



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# THE FUTURE OF AGRICULTURE

*Technology, Policies  
and Adjustment*

---

PAPERS AND REPORTS

FIFTEENTH  
INTERNATIONAL CONFERENCE  
OF AGRICULTURAL ECONOMISTS

*Held at Parque Anhembi  
São Paulo, Brazil*

19–30 AUGUST 1973

OXFORD  
AGRICULTURAL ECONOMICS INSTITUTE  
FOR  
INTERNATIONAL ASSOCIATION OF AGRICULTURAL  
ECONOMISTS  
1974

## SPECIAL GROUP B

*Chairman: Stefano, Italy*

*Opener: W. T. Manley, U.S.A.*

*Rapporteur: J. M. Mayers, West Indies*

---

### *Influences on the Market for Farm Products Deriving from Changes in Distribution and Competition by Synthetics*

Ram Saran

*Ministry of Food and Agriculture, India*

IN developing countries where agricultural production remained stagnant for long periods, the recent trends towards higher production have been associated with significant changes in marketing structures. Increase in production has resulted in larger marketable surpluses necessitating expansion of marketing facilities and development of new marketing organizations. Continuing improvements in the distribution arrangements have been found to be essential not only to cope with the changing production situation but also to induce further growth in agricultural output.

Whether or not a marketing or distribution arrangement that operates in a country is really appropriate considering the needs of the economy, has to be judged by a number of criteria. From the economic viewpoint, an efficient distribution system should ensure optimum resource utilization for maximizing output, minimizing costs and wastes involved in handling, movement, storage and processing and elimination of exploitative margins. It should perform the function of providing price signals to both consumers and producers in order to enable them to take timely and appropriate marketing decisions. It should aim at maximum possible market integration so that the spatial differences in prices of agricultural commodities are not more than what is warranted by the cost of transport and handling. A sound system of distribution should also help to keep intra-seasonal and inter-seasonal variations in prices within reasonable bounds. In the context of the accelerated growth of agricultural output and rise in levels of incomes and living standards of the people, such a system is also expected to ensure vertical integration of production, processing and marketing of agricultural commodities.

Marketing systems, as they have developed over time, can be classified into at least four distinct, though not mutually exclusive types, viz., village-level marketing, organized marketing, co-operative marketing and state intervention in marketing.

The system of village-level marketing which is typical of economies

with low levels of agricultural output and of subsistence farming is characterized by near absence of the infrastructure required for proper marketing of agricultural produce. The main reasons why most of the agricultural producers are compelled to sell their produce in village markets—and immediately after the harvest when the prices are at the lowest—are: (i) low level of marketable surplus, (ii) prior indebtedness of the farmers to traders or village money-lenders, (iii) absence of good roads connecting the villages with markets, (iv) lack of storage facilities and lack of market consciousness. Pledging of the crop with the trader before harvest is a common feature of such a system. There is not much competition among buyers, the number of village merchants as well as outside merchants being very small. The farmer's freedom to take decisions with regard to the place, manner, timing and terms of disposal of his produce is very restricted and often completely absent. Such a system is hardly conducive to the growth of production.

With the transformation of subsistence farming to commercial farming, rapid increase in agricultural production and marketable surplus and the appearance of new agricultural commodities owing to diversification of agriculture, village-level sales in many developing countries are increasingly losing place to sales in organized markets. These developments as regards production have provided a powerful stimulus for the evolution of new marketing methods and forms of organization. Establishment of a network of markets in the vicinity of rural areas, provision of adequate storage, transport and grading facilities and regulation of marketing practices (as in regulated markets in India and Pakistan) are some of the important attributes of organized marketing systems.

