

"A Critical Analysis on Role of Co-Operatives in Export of Horticultural Produce from India"

Mohammad Zia Hasan

Student, Department of Business Administration Aligarh Muslim University

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ABSTRACT:This research paper is about the role of cooperatives in export promotions of horticultural produce in India. India, as a result of its agro-climatic diversities, is one of the few

I. INTRODUCTION

Government of India has identified certain thrust sectors for special export efforts one of such sectors is export of processed foods including fruits juice, fresh fruits and vegetables. India, as a result of its agro-climatic diversities, is one of the few countries of the world which are capable of growing various kinds of fruits and vegetables, temperate, subtropical and tropical, the year round. Among temperate fruits are Apple, Peach, Plum and Cherry. Papaya, banana and pineapple are tropical fruit-plants while lichi, mango and sapota are subtropical fruits. Similarly, vegetables like snake gourd, lady's finger (Okra), chillies and beans are harvested during summer and rainy seasons while cabbage, cauliflower, potato, beetroot etc. are harvested during winter season. Thus, some type or the other of fruits and vegetables are always available and therefore the trade based on fruits and vegetables can be carried out throughout the year. The horticulture crops (including plantation crops) grown in only 6.7 percent of the cropeed area in India contribute to more than 18 percent of the gross value of agricultural output and 52 percent of export earnings from agricultural produce. Fruits and vegetables can earn twenty to thirty times higher foreign exchange per unit area than the cereals which occupy the larger portion of our land.

II. PRESENT LEVEL OF INSTITUTIONAL FRAMEWORK

Most of the items pertaining to fresh fruits, vegetables and processed foods are under OGL and can be shipped by any exporter. Open countries of the world which are capable of growing various kinds of fruits and vegetables. **KEYWORD:**Horticultural Produce, Exports, Agriculture, Promotion, Marketing and Pricing.

market competition is therefore imperative, resulting in cut-throat competition and pricecutting. Onion was such an item where, before canalization, cut-throat competition among exporting firms was the usual thing and the country got very low unit value realization. In the year 1972-73 the unit value realization was only Rs. 517/ton which after canalization of export of onion through NAFED went up by 239 percent to Rs. 1236/ton in 1975-76 and further to Rs.3074/ton in 1987- 88.

APEDA In 1986, the Agriculture and Processed Food Products Export Development Authority (APEDA) was set up by an Act of Parliament to export of selected agricultural promote commodities including processed foods. It also replaced erstwhile Processed Foods Export Promotion Council. APEDA has its Head Office in New Delhi. It is responsible for quality control and inspection, collection of market intelligence and promotion of exports of agricultural commodities including fresh fruits, vegetables and processed foods. It proposes to undertake data collection and dissemination market intelligence, of diversification of markets and products, technology upgradation, training in packaging, standardization and development of infrastructural facilities. It is headed by a chairman who is usually an officer of Indian Administrative Service.

NHB National Horticulture Board is another apex organization created to promote production and upgradation of horticulture produce, including fruits and vegetables. The Board has been created as an apex society under the Ministry of Agriculture to collect information regarding



production, yield' and crop area under horticulture produce, upgradation of quality of produce by improvement in pre-and post-harvest technology, and devise strategy for pest control, quality improvement, and disease control. The Horticulture Commissioner and Joint Secretary to Government of India is the ex-officio Chairman of the Board. It has acquired its own campus in Gurgaon, near Delhi and employed a team of agricultural scientists and experts.

CFTRI Central Food Technology Research Institute, Mysore is an international training and research organization which undertakes extensive research in food preservation and value addition to primary products by innovation in processing technology. CFTRI organizes a number of short, and long-term training and executive development programmes to upgrade the knowledge of food technologist of India and other developing countries.

ICAR Indian Council of Agricultural Research New Delhi has set up a number of research stations for different crops. Some of them are for horticulture crops like potato and mushroom. Potato Research Institute, Shimla and Mushroom Projects in Himachal Pradesh and other states are engaged in advance research in the field of quality upgradation, pest and disease control, seed production and yield improvement of these produce.

III. COOPERATIVE MARKETING

In the cooperative sector the country has three-tier marketing structure. The primary societies at the village or taluka level, State Cooperative agricultural or commodity federations at the state level and the National Agricultural Cooperative Marketing Federation (NAFED) and Tribal Development Coop. Marketing Federation (TRIFED) at the National level. There are around 3500 primary level societies but only a few of them are exclusively horticulture societies. At the Statelevel there are 25 apex-federations. Some states also have commodity federations for. horticulture produces. The pyramid structure of cooperatives in the country represents a very powerful concept in cooperative processing and marketing. These societies are formed by the farmers and producers themselves and work for their economic j welfare. Some of these societies at the primary level are doing good work but most of them are either dormant or ineffective. The state cooperative marketing and supply federations of Mizoram, West Bengal, Himachal Pradesh, Jammu S Kashmir, Punjab, Maharashtra and Gujarat deal in horticultural produce in a big way. Some of them

have their own cold storages and processing factories. MARKFED Punjab-, HAFED, Haryana and PCF, U.P. have set up a large number of fruit and vegetable processing factories.

NAFED at the national level undertakes price support operation in onion, potato, ginger and open market operation in these commodities as well as in apple, orange, sapota, mango and grapes. It has regular auction shops in fruits and vegetables wholesale market of Delhi, New Bombay (Vashi), Pune, Jammu and Srinagar. It also has set up multiproduct fruits and vegetable processing factories at New Delhi, Vellore (Tamil Nadu) and Jabli (HP) and a Cold Storage at New Delhi. Besides it has 31 branches and 4 regional offices throughout the country. NAFED' s annual sales turnover in 1988-89 was Rs.218 crores about 50 percent of which was accounted forty horticulture produce. The Cooperatives have lately improved their performance in marketing of fresh fruits and vegetables. The value of fruits and vegetables marketed by cooperatives during 1988-89 is estimated at Rs.81.52 crores as against Rs.71.33 crores during 1987-88. NAFED continues to act as the canalising agency for export of onions and the import of fresh and dry fruits. During 1988- 89, the NAFED exported 2,35,214 tonnes of onions valued at Rs.68.82 crores and 21.66 tonnes of fresh fruits and vegetables valued at Rs.0.05 crore. NAFED also imported fresh fruits worth Rs.2.45 crores. The domestic trade of NAFED in horticulture produce was confined to onion and potato. It procured 54,220 tonnes of potato and onion worth Rs.7.65 crores and marketed these commodities within the country. : 255 : Some of the cooperatives which continued to do useful work in the field of marketing of fresh fruits and vegetables of their members are Bangalore Horticulture Producers Marketing and Processing Cooperative Society Ltd., Bangalore in Karnataka, Lahaul Potato Growers Cooperative Marketing Society Ltd., Udhagamandalam and Nilgiris Vegetable Growers Cooperative Marketing Society Ltd.. Udhagamandalam in Tamil Nadu; Cannanore Distt. Fruit Producers Cooperative Marketing Society Ltd., Kottayam in Kerala; Nasik Jilha Krishi AudyogikSahakari Sangh Ltd., Nasik in Maharashtra and the Gujarat State Cooperative Fruit and Vegetable Marketing Federation, Bardoli. NCDC National Cooperative Development Corporation (NCDC) has been created in i.964 by an Act of Parliament to extend financial assistance to cooperative marketing and processing units, its head office is at New Delhi and regional and liaison offices are located in almost all state capitals. NCDC has made an arrangement for



