

**AGRICULTURAL MARKETING
IN
BIHAR**

**BIHAR INSTITUTE OF ECONOMIC DEVELOPMENT
PATNA**

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Preface.

It is really a tragedy that Bihar with vast potentialities for economic and industrial development remains one of the most backward States in the country. It reads like a 'para dox of poverty in midst of potential plenty'. It may be said that the soil of Bihar is rich but the people are poor. Not only that; while other areas of the country are forging ahead, the economy of Bihar stagnates in low income trade.

The Bihar Institute of Economic Development has been set up to undertake, aid, promote and co-ordinate scientific economic, industrial and management research and development more particularly in the field of applied sciences with emphasis on economic, agricultural, social, educational, labour (both industrial and agricultural) and employment problems, problems of the backward areas and problems of the weaker sections of the community and generally to undertake all activities necessary, conducive, incidental or ancillary to attain the above-mentioned objectives. The Institute has two wings. It runs a college for Diploma in Business Management at Muzaffarpur (North Bihar). The college is affiliated to the University of Bihar and imparts post-graduate training in Business Management.

The Headquarters of the Institute is at Patna, where research is carried on Economic development. The State is one of the poorest in India. The Institute is dedicated to the noble task of conduct of continuous researches into the poverty of the people of Bihar, as well as building up of managerial skill and business acumen so that the resources of Bihar may be tapped fruitfully, optimally and economically. The workers in the research section of the Institute at Patna carry on constant investigations to unravel the hurdles in Bihar's way of economic advancement. It is our endeavour to delve into the causes of poverty of Bihar and our researches and studies are tailored to this end.

The Institute has undertaken publications of research papers relating to the economic growth of the State and this book is the second in the series. In this Research work, an humble attempt has been made to study the problems of agricultural marketing in Bihar. The book begins with the subject of socialisation of Agricultural Marketing followed by a detailed study of Agriculture in Bihar. The third chapter deals with the concept of Marketable Surplus. The book proceeds with discussions on the Role of Transport, the Economics of storage and conservation, the problems of Regulated Markets and the prospect for to operative Marketing. The concluding chapters include discussion on the role of State in Agricultural Marketing and the problem of Price Stabilization in Agricultural Marketing.

We hope this Research Paper will be of help to people who are interested in the economic development of this state.

We are grateful to Dr. S. B. Singh, Bihar University and other Research Scholars who have completed this work and our guidance and supervision.

Jagannath Mishra
Chairman

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Introduction.

The whole of our country is in the grip of food shortage. Barring a few States, almost all the States are fighting for more allotment of food-grains from the Centre. Bihar's food-shortage is alarming and acute. Bihar, specially the northern part of the holy Ganga, which used to be claimed as the "Garden of India" and "Granary of the Nation" has become a permanent beggar before the Centre and is clamouring for more food-grains. During the current period, the problem has become more acute with frequent occurrences of natural calamities like heavy floods and unprecedented draughts. Stupendous efforts are required to boost up the agricultural production in order to strike a balance between the total availability of food grains and the growth of population. This chronic deficit in food grains is not going to be met permanently with a mere increase in the volume of food supply. The problem of production is there, but the more important problem is that of distribution. What is produced, if not distributed evenly, may create bottlenecks in one sector while shortage may exist in other sectors. An efficient marketing machinery tries to remove this lacuna. The distributive agency has to play an important part in developing economies like ours which are characterised by low level of consumption, saving and low productivity in every sector. Thus the whole of the marketing structure has to be revolutionised in the back ground of planning.

Our State Government have launched a campaign—it is a campaign to free our masses from hunger. The agricultural production has to be raised. Efforts have to be made at the farm level to induce our farmers for adopting improved types of techniques in cultivation. Any plan of agricultural development will remain half-executed if agriculturists do not feel enthusiasm in viewing agriculture as gainful occupation. In other words, farmers must be assured that their efforts for increasing production are not going to be ill-rewarded. To ensure better prices to farmers and reduce the marketing cost, the different stages of the marketing have to be re-organised on sound footing. Orderly marketing acts as an excellent incentive for increased agricultural production and its importance in a planned economy of a country needs emphasis. It will not be out of place to quote here the weighty words of the Marketing Committee of the United Nations Conference held in October 1945 at Quebec. The Committee says :

"Marketing is the crux of the whole food and agricultural problems. It would be useless to increase the output of food, and would be equally futile to set up optimum standards of nutrition unless means could be found to move food from the producer to the consumers at a price which represents fair remuneration to the producer and is within the consumers' ability to pay."¹

1. Quoted by the Marketing Sub-Committee (Govt. of India); 1946; Page—2.

Naturally, the marketing of agricultural products is vitally important in any campaign to free our population from hunger for two reasons. Most of those who go hungry do so because the food they need costs more than they can afford. Since a large part of the consumer price is often made up of marketing costs, it is clear that high marketing costs are important reason why some people have not enough food. The more these costs can be reduced, therefore, the easier will it be for poor consumers to get the food they want. This aspect is all the more important in developing countries where the proportion of the population living away from the farms and dependent on the marketing system for their food is increasing rapidly as a result of socio-economic changes.