In contrast to the monopsonistic village markets, wholesale organized markets are decidedly more competitive in nature because the number of buyers operating is large, and both sellers and buyers are much better informed about the market situation. The extent to which these markets can be really competitive depends also on a number of other factors such as the degree of concentration of trade in the hands of a few big firms, barriers, if any, to the entry of new firms in the trade, etc. On the basis of a survey of the functioning of grain trade in certain organized markets of India, Lele has observed: 'The number of trading and processing agencies is indeed very high and results in a great deal of under-utilization of capacity. This, in all likelihood, leads to very keen competition for the acquisition of the maximum share of the total volume of trade. Although the share handled by individual traders is unequally distributed, there is no reason to believe that this is either a cause or a consequence of a lack of competitiveness. This contention is supported by widespread evidence of (1) a good private network of market intelligence which efficiently transmits information about inter-market price differences; (2) free entry into the grain trade and (3) the extreme self-interest of traders, which generally discourages collusive actions on their part.'<sup>1</sup> According to her, the regional price spreads are generally commensurate with the cost of

movement between primary and terminal markets. Moore, Johl and Khusro have also come to the same conclusion: 'Fortunately for the farmers of India, grain markets are fairly competitively structured. Several alternative buyers are usually available, barriers to entry are generally low, and market information is available from private and public source.<sup>2</sup> However, both Lele and Moore *et al.* have found the existence of sizeable concentration among buyers in a number of areas due to various factors including the ability of the firms to attract customers through price and non-price competition. Entry of new wholesalers (*pucca arhtias*, as they are known in India) is also restricted to a certain extent because of various constraints including heavy investment required for wholesale business. In the case of cash crops it has been observed that the buyers operate on a large scale and are well organized while the sellers are invariably small cultivators, coming from different villages with no organization to guide them and protect their interests. Such a situation makes it difficult for the farmers to get reasonable prices for their produce. In the case of agricultural commodities, particularly those the production of which fluctuates widely from season to season, prices show large variations both over time and space. For example, in the case of groundnuts, the price at Bombay which ruled at U.S. \$16 per quintal in February 1968 rose to the level of \$24 per quintal by October 1968. During the following season the price rose further to reach the level of \$31 per quintal in September. Thus, over two consecutive seasons (1967-68 and 1968-69) the price rise was about 100 per cent. Further, between Bombay and Hyderabad, price differential was in the range of \$1.5-7 per quintal in different months. Large price variations over time and space not only are harmful to the interest of producers and consumers but also hamper the growth of agricultural production.

In the case of jute where synthetics are progressively substituting for the agricultural raw material, even moderate increases in production in years of favourable weather have led to undue depression in prices.

It has also been found that the market structure based on atomistic competition among buyers has failed to keep pace with the situation arising out of sudden and big spurts in agricultural output. In India when cotton production reached a record level during 1971-72, marketing facilities turned out to be grossly inadequate to absorb the larger surplus. Earlier, in April 1968 when as a result of technological breakthrough in the production of wheat, the first bumper crop arrived in the market, the inadequacy of marketing infrastructure had been fully exposed. In Sindh (Pakistan) in 1969, rail marketing of rice completely 'swamped the system'. Even in Mexico which has experienced for more than a decade a widespread diffusion of the new technology, inadequacy of rural marketing structure is still considered a constraint to rural development. Problems of storage, transport, processing, etc., are being experienced by other developing countries, too.

The above analysis is based on rather limited studies on the structure of agricultural markets in India. In order to provide a better insight into the

functioning of agricultural markets, there is need for conducting comprehensive studies on the structure, conduct and performance of agricultural markets.

Co-operative marketing is yet another stage in the evolution of a marketing system. Co-operatives are believed to be an ideal channel for the marketing of produce by farmers in general and small-scale producers in particular, who individually are not in a position to dispose of their produce on terms favourable to them. Co-operatives enable the producer-sellers to act as a monopolist in the disposal of their produce and thereby improve their bargaining strength *vis-à-vis* buyers.