collaboration with the National Horticulture Board (NHB) with regard to implementation of a National Project on Post Harvest Management Aspects of Horticulture Crops. The main objective of the project is to reduce the post-harvest losses by adopting scientific post-harvest operations and to create proper marketing infrastructure including that for retailing. This is likely to increase the net income of the growers and also maximise their share in the consumer rupee as the middlemen would be avoided. The NCDC has so far assisted 38 fruits 8 vegetables processing units of which 32 units have been installed. During 1987-88 the processing units produced 2701 tonnes of fruit and vegetable products and marketed products worth Rs.2.80 crores.

IV. COOPERATIVE COLD STORAGE

The importance of scientific cold storages as a pre-requisite for preserving potatoes and other semi-perishable produces in fresh and nutritious condition and as a necessary infrastructure for their marketing is well recognised. Cooperative cold storages help farmers in the marketing of potatoes other semi-perishable produce and more advantageously by avoiding distress sales at harvest time and taking advantage of better prices later on. These cold storages also play a useful role in ensuring a steady supply to the market with reasonable return to the grower. By and large, establishment of cold storage units continued to be an adjunct of the cooperative marketing societies. However, quite a few are also being set up by societies organised exclusively for the purpose. The state cooperative marketing federations, located in the major producing states, have been taking keen interest in this activity. Rapid increase in yield as well as the area resulting in surplus potato production, has necessitated creation of additional cold storage capacity in the cooperative sector particularly in the major potato growing states of Uttar Pradesh, West Bengal and Bihar. As a result of financial assistance and technical support provided by theNCDC to promote cooperative cold storage, there has been a perceptible increase in the number of cold storages and their capacity. Finances from the World Bank under NCDC Project are also availed for assisting cooperative cold storage established in the potato growing states, to help in marketing of potatoes. At the end of March 1989, the number of cold storages organised in the cooperative sector was 239 with a capacity of 6.79 lakh tonnes. Of these, 222 cold storages with a capacity of 6.09 lakh tonnes have been installed accounting for 10.92 percent of the total cold storage capacity available in the country.

TRIFED The Tribal Cooperative Marketing Development Federation of- India is another national level cooperative institution to market produce of the tribal areas of the country. It was set up in 1987 with head office at New Delhi. It has made an impressive beginning and achieved a turnover of Rs.22 crores in its second year of incorporation. It is a canalizing agency for Gumkaraya and a nodal marketing agency for tamarind, Sal Oil, myrobalan and other tribal produce. It has set up branch offices in the tribal areas and port towns including Bombay and Madras.

AADF Associated Agricultural Development Foundation was set up in 1977 by NAFED and other associate shippers of onion to undertake research in pre -and post-harvest technology of onion. Itheadquarters is located at Nasik (Maharashtra). The Foundation, at present, has 18 extension centres, four research centres, and three laboratories. The organisation takes the advantage of research to the farm level and lays emphasis on the adoption of improved agricultural practices and post-harvest handling of onion. It also arranges production and distribution of seeds of onion, cabbage, okra, chillies and cauliflower. It has promoted modern aerated storage structures for onion in Maharashtra and Northern States of Haryana, Rajasthan and Punjab.

V. INTER COOPERATIVE TRADE

Cooperatives are economic institutions of the producers or consumers, formed to facilitate economic amelioration of their user members. In India, for example, all marketing cooperatives are farmers' organizations. International trading among the cooperatives of different countries is much more limited than international trading by Cooperatives as a whole. The International Cooperative Alliance (ICA), the world forum of the cooperatives, has appreciated the need and desirability of inter-cooperative trade since long. The 19th congress of ICA held at Paris in 1954, inter-alia, had resolved that the national organizations of consumers as well as producers should achieve more extensive collaboration among themselves in the international field. The real inter-cooperative trade, according to ICA, Congress, should be, not only between Cooperative Organizations of producers but also between producers and consumers.

The successive congresses of ICA reiterated their resolve for growth of intercooperative trade. The 28th congress, held at Hamburg (F.R.G.) in 1984 expressed its regret that the development of International Trading links



between cooperatives was frequently inhibited by barriers imposed by governments and other agencies, through controls and regulations of various kinds, and called upon all ICA member organizations to work towards the removal of all such barriers. Recognizing the fact that the cooperatives in western countries had been purchasing billions of dollars' worth of goods from Asian Countries, the "ILO/SIDA Coop trade project for Asia" was initiated by the International Labour Organization (ILO) and the Swedish International Development Agency (SIDA) in 1978. The main objective of the project was to promote trade between cooperatives within Asia, as also with western cooperatives. Trade between the Cooperative Wholesale Society of U.K. and the New Zealand Dairy Cooperatives dates back to 1921 and is conducted through the New Zealand Produce Association, London. In Australia and Zealand, agricultural New the producers' Cooperative wholesale federations do а considerable amount of trade in, U.K. through the Overseas Farmers' Cooperative Federation Limited, London. In_-% Philippines the Central Cooperative Exchange, INC imported during 1965, agricultural inputs from Japan and Jute bags from India. The Japan Cooperative Trading company ZEN- N 0 H does considerable amount of trade with the Soviet Consumer's organization ' CENTROSOYUS' and Cooperative Marketing Federation (CFT), Thailand ZEN - HOH exports canned oranges to Nordisk AndelaForbund (NAF), the Scandinavian Cooperative Wholesale Society) and GEG in FRG. The UNICOOP of Japan does considerable amount of trade with cooperatives in Thailand, the Republic of Korea, USSR, Czechoslovakia, Brazil, Argentina and Peru, early in 1970, a contract was signed between UNICOOP Japan' and NAFED in India for export of feed stuff raw material to Japan. The Sydney" Depot of the Cooperative Wholesale Society" Australia exports canned fruits to cooperatives in F.R.G., Iceland and Sweden. NAFED was exporting onion to the cooperatives in Malaysia for a number of yAlthough some countries and institutions in the cooperative sector have taken good lead in inter-cooperative business, the progress is far from satisfactory. It is often observed that when two cooperatives deal with each other, they expect perfect performance from each other. In case something goes wrong, they not only try to shift the blame on one another, but often very much publicise it at various forums and a deadlock is created. However, when only one side of the trade is a cooperative and the other side is. :a private trader, the cooperative often does not face the difficulties because of greater flexibility of

