

Economics; agricultural marketing is taught at the B.A. and M.A. level as a part of other courses offered to those who specialise in agricultural economics. Institutes of Management have marketing as an essential component of their course offerings.

(iv) Apart from general degree programmes, in recent years, the degree and diploma courses in business management (including agri-business) have been initiated by several institutions and universities. Keeping in view the role of agriculture in economic development and emerging scenario of international trade in agricultural commodities, sufficient grinding of prospective managers in the basic concepts, conditions and practices of agricultural marketing system would be quite critical in developing countries.

ON-THE-JOB TRAINING

The Directorate of Marketing and Inspection, Government of India, arranges a training of two to six months' duration for Market Secretaries, Graders, Marketing Officers and other staff members of market committees. Some training courses are meant for fresh recruits, while others are in the nature of refresher courses. The objectives of the in-service training programmes conducted by the DMI are as follows:

(i) To prepare marketing executives with sound theoretical-cum-practical knowledge for formulation of marketing development projects and evaluation thereof;

(ii) To provide trained and specialised manpower for effective management of the regulated markets;

(iii) To promote standardisation and grading of agricultural commodities at producers' level and expansion of grading of agricultural commodities on voluntary basis for internal consumption as well as for export;

(iv) To improve market intelligence and market news service;

(v) To provide trained manpower in marketing to the State Departments of Agricultural Marketing/State Agricultural Marketing Boards for conducting market surveys and market research;

(vi) To spread the benefit of marketing development programmes to the producers through training in marketing extension;

(vii) To provide practical oriented training to the junior level officers in pre-shipment inspection and compulsory control of agricultural commodities; and

(viii) To prepare adequate number of trainers for training junior level officers of the State Agriculture Marketing Departments.

The details of training programmes and courses conducted by the Directorate of Marketing and Inspection (Government of India) are given in Chapter 7. Occasionally, agricultural universities and other institutes organise refresher courses, summer institutes and workshops for college and univer-

sity teachers, researchers and officials of the marketing department of the government. The Indian Council of Agricultural Research encourages and financially assists the universities in organising such courses.

OTHER TRAININGS

Though agriculture extension work is the responsibility of State Departments of Agriculture, the training of farmers and extension workers has been assigned to agricultural universities. There is a separate Directorate of Extension Education in all the agricultural universities. But the element of training in agricultural marketing is almost lacking. This is evident from the mix of training programmes and the absence of agricultural marketing specialist among the band of specialists who man these Directorates. Problems at the post-harvest stage and their solutions have started receiving attention following the emphasis by the Indian Council of Agricultural Research on research in this area.

The education of farmers on important aspects of marketing such as grading and standardization, storage, processing, market information and pricing of farm products has not received due attention in the programme of farmers training.

One of the most important aspect of training and extension education in agricultural marketing that needs attention is that at all the levels, certain weaknesses exist in the teaching materials or textbooks and teaching methods. As a result, there is an absence of practical knowledge and orientation in marketing. Therefore, this area deserves the immediate attention of policy-makers and administrators in India. At the international level, the FAO has already initiated action in this direction.¹

The Report² of the Expert Committee on Strengthening and Developing of Agricultural Marketing (headed by Shri Shanker Lal Guru) has pointed out that substantial training efforts are needed to upgrade the technical, managerial and organizational skills and knowledge of field and marketing personnel. Under the changing scenario, the following areas of training of market personnel should be given major thrust:

- (i) Agri-business management
- (ii) WTO and its implementation
- (iii) Post-harvest management
- (iv) Grading, standardization and quality assurance
- (v) Information technology
- (vi) Emerging employment potential in agricultural marketing.
- (vii) Organic food marketing
- (viii) Marketing extension
- (ix) Entrepreneurship programmes for rural Agri-clinics
- (x) Training of Trainers (ToT); and
- (xi) Special post-graduate course on agricultural marketing in state agricultural universities.

RESEARCH IN AGRICULTURAL MARKETING

IMPORTANCE AND OBJECTIVES

The importance of research has increased after independence and following rapid changes in the economy from the "very little capital investment and few marketing services" stage to the "monetized and surplus" one. Specialization in production has resulted in the concentration of agricultural products in the most favourable areas. On the consumer's side, the pattern of demand has been changing with increases in incomes. Industrialization and urbanization have resulted in the concentration of population in places that are far from the areas of production, as a result of which food has to move over long distances. The movement of food over time and space has added a new dimension to agricultural marketing.

The need for research in agricultural marketing has been recognised by the planners and policy-makers. Research in this field can contribute to the establishment of facts and the evolution of the policy measures that may be necessary for developing a successful marketing strategy with regard to production, consumption, distribution and pricing.

A smooth functioning of the marketing system is essential for price stability and for proper incentives to producers. In the present context, when agricultural production is on the increase, the marketing system should be suitably altered to sustain the increases by providing efficient and prompt services. This may be done by keeping a constant watch on developments and by anticipating the problems in marketing. The objectives of a research programme in agricultural marketing are:

- (i) To understand the existing/traditional marketing system;
- (ii) To diagnose the problems confronting the farmers, marketing agencies and consumers in a dynamic context; and
- (iii) To analyze and predict the impact and effectiveness of alternative policy measures in solving these problems.

MARKET RESEARCH IN BUSINESS AND OBJECTIVES

The term *market research* in the context of a business firm is used in a narrow sense. It refers to the assessment of demand, distribution method and policy. Hanson³ has defined market research as the study of consumer demand by a firm so that it may expand its output and market its product. The objectives of market research for a business firm are:

- (i) To discover the people's need of the product which a firm contemplates to manufacture;
- (ii) To examine the reactions of consumers when the product is put on the market with a view to bringing improvements in the quality, design and packaging of the product on the basis of their preferences; and
- (iii) To examine the performance of the present system of marketing with particular reference to costs and efficiency.

PROGRESS OF RESEARCH IN AGRICULTURAL MARKETING

The year 1935 is a milestone in the field of agricultural marketing research, for it was then that the Central Marketing Department (now the Directorate of Marketing and Inspection) was established. The Central Marketing Directorate realised that no improvement in the marketing system can be brought about unless the existing system was studied in detail. It, therefore, conducted commodity surveys for the study of the existing-marketing system and brought out commodity survey reports from time to time. These reports paved the way for further research in the applied field of agricultural marketing.

Research in agricultural marketing is also undertaken by universities and other institutes. But very few macro level studies were taken up by these institutions. The research in agricultural marketing, particularly of applied nature, has been meagre and scanty because of the strenuous and time-consuming job of collecting primary data from different market functionaries. Most market functionaries are not ready to part with correct information and data. A lot of scope exists for research in this field. Marketing research in India has yet to make some headway.

At present, agricultural marketing research in the country is both descriptive and analytical. A description of facts enables us to understand *what* the system is, but not the *why* part of it. The structural interrelationships among the various variables of the system have yet to be understood. There is, therefore, an urgent need for an analysis of the most relevant variables in marketing research.

STEPS IN MARKETING RESEARCH

Important steps involved in marketing research are:

(i) *Identification of the Problem*

The first step in research is the identification of the problem. Marketing research problems relate to the estimation of demand and supply, the study of market functions and functionaries, the estimation of marketing costs and margins for individual commodities through various channels, the assessment of marketing efficiency, and the estimation of marketed surplus. The problems may be identified by:

- (a) Studying the deviation between the marketing system in terms of its defined norm and its operation in practice;
- (b) Discovering the needs of different segments of the economy—for example, producers and consumers;
- (c) Reviewing past studies; and
- (d) Questioning the existing concepts.

(ii) *Formulation of Hypothesis*

The second step in research is the formulation of hypotheses. A hypothesis is formulated for the identified problem to delineate the area of research.

(iii) Designing Empirical Procedures

An empirical procedure is to be designed to get appropriate data from farmers, consumers, market middlemen and government departments. The data are obtained after developing suitable schedules and questionnaires and pretesting them in the field. Apart from the structured surveys, participatory rural appraisal (PRA) and rapid rural appraisal (RRA) techniques are quite useful in understanding the market practices and perceptions of the farmers and traders.

(iv) Collection and Analysis of Data

The data for research in agricultural marketing may be collected either from primary sources or from secondary sources. The primary sources include the farmer-producers, market middlemen and consumers. The secondary sources include the published data brought out by different government and semi-government departments either regularly or occasionally. The collected data are tabulated and analysed by using suitable tools of analysis.

(v) Interpretation of the Findings

The results of the analysis should be interpreted to find out solutions to the identified problems of agricultural marketing. It is suggested that before finalising the results and final drafting of the report, interaction with various groups of stakeholders may be held as their feed back proves quite useful.

APPROACHES TO STUDY PROBLEMS OF MARKETING OF AGRICULTURAL COMMODITIES

Marketing is a subject which bristles with wide and varied problems. It includes the services and functions of different specialised institutions and middlemen. Different commodities have special marketing problems. Therefore, the results of the study of one commodity may not be applicable to other commodities. Various approaches have been suggested and used to study marketing problems. These are functional, institutional and commodity approaches. Sometimes, the behavioural system approach and the legal approach, too, are considered. No single approach, however, is satisfactory in all respects, for each has its merits and demerits. Therefore, a combination of these approaches is essential if we are to understand all the aspects of the problem related to a commodity in a better and lucid manner.

(i) Functional Approach

Under this approach, the marketing system is studied by considering it as a composite of specialized functions and business activities. It consists of the study of marketing activities which are involved in moving the goods and services through time, space and succession of ownership. The functional approach takes into account the jobs which must be performed in the process

of the movement of goods. This approach enables one to evaluate the importance of each marketing function and to suggest improvements. The advantages of the functional approach in any study of agricultural marketing problems are:

- (a) It enables us to make an inter-functional comparison of the marketing costs;
- (b) It enables us to make an inter-agency comparison of the cost of performing a marketing function; and
- (c) It enables us to make an inter-commodity comparison of the cost of performing the various functions.

(ii) Institutional Approach

The institutional approach to a study of marketing problems implies a study of agencies and institutions which perform various functions in the marketing process. Under this approach are studied the nature and character of various middlemen and other related agencies involved in the movement of the product. The human element receives the primary emphasis.

There are a large number of agencies and institutions which perform various marketing functions in the process of the movement of the goods from producers to consumers. They may be individuals, partnership firms, corporations, cooperatives or government organizations. These agencies vary widely in size and ownership. They get their reward in the form of marketing margins.

This approach helps us to find *answers* to the problems of "who does what" in the marketing process, whether the margin of the agency is commensurate with the services rendered, which government regulations are necessary so that their unlawful activities may be curbed, and how to simplify the procedural system.

(iii) Commodity Approach

Under this approach, the commodity is the pivot around which all institutional and functional details are studied. The problems of marketing differ from commodity to commodity mainly because of the seasonality of production, the variations in its handling, storage, processing, and the number of middlemen involved in them. For example, potatoes are stored in cold storage, while wheat is stored in godowns. Paddy is processed to make rice at the miller's level, while other cereals are processed mostly at consumer's level. Commodity studies lead to repetition and duplication because many commodities, falling in a particular group, have common marketing features.

(iv) Behavioural System Approach

This approach refers to the study of the behaviour of firms, institutions and organisations which exist in the marketing system for different commodities. The marketing process is continually changing in its organization and

functional combinations. An understanding of the behaviour of the individuals is essential if changes in the behaviour and functioning of the system are to be predicted.

(v) Legal Approach

The legal approach is another dimension of the study of the system of agricultural marketing. Increasing government intervention through legislation has increased the importance of this approach. The market regulation programme in many states was delayed because of the emergence of legal problems. Various rules and regulations have been introduced to achieve specified goals. Whether or not the purpose is being served? The questions which require a legal approach for the solution of the problems are: Is the purpose being achieved? What modifications, if any, are necessary?

AGRICULTURAL MARKETING RESEARCH INSTITUTIONS

Some major Indian institutions engaged in conducting agricultural marketing research are:

(i) Directorate of Marketing and Inspection (DMI)

The Directorate of Marketing and Inspection is the prime agency which studies the marketing problems arising out of the purchase and sale of agricultural commodities in the country at the macro level from 1935 onwards. Based on the macro-level studies conducted in different areas, the Directorate has published a number of commodity survey reports. These reports provide useful research findings on marketed surplus, costs and margins in the marketing of different crops in different producing areas, defects in the marketing system, solutions to these problems and the methods to be adopted to bring about improvements in the marketing system. The Directorate has also undertaken research studies on cold storage, grading, warehousing and market regulations. Though the reports brought out by the Directorate are mainly descriptive, they do serve as a useful base for further analytical research.

(ii) State Agricultural Marketing Boards (SAMBs)

Many States in India have, by now, established a State Agricultural Marketing Board for the purpose of supervising and advising the functioning of regulated markets. The Board, therefore, is an executive-cum-advisory body. It effects improvements in the regulation scheme, supervises the functioning of regulated markets and advises market committees and the State Government on related matters. A research cell functions under this Board. This cell collects data on various aspects of marketing; but the data are not subjected to any scientific analysis and theoretical scrutiny. In some States, the State Agricultural Marketing Board gets the research work done by agricultural

universities or other institutions. For this purpose, it renders financial assistance to them.

(iii) Indian Council of Agricultural Research (ICAR)

The Indian Council of Agricultural Research encourages research in agricultural universities and its own institutions on agricultural marketing by financially assisting them in their research projects. The Council has a scientific cell for agricultural economics, marketing and statistics, which helps in the selection of research projects for assistance by the Council, and advises on the direction which the overall research and training policy in this area may take. The ICAR has established a National Centre for Agricultural Economics and Policy Research (NCAP) at New Delhi which undertakes, inter alia, the research on areas related to agricultural marketing.