Apart from giving relief to consumers through providing food at reasonable prices, an efficient marketing system has a stimulating effect on production. If the producer can not see an easily accessible market outlet where he can sell his produce beyond his own needs, the farmer will have little incentive to re-organise his industry with a greater dose of input and regard agriculture not only as a way of life, rather more than it. The existence of out moded and dis-organised marketing system in rural economy has perpetuated the prevalence of the maxim; "Poverty breeds poverty." The whole of the rural economy is suffering from the vicious circle of poverty. Low returns of the marketable surplus as a result of defective marketing organisation have been resulting in the cumulative process. Marketing through the channels of low income, low savings, low investment, low agricultural production, low marketing surplus and thus low bargaining power. The vicious Circle of rural poverty thus starts with low returns and it lastly ends with the same. "The Indian farmer is poor primarily because the system of rural marketing is defective and the system of rural marketing is defective because, above all, the farmer is so poor. Poverty breeds poverty. Its effects are cumulative."² The different stages of our rural marketing are so ill-equipped and ill-organised that at each ladder the share of the agriculturists' return is pocketed by the intermediaries working between the producer and the ultimate consumer. Any Scheme which aims at raising the level of farmer's income must incorporate the revitalisation of rural marketing through which the vicious circle of rural poverty can be demolished for ever. While discussing the various factors responsible for the slow growth in agricultural production the Draft outline of the Fourth Five-Year Plan remark : "Price and marketing policies will assume added significance during Fourth Five-Year Plan period in the context of a massive effort for securing rapid increase in production."³

Our agriculture is gradually shaking off its subsistence character and is now moving but very slowly towards commercialisation. Farmers are now not producing only to meet their family needs, rather to move their surplus to distant places for meeting the needs of urban population. As a direct consequence of rapid industrialisation and economic development, a greater volume of the marketable surplus from agricultural sector will

2. Rural Marketing and Finance; 1945 (N.P.C.); Page-38

3. Draft Outline of the Fourth Five Year Plan (Planning Commission), New Delhi; 1966, Page-174.

have to be moved from the rural areas to the urban areas. In such process, the significance and the vital role of an efficient marketing system hardly needs and emphasis. The process of agricultural production can not be regarded as complete without the sale of the produce. One-sided reform or higher agricultural production alone cannot profit the tiller of the soil. Side by side with the changes in the art of cultivation, attempts should be made to develop an efficient marketing system which can benefit both producers and consumers as well. "With each stage of evolution from subsistence to advanced states of economic life there arises functions and processes which require for their performance a complete set of institutions which in aggregate make up the marketing structure. This marketing structure when efficient can have a stimulating and at the same time regulatory influence on production methods. It can help in avoiding misguided and unorganised production and distribution. In a similar manner when inefficient, it can result in a waste of resources which developing economies can ill afford."⁴ The unique role of an efficient rural marketing indicates that increased agricultural productivity will not be translated into a proportionate increase in the level of real income in an economy in which the distributive system is inefficient and wasteful of resources. Hence, the economic need for an efficient marketing up is imperative.

In addition to giving fillip to mere agricultural production, efficiency in marketing may have also its effects on consumption plans. Under-developed economies are characterised by high income elasticities of demand for agricultural products. Any improvement in the marketing sphere which can be transmitted forward, even if partially, in the form of lower prices to the consumers, would have substantial repercussions on total consumption. Thus we must conclude that effective marketing is also crucial for the success of development programmes designed to uplift the population as a whole. In spite of the massive efforts that are being made in many less developed countries for achieving the goal of industrialisation as a weapon to cut the "Gordian knot" of the "Vicious circle of poverty", a large section of population must continue to depend for their living on agriculture. "Any plan of economic development that aims at diminishing the poverty of agricultural population, reducing consumer food proceeds, earning more foreign exchange or eliminating economic waste, has therefore, to pay special attention to the development of efficient marketing for food and agricultural products."⁵

Is there any objective criterion for determining the efficiency of a marketing system? What standard should be adopted to evaluate the effectiveness of an existing marketing organisation? The whole question appears to be a vexed one. Efficiency may be defined broadly as the effectiveness of competence with which a structure performs its designed functions. In distribution, it may pertain to technical competence or economic efficiency. Technical efficiency relates to such matters as mechanisation and rationali-

4. Marketing Efficiency in Indian Agriculture, Allied Publishers, Bombay, Dr. (Miss) Zeibun Y. Jasadawalla; 1966. Page-1.

5. Marketing-Its Role in Increasing Productivity, F.A.O.U.N.O. Rome; 1964. Page-2.

sation of individual work processes. To be technically efficient, a marketing structure will have to utilise the best method available for every marketing job, and to use these methods with maximum effectiveness. Economic efficiency on the other hand implies the realisation of maximum output from given resources. Attentively, it is the minimisation of the amount of inputs required for a given out-put of goods and services. It thus involves the elimination of waste, high costs and exploitative profits. Keeping these two ideas of technical efficiency and economic efficiency in our view, an efficient marketing is that which secures the best for producers as well as for consumers. The interests of the producers and consumers must be harmonised with the improvement in the marketing system. Any improved system of agricultural marketing which is in reality an improvement must, therefore, benefit consumers and original producers. "Any programme of improvement in our present system, that is, must aim to benefit producers and consumers, and not the one at the expense of the other. Both are victims of wastes in distribution, both must be beneficiaries of economies of reforms."⁶

Generally, experts of agricultural economics have tried to analyse the concept of efficient marketing in the back ground of the margin of profits that accrues to the middleman. High returns to the marketing sector are often expected to be at the expense of agricultural prosperity and so high marketing margins are usually taken as important indicators of market inefficiency. Most of the Committees appointed by the Government for introducing reforms in the existing rural marketing set-up have vehemently commented on the high margins of profit that go to the middlemen who act as intermediaries between the agriculturists on the one hand and the ultimate consumers on the other. Any improvement which narrows down the "Price-spread" and enhances the bargaining power of the agriculturists by reducing marketing costs and eliminating superfluous middlemen is reckoned as an efficient marketing. However, these conclusions are fallacious. Sometimes, marketing efficiency may entail higher cost. In the initial stage of re-organisation of the different channels of rural marketing and finance, efficiency may have to be maintained at higher costs. "The important thing is not the size of the share but rather the total return which is received by the agricultural producers from the sale of their produce. Higher marketing costs and more prosperous agriculture are compatible ideas."⁷ It is not necessarily true that the system that provides the distributive services at lower cost is the most effective—"good and honest marketing may actually cost more than a slipshod and corrupt one."⁸ Any how, under the existing pattern of rural marketing, the scheme which tones up the farmer's income by reducing the marketing cost may be taken as an addition to the growth of efficient marketing system.

