality to further exports and earn valuable foreign exchange for the country by providing critical inputs to the industry to foster production for exports.

46. The general thrust of the attempts is to remove entry level restrictions. Major elements of the new policy provisions are:

- Industrial licensing requirement dispensed with except for 18 industries.
- Area reserved for the public sector curtailed so that it covers now only eight industries.
- Automatic approval for foreign direct investment up to 51 per cent of equity in certain high priority industries subject to balancing of dividend payments by export earnings over a period of time. This condition was later withdrawn except for certain consumer goods industries. The industries qualifying for automatic approval are: (a) all food processing industries other than milk food, malted foods and flour but excluding the items reserved for the small scale sector; (b) soya products, which include (i) soya texture proteins; (ii) soya protein isolates; (iii) soya protein concentrates; (iv) other specialized products of soyabean; and (v) winterized and deodourized refined soyabean oil; and (c) all items of packaging for food processing industry excluding the items reserved for the small scale sector.
- For foreign technology agreements, automatic approval is granted, provided the technology fee payments are under Rs 10 million and the royalty is within 5 per cent of domestic sales or 8 per cent of export sales, subject to a ceiling on total payments at 8 per cent of sales over a 10-year period.
- Use of foreign brand names allowed even for sales in the domestic market.
- Fast track approval, if the foreign equity covers the foreign exchange requirements for import of capital goods.
- Foreign majority trading houses allowed.
- Waiving of most of the conditions attached to letters of intent and industrial licences issued earlier.
- Easing of locational constraints.
- Abolition of phased manufacturing programme, which was intended to indigenize imported production process over a period of time.
- No specific permission needed for hiring foreign technicians.
- Foreign institutional investors allowed to invest in the Indian capital market.
- Mandatory convertibility clause associated with loans by financial institutions removed.
- Requirement for clearances for expansion and diversification under the monopoly legislation on the basis of size removed.
- Though reservation for the small scale sector continues, large houses and foreign companies are allowed to take up to 24 per cent of equity in companies owning small

Ministry's objectives would get pursued needs a closer scrutiny. The MFPI is obliged to create *increased job opportunities in the rural areas with specific reference to women, and unemployed youth by development of primary produce through a network of processing units*. The MFPI is expected to promote modern technology and marketing techniques in aid of the farmers. The desirability of the modernization policy would depend on an evaluation whether the new technology would cause liquidation of the existing enterprises or it can be absorbed by smaller establishments to achieve higher productivity.⁴⁷ Modern technology could help raise the average productivity in food processing, but to expect modern food processing industries to create a substantial rural job opportunities may not be realistic. If the intention is not to promote public sector or the cooperative sector, the alternative left would be to permit large industrial establishments, owned and controlled by Indian large business groups or TNCs, individually or in collaboration.⁴⁸ Modern

scale units.

- Except for distillation and brewing of alcoholic drinks, sugar and animal fats/oils and the areas reserved for small scale industries investments in the food processing sector are wholly exempt from any licensing obligation.
- Imports and exports freely allowed except for short negative lists.
- Procedure for capital goods imports simplified.
- De-canalization of a number of export and import items.
- Foreign exchange controls eased.

47. The observations of UNIDO are relevant in this context.

In sum, "success" stories such as those of the poultry and cereal milling industries are, at the same time, failure stories. They are the symbols of the growing disarticulation of the agro-food systems in the developing countries, and of the growing dependence of these countries. Impressing growth rates in the two industries have led to accelerated marginalization of large sections of the rural population and a growing inability to rebuild an articulated agro-food system. This experience suggests that countries aspiring to create industries based on meat-poultry-cereal production should first consider developing their small-scale rural units, especially if they wish to build integrated national food systems that would make optimum use of local staples and generate employment and income in the rural areas.

(See UNIDO, *Industry in A Changing World*, special issue for the Fourth General Conference of UNIDO, United Nations, New York, 1983, p. 264. Chapter IX of the survey deals with "Agro-Food Industries in Developing Countries: the Nexus between Agriculture and Industry").