approach of the private trader who may adjust himself if, overall, he is not a loser. A tolerant and flexible approach is therefore called for in intercooperative trade. Profit and loss particularly in a new business, is a normal thing and no one can completely avoid it. Cooperatives' management should also accept it boldly and as a necessary thing in the long-term interest of mutual trading. The inter-cooperative trade promotion has become all the more necessary for the following reasons: a) The cooperatives are close to the farmers (producers) as well as consumers and can serve them better with spirit of service and dedication, by inter-cooperative trade between producers' and farmers' cooperatives. b) The cooperatives have economy of scale which is all the more necessary in today's international trade. They can maintain regularity of supplies, execute huge size of order book as required by modern chain-stores, multiples and supermarkets and maintain standards and quality in product, packaging and delivery schedules. c) The cooperatives could make longterm investments in product adaptation and development and undertake promotion in order to popularize Indian products. This will not be a feasible proposition for a trader- exporter whose approach is rather limited and myopic as he has limited scale of operation. The cooperatives could thus build an image for the product as well as for the country. d) The cooperatives could be more efficient than a private trader as their linkage is right from the farm head to the ultimate user. They have available infra-structure in terms of retail outlets, warehouses, lorries and facilities for processing, grading and research and development. In case these subsystems are efficiently coordinated, the cooperatives could be costeffective in their operation. e) The cooperatives could avoid cut-throat competition, presently prevalent among private trade. They could establish some order in the trade by timely fixation of voluntary MEP (Minimum Export Price) and thus help the country to earn higher foreign exchange. By their very size they are in a better position to bargain and strike a better deal. Here it will be interesting to cite the example of psyllium seed and husk. This agricultural item has medicinal use and is a raw material for laxatives. India being only major producing country of psyllium husk, we could have dictated the prices but for years cutthroat competition among private traders had kept the unit valuerealization terribly low. Now with the intervention ol NAFED and GUJCOMASOL after fixation of MEP the multinationals have also become more alert and propose to process it in India and export at ten times higher price, than



what is being realized at present. The Govt. of India may consider canalization of export of such items through the cooperatives. Cooperatives being producers' organisations could provide higher income to the farmers through custom-farming and better export realization for the farmer's products. This will create greater interest in him to produce and to invest in his farm management. g) The consumer cooperatives of Japan and Sweden have started movements for propagation of natural produce harvested without use of chemical fertilizers and pesticides. The cooperatives in India could benefit from such movements hv encouraging production and exports of fruits and vegetables according to the requirement of these cooperatives and by using organic manures. h) Joint venture between the buying and selling cooperatives of industrialised countries and developing countries could promote stable international cooperative trade. NAFED and universal cooperatives of America have entered into such joint venture for- export of Niger seed from India. This concept could be further extended in the field of export of cashewnuts and import of almonds. i) Food laws of the country are better understood by the local cooperatives. They are also in a position to create a farm lobby and educate and impress upon their governments to amend any restrictive provision of the law which has been incorporated without proper understanding of the product composition of exporting country. Intercooperative trade could therefore play a useful role in overcoming unreasonable governmental and legal barriers to the trade. j) Inter-cooperative trade could substantially reduce the multifarious risks involved in foreign trade. They can effectively cover the risks pertaining to commodity price fluctuations, inland freight, ocean freight, demurrage charges, quality charges, buyers' credit risk, variable levies and the risk of changes in governmental policy of importing and exporting countries.

VI. OPERATIONAL MECHANISM OF INTER-COOPERATIVE TRADE

Inter-cooperative trade involves essentially; long term large-scale arrangements that would allow the two cooperatives to participate in spot markets and import markets of one another's country. The business relationship could take many forms some of which are: - Intercooperative trade arrangements through signing a memorandum of understanding. Counter trade, barter trade or link trade between two cooperatives directly or through a third country's cooperatives. - International marketing agency in common. Coproduction agreement for exclusive export market. - Marketing tie up with the Importing cooperatives. - Agency business. In agency business, the cooperatives act. as one another agent in trade, on a nominal service charge and for pre-determined services. Intercooperative trade agreements are intended to contribute greater market stability and remunerative price to farmers by ensuring quality products consistently and in quantities requin by the syndicated buyers. The unique feature of the inter-cooper? tive trade lies in the fact that the involved institutions reduce risks by forward contracts and hedging in commodity futures and currency markets. The working arrangement could be vertically integrated with price policy being determined by supply cooperatives. The importing cooperative may get the product produced, packed and shipped by the exporting cooperative to farmers' specifications and knowhow as per their consumer and market needs. The importer cooperative may take title of the product at the port of entry, and undertake responsibility for storage. insurance, shipping, inventory and sales on a fixed marketing cost or on commission basis. The other functions to be performed by the importing cooperatives may include analysis of market information, coordination with administrative r ministries and food and drug administration, etc. In terms of number and membership of cooperatives it is reputed that the Indian Cooperative movement is the largest in the world. The Govt, of India recognizes cooperatives as a potent economic and social force and uses the cooperative institutional network to achieve national objectives. They are appointed as 'canalizing' agencies for exports of agricultural commodities. Currently NAFED is canalizing agency for export of 'onion, while TRIFED is the canalizing agency for export of Gumkaraya a forest produce. One of the recent international cooperative trade arrangements came into force when Universal Cooperatives of USA while searching for a new programme to benefit its members decided to enter into a long-term agreement with NAFED for import of 'Niger seed' used primarily as a feed for goldfinch and other song birds. The shift in business was gradual, starting first with 17 percent of total trade being diverted to inter-cooperative trade in 1985-86, then 27 percent in 1986-87, 59 percent in 1987- 88 and 100 percent in 1988-89. Now the entire quantity of export of Nigerseed by NAFED is being handled by the Universal Cooperatives. The US cooperatives which entered into the nigerseed market soon became the market leader in their country commanding over 75 percent of total US market. A vast potential of inter-cooperative trade