Agricultural revolution is the precondition of industrial revolution. But agricultural revolution cannot be said to be complete unless the system of agricultural marketing has become efficient. Efficiency of agricultural

6. Marketing of Agricultural Products; J.E. Boyle, Mc-Graw-Hill-Book Company, Ltd., New York; 1925; Page 308.

7. Marketing of Agricultural Products; B.L. Kolha, Page-106.

8. Problems Before the New Marketing Agencies, M.L. Dantwala, Indian Journal of Agricultural Economics, Vol. XII, April-June, 1957, Page-784.

marketing means that the surplus raised in the agricultural sector is mobilised easily and economically for the benefit of the non-agricultural sector. Immobilisation of surplus raised in the agricultural sector will also be a disincentive for the agricultural class. On the other hand, cheap and uninterrupted pipe line of agricultural commodities to the urban and industrial population will fulfil an essential condition of the industrialisation of an underdeveloped economy. The increasing monetisation of the agricultural sector is also dependent on the substantial improvement in the present and the largely defective system of marketing. The present system of agricultural marketing suffers from many defects such as lack of organisation amongst agriculturists, the presence of large numbers of intermediaries, lack of up-to-date market intelligence and proper storage arrangement etc. The general criterion of an efficient marketing is that the "price-spread" between what the consumers pay and what the producers receive for a bundle of agricultural goods should be the minimum possible. But this criterion is unfortunately not fulfilled in our State at present. Defective system of agricultural marketing is a roadblock to a greater production as well as better distribution of the agricultural production. This barrier must be removed if the economy is to develop in a balanced manner with agricultural and industrial development supplementing and reinforcing each other.

A humble attempt is made in this book to study the problems of agricultural marketing in Bihar. The book begins with a general economic survey of the state followed by a detailed study of Agriculture in Bihar. Third chapter deals with the concept of Marketable Surplus. The book proceeds with discussions on the Role of Transport (chap. IV); The Economics of Storage and Conservation (chap. V); the problems of Regulated Markets (chap. VI); the prospect for Co-operative Marketing (chap. VII). The concluding Chapter include discussion on the role of State in Agricultural Marketing and the problem of Price Stabilization in Agricultural Marketing.

CHAPTER I

Socialisation of Agricultural Marketing

Strictly speaking, marketing includes the farmers' transactions both in buying and selling, but it is generally confined to the selling side of his business and is used to cover all activities involved from the time the product leaves the producer, until it reaches the consumer. Cherington¹ has defined it as "designed to cover the complex group of services involved in the distribution of merchandise from producer to consumer, excluding only those functions which involve alterations in the form of the commodity." The system of marketing farm products is very complicated. While the farmer usually remains his own salesman, the bulk of his produce is actually marketed through a distributive machinery which is in the hands of non-agricultural specialists. Farm products almost invariably combine large bulk and weight with small value. Their transport is very costly and storage expensive compared with many manufactured articles. Further, agricultural products comprise perishable articles, with the result that the farmer is compelled to sell his produce irrespective of the prices ruling in the market. The farm output is generally produced neither at the time, nor in place, nor in the form in which consumers require it. Since, the object of all production is to satisfy consumer's demands, agricultural output is useless until these maladjustments have been corrected, and supply and demand brought into relation with one another.

Marketing involves many services besides selling and distribution. It is the function of the marketing system to give farm utility, time utility and place utility to the goods which the farmers produce. With respect to farm, the critical service is identification, and the heterogeneous output produced on the farm must be sorted into grades and if possible classified according to grades; so that the quality differences are related to prices. These services are to be performed by neutral parties, government agencies or by private dealers who label their products and follow them up with an advertising campaign. With reference to place, the question is none to provide accurate price differentials based upon location of the product and the provision of efficient transport services. For this, it is essential to organise an adequate price reporting and communication service along with an adequate transport system. With respect to pricing overtime, the question is how to cope with the uncertainty associated with future events. Accurate and timely market information will help a lot in this respect. The time aspect is of great importance because of the seasonal nature of agricultural products and because they are marketed over an extended period. Good storage facilities linked with reasonably good forecasts of future demand and supply will help in future forecasts of prices. Middle men perform these services, as an equalizing function by adjustments varying supply to the changing

1. Cherington, Elements of Marketing pp. 122

demand. Most of the farmers are not in touch with distant customers, nor are aware of the organisation and conditions of marketing, nor can follow market information intelligently. Some sort of intermediary or agency is necessary between the producer and the consumer.

Marketing today exists in various stages in different parts of the world. In developed countries like U. S. A., Canada, and Australia where production system has developed greatly, erection of giant elevators for collecting wheat has developed, while in less developed countries like India and Burma, direct marketing in the true sense, with full direct contact between producers and consumers can be found. This is more true of large number of farmers, more or less self-sufficient groups of people who are still producing primarily for the sake of subsistence. These farmers do not gain from the wholesale and specialised markets as they deal on their own and have very small supplies to offer as compared to the large transactions carried on there. The farmer sells whenever the crops are ready for the market or when he is in need of money. Thus, in under-developed countries, lack of proper marketing services, ungraded and unstandardised commodities, poor and unscientific packing and methods of transport, absence of public markets and warehouses, unbalanced production, lack of market information, unfair practices by middlemen and bad credit facilities are the most important causes of inefficient marketing and high costs. The cost of marketing is high as supply of agricultural products is produced in the wrong place, at the wrong time, in wrong quantity and of the wrong quality. These four maladjustments are overcome by the middlemen with the help of transport, storage, sorting and grading and must assume risks. In the end, therefore, the consumer pays for goods, plus services, plus the high price of so called convenience.