(iv) National Council of Applied Economic Research (NCAER)

The National Council of Applied Economic Research conducts studies on agricultural marketing which are of all-India significance. Among the important studies conducted by the NCAER in the past are *Demand and Supply Projections of Agricultural Commodities and Structure and Behaviour of Prices of Foodgrains*.

(v) Agricultural and Other Universities

Agricultural universities, too, are engaged in conducting marketing studies through their departments of Agricultural Economics. Many of these studies are in the nature of students' projects submitted in partial fulfilment of their M.Sc. Ag., M.A. and Ph.D. degrees. The faculty members of these universities conduct short-term projects on important problems of marketing in agricultural commodities. The universities implement national or international research projects sponsored by the UGC, the ICAR and other organisations.

(vi) Agro-Economic Research Centres

Agro-Economic Research Centres in different States in the country undertake projects on the marketing problems confronting farmers in their areas of operation. These centres carry out in-house as well as sponsored studies in the field of agricultural marketing.

(vii) International Institutions

International institutions, such as the International Crops Research Institute for Semi-Arid Tropics (ICRISAT), the Food and Agriculture Organisation (FAO), The World Bank, Asian Development Bank, and the Agricultural Development Council (ADC), have undertaken national-level projects in agricultural marketing for the important crops of the region. The research findings of these studies are of valuable assistance in providing guidelines to the

member countries/institutions to further probe into the problems in their areas. In recent years, the World Bank has also undertaken or sponsored several studies relating to marketing of agricultural commodities in India and several other countries. Many such study reports, brought out by these institutions, are now available.

(viii) National Institute of Agricultural Marketing (NIAM)⁴

The National Institute of Agricultural Marketing (NIAM) is a pioneering national level organization set up by the Government of India on 8th August, 1988 at Jaipur, for undertaking specialized training, education, consultancy and research in agricultural marketing. NIAM is an autonomous body under the aegis of Ministry of Agriculture, Government of India. The following functions have been assigned to NIAM:

- (a) Research in agricultural marketing for government, cooperatives and other institutions, both on public funding and by contract;
- (b) Training to develop leadership potential, management and technical competence for the operation of the agricultural marketing enterprises and services. It offers and sponsors specialized marketing courses at various levels as are necessary to supplement the existing facilities;
- (c) Undertaking development and investment project formulation activities for public, cooperatives and private institutions; and
- (d) Undertaking advisory and consultancy services on marketing policies, investment programmes and marketing development strategies and rendering specific advice to marketing enterprises (state, private and cooperatives).

The National Institute of Agricultural Marketing organizes workshops, seminars and trainings in the micro and macro areas of agricultural marketing. The objectives, as per the Memorandum and Rules and Regulations of the Institute, are:

- (a) To undertake and promote study of applied and operational research in problem areas of agricultural marketing.
- (b) To impart training to the various levels of functionaries involved in agricultural marketing activities.
- (c) To conduct research through long-term projects; policy formulation, prepare status papers on leading issues; case studies in specific marketing problems, processing industries and export management which have direct bearing on the national economy.
- (d) To offer consultancy services to the state and central departments, public sector undertakings, and cooperatives in formulation of projects, preparing master plans for states, export institutions, traders and farmers.
- (e) To act as a national nodal point for coordination of various research studies and dissemination of technologies relevant to agricultural marketing.
- (f) To develop promising human resources by providing long term structured courses in agricultural marketing by offering diploma/degree courses.

(g) To help state governments to generate self employment for educated youths by exploiting local potential resources.

(h) To act as an agent of government to formulate policies on emerging issues in agricultural marketing.

(i) To create wide information network in the country in agricultural marketing for the benefit of all concerned to evolve efficient, innovative and competitive marketing process; and

(j) To develop as "Centre of Excellence" in the field of agricultural marketing by establishing liaison with international organizations.

The Institute caters to the needs of all State Agricultural Marketing Boards, Commodity Boards, all cooperative sector organizations, and input supplying agencies. The Institute also caters to the training/research needs of processing centers, extension wings of state agricultural universities, state department of agricultural marketing, horticulture, animal husbandry, dairying and non-government organizations involved in processing of agricultural products, produce marketing, farmers and entrepreneurs.

(ix) Indian Society of Agricultural Marketing (ISAM)

The Indian Society of Agricultural Marketing was set up in 1986 with the following objectives:

(a) To promote the study of social and economic problems of agricultural sector and to improve the technical competence of the personnel working in various spheres of agricultural marketing;

(b) To conduct studies independently or jointly with other allied organisations on the problems of agricultural marketing and publish the findings in the Society's journal or as independent bulletins;

(c) To conduct periodical seminars/workshops on various aspects of agricultural marketing; and

(d) To maintain close coordination with various academic and government institutions and trading and banking organisations connected with agricultural marketing.

The society publishes Indian Journal of Agricultural Marketing and organises annual conferences to exchange research findings.

(x) Indian Council of Social Science Research

The Indian Council of Social Science Research (ICSSR) also supports research work related to agricultural marketing. Almost in all states, Institutes of Development Research have come up which are supported by ICSSR as well as concerned state governments. Many of these institutes have a programme of development studies which includes research related to agricultural marketing also. In Rajasthan, the Institute of Development Studies, Jaipur (IDSJ) has a strong programme of studies, research and dialogues on agricultural marketing, price policies and related issues.

RESEARCH PROBLEMS/AREAS IN AGRICULTURAL MARKETING

The field of agricultural marketing research is comparatively new. Some of the research problems in agricultural marketing are listed in the paragraphs that follows.

It is difficult to lay down priorities in terms of a commodity or a research problem. There are regional variations in the importance of the commodity as well as the marketing problem. In general, an integrated study, embracing price formation, market structure, marketing margins and market policy for the important commodities of the region, should be undertaken, depending on the objectives of the study.

<i>Area</i>	<i>Problems</i>
(i) Packaging	<ul style="list-style-type: none"> (a) Suitability of various packaging materials for different kinds of farms products (perishable and non-perishable); (b) Consumer preferences for packaging material; (c) Benefit-cost analysis of packaging and different packaging materials.
(ii) Transportation	<ul style="list-style-type: none"> (a) Estimation of the magnitude of losses in transportation by different methods for different farm products; (b) Determination of the most economic method of transportation for different farm products from one market area to another; and (c) Assessment of the extent of spatial variation in prices and their relationship with the cost of transportation.
(iii) Storage	<ul style="list-style-type: none"> (a) Finding the most economical and efficient method of storage for different farm products; (b) Estimation of the magnitude of quantitative and qualitative losses during storage; (c) Economics of different storage structures, including cold storage; and (d) Extent of temporal price variations and their relationship with the cost of storage.
(iv) Processing	<ul style="list-style-type: none"> (a) Economics of location and scale of processing units; (b) Survey of existing processing industries, estimation of their demand and

- working out the gaps between requirement and availability;
- (c) Estimation of the cost of processing by different available methods;
 - (d) Estimation of margins in the processing of different agricultural products; and
 - (e) Relative economics of processing in the public, private and co-operative sectors.
- (v) **Marketable and Marketed Surplus**
- (a) The size of the marketable and marketed surplus of different farm products and their projections over time;
 - (b) Relationship between the marketed and marketable surplus with the size of the holding and the prices of the products;
 - (c) Examining the selling behaviour of farmers in terms of choice of time, place and agency; and
 - (d) Examining the pattern of market arrivals and of the prices of the crops, and factors influencing the volume of arrivals.
- (vi) **Marketing Efficiency**
- (a) Relative efficiency of the marketing of farm products through different marketing agencies—private trader, co-operative marketing society and public agency;
 - (b) The extent of integration in the marketing of farm products and their relationship with market efficiency; and
 - (c) Study of the market structure, market conduct and performance, and estimation of the extent of market concentration.
- (vii) **Marketing Costs, Margins and Price-Spread**
- (a) Estimation of marketing costs, margins and price-spread for different agricultural commodities in different marketing channels; and
 - (b) Estimation of the relationship in prices—farm (harvest) prices, wholesale prices and retail prices—and the extent of competitiveness in marketing;

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| (viii) Market regulation programme | (a) Estimation of the benefits of a market regulation programme for different groups in the minimization of the cost of marketing, profit margin and price-spread; and |
| | (b) Determination of the most optimum size of the market yard. |
| (ix) Demand and Supply | (a) Projections of the demand for, and supply of, different farm products and gaps in different time periods at regional and national level; and |
| | (b) Projection of the demand for farm inputs at different levels of technology. |
| (x) Prices | (a) Examination of the extent and magnitude of price fluctuations for different farm products and the factors affecting them; |
| | (b) Examination of the relationship in different types of prices; |
| | (c) Study of the seasonal behaviour of prices of farm products; and |
| | (d) Examination of the nature of price movements in primary, secondary and terminal markets for different agricultural commodities. |

The Report of the Expert Committee on Strengthening and Developing of Agricultural Marketing (2001) highlighted following areas for research in agricultural marketing:

- (i) Marketing technology adaptable to Indian conditions like labour intensive technologies without compromising the quality;
- (ii) Dynamic studies of comparative advantage of various agricultural commodities of India;
- (iii) Generating outlook information for prices and production for long, medium and short term decisions;
- (iv) Evaluation of structure, conduct and performance of agricultural markets; and
- (v) Studies on costs and margins of agricultural crops.

MARKETING EXTENSION

NECESSITY

Over the years, Indian agriculture witnessed the remarkable change in production from the subsistence economy to the market economy. The credit

for this goes to evaluation of new technologies by the scientists for increased crop production, role of extension agencies in carrying the technology from lab to farmer's fields and increased investment in agriculture sector for creation of infrastructural facilities. The increased production necessitated handling of farm products and their movement from producing areas to the consuming areas. This in turn demanded efficient marketing system.

Agricultural extension so far has been confined to issues of intensification and diversification of production. Increasing production by itself is no solution unless the increased produce finds a suitable market through agricultural extension work. The country is presently also facing a new challenge of globalization and liberalization.

The inclusion of marketing component as an integral part of agricultural development in the country is regarded as a backbone both in developing and developed countries. The marketing system need to continuously adjust to the need of producers and consumers and should aim at minimization of marketing costs and increase the producers' share in the consumers' rupee. This inter alia necessitates providing market extension services *i.e.*, educating the farmers in planning and preparation of agricultural produce for the market in terms of improved methods in cleaning, packaging, grading; strengthening of market intelligence; and assessment of profitability of alternative enterprises in addition to the motivation of the farmers in increasing production and arranging needed value addition.

Though agriculture extension work is the responsibility of State Departments of Agriculture, the training of farmers and extension workers has been assigned to state agricultural universities. There is a separate Directorate of Extension Education in all the State Agricultural Universities. But the element of training in agricultural marketing is almost lacking. This is evident from the mix of training programmes and the absence of agricultural marketing specialist among the band of specialists who man these Directorates. Problems at the post-harvest stage and their solutions have been receiving attention following the emphasis by the Indian Council of Agricultural Research on research studies and extension education in this area.

At the national level, a small marketing extension cell was set-up in the Directorate of Marketing and Inspection, Government of India in the year 1962. Since its inception, this cell has taken a leading role in spreading the knowledge pertaining to agricultural marketing and other related issues. Various media are being utilized to reach the target groups. The Directorate of Marketing and Inspection also brings out a quarterly journal "Agricultural Marketing", which contains studies and data on certain marketing aspects. This Directorate also brings out commodity reports and bulletins on various aspects of marketing, but there is very little material on marketing education to the farmers.

State Agricultural Marketing Boards have also a training and publicity cell

to educate the farmers on problems in the field of agricultural marketing. Periodical publications are also brought out by these marketing boards. The education of farmers on important aspects of marketing such as grading and standardization, storage, processing, market information, pricing of farm products and products planning has not received due attention in the programmes of farmers training conducted by various organizations.

By and large, marketing extension service to educate the farmers, improve their marketing skills, bring change in their attitude and equip them on various intricacies of agricultural marketing is grossly inadequate. There are no arrangements to provide advice on product planning, selection of market outlets and source of market information. Extension activity in the field of agricultural marketing both at the central and state levels is restricted to publicity regarding benefits of regulated markets and various schemes in the area of agricultural marketing launched by the State and Central Governments.

One of the most important aspects of training and extension education in agricultural marketing that needs attention is certain weaknesses that exist in the teaching material or text books and teaching methods. As a result there is an absence of practical knowledge and orientation in marketing. Therefore, this area deserves the immediate attention of policy makers and administrators in India. At the International level, the FAO has already initiated action in this direction.

AREAS OF EXTENSION EDUCATION IN MARKETING

Extension education in the field of agricultural marketing should include the following aspects:

- (i) Information on consumer's preferences, internal (domestic) demand and also export demand for farm products, which can fetch adequate financial rewards to farmers efforts.
- (ii) The requirements of qualities of different farm products both for internal and export markets.
- (iii) Importance of grading of farm produce before marketing, grade standards laid out for different agricultural commodities, and innovative techniques involved in grading of farm products.
- (iv) Information on relative prices of different farm products and trends therein.
- (v) Knowledge on methods of storage and processing of farm products.
- (vi) Knowledge of regulated markets and advantages of selling farm products in them.
- (vii) Knowledge of innovative marketing channels viz., Apni Mandi, Rythu Bazars, Uzhavar Sandies, Hadaspar Vegetable markets and Kisan Mandi and advantages of selling the perishable and other farm products in them.
- (viii) Information on various government programmes pertaining to price, support viz.; minimum support prices, statutory minimum prices, procurement prices and market intervention scheme (MIS).