48. In the context of the Industrial Policy followed particularly till the beginning of the 'eighties there appears to be a belief that growth of agro-processing industries was inhibited by the industrial licensing policy, in particular the reservation of certain products for production in the small scale sector. An examination of the licensing policy, however, would not warrant such a conclusion. If one goes by the reservation list one finds that very few items, most of which are in the nature of household preparations, fall under the reserved category. Even those initially reserved for the Small Scale Sector (SSS) have been over time de-reserved either partially or completely. (See for instance: S K Goyal, et al, *op cit*). The slow growth of agro-processing, more specifically food processing industries, has been more due to lack of effective demand for the products processed and less for official restrictions. For instance, Cadbury (India) Ltd, an affiliate of Cadbury, U K, a British transnational corporation, established an apple juice concentrate plant in Jammu & Kashmir during the 'eighties. The venture did not meet with much success. Similarly, the capacity utilization at Mohan Meakins Ltd of juices and canned products was less than 40 per cent of the not very large

automatic plants of large capacities with "not touched by hand" operations would add little to create new employment, on the one hand, and may, in practice, replace the traditional technologies and practices that were labour-intensive on the other.⁴⁹ The employment potential of such processing units cannot, therefore, be large. Also, the employment may only be of seasonal nature. This being the scenario, it is but logical to fear that the objective of making a meaningful impact on the level of employment of women and rural youth is hard to achieve.

Food processing industry in the modern sector is likely to have its main characteristic in "brand" domination. The poor hygiene, in which the traditional food processing is generally undertaken, does not help sustain high confidence in the processed food produced and packaged by the cottage and small units. Bulk food processing is amenable to standardization and offers certain economies of scale. It is no surprise, if brand names get associated with quality and standardized products. The consumer acceptability of branded goods is high. It is because of such well known advantages that brand names carry substantial premium.⁵⁰ Emergence of near monopoly situation in food processing is not unknown. And once a brand name gets accepted widely, it opens up possibilities for launching new products with a massive thrust. Indian consumers are well aware how 'Maggie' noodles were followed up by Maggie sauce and Maggie soups. It seems that, instead of offering more employment, the modern food processing plants can cause the closure of many cottage and small establishments.⁵¹ There is, however, a possibility that,

processing capacity of 3,000 tonnes per annum. The subsidiaries of WIMCO, namely Chandigarh Super Foods Ltd and Sun-Sip Ltd, and Kissan Products Ltd, were reported to be running much below their installed capacities.

^{49.} This is especially so, if foreign investment and technology are to play a major role in these industries. International evidence also points to such a possibility. For instance, the UNIDO observed:

This rapid expansion (of production of soft drinks and mineral water) has posed many other important problems for the governments of developing countries. While they are generally heavily dependent upon imports of concentrates and malt, they can provide only limited outlets for local agriculture. The TNCs, and even competing local firms (for example, in Brazil, Mexico and the Republic of Korea) use highly capital-intensive technology. And because this technology was originally conceived with the intention of using the resources available in the developed countries, the raw materials that the developing countries have to offer are seldom used. This technical constraint, combined with the generally lower prices of imported raw materials and various climatic factors, has meant that growth in the sector has sometimes had little impact on domestic agriculture.

(See: UNIDO, *Ibid*, p 266).

^{50.} With the extensive coverage of television, majority of the rural population is now subjected to brand advertising.

^{51.} For instance, biscuit, bread and nanbai shops would find it hard to survive the competition from large organized and modern biscuit factories. In addition to the economies of scale in production, the large units would depend on advertisement, attractive and more scientific packaging, an assured level of quality and standardization. The products of the large sector

because bulk food processing enterprises cannot provide large varieties or cater to regional and personal tastes, there would remain a demand for products of the cottage, local and small enterprises which provide specialized services with personal care. The overall impact of the entry of large and modern units to the food processing sector can, however, hardly be creation of promising employment opportunities.

Location of a large food processing unit would bring in a substantial increase in the demand for the required farm produce. This would also provide better market prices to the farmers. Given the fact that there would be thousands of small farmers who would be suppliers of farm produce to one buyer/processor, the market situation would invariably be of monopsony, the stronger one seeking to exploit the situation to its maximum advantage.⁵² The past experience in two important agro-based industries, viz sugar and tobacco, shows that the processing units tend to thrive at the cost of the farmers. The sugar industry of U P and Bihar is a case in point. On the other hand, whenever processing is undertaken in a cooperative framework, there is a faster growth both for the farmer and the industry. The sugar cooperatives of Maharashtra, Gujarat and Karnataka have won a name for themselves. The same holds true of the edible oil (groundnut) cooperatives of Gujarat and the Amul experiment of dairy development on cooperative foundations. Thus, location of large private sector agro-processing units may be accompanied by perpetual conflicts, supply or processing uncertainties, labour problems, farmers' agitations and political interventions. On the other hand, if there were large farms specializing in a crop to meet requirements of the agro-processing unit, there could be a more organized and stable relationship between the farms and the factory.