Although under a system of individual enterprise and freedom of individual choice, as it operates in agriculture, the marketing services should have been performed at a cheap price, yet, it seems that competition in fact, is far from perfect. Marketing Services bring in imperfection in the market. Marketing agencies do not effect consumers demand for food and the supply is determined by the actions of farmers and natural conditions. Therefore, middlemen do not determine retail prices for most kinds of foods. But the margin taken by middlemen determines the net income of the farmer or the prices returned to the farmer after deducting the marketing charges which subsequently affects farm production and marketing. Cohen* says, the danger in wholesaling is mainly excessive profits, while in retailing it is excessive costs. Consumers preferences are not communicated to the producers in time and the marketing system does not co-ordinate itself with the fluctuations in supply. Monopolists and monopsonistic dominations depend on the size of the markets and are observable even in small local markets. In a capitalistic, developed economy, with sufficient capital available, large storage facilities, a developed transport system, and a fairly large and transparent market, these monopsonistic tendencies are not so obvious, while, in underdeveloped

2. R. Cohen; *The Economics of Agriculture*—P 88

countries these tendencies are much more developed. The markets with strong imperfect competition are most obvious on the lowest level of the local market (village). Some individuals or traders, strongly bound by their loyalties form potent monopsonistic groups in most of underdeveloped countries. It is further strengthened by the transportation bottleneck and many institutional elements, such as, lack of seller's organisations. The result is an unstable system of prices in the market.

However, the three important factors creating conditions of imperfect competition, namely product differentiation, locational advantages and restraints on trade have limited application with regard to agricultural products. In case of agricultural commodities and food stuffs, every one considers himself a good judge of the quality. Competition among those engaged in agricultural marketing appears to be of an intensive character. There seems to be far less of the gentlemanly or ethical approach to buying and selling in agriculture than in industrial marketing³. The great size of agricultural market restricts the scope of any restraints on trade. And, the advent of good roads and improved transport facilities have greatly reduced locational advantages. Thus, neither product differentiation is in a position to effect the general level or prices of the commodity except widening the consumer-price differentials for quality, nor do the effects of locational advantage and restraints of trade give rise to imperfect competition. Their net effects are just to increase margins and to reduce returns to producers. But these conditions are more true of developed countries. In underdeveloped countries where the marketing of agricultural produce is largely in the hands of a body of men, who as distinguished from government and co-operatives represent private interests, and who control both the sources of credit and the disposal of the produce, the farm prices and farm income remain unstable, and lone.

It is imperative to have a clear perspective about the aim and object of price stabilization. The objective should be to maintain food-grain prices within desirable ranges and to check fluctuations outside this range which may be due to oligopolistic tendencies and other factors responsible for these imperfections. This can be done by extending the technique of open market operations to the wholesale commodity markets. The role of the State would be limited to the manipulation of demand and supply without unduly interfering in the structural and functional organisation of the market. Socialisation of trade is as much under and altogether different issue which is as much political as economic. Moreover, it is not essential for the successful implementation of a price stabilisation programme.

It may be suggested that the norm of efficiency in marketing should be related to the extension of the area of confluence of the interests of the primary producers and the ultimate consumers. The area of the confluence of interests can be widened when the market is extended, the cost of incorporating space, time and farm utilities in a product is minimised and the price level is reasonably stabilised between one pro-

3. Thomesoin & Foot : Agricultural Prices : P. 102

duction period and the next. Based on these conditions of the confluence of interests, some measurable indicators of marketing efficiency are suggested. First condition of efficient marketing, thus concerned would be the extension of market itself. Secondly, by minimising the cost of incorporating various utilities in the products, and thirdly by avoiding sharp fluctuations in the prices of the products.

However, the need for a policy of price stabilisation in our country has been emphasised repeatedly. There arises the need for stabilising prices of important individual commodities. This is particularly true of foodgrain prices, firstly because they still form the core of our price structure and secondly, because they register under fluctuations and thirdly, because they affect the magnitude and the pace of marketed agricultural produce. It is generally believed that wide fluctuations and large variations in prices of foodgrains over time and space result from the imperfect nature of the marketing organisation which may be due to oligopolistic tendencies, difficulties in transport and imperfect mobility of factors of production. To stabilise foodgrains prices, therefore, it is necessary to eliminate the imperfections in the marketing structure, or failing that atleast to mitigate the ill-effects of these imperfections through countervailing measures. State trading in foodgrains requires the State to assume the role of a dominant trader in the economy with sufficient funds at its disposal to be in a position to effectively influence the demand for and the supply of foodgrains by (i) building up stocks in good years which can be drawn upon in bad years (ii) purchasing stocks during harvest season which can be utilised during lean seasons and (iii) acquiring stocks in surplus States for disposal in deficit States. Among other basic requirements of the scheme are (a) fixation of maximum and minimum prices (b) maintenance of a reserve stock, as distinct from a buffer stock, for periods of real crisis. The first and foremost requirement of this programme is the formation of a high-powered board to formulate the policy for price stabilisation and to determine the programme to enforce it. Secondly, maintenance of the floor & the ceiling prices presupposes the availability of sufficient storage and warehousing facilities. Thirdly, both the floor and the ceiling prices should be calculated for the fair average quality crop in the main producing area. Regional and quality differentials may then be worked out. Fourthly, while formulating policy, it may be desirable to have a comprehensive plan covering, as far as possible, all the major crops, in the absence of which the structure of relative prices may be distorted, patterns of trade interrupted and planned cropping patterns disturbed. Fifthly, establishment of an effective machinery to take up the procurement and sale programme, of the State is essential. And lastly, the success of scheme will depend, on the funds at the disposal of the State and its ability to maintain sufficient stock at the right time and place. It is therefore necessary to (a) find ways and means of raising additional resources and (b) maintain sufficient stock at selected strategic points.