exists between Indian business cooperatives like NAFED and TRIFED with ZEN-NOH and UNICO-OP of Japan, United cooperatives Atlantic and United Cooperatives Cooperative de Fedenee De Quebec of Canada and Cooperative Business International and Universal Cooperatives of USA. In USA there are 5 local, 10 regional and 1 interregional cooperatives which exclusively deal in fruits and vegetables. Their total annual turnover in 1980 was US\$ 2.7 bn (Rs.3500 crore). In Japan the central organization of marketing cooperatives ZEN-NOH has a large wholesale fruit and vegetable market in Tokyo and a number of other wholesale markets in prefecture headquarters. It has six overseas offices, 47 prefectural offices through the prefectural Federation and over 4000 member societies at the primary level. Zenchu, the apex organisation of Japanese agricultural cooperatives has a membership of 8,854, primary societies and 717. prefecture and regional federations the total business handled by ZENCHU in 1986 was Y 7474 by (Rs.7400 crore). Canada also has three-tier cooperative structure The second-tier cooperatives are owned and controlled by 33C consumer and supply cooperatives. They serve more than 7.5 lakh families. In 1986 their annual turnover was US\$ 1.4 bn. (Rs.2100 crore). In EEC countries the consumer cooperative movements are very powerful and handle sizeable percentage of consumer business. Their organizations like inter-coop and NAF utilize their strength in bulk buying and getting better terms for their goods. We therefore feel that there is enormous scope of promoting inter-cooperative trade in fresh fruits, vegetables and processed foods. Unfortunately, the potential has not so far been fully identified and exploited. As a first step therefore, the Indian cooperatives may be given nodal role in promoting international trade in these products. Encouragement by the Government to the Cooperatives in international trade would help to a great extent in achieving social objectives of providing remunerative prices to the farmers, ensuring reasonable price to the consumers and creating healthy competition and fair practices in the trade.

VII. CANALIZATION OF EXPORTS THROUGH THE COOPERATIVES

Canalization of exports through a designated agency has been successfully tried by the Government of India in many items of sensitive nature. Export of onion was canalized through NAFED in 1975. A study done by Indian Institute of Foreign Trade (IIFT) on the impact of canalization has in its report (1982) pointed out that

for a sensitive item like onion, which has a large measure of domestic demand and forms an important constituent': of the common man's diet in India, some form of regulatory control over exports is essential. The report further reads as under: "It is also a fact that the very presence of a monolithic organisation like NAFED, with a wide network of procurement and marketing centres, has brought about an element of stability and discipline into this trade. Its voluntary price support operations have had a salutary effect on onion prices during the harvest season besides providing a psychological boost to the cultivator." "Established traders, who normally purchase fairly large stocks at low prices would not apparently like the prices falling to uneconomic level, a feature characteristic of cut throat and unbridled competition, similarly for exporters the risk factor and trade losses have been considerably minimized, if not eliminated by canalization. Prior to the scheme of canalization, export trade in onion was conducted on D/P terms with its attendant risks. Quality control was practically non-existent. Heavy losses were reported on account of quality rejections. In the absence of any price control exporters indulged in unhealthy intense competition to the detriment of national interests. Canalization of onion export has brought in some positive changes in the pattern of trade, such as the insistence on confirmed irrevocable letter of credit, quality control and grading requirements and fixation of minimum export price (MEP) to check various malpractices. As a consequence, the exporters or 'associate shippers1 as they are termed under the canalization scheme, reported definite profits and a stable environment for export trading operations." Canalization of export of onion and consequent voluntary domestic price support extended by NAFED to the onion growers has provided them remunerative prices and helped in stabilizing consumer prices during the off season. Before canalization, the prices of onions used to fall in the producers' markets as low as Rs.8-10 a quintal during a good crop and flare up 8 to 10 times during the off season. After the canalization, NAFED could stabilise the prices for the farmers at the level of Rs.60-75 per quintal during the off season. Thus, the gap between the producer, price and the consumer price has been considerably reduced. Also, the per unit foreign exchange earnings increased more than six times and the spoilage in transit considerably reduced. Canalization of onion is an excellent example as to how the interests of the producers and consumers can be safeguarded by the Government by utilizing the services of cooperative structure. Similar steps



are required for promotion of procurement and exports of mushroom, psyllium seed and husk and fresh fruits and vegetables. The cooperatives should play the role of nodal agencies for extending price-support to the growers of these items and monitor and promote their exports. Theyshould invest substantially in overseas market research, product development and product adoption. Another area of substantial efforts and long-term investment is promotion. Without adequate promotional measures no product will move off the shelf. Agricultural products are no exception. Traders may initially resist canalization, but with growth of size of world market for Indian products, will be the ultimate beneficiary. Canalization is only the monitoring and promotion of trade in overall national interest and not a restriction to private initiative. It brings order to the trade and therefore be welcomed by all well- meaning people associated with the export trade.

VIII. CUSTOM FARMING AND PRODUCT INNOVATION

'Custom farming' is farming activity basically undertake! for exports. The importing country has very specific quality requirements. The intrinsic qualities like taste, juiciness, flavour and extrinsic qualities like size, colour, texture etc suited to the importing country's requirements may be hac in the exportable produce by choosing a suitable cultivar and adopting recommended preand post -harvest practices. This may differ substantially from the domestic production requirements. The concept of custom farming is a cooperative concept which may succeed only by the joint efforts of agriculture scientists and entrepreneurs. This needs selection of proper: soil, preparation of land, nursery raising, planting of appropriate cultivars, protection from pests and diseases, timed irrigation, proper plant care, use of appropriate mix of fertilizers and manures, bird scaring plucking of fruits at the proper time grading, export packaging, timely shipment after precooling, and maintenance of temperature during transport and storage. All these steps call for personal care and attention and heavy investment in farming. Custom farming is undertaken only where export is more profitable as compared to domestic marketing and where there is assured overseas market. The precondition for custom farming therefore is systematic market development and promotion of the product in overseas markets. In fact, the countries like Indonesia, Thailand, Kenya and Brazil have already tried this practice with great success. Custom farming is equally useful for processing industry, where raw material is