An important policy assumption is that agro-industries have a large potential for exports from India. One wonders, if at the present stage of India's level of food, vegetables and other farm production there is a scope for generating export surpluses. Can India be a net exporter of food in the foreseeable future? The per capita availability of cereals, pulses, vegetables and fruit in India is so low that export surpluses can only be obtained at the cost of their consumption. The poor would, of course, suffer the most. The early decades of

would probably have longer shelf life as also a higher content of preservatives. The specialized bakery services would also have a place, no place but the mass level demand is more likely to be cornered by organized mill sector. Similarly, traditional juice vendors of sugarcane, orange and other fruit find it hard to face the challenge of national and international brand products of soft drinks and juice-like products. The same is likely to be true of the native sweet-shops and sellers of various milk products. The liquidation of small and cottage industries in pickles, vadis and papads, squashes, jams, etc is already a near reality. There are, however, a few exceptions to the trend. For instance, Lijjat products of a women's cooperative have made a name for themselves. But it is not clear if the success is due to the worker's cooperative or due to marketing and other historical factors. Small and specialized vendors can survive as long as there is insistence of the consumers on certain processes or personalized services.

⁵² For a discussion on the possible impact of the entry of Pepsi, see: Kanwaljit Kaur Gill and Sucha Singh Gill, "Agricultural Development and Industrialisation in Punjab", Economic & Political Weekly, 10 November, 1990, pp 2507-2509.

this century witnessed foodgrain exports even when the average per capita availability of grains was extremely low and near famine conditions prevailed in many parts of India. The impact of exports of essential vegetables was well demonstrated by the abnormal price rise for onions during the mid-'seventies.⁵³ In essence, the question is whether India should undertake food exports when millions remain half-fed. The argument here is not against strengthening the food processing industry; it is against the export argument for setting up the industry.

Like many policy assumptions, the export argument appears to be a misplaced one. For instance, a number of foreign collaborations --- more so the financial ones --- have been approved since 1986 (Table 3). With the beginning of the Seventh Five Year Plan, processed foods have been identified as one of the thrust sectors for exports. Yet in 1989-90, one finds very little of "processed" products in the export basket of agricultural and processed foods (Table 4).

Very few items account for bulk of exports of agricultural and processed foods. Nearly one-third of the exports was accounted for by the fresh fruits and vegetables category, which includes onions. This category's share increased from 22.81 per cent in 1980-81 to 32.69 per cent in 1989-90. Indeed, onions had very high shares in both the years --- 14.48 per cent and 17.77 per cent respectively. In this setting, one fears that the hopes associated with the establishment of the Ministry for Food Processing Industries both on employment as also on export front are likely to be belied⁵⁴.

Table 4

Share of Important Products in the Exports of Agricultural and Processed Foods (1989-90)

Product	Amount (Rs cr)	Share in Total (%)
Buffalo meat	90.14	18.94
Fresh onions	84.55	17.77
Guar gum	63.01	13.24
Canned & bottled fruits incl fruit juices	47.56	9.99
Fresh vegetables	29.00	6.09
Sheep meat	28.83	6.06
Fresh mangoes	23.93	5.03

^{53.} For a criticism of the strategy of agro-based exports, see the note of dissent by D K Rangnekar and Amit Bhaduri in: INDIA, Ministry of Commerce, Committee on Export Strategy -- 1980s: Final Report, 1980.

^{54.} Further indication in this regard is provided by Pepsi's resort to export of footballs, rice and tea to make up for its failure to meet the export obligations imposed by the Government and its subsequent plea for being treated on par with Coca Cola in the light of the latter getting approval on relatively easy terms.

Other fresh fruits	18.01	3.78
Walnut kernels	15.08	3.17
Pickles & chutneys	12.10	2.54
Mushrooms	9.29	1.95
Animal casing	7.31	1.54
Cocoa products	7.16	1.50
Papads	6.70	1.41
Alcoholic beverages	4.87	1.02
Sub-Total (1 to 15)	447.54	94.03
Others	28.38	5.97
Total	475.92	100.00

Source: APEDA, VIII Plan 1990-95 and Annual Plan 1990-91 of Agricultural and Processed Food Products Export Development Authority.