The scheme of State trading in foodgrains should be made as flexible as possible and it is desirable to have an uniform approach as regards the basic principles throughout the country. Further, if the major

countries these tendencies are much more developed. The markets with strong imperfect competition are most obvious on the lowest level of the local market (village). Some individuals or traders, strongly bound by their loyalties form potent monopsonistic groups in most of underdeveloped countries. It is further strengthened by the transportation bottleneck and many institutional elements, such as, lack of seller's organisations. The result is an unstable system of prices in the market.

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part of the initial procurement by government is undertaken in a year of abundant harvests and relatively low prices, there is no reason why through proper adjustment of selling prices in years of shortages the government should not be able to cover all its costs and make whatever profit is considered reasonable in the food industry. Moreover, the long-term social and economic advantages to the whole economy will be so much that the scheme would be economically worth carrying out even if it involves some loss to the State in an immediate financial sense. The most opportune time for initiating the scheme would be a year of good harvest, so that sufficient stock may be built up from the home market. The intervening period may be utilised for preparing the ground. The need for a comprehensive and co-ordinated scheme may be emphasised and half-hearted or halting implementation may be ruled out, because a half-hearted scheme will only end in failure and this in turn may be used by the laissez-faire enthusiasts as an argument for a policy of inaction in future.

This book on Agricultural Marketing in Bihar, begins with a brief description of the agricultural position in the State. The basic weakness of the agricultural organisation is the pattern of land ownership. About 20 percent do not own any land and about 2.15 percent own land less than one acre. About 71.6 percent, all rural families have either no land or less than 5 acres and their share is about 29.3% of the areas. On the other hand about 12 percent of rural families have more than 10 acres each with a total share of about 66 per cent of the whole area while one percent have more than 40 acres each and account for 20 percent of the area. The small farmer cultivating his fragmented holdings, and lacking in capital and other inputs falls an easy prey to unfavourable climatic conditions. His farming is still largely of the subsistence type. His sales of produce are intermittent. Until, therefore, he realised that as a seller of the produce he must study the art of sale, either as an individual through combination with other producers, it is inevitable that he should come off second best in his contest with the highly specialised knowledge and the vastly superior resources of those who purchase his produce. As such, there is need for the orientation of the entire marketing system in the state of Bihar so that exploitation of the primary producer is progressively eliminated and he is enabled to dispose of his surplus under fair conditions of buying and selling.

An attempt has been made to define 'Marketable Surplus', 'marketed surplus' and 'potential surplus' and concludes that they are variable quantity depending upon special and economic factors. In north Bihar, the percentage of marketable surplus with reference to main commercial crops comes to 85 to 90 percent. In case of cereals & pulses it is very low, i.e. rice (19.5%), Arhar (16.5%), Urid (39.0%), Moong (25.5%), Masur (39.0%), Gram (11.0%). By substantially increasing the marketable surplus of agricultural produce, a food and raw material base for rapid industrialisation can be created and it may be possible to meet the growing demand of urban population as well as to bridge the gap of food deficit. Any imbalance in the demand for food (as a result of increasing population, a rise in per capita income and a higher income-class

ticity of demand for foodgrains) and supply of marketable surplus (as supply of foodgrains is generally inelastic) is sure to affect the prices of foodgrains. An efficient marketing structure is a must to solve this problem and to bring about an adjustment between the demand and supply and to meet the task of distribution at a low cost. Regulated markets can play a great role in removing the distortions in marketing. The need of co-operative marketing has rightly been emphasised, as regulation of agricultural mandis by state legislation can help the poor agriculturists by reducing and rationalising the market charges, but the long chain of middlemen operating between the real producer and the ultimate consumer can only be eliminated, when the whole structure of agricultural marketing is placed on co-operative lines. A good beginning has been done with the socialisation of the foodgrain trade in Bihar and the achievements can only be consolidated with a net work of co-operatives assembling the marketable surplus, and controlling the retail sales. Co-operative marketing should be looked upon as a business and should be in a position to avoid or overcome the adverse effects of business depressions, monetary maladjustments and commodity surpluses. The ultimate guarantee of good marketing lies in the quality of bargaining power of the buyer and the seller and in this scheme of re-organisation the State has to come forward to render assistance of the requisite magnitude and of a type which will enable the co-operatives to meet the opposition of vested interests. Marketing societies should be linked up with cooperative processive and co-operative consumers societies.

Thus agricultural marketing in Bihar, would have to be gradually socialised, as individual initiative and freedom of enterprise in marketing are incompatible with the objective of a comprehensive State plan. Marketing therefore, would have to be brought under the effective control, regulation & management of the State which will see where each item would be most useful, it will see that each item is made available as and where and when it is most wanted and so likely to be most serviceable in working of the state plan.

2. The progress made so far and the likely achievements by the end of the Fourth Five Year Plan in various activities of agricultural marketing are as follows —

(a) Regulation of markets—The Bihar Agricultural Produce Markets Act, 1960 was enacted with a view to safeguarding the interests of the farmers in the markets. There are 314 wholesale markets in the State, out of which 68 markets have been brought under regulation by the end of 1971-72. During 1972-73 a target for bringing 68 new markets under the purview of the Act was fixed against which preliminary notification for 50 markets has already been issued and in respect of the remaining 18 markets the work is in progress. During the year 1973-74 the proposal is to regulate 50 new markets. Thus, by the end of the Fourth Five Year Plan 186 markets are expected to be brought under regulation.