produced according to the tailormade requirements. The quality of processed fruits and vegetables depends on the quality of inputs. By custom farms the requisite quality of primary produceis cultivated and brought to the industry for processing at the appropriate time. Most of the processing industries are starved of requisite quality of primary produce in sufficient quantity at regular time interval. Custom farms could help them in ensuring their capacity utilization and improving quality of their end products. This is all the more necessary if the processing is undertaken for exports. Custom farming is the best tool for product innovation and adopting, where the agricultural scientists in association with entrepreneurs develop suitable cultivars for the target market and multiply production of such cultivars by practising recommended farm practices. Farm mechanization, economy of scale of production and closer laboratory and farm cooperation arenecessary elements of custom farming. State Governments should provide industry status to such farms and exempt them for application of land ceiling laws.Grading and Packaging At present the producers of fruits and vegetables in Indi undertake grading and packaging only to cater to the requirements of wholesale market, where they bring their produce and auction them to the highest bidders. The cooperatives, wherever prese help them in securing remunerative prices. This concept of grading and packaging has limited use only for the domestic market. For export marketing strategy the time element is most important. The traditional exporters are mostly operating for; the mandis, the wholesale markets and undertake regrading and packaging of goods purchased from the producers at th mandi level, as per overseas buyers' requirements. This essentially is a duplication of- efforts. Export grading and packaging may either be done at the farm level, in case of imminent shipment otherwise at the storage level, just before the shipmen takes place. This will save cost and time and exportable stock will not have to be carried all the way to the wholesale market The function of grading and packaging will have to be linked with the custom farming where automatic grading sieve and conveyor belts will have to be installed to avoid frequent manual handlings. NAFED's onion grading- yards at Lasalgao: and Pimpalgaon may perhaps take a lead in this direction in case of grape exports, the practice of grading and packaging, at farm yard isalready in operation with the initiative o Fruits and Vegetable Cooperatives (VEFCO) of Lasalgaon, Maharashtra. Packaging is not only for safety and convenient handling of the produce, but it also



attracts the buyers and conveys country's image. The Indian Institute of Packaging, Bombay has undertaken a number of experiments in improved packaging of fruits and vegetables. The cooperatives in India and private exporters may adopt some of the improved packaging standards, designed by the Institute with indigenous material.

IX. QUALITY CONTROL AND PRESHIPMENT INSPECTION

In order to achieve and sustain growth in exports of fruits and vegetables it is imperative that Indian exporters may prevent substandard goods being shipped out of India. The export inspection is therefore an essential pre-requisite for expanding export markets. In. order to minimise the complaints from the overseas buyers on the quality of goods exported from India and to promote the exports on a long-term basis through quality control and preshipment inspection, the Government of India enacted the "Export (Quality Control and Inspection) Act. 1963." The fruits and vegetables including processed foods fall under notified commodities under the said Act and are subject to quality control or inspection or both prior to export. The processed fruit products were bought under the purview of the Act on 13.5.1978. The necessary elements of quality control are raw material control and bought out component control, process control., product control, Ecological control and packing control. Quality standards in developed countries are very high. For example, in Japan, USA and Europe the edibles are rarely touched by bare hands. The fruitsQ vegetables being living items, their quality has to be adjudged at the time of final purchase by the ultimate consumer in the overseas markets. At the time of shipment, therefore, they could be so compact and study that for the next fifteen to twenty days they should be able to retain their colour, texture and other physical attributes. As a result of quality and keeping characteristics. Japanese products are selling fast all over the world. The quality of exportable products therefore should not be compromised at any cost. It is better not to export, rather than to export a substandard product. Ag-Mark, FPO and APEDA are the three authorities designated to undertake quality control and preshipment inspection in processed and fresh fruits and vegetables and forest product. At present they undertake consignment-wise inspection at the time of shipment. It is necessary to introduce inprocess quality control to encourage advance farm practices and scientific grading, packaging and storage practices of these produce. Besides compulsory quality control and inspection, it would

be desirable to build up a quality culture through voluntary quality control. Like A'Coop Japan, the Indian cooperatives may build an image for themselves through quality. NAFED's Food Processing Plant in Delhi has won a number of prizes in state level quality contests. Other cooperatives may follow suit and build up a "Coop" brand image in international market on the basis of stringent quality control.

X. LOGISTICS

India is a large country with 32.5 lakh sq.km, area. Logistics therefore becomes all the more important. The exporters have first to manage internal transport of products and then the international transport. For fruits and vegetables, the temperature control during transports equally a critical factor. As on date the transport infrastructure is far from adequate. The fruits and vegetables are mostly transported from long distances in private lorries. There is hardly any refrigerated van or lorry which could transport the produce under regulated temperature, particularly during long summer months. Railways are the main inland transport system. Since i - railways are run by the Government, they have their own priority system. The perishables like fruits and vegetables are treated as 'G * priority items which could be moved only when 'A' and 'B' priority items are not pending. There seems to be little logic in this kind of priority fixation where food grainstake precedence over fruits and vegetables in movement by rail. Best export incentive for fresh fruits and vegetables would be development of transport infrastructure. The Government will do well by creating exclusive haulage capacity for fruits and vegetables by providing aerated- and freezer wagons particularly for exportable cargo. Similarly suitable containers may be designed for perishables to suit to the needs of multimode transport. Perishable cargo, particularly fruits and vegetables should get 'B' priority category while the export worthy cargo be given 'A' category (equal to defence services) to ensure their timely despatch to overseas markets. The railways may perhaps do a big service to Indian exporters by providing extension lines and yards at the farm heads near railway lines to facilitate quick loading. During harvest season special racks may be organised to carry perishables from plantation area to the airports and docks. As yelt major air-cargo terminals do not have railway line extensions. Railways may also need latest equipment' to handle container cargo at major loading stations. Two other areas of investment in infrastructural facilities sea and air transport .. The Shipping are



Corporation of India may perhaps introduce a regular vessel service for Gulf countries by acquiring refrigerated vessels exclusively for movement of fresh fruits, vegetables, processed foods, meat, fish and other perishable cargo. This will reduce dependence on air-services and make Indian produce cheaper as compared to our competitors. On return journey these vessels may carry dates and other similar cargo. The increasing volume of exports would justify introduction of such services. Heavy subsidy may initially be extended by the Government, but in the long run such a service will become, a commercially' viable proposition. Most of perishable cargo from India including fruits and vegetables are moved by' air from Delhi, Bombay' and Trivandrum. The cargo handling facilities at these airports are inadequate and they are unable to handle fresh fruits and vegetables particularly during the period of heavy' arrivals of mangoes and grapes. It is therefore necessary' to improve the cargo handling facilities and to arrange additional flights whenever necessary to cope up with the increased seasonal rush. No perishable cargo, in fact, should wait for more than 24 hours at any airport. The air freight structure also needs rationalization. A study conducted by India Trade Centre; Brussels has brought out the case for heavy subsidy on airfreight from India to EEC countries. In fact, Thailand and Philippines have already subsidized their air-freight for transport of fresh fruits and vegetables. Similar subsidized rates could be introduced by India as well. Such subsidies will be in the national interest in two ways, first this will enable the country to earn foreign exchange and secondly it will provide remunerative prices to the farmers for their produce. Agriculture is subsidized all over the world. If we provide transport and freight subsidy, it will encourage fruits and vegetable revolution throughout the country. Another area in logistics is creation of overseas warehouses and warehouses/cold storages near air terminals. This will help in meeting the seasonal spurts in demand. It is understood that the demands for fruits and vegetables go up during the month of Ramzan. The warehouses in Dubai and Bombay could perhaps help meeting such seasonal demands more effectively. Similarly, one warehouse at Rotterdam could help in meeting European demands.