SECTION FOUR

In the foregoing, we have discussed how the Indian nationalist view on agro, rural, and cottage industries got crystallized during the pre-independence period and how the *Swadeshi* movement was directed to undermine the demand for cheap and imported machine made consumer goods, on the one hand, and to mobilize rural support for the struggle for India's political independence, on the other. We also reviewed, in brief, the role assigned to low-capital and labour-intensive technologies to maximize investment in basic and heavy industries under the Mahalanobis strategy. The Third Plan onwards, however, the state has continued to provide support to traditional rural industries especially the *Khadi* and village industries. Agro-industries received impetus at two distinctively different phases. *One*, during the 'seventies when, as a consequence of the green revolution, State Agro-Industries Corporations were established to provide modern agricultural inputs: and, *two*, during the 'eighties, when the role of foreign direct investment and technology in the food processing sector was emphasised. It is yet not evident whether the latest approach would yield the desired results in the form of either increased employment opportunities, particularly for women and rural youth, or enhanced exports. On the other hand, there is a possibility that many small and local establishments may get adversely affected.

What is needed is a fresh and comprehensive approach, integrating the development of villages with agro-industries, with larger involvement of the farmers in processing their own produce. In a democratic set-up, one cannot ignore development of the majority of the people or keep them on subsidies. The fact also remains that Indian population is so distributed that migration from agriculture to industry or from rural to urban centres or from densely populated areas to scarcely populated ones is not an easy and sustainable alternative. Besides the physical dimensions involved, the very characteristics of the population are such that there are clear linguistic barriers, which limit large scale population migrations. Gainful employment to the rural people has to be provided in their own locale. Viewed in this perspective, agro-industries as a concept have to be dealt with very differently from the past approaches, policies and programmes or other industries.

In India, unfortunately, rural development, employment of the educated or the un-

educated, equity, and phrases like social justice have not travelled beyond a pious demonstration of the good intentions of the state. Expressions such as these have found frequent entry into official policy announcements. The Indian Plan strategy was never operationalized for redistribution of wealth or for reduction of inter-personal or inter-regional disparities. Indian planning has, in the main, leaned more on investments than on the *policy* content. Consequently, old colonial and feudal institutions, social value systems, educational structures and citizen-state relationships have never undergone any marked change. Rural programmes under the Five Year Plans, except land reforms during the 'fifties, though consolidated, were only extensions of the earlier individual rural development programmes and there was no specific programme designed for *area* development, where a region's resource endowment is sought to be optimally harnessed by relating Plan investment/Plan programmes or pattern of allocation to the nature and the magnitude of local resources. Agro-industry was never adopted as a concept for area development, wherein local resource endowment was sought to be utilized optimally.⁵⁵

Given the Indian reality, a number of factors should be taken note of in formulating a policy mix for the agro-industries.

- (1) Promotion of agro-industries has to be seen in the perspective of inelastic nature of land available for cultivation. Future developments in agriculture will require more cropping intensity and better water management, adoption of new and improved varieties of seeds and crops, and use of appropriate quantities of manures and pesticides.
- (2) Indian agriculture continues to have low productivity. During the past few years some progress has been made on this front, yet the productivity gaps are only too wide (Table 5). For instance, the average yield of wheat in India during 1979-1981 was 1,545 kg/ha, which increased to 2,117 kg by 1990. During the same period per hectare productivity of wheat in China increased from 2,047 kg to 3,179 kg while the UK, FRG and France managed to increase the yields to well beyond 6,000 kg. The gap in wheat yield in India and these countries increased substantially during the 'eighties. Similar is the case with paddy and a number of other crops. Should we not then address ourselves to the basic question of how land productivity can be raised? This may necessitate larger and newer varieties of industrial

^{55.} "The rural industries projects, which were introduced in the early 'sixties, had in view an approach to rural industry closely linked to the development of agriculture. In practice, this aspect was lost sight of, and the emphasis shifted to the provision of various aids for setting up individual production units. A number of industries supported by the Khadi & Village Industries Commission, for instance, the cane gur and Khandsari, the ghani oil, the village leather, fruit and vegetable processing and preservation, and the bamboo and canework, would have much greater scope if the increased production of raw material and its processing and other industrial uses were viewed as parallel tasks for planning undertaken in terms of areas rather than mainly as the forms of specific support to individual parties willing to take up the prescribed processing and industrial operations." See: Tarlok Singh, "Joint Planning for Agriculture and Industry -- Some Implications", Man and Development, Vol 1, No 2, July 1979, pp 48-49.

inputs and the creation of research infrastructure and farm information channels. Efforts at increasing agricultural productivity may also require regional specialization, as each of the crops cannot be grown profitably in all the locations of the country.