(ix) Marketing improvement programmes and subsidies provided for various purposes such as on purchase of plastic crates for handling of vegetables, and transportation of fruits and vegetables for the benefit of farming community.

(x) Technological changes pertaining to performance of marketing functions; and

(xi) Knowledge on post-harvest management of different farm products particularly of fruits, vegetables, spices and other perishable products.

EXTENSION METHODS

Appropriate combination of following two forms of extension education methods should be followed in carrying various messages to the farmers:

(i) Individual Contact Methods—Farm and home visit, mailed letters, office calls, etc.

(ii) Mass or Group Contact Methods—Leaflets, Radio, Television, Newspapers, Journals, Local magazines, Puppet show, Film show, Scientific meetings (krishak samwad, krishak meet), and Collaborative training programmes organized in villages with the technical assistance of different departments/organizations such as NIAM, CWC & SWC, NABARD, NAFED, APEDA and Agricultural Universities.

PRIVATISATION OF EXTENSION SERVICES

Extension services, which were mostly public funded worldwide until a decade ago, are increasingly coming under private domain. The transformation of agriculture from a mere subsistence activity to commercialized agribusiness in the developed and developing countries and the associated gradual change of technology from a public good to private good has provided incentives for commercial agencies to invest in this sector. The increasing inability of the governments to adequately fund its extension machinery was, however, the real force behind the search for alternative approaches for public funded extension to privatization. Those who argue for privatizations of extension education point out the defects in public funded extension as highly inefficient, too beauracatic, lack of accountability, supply driven rather demand driven, and dominated by constraints such as operational funds, trained manpower and transportation bottlenecks. Further, the growing dissatisfaction of the users with the quality of extension services available, increased flow of agricultural surplus, increased specialization among farmers, and technological developments in mass media have led to the emergence of various types of privatization of extension services. Some of the forms of privatization of extension efforts are:

(i) Introduction of cost recovery programmes by government extension departments on selected services.

(ii) Cost-sharing by farmer's groups.

- (iii) Contracting services to non-government organizations.
- (iv) Partial withdrawal of government extension agencies from favourable regions or from high value crops.
- (v) Increasing involvement of input companies and product marketing companies in transfer of technology.
- (vi) Growing number of private consultants/firms.
- (vii) Rise in number of NGO's and their willingness to implement rural development programmes.
- (viii) Arrangements made by producer's cooperatives to meet their extension and other demands.
- (ix) Involvement of agro-processing companies to provide all types of services to their contract growers (for example Hindustan Lever Limited in providing services to tomato growing farmers); and
- (x) Promotion of Agri-Clinics and Agri-Business Centres to provide technical advice to the farmers.

Under privatization, it is envisaged to provide expert services and advise to farmers on new technology, market extension services and trends and prices of crop products in markets and also the supply of inputs and farm equipments on hire. Privatization of extension activities would facilitate tailor made extension services beneficial to both farmers as well as entrepreneurs.

In India, NGOs, private sector, private limited companies, corporate bodies, self-help groups and farmers associations are augmenting and supplementing public sector extension efforts to a large extent. The states of Maharashtra and Rajasthan have already started taking steps in this regard. To facilitate private agencies to undertake extension programmes on regular basis for the country as a whole, a 24 hour TV Kisan Channel would be the best visual media to educate farmers which can be used by public agencies as well as private extension agents.

One of the major recommendations of the Expert Committee on Agricultural Marketing (2001) was on providing market extensions services to assist small and marginal farmers in marketing their produce in the liberalized trade environment. It has been emphasized that a massive programme of marketing extension needs to be launched at the field level wherein extension messages should encompass all important dimensions of agricultural marketing. Some of the suggestions of the committee are as follows:

- (i) Advise on product planning i.e., the careful selection of the crops, and varieties to be grown with market ability in mind to the farmers which is very essential to enable them to withstand the competition in the market.
- (ii) Providing marketing information on various aspects of marketing viz., current price, market arrivals, forecasting of market trend, arrangements available in the market related to storage and transportation, quality standards and post-harvest handling requirements. Farmers also have to be educated/trained in taking appropriate signals from the forward and futures

prices. The information should be area specific, crop specific and buyer specific. Every agricultural market should have an extension cell equipped with internet and other audio-visual facilities necessary to educate farmers in various aspects of marketing functions and services.

(iii) Securing market for farmers—The extension agency should advise farmers on how, when and at what price to sell farm products and how to make of contract marketing arrangements with processors, wholesale traders or other bulk buyers.

(iv) Advise on alternate marketing—Advise on planned marketing strategy to avoid gluts in the small local markets is also necessary. They can be advised to take benefit of warehousing with pledge finance schemes, entering into forward contracts or to go for future trading. A planned marketing strategy can help the farmers in getting higher price and help stabilize local market prices.

(v) Advise on improved marketing practices—Farmers need education on improved harvesting methods, standardization and grading, improved packing and handling practices, and appropriate storage methods for profitable marketing of their produce; and

(vi) Advise on establishing and operating markets—Marketing extension should help rural population to establish and operate markets on their own to save from exploitative elements. Operating within the framework of marketing rules and regulations, the farmers will be able to protect their interests better than when they visit distant wholesale or terminal markets.

DATA SOURCES IN AGRICULTURAL MARKETING

The data on various aspects of agricultural marketing are important for policy formulation and research. The non-availability of data has limited the scope of research in this field.

COVERAGE

There is difference in the coverage of the data collected at the primary level and published by different organizations. The data available in a published form include farm (harvest) prices at the district level, wholesale prices in a few selected markets and retail prices in two to four centres at the State level, market arrivals in various markets, the marketing charges prescribed by market committees, import and export at the national level, and production at the district level. The indices of production, monthly and yearly wholesale prices, and farm (harvest) prices are also constructed at the State level. Since comparable data on all the crops and markets on a time series basis are not available, it is very difficult to put them to a meaningful analytical scrutiny unless these are supplemented by the data available with different agencies in unpublished forms.

AGENCIES

The agencies at present engaged in the collection of market statistics are:

- (i) The Directorate of Marketing and Inspection, Government of India, Faridabad/Nagpur, collects the statistics of grading units, regulated markets and transactions of commodities in different markets.
- (ii) State Agricultural Marketing Boards, collect data on:
 - (a) Time series data on the quantity bought and sold of various agricultural commodities in the regulated markets of the State;
 - (b) The number of market functionaries licensed in the regulated markets over time;
 - (c) The market charges payable on the sale of agricultural commodities; and
 - (d) The income and expenditure of market committees.
- (iii) State Agricultural Marketing Departments, collect data on:
 - (a) The prices of a number of commodities in the selected markets; and
 - (b) The number of licensed grading centres, the quantity graded by them, and export of graded products.
- (iv) Directorate of Economics and Statistics, Government of India, New Delhi, collects data on:
 - (a) Market transactions in the States for different agricultural commodities; and
 - (b) Import-export of agricultural commodities.
- (v) The Food Corporation of India, the Warehousing Corporation of India, and different commodity corporations or boards collect the data pertaining to their sectors.
- (vi) Agricultural Produce Market committees collect market statistics on:
 - (a) Market arrivals of, and transactions in, different farm products;
 - (b) Prices at which commodities are bought and sold; and
 - (c) The number of market functionaries licensed by them.
- (vii) The Revenue Department of State Government collects data on the area, production and productivity of the crops which have a bearing on the size and market arrivals.

PUBLICATIONS OF MARKET STATISTICS

Market statistics are available in the publications brought out regularly as well as periodically by the concerned departments. Some of the publications in which market statistics are regularly published are:

- (i) Agricultural Situation in India—Monthly
- (ii) Bulletin on Prices—Weekly
- (iii) Reserve Bank of India Bulletin—Monthly
- (iv) Agricultural Marketing—Quarterly

- (v) Bulletin on Foods Statistics—Bi-annual
- (vi) Indian Agriculture in Brief—Annual
- (vii) Commodity Survey Reports—Occasional
- (viii) Newspapers—*Economic Times, Financial Express; The Hindu, The Observer* and several others—Daily
- (ix) Annual reports brought out by the concerned departments, stating their progress.
- (x) Economic Survey—Annual
- (xi) CMIE Publications—Different Intervals
- (xii) Reports of the Commission for Agricultural Costs and Prices—Annual
- (xiii) Indian Journal of Agricultural Marketing— Quarterly
- (xiv) Publications of State Agricultural Marketing Boards.

DISSEMINATION OF MARKET STATISTICS

Market statistics, in addition to their publication in bulletins, are broadcast daily by the All India Radio. The information on prices is broadcast by the AIR two to three times a day so that farmers may take advantages of it and come to a decision about when and where to market their produce.

Problems : There is a gap in the quantity and quality of available market statistics and their requirements for the purpose of finding solutions to problems with a view to formulating a satisfactory agricultural marketing policy. The available statistics fall short of requirements because of the dynamic nature of the subject. Whatever statistical information is available is not properly utilized because of lack of trained manpower and facilities for their analysis in the marketing sections of the government and various Boards. The statistics available from different sources do not meet the researcher's requirements, whose main problem arises out of data gaps and/or non-availability of data for comparable periods and variety. The problem of non-availability has been accentuated by the non-co-operation of market middlemen (traders). Traders often do not maintain complete records or hesitate to allow access to their records. Some of the important problems in market statistics are of the following nature:

- (i) Incomplete series due to data gaps;
- (ii) Time lag in the publication of the data, which often makes them obsolete specially in view of rapid policy changes;
- (iii) Lack of comparable data over time due to change in concepts and definition;
- (iv) Non-reliability of the collected data because the collector has no research aptitude and interest; and
- (v) Market statistics of prices are not comparable because of variations in the quality of the product.

These gaps in market statistics should be minimized so that they may be

more useful to researchers as well as policy-makers.

Suggestions: Market statistics should concentrate on the following in the context of the changing marketing pattern⁵.

(i) The data on prices, market arrivals, and disposal of different agricultural commodities should be collected and released regularly;

(ii) The machinery for data collection should be strengthened in order to make the statistics regular, continuous, more reliable and scientific;

(iii) The time lag in the release of statistics should be minimized;

(iv) Along with price data, information on other related issues such as the quantity bought and sold and expected demand and supply should be collected and made available;

(v) The data pertaining to location, number, capacity and functioning of the agro-industrial units should form a part of market statistics; and

(vi) The data on marketing costs and margins of market functionaries at different times should be collected.

NEW EMERGING PROBLEMS IN AGRICULTURAL MARKETING

The rapid development in agricultural research and the introduction of technological innovations, viz., high-yielding varieties, improved agricultural implements, fertilizers and pesticides in the recent past, have brought about a breakthrough in Indian agriculture. This development in the field of agriculture, popularly known as the green/white/yellow/blue revolutions, has given rise to new problems in agricultural marketing. It is essential to maintain the tempo of these revolutions. The farmer-producers should be assured of a fair price for their produce, failing which they may lose the incentive to increase agricultural production. A fair price for the produce may be assured when there is an orderly marketing system in the country. But an orderly marketing system can be created only when the problems, which have emerged with the advent of the green revolution are effectively tackled. There is an urgent need in the present context for tackling the emerging problems of agricultural marketing more resolutely and efficiently than ever before. The improvement in the domestic marketing system has assumed special significance with the launch of new economic policy in 1991 and opening up of the external trade regime. The important problems which have emerged in the recent past pertain to the following areas:

(i) Increase in Production Levels and Market Arrivals

With increased market arrivals, and in order to enforce strictly market regulations, it is necessary that a large number of market yards should be developed in rural areas with all the necessary marketing facilities. Without spacious market yards, it is not possible to centralise and effectively super-

wise the transactions taking place in the area. The development of these spacious market yards is also essential for the performance of various marketing functions, such as grading, cleaning, sieving and weighing of the produce.

Presently, most of the markets do not have spacious market yards and the transactions are carried on in congested areas in the centre of the city and on the roadsides. Recently, some market committees have constructed spacious market yards; but a majority of market committees do not have them because of the paucity of funds and the non-availability of land.

(ii) Price Instability

Agricultural prices are very unstable and fluctuate violently. These prices fall in the post-harvest months and increase later in the year. This situation has worsened with the increased market arrivals as a result of the emergence of surpluses, especially of wheat and rice. The increasing instability in prices adversely affects the income of farmers as well as the tempo of increasing production. There is, therefore, a need for reducing price instability. Several steps may be taken for farmers to get a better share in the consumer's rupee. Some of the steps to check price instability are: fixation of minimum support prices of the crops by the government; purchase of the commodities if market prices fall below that level; and development of warehousing facilities to check post-harvest sales among the farmers.

(iii) Market Intelligence

Market intelligence is another problem that has emerged and is an important adjunct of orderly marketing. With the increased marketed surplus and opening up of trade, the importance of market intelligence has increased. Farmers market the produce in the village and nearby assembling centres out of their ignorance of the price prevailing in the nearby primary wholesale, secondary wholesale and terminal markets. Traders take the advantage of the ignorance of the farmer because they have full knowledge of the prices prevailing in other markets. This places the traders in a superior bargaining position.

The Directorate of Economics and Statistics, Government of India, as well as the State Departments of Agricultural Marketing have been collecting data on wholesale and retail prices at various markets and disseminating the information through periodical bulletins issued on the All India Radio and in the form of publications. However, this is not a satisfactory position because the information provided is stale in the sense that, by the time it reaches the farmers, the market prices have changed. Farmers are not able to take advantage of the available intelligence because of their illiteracy. There is, therefore, an urgent need for refinement in the available market intelligence, so that announcements of market information may be made on the expected prices, arrivals, demand and supply.

There is also a need for the publication of "outlook" reports for each district to help the farmers to decide about their cropping and production programmes.