XI. COLLECTION OF MARKET INTELLIGENCE

APEDA has been designated as nodal agency for promotion of exports of fresh fruits, vegetables and processed foods. APEDA may perhaps open small liaison offices at Singapore Dubai, and Rotterdam to facilitate timely collection of market intelligence from South East Asian, Gulf and EEC and other European countries, and disseminate, such information efficient^ to all the exporters including the cooperatives. The market intelligence collected by APEDA may include daily retail prices, arrivals, market demands and information about the competitors, Similar information'; could also be collected from the associate cooperatives of the importing countries.

XII. EXPORT PRICING

The trickiest question, where the monitoring agency has to play a positive role in the area of export pricing. Taiwan, Korea and China are reputed to gain market entries by the mechanism of price-cut. The individual trader: of India has a small size of business and normally cannot be a price leader; He can at the most be a follower. There are several strategies in pricing, one of them is going rate, that is the rate which prevails in the market the other is market entry rate which is usually less than the market, finally there is skimming rate where fullest advantage is taken for early market entry and aggressive, presence in the market, particularly when the competitors supplies have not arrived. The nodal agency for exports of fruits and vegetables may; therefore, keep a close watch on the developments of the market and decide 'minimum export price' (MEP) every month for selected commodities. This should be floor-price below which no exporter should be allowed to export. A committee comprising leading traders may help the monitoring agency for fixation of such MEP. In case of onion exports this method has been found very useful where NAFED in consultation with associate shippers fixes MEP for onion on every 1st day of the month. All efforts on export front are meaningless if the country is not able to realize the targeted foreign exchange. Fixation of MEP has proved to be a useful tool in this direction.

XIII. PROMOTION

No product can gain and sustain market leadership without a suitable promotion strategy. Unfortunately, Indian products have not been systematically promoted in overseas markets. The growth in exports has been as a result of efforts of individual exporters and country as a whole has not backed them in their efforts. Promotion is a longterm strategy and has no immediate measurable rewards. The likely expenditure in promoting the products overseas is prohibitive and results may be enjoyed only in the long run. Every promotional



strategy has to be backed by extensive overseas market research, market segmentation, logistics planning, product development, pricing and marketing tie-up. Being a capital-intensive activity only the Government or a large cooperative organization could venture into such an activity. New Zealand has very successfully promoted their 'Kiwi' fruits all over Europe and USA, through concerted promotional efforts. Similarly, 'Del Monte' has promoted its canned 'fruit mixture' all over the world including Japan, USA, Canada and EEC countries. Similar promotional efforts may be made for Indian fresh mango, processed mango products and mushroom. Usual method for promotion is prominent display at the supermarkets, multiples and chain stores, including free samples for tasting. The other method for promotion is participation in trade fairs and exhibitions where Indian products could be served along with other local products. One method successfully tried by a number of exporters is gift market Annually during New Year, a lot of gifts are exchanged among the people. Indian products adapted to tastes and preferences may be offered in beautiful packs along with local products. This will promote usage of product and increase sales. Radio and T.V. commercials are only useful when the product has been accepted by the masses and is available at retail distribution centres. One method of generating mass-appeal is to develop blends and use them as Yoghurt flavours. For such ventures marketing tie-up with local manufacturers would be necessary.

XIV. MARKETING AND TECHNOLOGICAL TIE-UPS

Inter-cooperative or private sector tie-up for production of items as per market demands as well as marketing tie-up has been gainfully used by a number of countries for promoting their products overseas. Such tie-ups help:' in increased sates of the product overseas by using infrastructural facilities and marketing potentialities of the collaborators. The only danger is that if the tie-ups are with" multinationals, they try to maximize their own profits. It is therefore advisable to establish tie-up with consumer cooperatives and chain-stores which could provide sales outlets and promotional help for boosting sales of the product besides providing technical assistance in product adaptation and innovation.

XV. FUTURE PROJECTIONS

When we analyse the market potentiality of EEC countries, Japan, USA, Canada and Gulf countries we find that the opportunities for exports of Indian products are very wide. Produce like mango among fresh fruits and okra and beans among fresh vegetables have potential markets almost in all countries. Mushroom is another important item which is a protein- rich food and its import is increasing very fast. In Gulf countries the processed and fresh mango products, mushroom, orange, grapes, apples and all kinds of fresh vegetables have good prospects. For Malaysia, Singapore and Sri Lanka onion and mango are potentially export products.

XVI. CONCLUSION

Indian cooperative movement is deeply involved in agricultural credit and marketing. Over the yearsthe cooperativeshave built up a well-knit three "tier agricultural marketingnetwork. They have played pioneering role in marketing offresh fruits, vegetables, processed foods and forest produce. They were first to enter into export marketing of these groupsof products in fifties and sixties- and by now they have gainedsufficient expertise in the area. The Government of India hasrecognized the cooperatives as nodal agency for implementingprice-support operations, thereby providing remunerativeprices to the farmers. Exports of some of the agricultural.horticultural and forest produce items have been canalized through the cooperatives. The total marketing turnover of cooperatives in 1988-89 was over Rs.4500 crores while exports wereover Rs.100 crores. The canalization of onion through the cooperatives in1974-75 has brought in positive results. The unit value realization which was Rs.517/ton in 1972-73 increased to Rs.1500/tonin 1975-76 andRs.3074/ton in 1987-88. The volume of exports which was 0.52 lakh tons in 1972-73 has gone up to 2.75 lakhtons in 1989-90. Some order has been brought into the trade.It was then conducted in DA/DP terms and now irrevocable L/Cis compulsory. This is no mean achievement for a perishablecommodity like onion. The other resultant advantages of canalization are extending remunerativeprices to the farmers as wellas stabilization of the consumer prices and concerted researcland development 'back-up. The cooperatives in India are in a position to undertakesimilar canalization/monitoring role in the export of fresh fruits, mushrooms, psyllium husk, processed fruits and vegetablesand forest produce like nigerseed, gum karaya, sal oil, tamarindetc. NAFED and TRIFED, the National Cooperatives have alreadybuilt up a nationwide network of offices, procurement centers, processing and storage facilities as well as marketing expertiseto undertakes leading role in export promotion of