- (3) Coupled with low productivity, Indian agriculture suffers from substantial wastage. Estimates of waste differ for individual crops. There seems to be, however, a consensus that nearly 10-15 per cent of the grains and 20-25 per cent of the fruit and vegetables in India perish each year.⁵⁶ This is substantial in terms of quantum as also as a percentage of the national agricultural output. In a country like India with 30-40 per cent of the population living below the poverty line, it seems a criminal waste. Systematic efforts should, therefore, be made to minimize wastage and perishing of farm output and to adopt practices and technologies that cut down processing losses. Efforts to improve quality and capacity of warehousing for grains and expansion of cold storage facilities for fresh vegetables and fruits is at best a part answer.

At this stage of India's development, it is necessary to undertake a thorough scrutiny of the post-harvest processes and technologies and identify appropriate programmes. For instance, the traditional technology in rice-husking is labour-intensive but it results in breaking of the rice grain. Also since manual husking is a cottage and small scale operation, the husk is left as a waste, because

⁵⁶. INDIA, Ministry of Food Processing Industry, Report of the Working Group on Agro-Food Processing Industry, VIII Five Year Plan, p 2. It is also estimated that there are substantial losses in handling and transport.

Table 5
Yield of Select Crops: An International Comparison

(Yield in kg per hectare)

Country	Wheat		Paddy		Pulses		Sugarcane		Coarse Grains (Primary)		Potatoes	
	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990
World	1,886	2,570	2,757	3,557	674	863	56,566	61,329	2,207	2,548	14,167	15,098
India	1,545	2,117	1,858	2,691	461	553	52,105	64,140	694	892	12,639	15,873
Mexico	3,822	4,179	3,447	3,780	719	661	66,016	99,695	1,990	2,240	12,677	12,587
USA	2,291	2,656	5,167	6,173	1,633	1,693	81,668	76,800	5,377	6,308	30,387	32,484
Indonesia	-	-	3,257	4,319	882	1,299	104,252	69,114	1,454	2,124	8,701	12,308
China	2,047	3,179	4,244	5,728	1,223	1,475	54,170	59,897	2,604	3,538	10,888	11,588
FRG	4,979	6,615	-	-	2,965	3,400	-	-	4,156	5,298	29,359	34,142
UK	5,650	6,905	-	-	3,168	3,409	-	-	4,296	5,195	32,891	40,148
Japan	3,100	3,662	5,581	6,328	1,254	1,562	63,850	71,618	2,817	2,738	26,465	29,661
France	4,991	6,487	3,918	5,737	3,304	4,454	-	-	5,095	5,812	28,465	31,579

(Yield in kg per hectare)

Country shell	Tomatoes		Grapes		Beans, Dry		Sunflower seed		Soyabeans		Groundnuts	
	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990	1979-1981	1990
World	21,577	24,647	7,008	7,044	555	617	1,170	1,355	1,701	1,913	995	1,157
India	9,215	9,664	19,135	21,189	288	410	546	458	679	1,000	838	900
Mexico	17,034	22,385	10,233	11,000	632	616	1,292	647	1,947	1,998	1,098	1,000
USA	42,629	55,577	17,032	16,813	1,630	1,742	1,323	1,378	1,989	2,287	2,590	2,242
Indonesia	4,442	3,292	-	-	886	1,314	-	-	876	1,125	1,460	1,463
China	14,254	16,089	5,046	6,671	1,008	1,351	1,095	1,807	1,099	1,509	1,487	2,127
FRG	61,593	79,167	10,028	13,191	2,813	3,167	-	3,571	-	-	-	-
UK	153,439	255,500	-	-	-	-	-	-	-	-	-	-
Japan	52,929	51,333	10,883	10,887	1,261	1,570	-	-	1,372	1,375	1,854	2,000
France	45,572	61,111	8,803	7,646	1,699	1,714	2,348	1,978	1,891	2,137	-	-

Source: FAO, Production Yearbook, 1990.

the quantity at individual sites is not substantial enough to permit technically feasible and optimal use of the husk. In the case of sugarcane, the village cane crusher does not deliver the full glucose content and the open pan *gur* or *Khandsari* technology continues to be less efficient. Similarly, the modern solvent extraction technology can yield 8-10 per cent additional output of edible oil. One can multiply such instances. New technologies could help reduce the bulk of agricultural produce for easy storage, bring down transport costs and provide more efficient and convenient handling. Creation of cold storage capacities requires colossal investments with substantial demands on the energy sector, so the cold storage is not a convenient or long term remedy to the problem of preservation. Fruit may be less perishable, when preserved as juice or pulp, and vegetables may have a longer shelf life, if stored after vacuum dehydration or packaged in saline water and other preservatives.