(iv) Grading of Agricultural Commodities

The grading of agricultural commodities has assumed importance in recent years because of the introduction of many new varieties of certain crops specially of wheat; rice and other cereals. There is a big price difference between varieties which arises out of consumer preferences. In the absence of proper grading, both the producers and the consumers suffer. The producers suffer in the absence of grading because they get the same price for the best quality of the produce and for a fair average quality. Grading ensures that producers receive a price which is commensurate with the quality of the produce. At the same time, grading protects the consumers against adulteration. The progress in the adoption of grading by farmers and consumer preference for graded rather than ungraded produce has been poor; and this situation needs to be corrected. Scientific quality testing machines and equipment can solve this problem by rendering a quick and systematic grading service. Facilities for grading must be developed at the farm level and at the market level. In the peak season, because of the accumulation of huge stocks, it is not possible to introduce grading at the market level. That is why the provision of grading at the farm level is important.

(v) Transportation

With the increase in production and marketed surplus, farmers and traders are faced with the problem of adequate and quick means of transportation of the produce at the village level, inter-market level and inter-state level. Farmers in many areas generally transport the produce from the farm or village to the market in their bullock carts or camel carts. These take a lot of time and involve a high cost of transportation by reason of their slow speed and low carrying capacity. The mechanization of transportation for the haulage of the produce at this level is very important; and the construction of metalled roads is a prerequisite for this purpose. At the inter-market level, truck transportation is extensively used, for it is convenient, quick and cheap. The truck picks up the produce from the market yards and also deliver to the market yards at the destination. For inter-state transportation, both trucks and railways are pressed into service. However, some of the markets are not connected by railways; and the cost of transportation by trucks is somewhat high.

(vi) Storage Facilities

The problem of the storage of farm produce has been accentuated by the increase in the volume of production. Storage is necessary, at the village site

to check the tendency of immediate post-harvest sale by the farmers, and at the market level so that the various marketing functions may be performed and advantage may be taken of any price rise. In the recent past, warehouses have been constructed by the Food Corporation of India, the Central Warehousing Corporation, the State Warehousing Corporations, Co-operative Marketing Societies and the government. Individuals also have built-up storage space. The available storage space in these warehouses is less than the requirement. There is, therefore, a need for the construction of more godowns, specially in rural and hilly/desert areas.

To make farming more attractive and the hard labour of the farming community more remunerative, it is necessary that storage facilities should be extended right up to the producers' level. This is possible only by having a network of warehouses all over the country, which can serve not only as places of storage but as places of orderly transactions of selling and buying, and thus ensure that farmers do not travel long distances to market their produce. Once this system is evolved, a farmer will be in a better position to market his produce and get benefits of hard work.

(vii) Marketing of Agricultural Inputs

The marketing procedures of agricultural inputs have to be improved. This is most essential in the present context of the use of new technology. The newly-evolved HYV seeds are more responsive to other inputs, and arrangements for their timely availability are a prerequisite for the success of the programmes of agricultural development.

(viii) Ancillary Facilities in the Markets

The existing markets lack the ancillary facilities, which include banks, a post office, telegraph office, and shopping centres. Also, the facilities of sorting, grading and packaging in the villages or primary markets are not available. These should be increased to provide full benefits to the farmers.

(ix) Finance for Market Development

Market development with all the ancillary facilities is highly capital-intensive, and returns on investment in it accrue slowly over a period of years. For market development, a special arrangement for financing is necessary.

(x) Education of Farmers

It is equally necessary to educate farmers in marketing of agricultural products so that they may derive necessary benefits of their activities. Without proper education, benefits cannot reach the farmers fully. This is more so in the present context with the availability of increased marketed surplus with producer-farmers.

(xi) General Dissatisfaction of Farmers

The problems listed above generally reflect the inadequacy of the market infrastructure for handling of the increased volume of production. This inadequacy is reflected in the general discontentment amongst farmers which, if not checked, will thwart the tempo of increasing production. The grievances which have to be dealt with at the local level are: congestion in the markets; delays in cleaning, weighing and auction of their produce; loss arising out of pilferage and excess weightment; delays in payment by traders; absence of procurement agents when market price falls below the support level; and nonavailability of inputs at the right place and time. These apart, several macroeconomic policies adversely affect the farmers in certain regions creating discontentment among the farmers. There is, therefore, a need to sensitize the policy-makers also for reducing the dissatisfaction among farmers.

NOTES AND REFERENCES

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2. Ministry of Agriculture, Report of the Expert Committee on Strengthening and Developing Agricultural Marketing, Government of India, June 2001, p. 38.
3. Hanson, J.L., A., *Dictionary of Economics and Commerce*. The English Language Book Society, London. 1974, p. 318.
4. National Institute of Agricultural Marketing, NIAM: An Over view, Jaipur, 2000.
5. "Research Problems in Agricultural Marketing in the Changed Context", Seminar Series V, Seminar on Emerging Problems of Marketing of Agricultural Commodities, Indian Society of Agricultural Economics, Mumbai, 1972, p. 322.

External Trade in Agricultural Products

One other important aspect of agricultural marketing is the marketing of agricultural commodities across the nation's borders usually termed as external trade. As far as an individual country is concerned, external trade is done in the form of either exports or imports. Exports provide the market support for the country's surpluses and generate foreign exchange earnings which increases the country's capacity to import other goods, but at the same time in the short run, they reduce the domestic availability of the commodities exported and consequently raise the domestic price level. Imports, on the other hand, though reduce the foreign exchange reserves, augment the domestic availability of goods and if these pertain to the capital goods or inputs, expand or improve the production capacity but in the short run, they depress the domestic prices. The effect of exports and imports of final goods on the domestic price level is such that, in the absence of any public intervention in the domestic market, the producers gain by exports and lose by imports. One other point to be noted in this regard is that the levels of exports and imports of a country are inter-related as the capacity of imports depends on its ability to export.

International trade or marketing essentially involves buyers and sellers of two different countries. Usually the currencies are different and convertibility is quite often not automatic. This apart, depending on the development philosophy, domestic economic levels; natural resource endowments and national objectives like self-sufficiency or self-reliance, there are quite a few barriers-physical, tariff, subsidies etc. that are imposed by the national governments. Therefore, the buying and selling of commodities across national boundaries usually have not been taking place in the framework of free market environment.

TRADE POLICY FOR AGRICULTURE

Over the last five decades of Indian planning, the perception about the importance of external sector in economic development has gone through a number of changes. These changes can be categorized as under:

(i) During the first half of 1950s, *i.e.*, the period of first five year plan, the foreign trade was considered to be almost irrelevant for economic development in India and hence export policies did not receive emphasis.

(ii) During mid 1950s and 1970s (1955 to 1975), the foreign trade was seen as a constraint on growth and India followed a moderately outward looking economic policy. During second five year plan (1956–61), agricultural items hardly received any export incentives. Rather several items were under export restrictions. The third five year plan (1961–66) marked a radical departure in the export policy. Various export promotion measures were introduced in the form of fiscal incentives, import entitlement scheme, direct financial incentives and marketing incentives from the government. Following the devaluation of Indian rupee in 1966, many of the export promotion measures were abolished. The promotion of India's exports continued during the fourth five year plan period (1969–74). To facilitate agricultural exports, the fourth plan extended the compulsory quality control and grading under Agmark. This period was also marked by the establishment of organizations aimed at providing services to the exporting community. These include Export Promotion Councils, Commodity Boards, and the Trade Development Authority, which were set up in early 1970's.

(iii) During late 1970's to early 1980's, the external trade got more prominent place. In 1977, a Task Force on Agricultural Exports, headed by G.V.K. Rao, in its report submitted to the Government of India, criticized the adhocism applied to agricultural trade. The report pointed out that India did not have an independent export policy for agricultural commodities and agricultural export policy during the 1970's remained 'ad hoc, short term and mere reaction to the situation'. The report suggested that long term policies should be formulated and frequent changes in export policies should be avoided. Another committee was appointed by Government of India under the Chairmanship of P.E. Alexander in 1977 to review the export-import policies and procedures. The Committee in its report submitted in 1978, recognised that the export control measures for agricultural commodities have resulted in supply uncertainties and loss of market share. The Committee recommended for the stability of export policies, advocated more transparency in making these policies, replacement of licensing system by the tariff system, rationalization of export incentives, elimination of multiplicity of incentives, and strengthening of institutional infrastructure for export promotion. Another Committee on trade policies under the chairmanship of Abid Hussain was appointed by the Government of India in 1984 to review the trade policies and suggest rationalization and improvements in these policies. The Committee realized that incentive element in these policies was small and was not sufficient to offset the negative export bias implicit in other domestic policies. The report proposed rationalization of duty drawback schemes, tax concessions, and increased fiscal concessions to increase the relative profitability of exports.

(iv) Mid 1980's to early 1990's marks the period when India started liberalization of the external sector. It began in mid 1980s but gathered pace only since 1991. However, upto mid 1990s, agriculture remained largely a protected sector in the Indian economy. During this period, the main policy objectives were to ensure stability of domestic prices of agricultural items. The government actively regulated agricultural exports through a variety of measures like export taxes, export ceilings, canalization and export prohibitions. Monitoring of agricultural exports was done on adhoc and short term basis to keep the domestic supply of agricultural goods stable.

(v) In July 1991, India introduced radical policy reforms in various economic sectors including trade. These include devaluation of rupee in 1991 and making rupee partially convertible. Trade restrictions on agricultural products were left mostly untouched in the 1991 reforms but during subsequent trade policy changes, restrictions on agricultural products were gradually lifted. India signed the Uruguay Round Agreement on 15th April 1994 at Marrakesh. The treaty introduced agricultural trade in the multilateral agreement for the first time. The aim of this treaty was to eliminate physical controls on agricultural trade by replacing them with bound tariff rates. The Agreement on Agriculture came into effect from January 1, 1995 which marked the beginning of a new era of agricultural trade policy in India.

The macro-economic reforms recently introduced in India aim at liberalization of trade and industry and at progressively moving towards linking the Indian economy with the world economy. As the reform package is extended to the farm sector also, it is expected that various forms of the so-called subsidies presently available to the agricultural sector will be phased out. The export of agricultural commodities as also agro-based processed products is being encouraged and controls/restrictions on trade in agricultural commodities have been increasingly relaxed. The physical controls on import/export of agricultural commodities have been replaced by tariffication, which are also being progressively reduced.

Apart from the macro-economic reforms, the end of the cold war, the disintegration of the erstwhile Soviet Union—one of India's major trading partners accounting for about 16 percent of total Indian export basket and a source for about 8 percent of India's imports—and the new international trade agreement under WTO have important implications for the agricultural sector. As the public intervention in agricultural marketing is being reduced and international trade is being liberalised, it is necessary to have a look at the current status of import and export of agricultural commodities, the world trade in these commodities and prospects for India in this regard.

SHARE OF AGRICULTURAL PRODUCTS IN TOTAL IMPORTS/EXPORTS OF INDIA

In 1960–61, exports of agricultural and allied products (AAP) were valued

at Rs. 284 crores which accounted for 44.2 percent of total value of exports. Over the years, though the exports of AAP (in value term) increased but as the exports of other commodities increased at a rate faster than that of AAP, the share of AAP in the total exports of the country has gone down. In 1990–91, exports were valued at Rs. 6317 crores but they represented only 19.4 percent of total exports (Table 11.1). After 1990–91, the exports of AAP from India in value terms increased at a faster rate. In 1995–96, exports of AAP were valued at Rs. 21,138 crores. During this period the exports of other commodities also increased at a rapid rate. Even then, the share of AAP in total exports from India at about 20 percent, was higher than that during the preceding five years.

In 2001–02, exports of AAP were valued at Rs. 29,312 crores. During 1995–96 to 2001–02, the exports of other commodities increased at a rapid rate than the exports of AAP and as such the share of AAP in total exports from India came down further to only 14 percent. The share of agricultural and allied products exports in India's total exports during the last four decades (1960–61 to 2001–02) has, however, been declining continuously. It came down from 44 percent in 1960–61 to 14 percent in 2001–02.

As regards the imports, the country during 1960–61 imported food articles (cereals and fats) valued at Rs. 186 crores representing 16.6 percent of total

Table 11.1
Trend and Shares of Food and Agricultural Products in Imports and Exports of India

(Rs. in crores)

Year	Imports			Exports		
	Total Imports*	Food articles*	Share of food articles in total Imports (%)	Total Exports	Agricultural and allied products	Share of agricultural & allied products in total Exports (%)
1960–61	1122	186	16.6	642	284	44.20
1970–71	1634	252	15.4	1535	487	31.72
1980–81	12549	809	6.4	6711	2057	30.65
1985–86	19658	880	4.5	10895	3018	27.70
1990–91	43193	508	2.2	32553	6317	19.41
1995–96	122678	2340	1.9	106353	21138	19.88
1998–99	178332	8799	4.93	139752	26104	18.68
1999–00	215236	9007	4.18	159561	25016	15.68
2000–01	230873	6183	2.68	203571	28582	14.04
2001–02	245199	562	0.02	209018	29312	14.02

* Includes only cereals, cereal preparations and animal and vegetable oils and fats.

Source: Government of India, Indian Economic Survey, 1996–97, Ministry of Finance, New Delhi.

imports. The imports of food articles increased to Rs. 89 crores during 1980–81, but their share in total imports declined to 6.4 percent. In 1985–86 the imports of food articles increased to Rs. 880 crores but their share in total imports further declined to 4.5 percent of total imports. In the subsequent years, the imports of food articles declined both in absolute terms as well as in terms of its share in total imports. It came down to Rs. 508 crores or 2.2 percent of total imports in 1990–91. The imports of food articles increased since then to Rs. 2340 crores in 1995–96 and to Rs. 9007 crores in 1999–2000. The share of imports of food articles in total imports has shown a mixed trend, *i.e.*, first reduced to 1.9 percent in 1995–96 and increased to 4.2 per cent in 1999–2000 and again shown a declining trend both in absolute as well as in the percent share thereafter. Though in absolute terms, India's imports of food articles have been increasing over the decades from mere 186 crores in 1960–61 to over 9000 crores in 1999–2000 but their share in total imports of the country has decreased from 16.6 percent to 2.6 percent during this period.