designatedproduct groups. The intake of fruits and vegetables in developed countrieswith higher per capita income, has substantially gone up. The OCED and OPEC countries in particular have emerged asbig importers of fresh and processed fruits and vegetables. The growing awareness of healthy protein-rich food and. Therising cost of labour in their own country have contributedin increasing imports. USA, Canada, Japan, France, F.R.G.and Italy which are themselves large producers of fruits andvegetables, undertake extensive imports of these items. The USA, UK and Gulf countries have sizeable Indian andWest Asian population which are regular consumers of tropicalfruits and vegetables. According to a rough estimate UK hasnearly 1.5. m.[^] USA has 0.5 m. and the Gulf countries takentogether have 2 m. immigrant population from this region. TheJapanese, the Caucasians and the Europeans undertake frequenttravel to Asian tropical region, and have developed familiarity with our fruits and vegetables. The promotion of yoghurt flavoursand fruit juice blends have also contributed towards the popularity of tropical products. Thus, there exists a potential marketfor exports of Indian fruits, vegetables and forest producein OCED and Middle East countries.India has a large population and therefore needs substantial quantity of fruits and vegetables itself. The question which thenarises is whether the export efforts are in national interestand will they not push up internal prices of fruits "and vegetables? To find an answer to this question we may have to godeeper into the dynamics of Indian agriculture. Thanks to the green revolution India is now self -sufficientin' production of cereals and is surplus in wheat. There is,therefore, a case for shift of some part of land under cerealsto pulses, oilseeds and horticulture produce. Produce likemushroom do not need any fertile land and could be cultivatedin hilly and arid tracks. Even the space in the air can beused for mushroom, as they are grown out of organic wastesand use artificial beds for their growth. In fact, they recyclethe environmental pollution and waste into a protein-rich produce.A number of perennial horticulture plantation like pear and applecan be planted in slopy lands which are unfit cerealproduction.Indian usually for agriculture is affected by disguised employmentwhere more people work than the land could absorb. The resultis many farmers do not have whole time round the year work.Horticulture and mushroom cultivation will provide them thegainful employment for their r leisure time. The additional inconnu derived from such activity could invested overall agricultural be in

development. There is considerable wastage of horticulture produce for variety of reasons. The harvesting season is short and arrival of large quantity of produce depresses the prices. Thestorage and movement facilities are farfetched and inadequate.As a result of fragmented cultivation and low holding capacitythe grower prefers to sell his commodity at whatever price:he could get. The contractors who often purchase the gardens, wish to vacate them at the earliest. The export marketing willin the first place provide an cutlet for the harvested produceand sudden fall of prices in the season will be contained. Secondly the grower will have sufficient incentive to grow and makeinvestments in facilities like storage and transportation. This in turn will revolutionize his economy and boost the production and the quality of the produce. The total exports of fruits andvegetables in any case are not going to exceed 10 to 15 percentof total production and therefore the country will still be leftwith more than sufficient quantity of fruits and vegetables asa result of savings of post-harvest losses and increased production. The processed food industry at present is operating onlyat 46 percent level of its installed capacity. The promotion of exports of processed fruits and vegetables on the one handwill decrease wastage of fruits and vegetables by processing and on the other, provide employment to the people in these industries.

Export marketing =needs export culture. This can be builtup by technological upgradation in farming, grading, storage and pest control facilities well as infrastructural developmentof as transportation, handling and processing. Some nodal agencyequipped with large resources is required to build up suchfacilities. The cooperatives of the growers may prove to be mostappropriate agencies to undertake such functions. In India they arewell-equipped to integrate national marketing with the internationaltrade and harmonize interests of both the growers and the consumers. In marketing of onion, they have succeeded in achievingsuch a harmony and their expertise could be gainfully used inother perishable commodities as well. They own 32 fruits andvegetables processing factories, 222 cold storages with 6.09 lakhtons storages capacity throughout the country. The cooperatives marketed Rs.81.5 crore worth of fruits and vegetablesduring 1988-89. They have fraternal relationships with othercooperatives of the world through International Cooperative Alliance.Govt, of India should therefore consider appointing them as canalizing/monitoring agencies for exports of mushroom, mango, psylliumhusk, nigerseed,



tamarind, saloil, guar gum. cashewnuts andother minor forest produce with export potential.Canalization/monitoring will be helpful not only in development of internal infrastructure, but also for overseas marketresearch, product development and adoption, promotion of productoverseas, gathering of market intelligence, inter-cooperative marketdevelopment and logistic planning with long term perspectivein national interest. No private trader would like to make largeinvestments in these areas.

The cooperatives may organize growers to cultivate mushrooms and undertake custom farming in other fruits and vegetables, they should undertake to offer minimum support price for allsuch produce which are grown in custom farms to ensure regularityin cultivation of export worthy fruits and vegetables. In caseof good profits, patronage rebate and annual bonus may also beoffered to custom farmers to' ensure their loyalty and exportcommitment. They should be provided by the cooperative's jointfacilities of plant protection, pest control, precooling, mechanicalgrading, scientific packaging, cold storage and despatch by refrigerated vans and under controlled temperature. wagons The harvesting and plucking of fruits and vegetables may be linked withshipment schedules to ensure despatch of saleable quality products in the overseas markets. The Indian cooperatives in association with ICAR may develop marketing tie-ups with European, American and Japanese cooperatives for production and marketing of mushrooms. The annualimport of mushroom in USA is 1.61 lakh tons, EEC, 80,000 tons, Japan 25,000 tons, Canada 10,000 tons and Gulf countries is over25,000 tons. The OPEC and OCED countries taken together importmore than 3 lakh tons of mushrooms in various forms. India couldto at least 10 percent of total world requirements, particularly that of the air and sun-dried mushroom, of the value ofRs.300 to 500 crores annually. India is rich in white button mushroom which constitutes 75 percent of world demand for mushrooms.Once the production and marketing are taken up systematicallyand in large scale, it may revolutionize the economy of hillyregions of Northern India, where it could grow round the year.

Mango has unique position among the Indian fruits. Itsplantation is spread over 12 lakh hectares with annual fruitproduction of 10 lakh tons. Mango accounts for 43 percent of total area under fruit and 57 percent of total fruit production.India, could, therefore, achieve economy of scale in marketingof this fruit and is able to compete in prices. The OCED andMiddle