(b) Development of marketing complex—(i) Under I. D. A. Project— I. D. A. has sanctioned a project for the development of 50 markets at

ticity of demand for foodgrains) and supply of marketable surplus (as supply of foodgrains is generally inelastic) is sure to affect the prices of foodgrains. An efficient marketing structure is a must to solve this problem and to bring about an adjustment between the demand and supply and to meet the task of distribution at a low cost. Regulated markets can play a great role in removing the distortions in marketing. The need of co-operative marketing has rightly been emphasised, as regulation of agricultural mandis by state legislation can help the poor agriculturists by reducing and rationalising the market charges, but the long chain of middlemen operating between the real producer and the ultimate consumer can only be eliminated, when the whole structure of agricultural marketing is placed on co-operative lines. A good beginning has been done with the socialisation of the foodgrain trade in Bihar and the achievements can only be consolidated with a net work of co-operatives assembling the marketable surplus, and controlling the retail sales. Co-operative marketing should be looked upon as a business and should be in a position to avoid or overcome the adverse effects of business depressions, monetary maladjustments and commodity surpluses. The ultimate guarantee of good marketing lies in the quality of bargaining power of the buyer and the seller and in this scheme of re-organisation the State has to come forward to render assistance of the requisite magnitude and of a type which will enable the co-operatives to meet the opposition of vested interests. Marketing societies should be linked up with cooperative processive and co-operative consumers societies.

Thus agricultural marketing in Bihar, would have to be gradually socialised, as individual initiative and freedom of enterprise in marketing are incompatible with the objective of a comprehensive State plan. Marketing therefore, would have to be brought under the effective control, regulation & management of the State which will see where each item would be most useful, it will see that each item is made available as and where and when it is most wanted and so likely to be most serviceable in working of the state plan.

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part of the initial procurement by government is undertaken in a year of abundant harvests and relatively low prices, there is no reason why through proper adjustment of selling prices in years of shortages the government should not be able to cover all its costs and make whatever profit is considered reasonable in the food industry. Moreover, the long-term social and economic advantages to the whole economy will be so much that the scheme would be economically worth carrying out even if it involves some loss to the State in an immediate financial sense. The most opportune time for initiating the scheme would be a year of good harvest, so that sufficient stock may be built up from the home market. The intervening period may be utilised for preparing the ground. The need for a comprehensive and co-ordinated scheme may be emphasised and half-hearted or halting implementation may be ruled out, because a half-hearted scheme will only end in failure and this in turn may be used by the laissez-faire enthusiasts as an argument for a policy of inaction in future.

This book on Agricultural Marketing in Bihar, begins with a brief description of the agricultural position in the State. The basic weakness of the agricultural organisation is the pattern of land ownership. About 20 percent do not own any land and about 2.15 percent own land less than one acre. About 71.6 percent, all rural families have either no land or less than 5 acres and their share is about 29.3% of the areas. On the other hand about 12 percent of rural families have more than 10 acres each with a total share of about 66 per cent of the whole area while one percent have more than 40 acres each and account for 20 percent of the area. The small farmer cultivating his fragmented holdings, and lacking in capital and other inputs falls an easy prey to unfavourable climatic conditions. His farming is still largely of the subsistence type. His sales of produce are intermittent. Until, therefore, he realised that as a seller of the produce he must study the art of sale, either as an individual through combination with other producers, it is inevitable that he should come off second best in his contest with the highly specialised knowledge and the vastly superior resources of those who purchase his produce. As such, there is need for the orientation of the entire marketing system in the state of Bihar so that exploitation of the primary producer is progressively eliminated and he is enabled to dispose of his surplus under fair conditions of buying and selling.

An attempt has been made to define 'Marketable Surplus', 'marketed surplus' and 'potential surplus' and concludes that they are variable quantity depending upon special and economic factors. In north Bihar, the percentage of marketable surplus with reference to main commercial crops comes to 85 to 90 percent. In case of cereals & pulses it is very low, i.e. rice (19.5%), Arhar (16.5%), Urid (39.0%), Moong (25.5%), Masur (39.0%), Gram (11.0%). By substantially increasing the marketable surplus of agricultural produce, a food and raw material base for rapid industrialisation can be created and it may be possible to meet the growing demand of urban population as well as to bridge the gap of food deficit. Any imbalance in the demand for food (as a result of increasing population, a rise in per capita income and a higher income-class

tion and promotion of orderly marketing by achieving effective distribution and fair pricing of farm products needs no emphasis. So far 48 Market Intelligence Centres have been established and another set of 21 such centres are likely to function by the end of 1973-74.

8. Link Roads—Out of the 50 markets taken up under the World Bank Project, 22 fall in the Command Areas of Kosi, Gandak and Sone. 11 link roads are being constructed at an estimated cost of Rs. 100 lakh in the Kosi Command Area. The Central Government have also sanctioned link roads for Gandak and Sone Command Areas at an estimated cost of Rs. 100 lakh and Rs. 65 lakh respectively. The work on these roads will commence from the current year (1973-74).

CHAPTER II

AGRICULTURE IN BIHAR

Bihar is a predominantly agricultural State, 76.8 percent of her total working population being engaged in agriculture which excludes from its scope plantations, orchards, forestry and even operations such as thrashing and cleaning of grain, not to mention dairying, lacgrowing and bee-culture which are indirectly connected with agriculture. Among the States of India, Kerala is the only State where the number of non-agricultural workers exceed the number of agricultural workers. One can perhaps expect that the higher the density of population in a State, the lower would be the dependence of its population on agriculture or in other words that the density of population of a State would be inversely correlated with the proportion of its workers engaged in agriculture. In fact, the ranking of the 14 States of India according to these two criteria shows a remarkable consistency except in the case of four States, viz., Assam, Gujerat, Bihar and U. P. In the case of the former two States, non-agricultural employment is higher than one would expect, judged by the density of their population; while in the case of the two latter States, it is the other way round. The predominantly rural character of Bihar population is also brought out by the fact that although she contains 10.6 percent of the Union population, she has only 5.7 percent of the towns in the Indian Union; her rural population being 91.6 percent of her total population against all-India's 82 percent.