CHANGES IN INDIA'S AGRICULTURAL EXPORT BASKET

A number of agricultural commodities are exported from India. The commodities exported from India fall broadly in three categories:

(i) Traditional export items – These products are cashew nuts/shelled; castor oil; coffee; raw cotton, cotton waste; fruits, spices, sugar and molasses; tea and tobacco-unmanufactured.

(ii) Non-Traditional items but uncertain – These items are raw jute; raw wool; gums, resins and lac, essential vegetable oils; and non-essential vegetable oils (excluding castor oil).

(iii) Non-Traditional items with good prospects – These items are floriculture products; HPS groundnut; oil meals; meat and meat preparations; processed fruits and juices, processed vegetables; sesame and niger seeds; shellac; wheat and rice.

The growth in the export of non-traditional new items has been at a rate higher than that of traditional items (Table 11.2). Tea, coffee, tobacco, cashew kernels and spices are the traditional export items. During 1990–91, they together accounted for 36.1 percent of the total AAP exports but their share decreased to 23.10 percent in 2001–02. As against this, the exports of non-traditional items like marine products, basmati rice, fruits, vegetables, oil meals and processed foods have been increasing in the export basket of the country. Among the non-traditional items, the increase has been conspicuous in rice and fish and fish preparations. Rice accounted for 7.3 percent of total exports of AAP in 1990–91 which further increased to 10.8 percent in 2001–02. Similarly the share of fish and fish preparations increased from 15 to 20 percent during this period. The relative importance of various commodities in total agricultural and allied products exports has substantially changed during the last four decades.

Table 11.2
Exports of Agricultural and Allied Products from India

(Value in Rs. Crores)

Commodity	1960-61	1970-71	1980-81	1990-91	1995-96	2001-02
Tea and Coffee	131	173	640	1332	2674	2814
Oil cakes/meals	14	55	125	609	2349	2263
Tobacco	16	33	141	263	447	808
Cashew kernels	19	57	140	447	1237	1652
Spices	17	39	11	239	794	1497
Sugar and Molasses	30	29	40	38	506	1782
Raw Cotton	12	14	165	846	204	43
Rice	-	5	224	462	4568	3174
Fish & Fish Preparations	5	31	217	960	3381	5897
Meat & meat preparations	1	3	56	140	627	1193
Fruits, Vegetables & Pulses	6	12	80	216	802	1560
Processed Foods	1	4	36	213	745	1236
Others	32	31	182	952	2804	5393
Total Agricultural and Allied products	284	487	2057	6317	21138	29312
Total Exports	642	1535	6711	32533	106353	209018

Source: Economic Survey 2002-03, Ministry of Finance and Company Affairs, Economic Division, Government of India, New Delhi, pp. S-84-86.

During the nineties, agricultural exports have received special attention since it is in this area that there exists great potential for raising farm incomes, tackling unemployment problem and earning foreign exchange. The impetus for accelerated growth in agricultural exports is envisaged through increased infrastructure support and by building up conducive policy environment. Some of the measures undertaken in this connection include, market determined exchange rate policy, lowering import duties on capital goods, particularly machinery necessary for food processing, easier availability of credit for exports, removal of restrictions on export of agricultural products and several concessions to export-oriented units.

Some of India's major export markets for various agricultural commodities are shown in Table 11.3.

STATUS OF IMPORTS/EXPORTS OF SOME AGRICULTURAL COMMODITIES

In this section, we look at the status of exports from India and imports of some non-traditional items like cereals, pulses and raw cotton. Oilseeds and sugarcane are important cash crops in the country. There cannot be interna-

Table 11.3
Existing Markets for Export of Major Agricultural
Commodities from India.

Commodity	Countries
Tea	— Russia, UK, Iran, Japan, Germany, Egypt, UAE, Saudi Arabia, Poland, Afghanistan, Australia, Czechoslovakia, USA and Yugoslavia.
Coffee	— Russia, Yugoslavia, Italy, Japan, Germany, Romania, Australia, Belgium, Finland, France, Iraq, Kuwait, Norway, Spain, UAE, USA and UK.
Basmati rice	— Saudi Arabia, Russia, UK, UAE, Kuwait and Canada.
Wheat	— Vietnam Socialist Republic.
Tobacco (manufactured)	— Saudi Arabia, Russia, Japan, Oman, Nepal and Kuwait.
Spices	— USA, Russia, Saudi Arabia, UAE, UK, Japan, Canada, Czechoslovakia, Germany, Italy, Nepal, Netherlands, Pakistan and Yugoslavia.
Cashew Kernels	— Russia, Netherlands, Czechoslovakia, USA, Singapore, Japan, Australia, Canada, China, Germany and Hong Kong.
HPS Groundnut	— Russia, Czechoslovakia, Germany, Netherlands, Singapore, Yugoslavia and UK.
Oilcakes	— Russia, Romania, Saudi Arabia, Czechoslovakia, Germany and Poland.
Raw Cotton	— Japan, Romania, Russia, Poland, China, Hong Kong, Bangladesh, Belgium, Germany, Italy, Korea, UK, Switzerland and Singapore.
Fresh Fruits	— UAE, Saudi Arabia, Kuwait, Bahrain, Qatar, UK, Bangladesh and Russia.
Fresh Vegetables	— Saudi Arabia, UAE, Oman and Singapore.
Onion	— Malaysia, Sri Lanka and Middle East.
Processed fruits and vegetables	— Russia, UK and Middle East.

tional trade in sugarcane but sugar is an important internationally traded commodity and the market for sugar affects the interests of growers and sugar factories as also of the consumers. Therefore, we also look at international trade in sugar. In the case of oilseeds also, the major trade is in their derivative-edible oils, hence we look at the trade in edible oils also.

CEREALS

Ever since independence, though self-sufficiency in cereals was on the top of agenda of the development planning, India has remained consistent net importer of rice up to 1972 and that of wheat up to 1977. The year 1966 marks a turning point in the trend of imports of cereals in India. During this year, the net import of cereals at 10.35 million tonnes was the highest since

independence. During this year, the net import of rice was 7.85 lakh tonnes and that of wheat was 78.32 lakh tonnes. After 1966, the imports of both rice and wheat started decreasing. Between 1973 and 1982 the country was net exporter of rice except during 1975 and 1976. In the case of wheat, though the imports substantially decreased but the country has remained net importer of wheat up to 1984 except during 1978 to 1980. As the quantities of imports and exports vary from one year to the other, it is appropriate to look at the aggregate of imports and exports for different five years periods. The aggregates of imports and exports of wheat, rice and coarse cereals for the period from 1955 to 1999 are given in Table 11.4.

Table 11.4
India: Imports and Exports of Cereals

Particulars	('000 tonnes)								
	1955 to 1959	1960 to 1964	1965 to 1969	1970 to 1974	1975 to 1979	1980 to 1984	1985 to 1989	1990 to 1994	1995 to 1999
Rice									
Import	2030	2601	2956	577	374	925	1158	187	42
Export	146	6	27	117	550	2478	1654	7658	16665
Net Import	1884	2595	2929	460	(-176)	(-1553)	(-496)	(-7471)	(-16623)
Wheat									
Import	10697	20422	28671	12170	13390	6494	2011	3065	5277
Export	2	-	1	24	697	108	452	275	1782
Net Import	10695	20422	28670	12146	12693	6386	1559	2790	3495
Other Cereals									
Import	165	71	4431	1871	713	2000	-	-	211
Export	9	-	24	35	9	108	15	242	130
Net Import	156	71	4407	1836	704	1892	(-15)	(-242)	81
Total Cereals									
Import	12892	23094	36058	14618	14477	9419	3619	3252	5530
Export	157	6	52	176	1256	2694	2121	8175	18577
Net Import	12735	23088	36006	14442	13221	6725	1048	(-4923)	(-13047)

Source: Compiled from "Bulletin on Food Statistics" 1987-89, Ministry of Agriculture, Government of India, New Delhi and updated from other sources.

During the second half of eighties, India had been exporting rice, most of which is basmati rice. In 1985-86 and 1986-87, India exported around 2.5 lakh tonnes of rice each year. The rice exports increased to more than 3.5 lakh tonnes during 1987-88 and 1988-89. In 1989-90, total rice exports from India were 4.22 lakh tonnes. In 1990-91, India exported 2.42 lakh tonnes of basmati rice. During 1990-95, the country exported, on an average 15 lakh tonnes of rice per year. During the later half of nineties, the exports of rice aggregated to 33.3 lakh tonnes per year. As far as wheat is concerned, the situation is still not comfortable. After a severe drought of 1987-88, the country had to import around 2 million tonnes of wheat in the following year. Again

in 1992 and 1993, about three million tonnes of wheat was imported. In fact, if one looks at the five years period 1990–94 or 1995–99 as a whole, wheat imports have been more than the exports. In the case of coarse cereals, India has been the net importer but with the easing of the supply situation of rice and wheat, the imports of coarse cereals have been reduced. By and large, considering all the cereals together, during the nineties, the country has emerged as an exporter.

PULSES

In order to augment the domestic availability, India has been importing pulses throughout the eighties and nineties. The imports were substantially increased from 1983–84 onwards. The country's imports stood at 1.28 lakh tonnes in 1981–82 but increased to 8.27 lakh tonnes in 1988–89. In 1989–90, and 1990–91 also, the country imported 4.29 lakh tonnes and 6.63 lakh tonnes of pulses valued at around Rs. 228 and Rs. 473 crores respectively (Table 11.5). During the last ten years, the country has imported around five

Table 11.5
Import of Pulses in India

Year	Quantity ('000 tonnes)	Value (Rs. in crores)
1976–77	12.0	NA
1977–78	2.0	NA
1978–79	101.0	NA
1979–80	68.0	NA
1980–81	173.0	NA
1981–82	128.0	NA
1982–83	102.3	36.67
1983–84	227.9	82.87
1984–85	235.4	100.70
1985–86	431.4	189.06
1986–87	624.8	233.66
1987–88	587.0	NA
1988–89	827.0	383.50
1989–90	429.0	227.86
1990–91	663.0	473.20
1991–92	312.6	255.3
1992–93	566.8	315.9
1993–94	628.2	567.0
1994–95	554.9	573.6
1995–96	490.8	685.57
1996–97	654.9	890.34
1997–98	1008.2	1194.64
1998–99	563.6	708.81
1999–00	250.8	354.69
2000–01	349.8	498.47
2001–02	2217.8	3160.16
2002–03	1879.5	2562.67

lakh tonnes of pulses annually. The import basket of pulses, though varies from year to year but it generally includes moong, pigeon-pea (tur/arhar) and Kabuli gram. Moong is imported from China, Thailand and Burma. Pigeon-pea is imported from Kenya, Tanzania and Burma and Kabuli gram is imported from Australia, Turkey, Tanzania and Burma. Although the pulses have been under OGL (Open General Licence) but the contracts for import of pulses had to be registered with the NAFED. Measures such as reduction of import duty on pulses (for example, from 35 percent to 10 percent w.e.f. Nov. 1989) and removal of cash margin on opening letters of credit for imports of pulses have been used in the past with a view to encouraging imports and consequently increasing the availability of pulses in the domestic market. The duty on imports of pulses has been further brought down to five percent and imports are freely allowed.

OILSEEDS

Upto mid-sixties, India has been exporting oilseeds. Due to rapid increase in the demand for edible oils in the last four decades and despite the increase in production of oilseeds, the rate of growth in supply of edible oils in the country did not keep pace with the growth in demand. It is in this scenario that the country had to augment the domestic supplies through the import of edible oils. Table 11.6 shows the imports of edible oils in the country in various years. Between 1980-81 and 1988-89, the country had imported more than 10 lakh tonnes of edible oils annually.

Table 11.6
Import of Edible Oils in India

Year	Quantity ('000 tonnes)	Value (Rs. in crores)
1960-61	31.1	4
1970-71	84.7	23
1980-81	1633.3	677
1985-86	1036.4	735
1990-91	525.8	326
1991-92	226.0	248
1992-93	102.7	167
1993-94	114.3	167
1994-95	346.8	624
1995-96	1062.0	2260
1996-97	1415.8	2929
1997-98	1265.8	2765
1998-99	2621.8	7589
1999-00	4195.6	8046
2000-01	4177.2	5977
2001-02	4213.9	6465
2002-03	4266.0	8745

Source: Government of India, Indian Economic Survey, 2002-03, Ministry of Finance, pp. S-82-84.

In 1980–81, the country imported 16.33 lakh tonnes of edible oils valued at Rs. 677 crores. The import of edible oils decreased in the later years. However, it was still at a considerably higher level of 10.36 lakh tonnes in 1985–86. Later, with a view to maintaining a favourable price environment for the oilseed growers for encouraging them to adopt new technology and increase the production, the imports were kept restricted. The imports came down to 5.26 lakh tonnes in 1990–91 and further to around one lakh tonnes in 1992–93 and 1993–94. However, during the last ten years, the consideration for the growth of production of oilseeds and the objective of helping oilseed growers, which are mainly resource poor and dry land farmers, were relegated in the background. The imports of oilseeds were placed under OGL and duties reduced to as low as 20 percent. The imports, therefore, went up to 10.62 lakh tonnes valued at Rs. 2260 crores in 1995–96. In subsequent years, these increased manifold. During 1999 to 2002, India imported more than 41 lakh tonnes of edible oils each year.