- (4) The allopathic medical system prevalent in India was introduced and promoted during the British rule. The indigenous systems of medicine, namely, *Ayurvedic* and *Unani*, unlike the allopathic system, are based on herbs, plants, fruits, vegetables, and a variety of seeds. They are relatively cheap and safe, compared to the side effects of allopathic drugs. They have been practised in India since antiquity. With state patronage and growing awareness of the side effects of many allopathic drugs, more medicines, based on natural products, are being demanded than ever. The alternative medical systems are also environment friendly. In fact, a number of new personal healthcare products, based on traditional concepts and remedies, have already become commercial success stories. The need for a better and keener understanding of various forest and agro-products as health foods and remedies is now well recognized in most industrialized countries. There can be a large national and international market for agro-based health products, products based on herbs, plant roots, fruit, leaves and vegetables provided these are processed, packaged and marketed in accordance with internationally accepted standards. There is also a growing awareness of the use of environment friendly organic insecticides and manure from farm waste material. The emergence of 'neem' preparations as safe and effective insecticide is a case in point. A good deal of progress has already been made in the area of bio-gas technology for a healthier, more convenient and cheaper source of energy in rural households than any known to them so far.
- (5) The poor in India suffer from food deficiencies on two counts, namely inadequate calories and absence of nutritional balance in food intake. Development of food processing industry would undoubtedly reduce wastage and make for better returns and production incentives to farmers. The additional and associated advantage that the food processing industry offers is the possibility of affecting addition of appropriate vitamins and minerals in which the average Indian diet is considered deficient. Examples

of this type, where this opportunity is already being exploited are: iodised salt, processed milk supplied in urban areas, hydrogenated vegetable oil and bakery bread. Food-processing industry, viewed in this perspective, can contribute to the evolution of a more balanced diet system, especially for the poor.

- (6) Avoiding the ill effects of reliance on large private corporations, whether Indian or foreign, would be possible, only if cooperatives are encouraged to take up agro-processing in a big way. That would also enable them to realize the economies of scale. They offer, in addition, the best means of harmonizing the interests of the producer, the processor and the consumer. Also, given the pattern of land holdings in most states, it seems unrealistic to plan for large private farms, which would specialize in the production of a certain vegetable or fruit. Besides the conflicts between the large processing plants and numerous small suppliers of farm produce, the problems of adopting mono-product cultivation for a region would be rather gnawing. Problems of pest control, canal or underground water management and preservation of seed purity against pollen transfers would also require special coordination. The conflicts and technical problems can have solutions, but the Government would find it particularly hard to pursue the objective of "market-oriented technology" especially in conditions prevailing in most regions of the country. Coordination, whenever sought by official agencies, proves a more difficult operation than in a cooperative system, that brings farmers together as a result of enlightened self-interest. A publicly controlled and managed industrial system would be more responsive to societal needs such as introduction of environment friendly production processes. More importantly, introduction of harmless bio-fertilizers and bio-pesticides is easier in a cooperative setting. The farmers should be encouraged to form cooperatives to establish and run agro-industrial complexes for total processing of organic produce of specified types of crops.⁵⁷

^{57.} In a sense, this is somewhat akin to the approach suggested by the National Committee on Development of Backward Areas. The Committee recommended the setting up of processing facilities by Market Committees. It suggested :

It is first of all necessary as the first move towards effective development of agro-processing units in the backward areas to establish fully effective regulated markets with professional supervision covering the important cash crops in the area.... This Committee suggests that the best help the Market Committee can give to the farmers, is to organize the necessary agro-processing industry at the market yard or nearby.... Further a local industry stabilizes the market for the raw material. The Committee, therefore, recommends that the best solution is for the Market Committee to:

- (a) organise and run the agro-processing industry and thereby support the market to give a fair price to the farmer, or
- (b) be the major partner in the venture and give shares to the farmers, who generally

- (7) At the core of this approach is the 'area', whether one looks at it as a district or an agro-climatic region, which enables introduction of specialization in crop production and installation of wide scale and intensive processing for gaining maximum value addition within the region. Policies have so far been governed by mere supply of inputs --- fertilizers, irrigation, insecticides, seeds, etc. --- to the locals. But surpluses are taken out and processed outside. While more research is necessary to discover new uses for today's 'waste' materials,⁵⁸ there are already many proven commercially viable processes, which could be taken up for implementation in these agro-industrial complexes. Byproduct systems for paddy, sugarcane and groundnut are well known.⁵⁹ (See: Appendix for possible product structures of these and a few other crops.) The specialized agro-product complexes could be equipped to process a crop for its various products and byproducts up to a stage, where it becomes economically unviable.
- (8) Modernisation *per se* can never be unacceptable. Had it not been the case, one would not have had the benefit of the green revolution nor could one think of fully exploiting the agricultural produce. What one is concerned with is the type and means of achieving it. A modernized industry in a rural setting would also find employment for the educated unemployed, semi-skilled and the unskilled rural workers. It would also help realize the objective of "back to villages" while breaking simultaneously the stranglehold of an endemic occupational structure.
- (9) Marketing is an area that requires a very special attention. Large corporations, Indian or foreign, have an edge in marketing. Without unduly hurting the interests of the consumers, one should be able to utilize the existing infrastructure to distribute the products of cooperatives. The very fact that members of cooperative societies can get goods at concessional rates could provide the initial thrust for their consumption and a demonstration effect for further acceptance of these products by others. Besides, all the consumer cooperatives, including Super Bazars, could be made to provide a certain minimum shelf space for the products of

use the market yard and run a joint agro-processing industry providing the expert management to the venture stabilizing the price to the producer.

(See: INDIA, Planning Commission, National Committee on Development of Backward Areas, Report on Industrial Dispersal, October 1981, p 53).

58. For instance, rice bran was used earlier almost exclusively as cattle feed. Solvent extracted oil from the bran is now being used as a raw material in the soap industry while the refined variety is being used for edible purposes. The resultant do-oiled cake earns substantial foreign exchange as cattle feed.

59. For a detailed description of these see: V R Gaikwad, "Application of Science and Technology for Integrated Agricultural and Rural Development: A Farm-Industry Linkage Approach", in U K Srivastava and S Vathsala (eds), Agro-Processing : Strategy for Acceleration and Exports, Oxford & IBH, 1989.

cooperatives. One could also enlist the support of non-governmental consumer organizations to educate consumers about the inherent qualities of the products offered by the cooperatives. In spite of the proliferation of provision stores in each and every residential locality in towns and cities, mobile shops run by public authorities/Super Bazars do attract throngs of consumers. The assurance of quality, price and product genuineness is the major factor responsible for their success. The same is the case of the 'Fruit and Vegetable Shops' of the National Dairy Development Board. They indicate clearly the potential for such marketing machinery.

Reservation of a certain portion of prime advertising time on the public television network at concessional rates is another step necessary to balance the marketing thrust of large corporations. Foreign brand names, whether original or in hybrid form, might be disallowed in agro-industrial products to give the local processors an equal chance of competing. Preferential treatment in purchases by public bodies might also be extended to cooperatives, provided the products meet quality standards and prices are within the acceptable limits. For example, dressing cotton and bandage cloth of a cotton complex and intravenous dextrose fluids of a corn complex could be preferred in Government Hospitals. One could even think of transferring certain public and private sector industrial units to the cooperatives.

Carrying forward this idea, one can visualize apex cooperatives for each type of processing complexes. These could be assigned the responsibility for coordinating with national and regional R & D laboratories, if already existing, and if not, setting up their own units. The basic thrust in such attempts need not be of a sophisticated hi-tech variety but which is at least innovative and adaptive in nature. Research and improvement in tools, implements, processing machinery, designs and packaging material would be an integral part of such an effort.

- (10) Advancement of agro-industries, fully integrated with the developmental needs of rural population, calls for bold and possibly unconventional measures. At the administrative level, it requires urgently the creation of a district level authority vested with wide-ranging powers and having majority representation of cooperative bodies. This authority would be the nodal agency for providing various support services such as information on crop varieties, weather, products, markets and coordination of technology acquisition.