Large dependence on agriculture is not only a sign of undeveloped economy, but under the present conditions in India, it subjects the national income to a considerable degree of instability. Among the States of India the dependence on agriculture is the highest in Madhya Pradesh, Rajasthan and Bihar and they are also among the least developed States of India. The instability of agricultural income is shown by the fact that in two successive years, viz., 1957-58 and 1958-59 the indices of the availability of foodgrains (net) per capita per annum (1951-52 : 100) varied from 74 to 132 in Bihar, from 85 to 131 in Madhya Pradesh and from 121 to 151 in Rajasthan.¹ In Bihar, not only are 77 out of every 100 workers engaged in agriculture (even in the restricted sense in which the term has been used in the Census) but 72 of the these 77 workers are engaged in the production of food crops alone even excluding rape and mustard and groundnut from the definition of food crops and 57 workers out of 77 are engaged in the production of foodgrains, i.e., cereals and pulses. Bihar's agricultural economy is overwhelmingly a food economy; and of her gross cropped area all but a paltry 5 percent is devoted to the cultivation of food crops. Maharashtra (including Gujerat) and Kerala devoted in 1959-60 one-third of their gross cropped area to the cultivation of non-food crops, while Mysore and Madras grew non-food crops on one-four

1. Vide note by P. N. Sharma at page 442 of Census of India Paper no. 1 of 1962.

Foodgrain Requirement And Food Outturn :—

Judged by the nutritional requirement of the population at 14 ounces of cereals and 3 ounces of pulses per adult consumption unit per day and converting the total population into adult consumption units at 80 percent and also deducting 12.5 percent from gross production to allow for seeds, wastage etc., it is found that the average outturn of foodgrains in Bihar in the five years centering round 1960-61, allowed the population of Bihar at the 1961 level, a consumption of 13.7 ounces of cereals and 2.6 ounces of pulses which falls short of the standard by 0.7 ounce per day. The extent of Bihar's foodgrain deficit for the 1961 population works out at 265 thousand tons or 3.8. percent of her gross production. In fact, Bihar was importing on an average (1959-62) at least 300 thousand tons of cereals (rice and wheat) annually from outside; Bihar's deficit was only of a marginal nature. A similar calculation on the basis of average annual foodgrains production during 5 years centering round the year 1950-51 and the census population of Bihar (before state re-organisation) of 1951, shows the availability of foodgrains to have been 14.24 ounces per consumption unit per day. This indicated a shortage of more than 900 thousand tons and Bihar imported from outside about 413 thousand tons of foodgrains annually during the period 1949-50 to 1951-52. It, therefore, appears that in spite of the growth of population during the decade 1951-61 the supply of foodgrains in Bihar has shown some improvement. This improvement may be either nominal or real. It would be nominal if the estimated higher production is the outcome of an improvement in the quality of estimating crop outturns, and it would be real if it has been brought about by extension of irrigated areas, greater use of chemical fertilizers, higher density of cropping etc., perhaps the improvement revealed was attributable to both the causes.

According to the Registrar General of India's Estimate the population of Bihar has been increasing at the rate of 2.3. percent per annum cummulatively since the last census. If, therefore, the minimum nutritional requirement of 17 ounces of foodgrains is to be assured to the increasing population the outturn of foodgrains must also increase correspondingly. The Bihar famine of 1966-67 has poignantly focussed the attention on the immensity of the problem of finding food for the growing population; and although last year's condition was quite abnormal yet if means cannot be found to transform the agricultural methods and practices or if the growthrate of the population cannot be damped down, it is not unlikely that recurring scarcities and scrambles for food will become a regular feature of Bihar's economy. That there is a considerable scope for improvement in Bihar agriculture is evident from a comparison of Bihar's agricultural economy with that of Punjab. It has already been seen that a food worker in Punjab can grow food for 5.8 persons including himself as against Bihar's 3.3 persons. Too many persons are quartered on the land in Bihar, viz., 547 workers for 1000 acres of gross cultivated area against Punjab's 190 workers; and yet Bihar's outturn is 9 percent less per acre than that of Punjab. If this redundant population can be withdrawn from agriculture and provided with useful work in the industrial field, Bihar's economy can be substantially improved. Bihar's

overcrowded agricultural economy can also be illustrated with reference to the quantity of foodgrain produced per agricultural worker (engaged in foodgrain production) in Bihar in 1962-64 which was only 1256 pounds--the lowest among the States in India--compared with 3920 pounds in Punjab 2392 lbs. in West Bengal, 2139 lbs. in Orissa and 2121 lbs. in Gujarat. The nearest approach to Bihar in point of the smallness of foodgrain outturn per worker is that of U. P. with 1431 lbs.