India exports about 22 to 30 thousand tonnes of HPS (hand-picked selected) groundnut annually but export earning is a small fraction of the foreign exchange outgo on import of edible oils. The use of Indian groundnut in important countries is restricted to the manufacture of peanut butter because India exports bold 55 counts, J.L. 24 66/70 counts and Jawa 70/80 counts whereas the international demand is for bold 40/50 counts. Therefore, Indian exports fetch about 20 percent lower price in the international market. India also exports considerable quantities of oil meals.

SUGAR

India has been exporting sugar in most of the years. Nevertheless, in some years massive imports had to be done to meet the demand in the domestic market. The domestic market for sugar has often remained under control though the extent of control has varied over time. In some years, though it was completely decontrolled but the decontrol was short lived. The data in Table 11.7 show that from 1974–75 to 1978–79, the country's export of sugar fluctuated between 2.02 lakh tonnes and 10.21 lakh tonnes. In the following sugar season India imported about 1.80 lakh tonnes but exports of sugar were more than the imports. However, in 1980–81 sugar season, India imported 2.15 lakh tonnes of sugar which exceeded exports by 1.54 lakh tonnes. Between 1984–85 and 1986–87, the country had to import 37.94 lakh tonnes of sugar. In 1989–90, sugar season also, the imports of sugar were more than the exports. During 1990–91 to 1991–92, the availability of domestic production was comfortable and import was not needed. In fact, country could export sugar in these three years. However, India imported (net) 10.38 lakh tonnes of sugar during 1993–94 and 1994–95. India was net exporter in four years and importer in three years between 1995–96 and 2001–02.

Table 11.7
India: Import and Export of Sugar

Year (Oct-Sept.)	('000 tonnes)		
	Import	Export	Net Export
1974-75	-	924	924
1975-76	-	1021	1021
1976-77	-	312	312
1977-78	-	202	202
1978-79	-	863	863
1979-80	180	290	110
1980-81	215	61	(-) 154
1981-82	-	383	383
1982-83	-	422	422
1983-84	64	706	642
1984-85	1217	20	(-) 1197
1985-86	1626	54	(-) 1572
1986-87	951	26	(-) 925
1987-88	71	28	(-) 43
1988-89	-	28	28
1989-90	242	35	(-) 207
1990-91	-	207	207
1991-92	-	583	583
1992-93	-	397	397
1993-94	460	55	(-) 405
1994-95	674	41	(-) 633
1995-96 (Apr-March)	150	864	714
1996-97	2	667	665
1997-98	347	173	(-) 174
1998-99	900	13	(-) 887
1999-00	1181	13	(-) 1168
2000-01	30	339	309
2001-02	26	1456	1430
2002-03	41	1471	1430

RAW COTTON

India has been traditionally an importer of cotton. But lately it has emerged as an exporter. The data in Table 11.8 show that during the last 18 years, it has exported raw cotton in all the years and remained net exporter in most of the years. During the cotton year (Sept.-Aug.) 1986-87, the export of raw cotton peaked to 14.3 lakh bales, but in the next two years, imports of raw cotton exceeded the exports. However, in 1989-90 season, India could export around 12 lakh bales of raw cotton. Again in 1990-91 and 1993-94, the country exported substantial quantities of raw cotton. During the 10 year period upto 1995-96, net exports of raw cotton from India averaged at 6 lakh bales. However, since then, the situation has considerably changed. During 1999-00 to 2001-02, India imported substantial quantities of raw cotton.

Table 11.8
India: Import and Export of Raw Cotton

Year (Sept–Aug.)	(Lakh bales)		
	Import	Export	Net Export
1978–79	0.3	2.7	2.4
1979–80	–	5.5	5.5
1980–81	–	7.0	7.0
1981–82	0.5	3.7	3.2
1982–83	–	7.0	7.0
1983–84	–	3.5	3.5
1984–85	0.5	1.8	1.3
1985–86	–	4.5	4.5
1986–87	–	14.3	14.3
1987–88	3.0	0.4	(–) 2.6
1988–89	2.3	1.0	(–) 1.3
1989–90	–	12.8	12.8
1990–91	0.1	22.0	21.4
1992–93	3.1	3.8	0.7
1993–94	0.2	17.5	17.3
1994–95	4.8	4.2	(–) 0.6
1995–96	4.1	2.0	(–) 2.1
1996–97 (Apr–Mar)	0.2	15.9	15.7
1997–98	0.6	9.3	8.7
1998–99	3.4	2.5	(–) 0.9
1999–00	14.0	0.9	(–) 13.1
2000–01	12.5	1.7	(–) 10.8
2001–02	22.8	0.5	(–) 22.2
2002–03	11.8	0.6	(–) 11.2

Source: Office of the Textile Commissioner and Directorate of Cotton Development (Quoted in Reports of CACP) and Agricultural Statistics at a Glance, 2002.

FRUITS AND VEGETABLES

India exports seeds of fruits and vegetables; fresh fruits; fresh vegetables and processed fruits and vegetables. There has been considerable increase in the exports of all these during the nineties. The value of exports went up from Rs. 709 crores during 1994–95 to 1947 crores during 2002-03 (Table 11.9). There is vast scope to increase their exports.

INDIA'S SHARE IN WORLD TRADE

There are two ways of looking at India's share in the world trade for major agricultural commodities. One way is to see the share of India in the total value of exports in the world market at international prices and the other is look at India's share in the total physical quantity of exports/imports in the world.

Table 11.9
Exports of Fruits & Vegetables

(Rs. in Crores)

Year	F & V Seeds	Fresh Fruits	Fresh Vegetables	Processed F & V	Total
1994-95	23	189	248	249	709
1995-96	41	230	297	347	915
1996-97	42	244	334	326	946
1997-98	53	277	313	389	1032
1998-99	65	266	274	458	1063
1999-00	80	307	335	558	1280
2000-01	63	386	457	785	1691
2001-02	62	417	575	711	1765
2002-03	91	432	618	806	1947

Source : Agricultural Statistics at a Glance, 2003, Ministry of Agriculture, Government of India.

As per the International Trade Statistics of United Nations Organisation (Table 11.10), the share of India in the value of total world exports of agricultural and allied products has decreased from 1.8 percent in 1970 to 1.3 percent in 1980 and to only around one percent in 1990. However, it recovered to 1.4 percent in 1994. In the case of rice, India's share in 1980 was 3.7 percent as compared to only 0.6 percent in 1970. In 1990, it further increased to 6.4 percent of the world trade. It is on an increasing trend in recent years. In coffee, tea and spices, the share of India in the total world trade for these commodities has continuously decreased from 5.1 percent in 1970 to 2.7 percent in 1994, despite absolute value of exports from India showing an increase. In fish and fish products group, the value of India's exports have been rising from US \$ 242 million in 1980 to US \$ 1111 million in 1994. As far as other groups such as other cereals, sugar, vegetables, fruits and meats are concerned, India's share in total world trade in value terms continues to be less than or around one percent.

India accounts for 10.4 percent of total wheat production in the world. Nearly 95 million tonnes, *i.e.*, 15 percent of total production enters the international market. The main wheat exporting countries are USA (31%), Canada (23%), European countries (17%), Australia (16%) and Argentina (5%). The main importers of wheat are erstwhile USSR (18%), African countries (21%), China (10%), Japan (6%), European countries (6%), and Brazil (3%). As seen earlier, India has been entering the international market as buyer—earlier regularly and now-occasionally. During nineties, India has entered the world market as exporter also.

In the case of rice, India accounts for nearly 21.7 percent of the world production. The international trade in rice has been around 20 million tonnes and India's share as exporter has been around six percent. Main exporting countries of rice were Thailand (35%), USA (21%), Pakistan (13%), China (11%), and Burma (5%). Vietnam has also entered as exporter in a big way.

Table 11.10
Trend in India's Share in World Trade (Exports)

Commodity Group	(Value in US \$ Million)													
	1970		1980		1990		1995		1999					
	World	India %	World	India %	World	India %	World	India %	World	India %	World	India %		
Rice	925	6	4355	160	3.7	3995	254	6.4	7380	1362	18.6	8105	1632	20.1
Other Cereals & preparations	5850	3	37634	41	0.1	41319	31	-	52136	208	0.4	47079	4	*
Sugar & preparations	2700	26	16183	46	0.3	14236	21	0.1	19331	156	0.8	15194	12	0.1
Vegetables & fruits	1471	17	24018	259	1.1	50225	400	0.8	69837	644	0.9	71799	689	1.0
Meat etc.	3584	4	17832	67	0.4	34118	77	0.2	46051	183	0.4	43535	200	0.5
Fish etc.	-	-	12258	242	2.0	32847	521	1.6	45729	998	2.2	47070	1119	2.4
Coffee, tea & spices	5437	280	22121	879	4.0	21131	842	4.0	33390	974	2.9	31135	1315	4.2
Tobacco etc.	1713	43	3423	151	4.4	17860	145	0.8	24005	113	0.5	22814	149	2.4
Total	21680	379	137824	1845	1.3	215731	2291	1.1	297859	4638	1.6	286731	5120	1.8

Source : Government of India, Economic Survey 2002-03, Ministry of Finance, New Delhi.

* Negligible.

As far as importing countries are concerned the pattern is diverse, *i.e.*, a large number of countries is importing rice and no single buyer has a substantial share. These are mainly Asian countries, though rice is also imported by European countries. In India, export of basmati rice is under Open General Licence and till recently it was mainly the basmati rice which was exported from India. Now, India is also exporting non-basmati rice. Major markets for Indian rice are Saudi Arabia, Kuwait, United Arab Emirates, erstwhile Soviet Union (Republic of Russia) and Western Europe.

The World trade in coarse grains is around 101 million tonnes which is about 12 percent of total World production. Major exporting countries are USA (50%), European countries (9%), Canada (8%) and Argentina (8%). The importing countries are Japan (26%) and erstwhile USSR (15%). India does not have a consistent share in the international trade for coarse cereals. Lately, barley and other coarse cereals are being exported but it is a very small fraction of total international trade in coarse cereals.

The international trade in HPS groundnut amounts to around 7 lakh tonnes annually. India exports around 30 to 50 thousand tonnes of HPS groundnut which comprises about six percent of world trade. Though Indian groundnut is sweet and palatable, its use in the importing countries is mainly for the manufacture of peanut butter because of its poor boldness. While the international demand is for bold 40/50 counts, Indian exports are mainly of 66/70 or 70/80 counts.

The World trade in raw cotton is estimated at around 32 million bales (of 170 kg each). India as an exporter or importer accounts for nearly 3.8 percent of the world trade. There are 64 exporting countries and 72 importing countries of raw cotton. Among six major producing countries, China and Brazil are net importers of cotton. Major exporting countries of raw cotton are USA (28%), erstwhile USSR (12%), Pakistan (8%) and India. Out of the total raw cotton imports, 54 percent is shared by East Asian countries like Japan (13%), Korea (9%), China, Hong Kong, Indonesia and Thailand and 33 percent is shared by European countries like Italy, Germany, Poland and Portugal.

The international trade in extra-long staple cotton is around 1.8 million bales. The share of India in the export of this grade of raw cotton is around 8 percent. Other exporters of extra-long staple cotton are USA (31%), Egypt (15%), erstwhile USSR (12%) and Sudan (11%).

POLICY AND PROSPECTS OF EXPORTS AND IMPORTS

During the last three decades, the country has passed through cycles of export pessimism and export enthusiasm. Although the balance of payments position of the country has been deteriorating since early seventies, but the rate of increase in the trade deficit (excess of imports over exports) acceler-

ated during the eighties. The trade deficit, while during the first half of eighties was around Rs. 5,800 crores, increased to around Rs. 7,800 crores in the late eighties. During 1990–91, the trade deficit was estimated as Rs. 10,640 crores. It was in this context that a programme of economic stabilization and structural adjustment was launched in 1991. The balance of payment has considerably improved since then. The country now has foreign exchange reserves of more than US \$ 80 billion.

As far as India's export policy for agricultural products is concerned, till recently, it had been more like "export whatever and whenever it is surplus" and little attempt to produce for the export market was made. The objectives of the Government policy with regard to agricultural exports and imports had been twofold.

(i) To maximize agricultural exports and foreign exchange earnings, ensuring a reasonable return to the producers keeping in view the important considerations of domestic availability of essential commodities particularly of mass consumption at reasonable prices; and

(ii) A realistic import policy under which the Government keeps in mind various considerations, including demand/supply situation, indigenous production and conservation of foreign exchange resources.

The import and export policy for agricultural products which include staple food items like foodgrains and essential items of consumption like edible oils has to reconcile the often conflicting, interests of the producer-farmers, consumers and of the industries which use agricultural products as raw materials (cotton, sugarcane etc.). In this endeavour to reconcile these conflicting interests, the basic-intent of the policy till 1992 had been to keep it flexible and take a decision as the situation demands as is revealed from the following:

(i) Exports of non-basmati rice, barely, bajra, jowar, ragi, and wheat bran which had been stopped in 1988–89, due to the occurrence of drought in the year 1987–88, was allowed since 1989–90 subject to certain quantity ceilings.

(ii) Export of basmati rice was allowed under Open General Licence. In 1991–92, 8 lakh tonnes of wheat was permitted for exports but within the same year, a decision to import about one million tonne of wheat was taken.

(iii) The import of pulses was placed under Open General Licence but contracts have to be registered with NAFED.

(iv) Ceilings on exports of groundnut and cotton seed extractions were lifted and niger seed was brought under canalised items of export through NAFED and TRIFED.