In some of the developing countries, co-operatives have not succeeded in acquiring a dominant position in the marketing of agricultural produce due to a number of factors, such as, entry of local traders in the co-operative management, the bureaucratic nature of management, lack of enterprise, initiative and effort on the part of the co-operative personnel and illiteracy among producers. Unlike the early producers co-operatives in Europe, co-operatives in developing countries have been established with considerable assistance from government in the form of loans, privileges, legal protection, etc. Such facilities have prevented the co-operatives from working on strictly commercial lines. In several countries, co-operatives have not yet succeeded in weaning producer-sellers away from private traders, since unlike the private traders they are not able to provide them with services such as food, shelter, advance of pre-harvest loans, etc. Some of the producers do not favour the co-operatives growing to a size where they will enjoy monopoly powers. Like the monopoly of private traders, the monopoly of societies is also considered by them to be dangerous. Despite all these shortcomings of marketing through co-operatives, the system has helped in improving the competitive position of the producers as sellers of their produce. The striking success of Anand Milk Producers' Co-operative in Gujarat State of India highlights the importance of co-operative marketing in promoting the growth of production and improving the living conditions of the farmers. There is need, however, to plug the loopholes in the functioning of the co-operatives so that they can make effective contribution in the marketing of agricultural produce.

As has been stated earlier, it is quite possible that market structures based on atomistic competition among buyers may not be able to cope with the situation arising out of big spurts in agricultural output. In years of shortages, intra-seasonal fluctuations in prices may be more than warranted by storage costs, and available supplies may be moved mainly to areas of high purchasing power with the primary object of maximizing profits. Adequate stocks may not be carried from one season to another for the purpose of stabilizing prices over seasons. Under such conditions, instead of relying completely on the market mechanism, some degree of governmental intervention has been considered inevitable in several countries. The state entry in the field of agricultural marketing has generally involved the fixing of minimum guaranteed prices, purchases at

these prices to provide support, organization of public distribution system through a network of fair-price shops and ration shops in the interest of vulnerable sections of the society, building up of buffer stocks for stabilizing prices over seasons, setting up of public corporations for undertaking purchase, sale and stock operations and finally, taking-over of wholesale trade by government. Experience in India as also in some other countries has shown that state intervention has helped to protect the interests of both producers and consumers through the assurance of incentive prices to the former and adequate supplies at reasonable prices to the latter. Buffer stocks built in years of good harvests have proved handy in the current drought year for meeting the urgent needs of the people.

Experience of state intervention in agricultural marketing in India has brought forth a number of issues which require consideration. It has been found that wherever a government agency purchased the grain directly from producers or through co-operatives, the producers were able to get the full benefit of guaranteed price. On the other hand, where the purchases were made through traders or other middlemen, prices received by the producers were, in several cases, below the government purchase price. This raises the problem of the mode of procurement and the agency to be employed for this purpose.

In the case of commodities which need processing, such as cotton, difficulties have been experienced in making purchases of the commodity in raw form in the absence of scientific grading. Until recently, purchases had to be made in terms of lint and, consequently, the benefits of the government's support price could not possibly percolate to the grower.

Another matter requiring attention relates to the coverage of commodities under the scheme of government intervention. Should it cover only the major cereals or also the other cereals which can serve as substitutes in consumption? If, for example, one major cereal is covered, in years of low production there will be greater pressure on other cereals; on the other hand, in years of good production producers of cereals not covered by the government scheme will suffer due to falls in their prices. This may lead to distortions in the cropping pattern.

This paper brings out the fact that with changing production situations, new marketing systems and marketing organizations have been developed, and the latter, in turn, have influenced the levels and patterns of output. It is obvious that the farmers in the developing countries are as rational as their counterparts in the developed countries in taking marketing and production decisions in response to price changes. The marketing structures will need to be continuously improved to induce the farmers to make larger investments and put in greater effort for increasing agricultural production. Studies on structure, conduct and performance of markets could indicate the lines along which changes might be introduced in different countries.