East countries together import 2.5 lakh tons of freshmangoes and one lakh tons of processed mangoes every year in he form of mango juice, pulp, slice, chutneys, pickles and cannedfruit preserved in sugar. In 1987 U.S.A. alone imported 1.15lakh tons of fresh and 8,000 tons of processed mango, EEC countries imported 31,500 tons fresh and 10,000 tons processed mangoand Gulf countries imported one lakh tons fresh and 25,000 tonsof processed mango.India's export of mango is limited to 16,000 tons in freshand 30,000 tons in processed form which together is 5 percentof annual production. In case sea-freighting is made efficientand regular refrigerated vessel service in season could be introduced India may export one lakh tons each of fresh and processed mangoes. This will encourage plantation of latest dwarf varieties, renewal of old gardens by planting new trees, efficient pluckingand collection of fruit and utilization of installed processingcapacity. The South East Asian and Middle East countries are potential markets for onion. In 1987, the aggregate import of onioninto Malaysia, Singapore, Sri Lanka, U.A.E., Kuwait, Bahrainand Saudi Arabia, which are important markets of Indian onion, was 3.73 lakh tens. The share of imports from India was nearly50 percent. Introduction of freight subsidy could perhaps makeour onion more competitive and enlarge our market share from 50 to 75 and perhaps 80 percent. India produced 30 lakh toneof onion in 1988-89. In the harvesting season of rabi crop there is a seasonal glut and consequent rottage and wastage. This carbe minimized by efficient export marketing to neighbouring countries. The Middle East market is equally important for exportof other fruits and vegetables from India. These countries, almostexclusively depend on imports for their requirements of fruitsand vegetables. India exports about 15,000 tons of fruits and 80,000 tons of vegetables other than mangoes and onion to these countries, which is only 4 percent of their total imports. Indiawith its variety and quality of produce, could perhaps achieve10 percent of market share in these countries, provided regularrefrigerated vessel service and freight subsidy in air-servicesare introduced.Japan, Middle East countries, Europe and North Americaoffer excellent markets for canned fruits and fruit juices, pasteand pulp. Their total imports of canned fruit and fruit juicesincluding puree, paste, pulp and nectar is 2 m tons annually,5 percent of which (1 lakh tons) accounts for tropical fruitsand juices. India has a large food processing industry with installed capacity of 4.5 lakh tons which is operating only at40 percent level. Our exports of canned fruits and juices in 1988-89 accounted for



43,000 tons. In case an efficient linkage withconsumer cooperatives, multiples and supermarket chains abroadcould be built up, our exports can easily be doubled.

The critical factor in export of fruits and vegetablesis efficient transport system. Being perishable in nature theyneed to be shipped quickly under regulated temperature and humidity. The Government of India has introduced various exportincentive schemes for export promotion. For fruits and vegetables, the best promotional scheme could be the transport subsidy.Introduction of special/concessional commodity air freight ratesbetween some of the developing countries and developed marketshas helped in increasing their volume of trade manifold. Thesecommodity freights have been comparatively very low as compared to general cargo rates, and range between 20 and 30 percent of normal air-freight rates. (Please see Annexures j to TV).Most of India's fresh fruit and vegetable exports havebeen directed to UK for catering to the demands of ethnic Indianpopulation. In view of the captive market, Air India, reportedly,did not consider it necessary to fix special commodity air-freightrates and normal rates have been applicable for this group ofitems. On the other hand, the other developing countries' airlines, in their attempt to boost development of horticulture produceindustry of their respective countries and on instructions fromtheir governments, decided to fix special air freight rates. Incertain cases, airlines of the developed countries found it worthwhile to lift fresh fruit and vegetable cargo at concessional ratessince there was hardly any other cargo available from some of the developing countries.In February, 1985, however, the Air Cargo Tariff (TACT)in their 48th issue introduced special rates for foodstuffs, spicesand beverages and yet our freight rates. are 80 to 155 percenthigher than those available from African countries, 344 percenthigher than those charged by Pakistan and 58 percent higherwhen compared with Caribbean countries. These air-freight ratesclearly indicate the suffered disadvantages being by Indian Exporters.India operates in high-cost economy. The cost of production f most of fruits and vegetables here is much higher when compared with international prices. Fragmented holdings, small scaleproduction of individual units and wastage, rottage and spoilage further push up the unit cost. Infrastructure facilities areweak and sorting, grading and packaging are done manually whichnot only add to the cost but make the produce unhygienic. The cost of internal transport as well as air-freight rates ultimatelymake the produce

uncompetitive in international markets. Two steps on the part of Government particularly the railways andshipping corporation need to be taken without further delay. The railways should allot 'A' priority to all export worthy perishables and provide ventilated and freezer wagons and containersat subsidized rates besides introducing modern quick handlingand haulage facilities in the key producing areas and -port towns. The SCI on the other hand should earmark separate freezer/aeratedcompartment on all its direct liner services to Middle-East countries. Besides it should acquire exclusive vessels for perishablecargo and operate them on regular intervals on predetermineddates in season to transport fruits, vegetables, fish and meatproducts to Middle East and Rotterdam.Sea-freighting of perishable cargo is being tried by manycountries to attain competitive edge in the market. The highvolume and low-cost cargo like fruits and vegetables, need fastand efficient ocean transport. Banana though highly perishable, is transported by sea only. The Government of India may initially subsidize the capital and operational cost of vessels to be acquired by SCI. Ultimately with growth in the volume of tradesuch operations may become commercially viable. This one singlestep will contribute the most to the growth of Indian exportsto Middle East and OCED countries. In the case of onion exports the cooperatives and theirassociate shippers have been able to negotiate deals on terms of irrevocable L/C. This may not be feasible in all cases. TheEuropean importers operate only on consignment/commission basis. The prevailing practice in importing countries, in the matterof terms of trade and commission charged, therefore, will haveto be respected. This problem, however, could be overcome if the inter-cooperative trade could be promoted on meaningful terms. The cooperatives, being established institutions, may not indulgein any unfair practices and payments from their counterpartsare more or less ensured. The cooperatives, therefore, will haveto be given certain degree of autonomy for negotiating paymentterms and efficiently settling claims etc. in the overall interestof long-term enduring business. The steps indicated above iftaken up earnestly may help in overall growth of the trade fourto five times in a period of say five years.

REFERENCES

- [1]. Annual Report (1988), Indian Agricultural Research Institute, New Delhi.
- [2]. Annual Report (1988-89), National Cooperative Development Corporation, New Delhi.



- [3]. Agricultural Administration at the Village level in Asia (1982), Asian Productivity Organisation: - Tokyo
- [4]. A Common Agricultural Policy for the 1990s (1989), Office of the Official Publications of the European Communities, Luxembourg.
- [5]. Barnes, W.C. (1936), Effects of Some Environmental Factors on Growth and Colour of Carrots, M.Y. (Cornell) Sta. Memoir, 186.
- [6]. Choudhry (1967), Vegetables, National Book Trust, India.

- [7]. Cocharan, H.L. (1936), Some factors influencing growth and fruit setting in the Pepper, Cornell Memoir, 190.
- [8]. Cooperatives with Export and/or Import Potential (1980), ILO/SIDA Regional Project on strengthening of Inter Coop. Trade Relations. International Labour Organisation; , Bangkok, Thailand.
- [9]. Cooperative Marketing of Farm Products in Asia (1981), Asian Productivity Organisation, Tokyo.