(v) The onion export was canalised through NAFED and the export of pure ghee was canalised through the National Dairy Development Board.

(vi) The procedure of exports/imports was such that there always had been a gap between policy announcement and the final outcome. For example, first of all the Government announced its decision to allow exports up to some ceiling. The submission of applications by exporters, allotment of quota

and actual shipment took time, as a result actual quantity shipped by the time of next harvest season, quite often fell short of the originally intended quantity. The same situation held true in the case of imports on account of the time that is required in contracting and negotiating with the buyers, arranging the shipment and off-loading at the Indian ports.

As a part of comprehensive programme of macro-economic stabilization and structural adjustment, there has been a move towards a more open trade regime. In this move, there are five key medium-term objectives:

- (i) broadening and simplification of export incentive measures and the removal of restrictions on exports;
- (ii) elimination of quantitative restrictions on imports;
- (iii) substantial reduction in tariff rates;
- (iv) decanalization of exports and imports with the exception of a few items; and
- (v) moving to a foreign exchange system which is free of allocative restrictions for trade.

A package of trade policy announced in July–August, 1991, incorporated quite a few changes which aimed at strengthening export incentives and eliminating a substantial proportion of import licensing requirements. Imports of raw materials and components were linked to exports and replenishment licensing (REP) system was replaced by a new instrument named Eximscrip. The Eximscrip was issued to exporters at higher rates and was made freely tradeable. With effect from April 1, 1992 the Eximscrip scheme was abolished. The export licensing and minimum export price (MEP) provisions were also liberalised. It was also intended to decanalise the imports/exports with a view to reducing the role of state monopoly agencies in the foreign trade. The Indian rupee was made partially convertible. The custom duties on certain pesticides were reduced and on oilseeds, pulses and seeds of fruits, flowers and of vegetables were abolished.

The meaning and consequence of liberal international trade in agricultural products should be understood and recognised. Even under a regime of liberal international trade, import tariffs/duties are likely to remain in force. The presence of tariffs and duties and the absence of physical restrictions imply that though the domestic prices will still remain different than those in the international market—the difference depending on the rates of tariffs and duties and the exchange rate of Indian rupee in relation to other currencies—but the relative price structure in the domestic market will tend towards that in the international market.

An examination of the domestic prices in India and the price in the international market shows that the prices of wheat, rice and raw cotton in the domestic market had been lower than those in the international market and those of sugar and edible oils/oilseeds were higher in the domestic market as

compared to those in the international market. The implication of liberalization of trade in these commodities is that prices of wheat, rice and raw cotton would rise and those of sugar and edible oils would decline. But in view of the huge subsidies being given by major producing countries to their farmers, specially in the case of wheat and sugar (by paying higher prices to the producers and selling at lower prices in the international market, the difference of the two being met by government), the international prices are not market determined prices and their levels are prone to the decisions of the governments of such countries. Also, the international prices have been showing very high instability. Therefore, the decisions on imports and exports of agricultural products require careful assessment of the international markets for these products. The prospects for India in the international marketing of agricultural commodities appear as follows:

FOODGRAINS

In the case of foodgrains, the cultivation of basmati rice is already expanding and its export is under OGL. But in the case of non-basmati rice and wheat, although the production level is keeping pace with the demand and a situation has also developed where the country has consistently remained surplus over say a five years period. However, it ought to be recognised that some countries like USA and EC are highly subsidising the trade in wheat and till such time that distortion in world market gets corrected, price signals arising in the international market cannot be treated as free market price signals. Therefore, the country should judiciously use import tariffs to safeguard the interests of cereal producing farmers. However, basmati rice should be exported as much as possible and even in the case of non-basmati rice and wheat, India should enter the export market as a reliable seller of atleast 2 to 4 million tonnes every year.

COTTON

Cotton is one among the agricultural products which has the largest possibilities for higher exports. India has a comparative advantage in the production of cotton vis-a-vis other countries. The unit cost of production of cotton in India is lower than that in many other countries. This apart, there are some other factors which provide an advantage to this country.

Mechanical harvesting of cotton results in picking of all the bolls—mature, half mature or immature—from a plant as mechanical pickers operate on the principle of sucking. Also trash content in mechanically harvested cotton is more than that in the manually harvested cotton. The countries where sophisticated ginning machines and high quality cleaners are not available, prefer manually picked cotton. In India, cotton picking is manually done. Therefore, Indian raw cotton has advantage over mechanically picked cotton of such

other countries like USA, Russia and Australia in terms of maturity, purity, strength and spinning quality. This factor can be exploited if ginning factories are modernized. This apart, extra-long staple cotton remains under-spinned in most of the Indian textile units. Suvin is perhaps the best quality extralong staple cotton in the world. While most of the Indian mills can hardly spin this variety up to 120 counts, those in Japan and Australia can spin Suvin cotton up to 160 or 180 counts. Therefore, the country should expand the cultivation and increase export of extra-long staple cotton as much as possible even if it requires import of medium staple cotton to meet the demand for domestic industry.

SUGAR

The world sugar market is considered as one of the most distorted international commodity markets. Although international price of sugar is generally lower than that in the domestic market but it should be kept in mind that world sugar is highly subsidised by major exporting countries like USA, Cuba and Brazil. International price of sugar remains lower than that in India not because India's cost of production is higher but because of the element of subsidy. As far as real cost of production is concerned, India is a competitive producer of sugar.

PROCESSED FOOD

Although exports of processed foods based on fruits, vegetables, fish and meat, have picked up in the last decade, but still there is ample scope for their expansion. What is needed is upgradation of processing and packaging technology. Foreign collaboration and equity support can reduce both technological and financial constraints in increasing the production and exports of processed foods. Setting up of Agri Export Zones (AEZs) is a step in the right direction to promote exports of processed foods.

OTHER COMMODITIES

For other high value commodities like tea, cashew, coffee, spices, HPS groundnut and flowers, there is a need to improve the quality and to recapture the markets or explore, some new markets. Notwithstanding the expansion in domestic demand for tea, the country can produce higher quality tea for exports. In the case of cashew, though India has lost the US market, the policy of exporting cashew to the erstwhile USSR countries should be reconsidered. In the case of HPS groundnut, India should try to produce and export bold 40/50 counts grade which is demanded in the international market.

The availability of raw material, cheap labour and an outward-looking economic policy régime provide ample scope of expanding external trade in many agricultural and agro-based products in the near future.

RECENT POLICIES ON TRADE

EXPORT-IMPORT POLICY, 1992-97

The Government of India announced a new five year export-import policy effective from April 1, 1992 which gave further push to liberalization of imports and intended to give significant boost to exports. Under this policy, the international trade was made free subject to a negative list of imports and exports. But as far as farm products and related goods are concerned, most of them remained a part of the negative list, as per the following details:

Negative List of Exports

- (i) Permitted Subject to Licensing—
Coconut, copra, seeds and planting materials, cotton seed, vegetable oils, groundnut cakes, rice bran, milk, cattle, camels, chemical fertilizers.
- (ii) Permitted through Canalising Agency—
Onion (NAFED), Niger Seed (NAFED/TRIFED), Powdered Milk (NDDB), Ghee (NDDB).
- (iii) Permitted without a Licence but subject to terms and conditions—
Basmati rice, non-basmati rice, wheat, barley, maize, bajra, jowar, ragi, HPS groundnut, raw cotton (Bengal desi, Assam comilla, staple cotton, yellow picking), sesame seed, sugar, gram and gram flour, wheat flour, deoiled groundnut cake, deoiled rice bran, VFC tobacco, soyabean extractions, cotton yarn, black pepper etc.

Negative List of Imports

- (i) Canalised Items—
All fertilizers (MMTC), edible oils (STC, HVOC), seeds of oilseed crops (STC, HVOC), Cereals (FCI).
- (ii) Restricted Items—
Livestock, plants, seeds and other materials (licence from the Department of Agriculture).

The import of pulses, raw cashewnut, seeds of vegetables and flowers, plants, tubers and bulbs of flowers etc. were placed in the negative list.

The philosophy underlying these massive trade policy reforms include the following:

- (i) Trade – both exports and imports can flourish in a free regime.
- (ii) Trade policy should go far beyond balancing of imports and exports and should lead to better technology, greater investment and more efficient production at home.
- (iii) Liberalization and removal of licensing, quantitative restrictions and other discretionary controls on matters relating to exports and imports are essential to trade policy reforms. This meant fewer governmental restrictions, greater freedom to trade and lesser administrative controls.

The process of pruning the negative list and decanalization has continued in recent years.

MAIN FEATURES OF EXPORT-IMPORT (EXIM) POLICY, 2002-07

- Removal of all quantitative restrictions and decanalization of exports (except a few sensitive items) of farm products
- Scheme of Special Economic Zones (SEZ) strengthened
- Major thrust to promote agricultural exports by setting up of Agri Export Zones and by removing export restrictions on designated items (agro and agro-based products)
- Transport subsidy provided for export of fruits, vegetables, floriculture, poultry and dairy products
- Simplification of procedures to further reduce transaction costs
- Widening of the scope of Market Access Initiative Scheme to include setting up of 'Business Centres in Indian Missions abroad for focused market promotion of exports.
- Dereservation from small scale industry provisions of over 50 items including agricultural implements.

CURRENT EXPORT-IMPORT POLICY

The process of liberalization of import-exports of farm commodities, which started in mid-nineties got momentum after 1997. Year after year, the negative list was pruned and quantitative restrictions were withdrawn. The situation regarding the import policy for farm products as in June, 2001 is shown in Table 11.11. The duty structure on imports as on April 1, 2002 and WTO bound duty rates are shown in Table 11.12.

AGRI-EXPORT ZONES

The Government announced the proposal to set-up Agri-Export Zones in the EXIM Policy 2001-02 for the purpose of developing and sourcing raw materials and their processing/packing leading to final exports. The concept essentially embodies a cluster approach of identifying the potential products and the geographical regions in which such products are grown and adoption of end-to-end approach of integration of the entire process. Under the scheme, the state government would identify products with export potential which have comparative advantage in the local area. APEDA is the nodal agency of the Central Government to promote setting up of Agri-Export Zones.

Till December, 2002, the Central Government has sanctioned and notified 41 Agri-Export Zones (AEZs) which are being set up in 16 states-West Bengal, Uttaranchal, Karnataka, Punjab, Uttar Pradesh, Tamil Nadu, Maharashtra, Andhra Pradesh, Tripura, Jammu & Kashmir, Madhya Pradesh, Bihar, Gujarat, Sikkim, Himachal Pradesh, Orissa and Jharkhand. Agricultural products covered under these AEZs are Litchi, pineapple, potatoes, onion,

Table 11.11
Import Policy of Important Agricultural Commodities
(as on 29 June, 2001)

S.N.	Commodity	Duty on Import	Import Policy
1.	Rice	Upto 80%	<ul style="list-style-type: none"> • Canalized through Food Corporation of India (FCI) • Rice with 50% or more broken is allowed freely
2.	Wheat	50%	<ul style="list-style-type: none"> • Import is canalized through FCI • Import by roller flour mills was also allowed freely till recently. • From December 1, 1999 a duty of 50% was imposed. • STC/MMTC/PEC are permitted to import wheat on behalf of roller flour mills
3.	Maize, Jowar, Bajra	50%	<ul style="list-style-type: none"> • Import is canalized through FCI and PEC • Import of maize for manufacture of poultry and animal feed is permitted freely on actual user condition subject to registration of import contract/letter of credit with NAFED. • Import of maize for supply to poultry and animal feed manufacturers and for starch industry upto 50,000 MT each by NAFED has been permitted.
4.	Oilseeds (except copra)	35%	Import is allowed freely.
5.	Rapeseed oil, sunflower oil, soya oil, cotton seed oil	35%	Import is allowed freely.
6.	Crude oil for refining	75%	Import is allowed freely.
7.	Crude palm oil (edible grade)	75%	Import is allowed freely.
8.	Refined vegetable oils of edible grade	85%	Import is allowed freely.
9.	Soyabean oil	38.5%	Import is allowed freely.
10.	Pulses	5%	Import is allowed freely.
11.	Vegetables except onion	15%	Import is allowed freely.
12.	Onion	0%	Import is allowed freely.
13.	Fruits		
	Dates	35%	—
	Fresh grapes	25%	—
	Apples	50%	—
14.	Sugar	60%	Import is allowed freely.
15.	Cotton		
	Cotton	5%	<ul style="list-style-type: none"> • Import is allowed freely except from Pakistan
	Cotton wastes including yarn waste	25%	<ul style="list-style-type: none"> • All import contracts shall compulsory be registered with Textile Commissioner.
	Cotton carbed or combed	35%	
	Cotton Yarn	20%	

Source: Agricultural Statistics at a Glance, Ministry of Agriculture, Government of India, 2001, 2002, pp. 155-156

Table 11.12
Tariff and Bound Rates on Major Agricultural Commodities Duties
(As on January 1, 2003)

Commodities	Basic Custom Duty %	Bound Duty %
Cereals and Pulses		
• Wheat	50	100
• Maize Seed	50	70
• Jowar	70	70
• Barley	0	100
• Pulses (other than peas)	10	104
• Cereal Product	30	150
Livestock Products		
• Milk Powder	60	60
• Butter and Ghee	30	40
• Cheese	30	40
• Chicken Leg	100	150
Other Products		
• Soyabean Oil	45	45
• Rapeseed Mustard Oil	75	75
• Groundnut, Sunflower, and Safflower Oil	85	300
• Coconut Oil	100	300
• Palm Oil (Crude)	45	45
• Palm Oil (refined), RBD Palmolein	85	300
• Sugar	60	150
• Apples	50	50
• Vegetable	30	104

Source : Agricultural Statistics at a Glance, Ministry of Agriculture, Government of India, 2003.

garlic, mangoes (Kesar, Chausa, Dusshari, Alphonso), grapes, flowers, apples, vegetables, walnuts, gherkins, wheat, ginger, turmeric, basmati rice and seed spices. A projected export of more than Rs. 3000 crore during the next 5 years and a substantial amount of direct and indirect employment is likely to be generated as a consequence of setting up of these zones. These 41 AEZs will entail an estimated investment of Rs. 1142.5 crores, out of which Rs. 333.68 crores will flow from various Central Government agencies like APEDA, NHB, Ministry of Food Processing Industry and Ministry of Agriculture; Rs. 168.61 crores from state governments and Rs. 640.24 crores from the private sector.