## REFERENCES

1. Lele, Uma (1971) *Foodgrain marketing in India. Private performance and public policy*, Cornell University Press, pp. 82-3.
2. Moore, John R., S. S. Johl and A. M. Khusro (1973) *Indian foodgrain marketing*, New Delhi, Prentice Hall of India, p. 52.

## SPECIAL GROUP B REPORT

The group was advised that, since in underdeveloped countries interaction of production and marketing is of great importance, this would form the main subject of the discussion. Questions relating to vertical integration and synthetics would receive less attention.

An attempt was made to trace the development of distributional and marketing arrangements as they have emerged with the changing production situations and the way they have in turn influenced the growth in agricultural output. It was agreed that marketing and production processes were constantly changing and will continue to change, and that this was true for the developing as well as the developed countries. There was need for a constant review in every country of the nature of these changes and their impact on agriculture.

No single system of marketing can be considered ideal for all the developing countries. Each has to decide on the marketing system to be adopted, taking into account production changes and the protection of small producers and low-income consumers in particular. In the developed countries the problems of marketing are different and discussions on this theme suggested that the farm sector of these countries will contain two distinct areas of marketing in the future; namely:

- (1) independent farmers on open markets; and
- (2) co-ordinated farmers linked with the processing and distribution system.

The latter farms will have to be more integrated and what is to be produced will be decided by close reference to demand considerations.

Some participants felt that there was too much technical literature on marketing which did not take into account the economic circumstances of the country. Fault could be found with many existing marketing arrangements and it was generally felt that attempts to superimpose government control often made the situation worse. An example was taken from meat marketing and showed that government intervention inhibited the development of a grading system which truly reflected the market. Government intervention was therefore seen as dangerous, too bureaucratic, and often with too little money invested so that the farmer was no better off.

In the discussion on synthetics, two major categories were distinguished:

- (i) Products from industrial or mineral raw materials—e.g. protein from petroleum and natural gas.
- (ii) Fabricated foods—e.g. meat analogues from soybeans.



In both cases, farming is reduced and there is the possibility of agriculture becoming a highly industrialized process. The implication discussed appeared to be that:

- (a) Efficiency in the conversion of resources is improved.
- (b) Food consumption based on 'synthetics' may be hazardous, as it will depend on depletable resources—e.g. natural gas.
- (c) In all of the fabricated foods, government regulations have been recognized. Manufactured foods must be more highly tested, and the chemical structure of the food is very important.

As regards the developing countries, there was a growing worry about synthetics, especially as many of these countries were dependent on a narrow range of products. Crops such as jute, kenaf, sisal and pyrethrum were all suffering from competition. For example, the pyrethrum industry of Kenya may disappear because of competition from a range of synthetic insecticidal compounds. The major question asked was what could the less-developed countries do to compete with synthetics? The discussants felt that little could be done to eradicate the competition from synthetics, but that the following may help, at least in the transition period:

- (1) Reduction in fluctuations in the supply of natural commodities.
- (2) Increased efficiency in production to reduce cost.
- (3) Increased scope of research into end products.
- (4) Greater joint action by producing countries of the natural products to promote their products on the world markets.
- (5) Acceptance that the natural products will decline over time and therefore increased efforts towards diversification in the development situation.

The plea was made for more studies on synthetics as there could be some advantages in diverting resources from the farm sector to synthetics—e.g. the use of leaf protein to treat malnutrition in Nigeria. It was considered necessary to identify individual problems and follow these by general studies. The agricultural economist could play a considerable role in conducting these studies on the structure, conduct and performance of markets.

Among those contributing to the discussion were: G. R. Allen, *U.K.*; Q. B. O. Anthonio, *Nigeria*; U. A. Aziz, *Malaysia*; H. Breimyer, *U.S.A.*; L. Krishnaswamy, *India*; A. M. Morgan-Rees, *U.K.*; D. B. Trebeck, *Australia*.