PROJECTIONS OF EXIM OF AGRI-PRODUCTS

Projections of exports and imports of agricultural commodities and processed products during the Tenth Five Year Plan are shown in Table 11.13. The major thrust of exports will be on rice, wheat, tea/coffee, marine products, sugar and processed foods. As regards imports, India's imports of pulses,

Table 11.13
India: Projections of Exports & Imports during Tenth Plan

(US \$ Million)

	Exports		Imports	
	2001-02	2006-07	2001-02	2006-07
Rice	619	1085	*	*
Wheat	289	384	*	*
Other Cereals	74	99	7	10
Pulses	78	90	641	1240
Jute	2	2	22	23
Cotton	6	7	487	1010
Tea & coffee	568	869	15	36
Rubber	15	20	172	261
Other Crops	462	613	49	75
Livestock	344	632	20	39
Forestry & Logging	266	290	30	58
Fish	1357	2075	9	17
Sugar	515	863	21	44
Edible Oils	180	206	1586	4835
Other Food & Beverages	1585	2657	472	1151
Total	44915	80419	57618	132058

Source : Tenth Five Year Plan (2002-07), Planning Commission, Government of India.

raw cotton and edible oils will increase considerably by the end of Tenth Five year Plan period in 2006-07.

INTERNATIONAL TRADE AGREEMENTS

GATT (THE GENERAL AGREEMENT ON TRADE AND TARIFFS)

The General Agreement on Trade and Tariff (GATT) was a multinational treaty to liberalize world trade. It took effect on 1st January, 1948 and ended when 117 member states signed the Uruguay Round of negotiations in Marrakesh, Morocco on 15th April, 1994. GATT's administrative structure in Geneva was succeeded by the World Trade Organization (WTO) under the Uruguay Round agreement.

GATT established a code of conduct for international trade, based on the principle that the trade should be conducted without discrimination, tariffs should be reduced through multilateral negotiations, and member countries, should consult each other to overcome trade problems. GATT centre operated jointly with the United Nations Conference on Trade and Development to assist developing nations in promoting their exports.

Under GATT, a total of eight rounds of talks of trade negotiations brought about phased reductions in tariffs and other trade barriers. The prolonged eighth round of talks began in September, 1986 at Punta del Este, Uruguay. In this, the participants agreed to expand the negotiations to include banking,

investment, intellectual properties and telecommunications. The talks were concluded in December, 1993 and resulted in the far reaching trade liberalization in the history. Trade in the agricultural commodities was included in the agreement for the first time.

The Uruguay Round launched over 1986–94 was the most ambitious so far. This round also established the World Trade Organisation (WTO). The successor to the General Agreement on Trade and Tariff (GATT). It brought international trade rules to areas previously excluded or subjected to weak rules (agriculture, textiles and clothing), services, Trade Related Investment Measures, and Trade Related Intellectual Property Rights (TRIPS) and strengthened the dispute settlement mechanism. Despite these achievements, the global trading system faces major challenges. Against these challenges, the ministerial conference in Doha in November, 2001 adopted the Development Agenda, which calls for a more coherent approach to trade and development and puts the needs and interests of the developing countries at the heart of the WTO's work program.

WORLD TRADE ORGANISATION (WTO)

WTO is an international body to supervise and encourage international trade. The Uruguay Round of trade talks concluded in 1994 resulted in setting up of the World Trade Organisation (WTO) to take over the functioning of GATT for encouraging multilateral trade in goods and services. The WTO began functioning on 1st January, 1995. The Agreement on Agriculture (AoA) under WTO requires clear understanding.

AGREEMENT ON AGRICULTURE (AoA) UNDER WTO

The provisions under AoA can be understood to consist of five broad groups:

- (i) Market Access Commitment
- (ii) Reduction Commitment for Aggregate Measure of Support (AMS)
- (iii) Reduction Commitment for Export Subsidy
- (iv) Sanitary and Phyto-Sanitary Measures (SPS)
- (v) Trade Related Intellectual Property Rights (TRIPS)

(i) Market Access

The provisions under market access commitment include the following:

- (a) Tariffication of all non-tariff barriers (like converting quantitative restrictions to import duty)
- (b) Reduction of all tariffs in a time bound framework as follows:

Countries	Period	Reduction %
* Developed	6 years	36
* Developing	10 years	24
* Less Developed	–	0
* Those with BP problem	–	0

(c) If imports of foreign goods to the domestic market is less than three percent in the base period (1986–88), it must be brought to three percent and to further raise it to five percent in the implementation period.

(d) If dumping is proved, the countries will have the freedom to increase the import duty.

(ii) Aggregate Measures of Support (AMS)

The aggregate measures of support for a country's agriculture is the sum of product specific and non-product specific subsidies. If AMS in the base period (1986–88) is more than the permissible limit, it should be reduced by the following amount during the implementation period:

Country	Permissible AMS (% of GDP)	Reduction commitment if exceeds the limit (%)
* Developed	5%	20%
* Developing	10%	13%
* Less Developed	NA	—
* Those with BP problem	—	0

(iii) Export Subsidies

The reduction commitment for export subsidies require that (a) the developed countries would reduce it by 36 percent in six year; and (b) the developing countries would reduce it by 24 percent in 10 years.

(iv) Sanitary and Phyto-Sanitary Measures (SPS)

The SPS provisions of AoA require all exporters to employ international standards relating to sanitary and phyto-sanitary conditions. In the case of default, the importing countries are allowed to prohibit imports from defaulting countries.

(v) TRIPS

Trade related intellectual property rights include copyrights, trade-marks, geographic indications, industrial designs, and patents. According to AoA, all the countries are required to provide for arrangements for protection of plant varieties. The developing countries were given a period of five years to evolve such arrangements.

The main features of the WTO Agreement on Agriculture (AoA), which are of concern to India, are:

(i) India has been maintaining quantitative restrictions (QRs) on import of 825 agricultural products as on 1st April, 1997. Under the provisions of the Agreement, such QRs were to be eliminated. India had sought to remove

them in three phases within an overall time frame of six years *i.e.* upto 31st March, 2001. These QRs have since been replaced with appropriate tariffs.

(ii) The Agreement also imposed constraints on the level of domestic support provided to the agricultural sector. In India's case, it may have, in future, some implications on minimum support prices given to farmers and on the subsidies given on agricultural inputs. However, the Agreement allows us to provide domestic support to the extent of 10% of the total value of agricultural produce. Our support to the Indian farmers continues to be less than permissible limit.

(iii) Disciplines on export subsidy do not affect us as India is not providing any export subsidy on agricultural products.

(iv) The Agreement allows unlimited support to activities such as:

- (a) Research, pests & diseases control, training, extension and advisory services;
- (b) Public stock holding for food security purposes;
- (c) Domestic food aid; and
- (d) Income insurance and food needs, relief from natural disasters and payments under the environmental assistance programmes.

IMPORTANT TERMS RELATED TO EXTERNAL TRADE

(i) Quantitative Restrictions (QRs)

Quantitative restrictions are specific limits on the quantity or value of goods that can be imported or exported during a specific time period. Quantitative Restrictions are prohibited under GATT discipline. India has been maintaining QRs on imports of 825 agricultural products as on 1st April, 1997. These QRs have since been gradually removed from almost all products in phases. The Quantitative restrictions can easily be replaced with high import tariffs in case there is need to restrict import of these commodities for ensuring welfare of the farmers. Therefore, ability to restrict import of any commodity is not constrained in any manner by the provisions of GATT.

(ii) Tariff (Duty)

A tariff/duty is a tax levied on imports and less often on exports as they cross the borders into other countries. A specific tariff is imposed on each unit of an imported good. Ad-valorem tariff is a duty levied as a percentage on the price of the good to the importer. The imposition of tariff results in higher prices to domestic purchasers as the tariff is generally passed forward on resale.

(iii) Quota

A Quota in international trade is a type of trade barrier that nations place on the physical amount of imports or exports of specific kinds of goods. A

quota differs from a tariff which is a schedule of taxes or duties placed on imports that does not categorically place limitations on the amount of goods that may be imported. Both tariff and quotas are detrimental to the concept of free trade and the GATT/WTO works to reduce such barriers.

(iv) Tariff quota

A quota that allows for import of a commodity at less than the general applied rate is tariff quota. For example, if a country applies a general tariff of 100 percent on a particular commodity and then allows a limited quantity, say 20,000 tonnes, at a lower rate of say 20 percent is called tariff quota.

(v) Dumping

Dumping is selling goods in a foreign country at a price which local producers regard as unfairly low. It means selling of goods at less than the long-run average cost of production plus transport cost, *i.e.*, charging a lower price in export market than is charged for comparable goods in home markets; or simply selling at a price with which producers in the importing country cannot compete. Dumping is considered as unfair trade practice which can have a distortive effect on international trade.

(vi) Anti Dumping

Anti-dumping is a measure to rectify the situation arising out of the dumping of goods and its trade distortive effect. Anti-dumping duties are tariffs imposed in response to alleged dumping. The purpose of anti-dumping duty is thus to rectify the trade distortive effect of dumping. Anti-dumping duty as an instrument of fair competition is permitted by WTO. Anti-dumping is an instrument for ensuring fair trade and is not a measure of protection per se for the domestic industry. It provides relief to the domestic industry against the injury caused by dumping.

(vii) Green Box Policies

Green box policies is the term used to describe domestic support policies that are not subject to reduction commitments under the Agreement on Agriculture (AoA) under WTO. These policies are assumed to affect trade minimally and include support such as research, extension, foods security stocks, disaster payments and structural adjustment programmes.

(viii) Blue Box Policies

Blue box policies refer to direct payments to producers like decoupled income supports; payments not linked to production, structural adjustment assistance provided through investment aids to compensate for the structural disadvantage through resource retirement programmes, and through producer retirement programmes, government financial participation in income

insurance and income safety net programmes. These relate safely to income and not to either the level of production or to prices.

(ix) Amber Box Policies

These are those policies which are trade distorting and are covered under reduction commitment in WTO.

(x) Cairns Group

It is the group of free trading agricultural exporting nations which met in 1987 at Cairns (Australia) and agreed to present their common interests and concerns in the agricultural negotiations of the Uruguay Round. This group, comprising of countries viz., Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, New Zealand, Philippines, Thailand and Uruguay, has emerged as a major negotiating group for agricultural trade negotiations and accounts for around 20 percent of world agricultural exports.

(xi) Most Favoured Nation (MFN) Status

All nations belonging to GATT have agreed to the most favoured nation principle as a condition of membership. The most favoured nation (MFN) status is a provision in the commercial treaty that grants each signatory the automatic right to any tariff reduction that may be negotiated by one of them with a third country. For example, if the United State were to negotiate a tariff reduction on automobiles with Japan, it would also be committed to such reductions with all its other trading partners to whom it has granted the MFN status.

(xii) Sanitary and Phyto Sanitary (SPS) Measures

The Uruguay Round had evolved a detailed discipline that a member country may apply trade restrictive measures for the protection of human life or its health and of plant or animal life or their health. These measures are contained in the Agreement on the Application of Sanitary and Phyto-Sanitary (SPS) Measures. SPS measures are applied to protect human life (health) or animal life (health) from risks arising from—

- (i) The additives, contaminants, toxins or diseases causing organisms in foods, beverages or food stuffs;
- (ii) The entry of or spread of pests, diseases, disease carrying organisms or disease-causing organisms; and
- (iii) The diseases carried by animals, plants or their products.

(xiii) Aggregate Measure of Support (AMS)

This is a method of quantifying the aggregate value of domestic support or subsidy given to each category of agricultural products. Each WTO member country has made calculations to determine its AMS level wherever applicable. AMS includes non-product specific and product specific support.

(xiv) TRIPS Agreement

The agreement on the Trade Related Aspects of Intellectual Property Rights (TRIPS) is a part of the Uruguay Round and covers seven categories of intellectual property namely:

- (a) Copy rights and related rights;
- (b) Trade marks;
- (c) Geographical indications;
- (d) Industrial designs;
- (e) Integrated circuits;
- (f) Trade secrets and;
- (g) Patents (includes plant varieties).

The Trips Agreement inter alia prescribes the minimum standards to be adopted by members in respect of the above categories of intellectual property.

(xv) Balance of Payments

The balance of payments of a country refers to the balance between the payments that are owed to the outside world and that are owned by the country. It is a recording of the value of the transactions across borders and comparison of in country transactions with outgoings. The difference of inflows and outflows shows the extent of balance of payments and the capacity or drain on foreign exchange of a country.

(xvi) Tale Quale

Tale quale is a term used by UK based Grain and Feed Trade Association (GAFTA) with more than 900 members in 80 countries, including India. Tale quale means that the buyer agrees to accept the goods as they come provided they are shipped initially in good condition.

(xvii) Rye Terms

Rye terms is also a term used by GAFTA, which means that the condition of goods on arrival is guaranteed by the seller.