The quantity of foodgrains grown by one worker (in the field of foodgrain production) and the number of persons who can be supported by it would depend on the area devoted to foodgrains which is cultivated by one worker and the rate of output of foodgrains per acre. A sample survey conducted by the National Sample Survey for the crop year 1953-54 indicated that an average household in Bihar owned only 3.5 acres of land which was the lowest in India except for three States viz., Madras (3.4 acres), West Bengal (3.0 acres) and Travancore-Cochin (2.0 acres). It was as high as 15.3 acres in Rajasthan, 11.1 acres in Madhya Pradesh and 8.4 acres in Punjab. Of course, the entire household is not devoted to the production of foodgrains nor is every member of the household an agricultural worker. A comparison of the number of agricultural workers as given in the 1961 Census Report with the acreage and outturn of foodgrains in the different States of India in 1962-64 shows that there was one worker for about 1.86 acres under foodgrains in Bihar and Assam--this is the lowest figure among the States in India, Madras coming next with 1.95 acres; while the States with highest acreage under foodgrains per worker were Punjab with 5.29 acres, Rajasthan with 4.65 acres and Gujarat with 4.18 acres. The yield of foodgrains per acre was, however, fairly high in Bihar, viz., 676 lbs. which was exceeded by Kerala (1190 lbs.), Madras (981 lbs.), West Bengal (949 lbs.), Orissa (810 lbs.) and Punjab (741 lbs.). The lowest yield of foodgrains per acre was in Rajasthan (323 lbs.), Maharashtra (470 lbs.), Mysore (530 lbs.) and Gujarat (507 lbs.). Among the food crops, however, the yield rate per acre varied from crop to crop, those for rice, wheat, barley, maize and marua being higher than those of other cereals and pulses. The acreage under these five foodgrains formed 75 percent of the total acreage under foodgrains in Bihar in 1963-64 and was exceeded by Orissa (87 percent), West Bengal (84 percent), Kerala (94 percent) and Assam (95 percent), while the proportionate acreage under these foodgrains was the lowest in Maharashtra (19 percent), Rajasthan (21 percent), Gujarat (28 percent) and Mysore (32 percent). In the light of this the performance of Punjab and Madras appears to be all the more creditable; for in spite of a comparatively low proportion of area devoted to high yield crops, viz., 51 percent and 58 percent respectively, the yield per acre of total foodgrains, viz., 741 lbs. and 981 lbs. is quite high. The higher yield of foodgrains in Punjab and Madras compared with Bihar, may be due to the higher proportion of these crops which are irrigated, viz., 35 percent and 53 percent against only 19 percent in Bihar.

Economic holding :

It has been seen that the sample survey of agricultural holding for the year 1953-54 revealed that the average size of an ownership holding in the rural areas of Bihar was 3.5 acres with household membership of 5.3

persons. A few of the holdings were found to be used for non-agricultural purposes, and if these are excluded, the average size of agricultural holdings in rural Bihar worked out at 4.1 acres. The entire area of this holding was not necessarily cultivated in 1953-54. At the 1961 population census data were also collected on sample basis regarding area of land cultivated by rural and urban households. Land included all land normally used for cultivation purposes including temporary fallows. Cultivation, however, excluded fruit growing. According to the census data an average rural agricultural household in Bihar consisted of 5.88 persons of whom 2.20 were family workers and 0.7 hired but permanent workers and the rest, i.e., 2.98 being non-workers. Apart from members of the household an average cultivating household also employed 0.08 casual workers for cultivation work. According to data collected by the census an average agricultural household in Bihar had a holding of 4.1 acres comprising net sown area together with current fallows; and of 4.9 acres of other fallows, culturable wastes, orchards, pastures and grazing land are also included.

Can 4.1 acres of land including current fallows, which is the average size of a household holding in Bihar, be regarded as an economic holding? Economic holding is not easy to define. It would depend upon objective standards which different persons may adopt to suit their own ideas. Here we shall take it to mean subsistence and viable holding; in other words, we shall examine whether the size of an average household holding in Bihar is such as would ensure the reasonable food requirements of the members of the household and would also ensure reasonable employment to the human and animal resources possessed by an average household.

An average holding with net sown area of 3.58 acres would have a gross cropped area of 4.76 acres owing to some areas being cropped more than once. Out of this gross area it would be usual to grow foodgrains on 4.22 acres. As the average rate of yield per acre of foodgrains, the output of cereals and pulses from 4.22 acres would amount to 1.22 tons. Deducting 12½ percent from it for seeds, wastage etc. 1.07 tons would be available for consumption. Converting the 5.88 persons who comprise an average rural household in Bihar into adult units (at 80 percent), it is found that the yield of foodgrains from the household holding would allow about 22 ounces of cereals and pulses per head per day against a nutritional requirement of 17 ounces. The household would thus have a marketable surplus of about 918 lbs. of foodgrains, or a little less (say 900 lbs.) if we allow for the breakfast and tiffin which is given to the casual workers employed by the household for cultivation. Roughly speaking, the holding would yield a gross income of Rs. 809 (or Rs. 38 per head) at Rs. 170 per acre at 1962-63 prices of farm produce.

The average agricultural household holding that has been considered above is a theoretical average the size of which has been pushed up due to a small number of very large holding such as 50 acres and above. In fact the number of agricultural holdings of a size lower than 5.0 acres in rural areas was 814 thousands against 324 thousands above this size. Hence the median size holding, i.e., the farm size which has many holdings larger than it in size as holdings smaller than it in size, would be more representative of holdings in Bihar than the arithmetic type of average holding. The

be the worst. Although we have concentrated our attention only on the rural backwardness and foodgrains since the area under foodgrains covers almost 90 percent of the gross cultivated area in Bihar, we may broadly say that at least half the agricultural holding in Bihar are uneconomic in size in as much as even apart from the other necessities of life, they cannot even provide the foodgrains necessary for the consumption of the household. If account is also to be taken of the other necessities of life of the household, such as, food items, other than foodgrains and also non-food items, it would appear that a holding of the size of 3.5 acres including current fallows, would be necessary to make the agricultural household in Bihar self-supporting at the existing level of expenditure, as computed for 1960-61 by the National Sample Survey. If this is correct, then about two-thirds of the agricultural households in Bihar would appear to be non-self-supporting. Perhaps this is the reason why the Census Report of 1961 found that—"among persons having cultivation as principal work, as much as 81.8 percent have agricultural labour as their secondary work; similarly among those having agricultural labour or household industry as their principal work, as much as 92.9 and 78.1 percent respectively have cultivation as secondary work".

Economic Holding And Draught Animals :—

If we connect the total working animals with the net sown area (1960-61) in the different States of India, we find that the net area sown per pair of working animals is the highest (13 to 15 acres) in Rajasthan, Gujerat, Maharashtra, Punjab and Mysore and these are also the States where the average size of agricultural holding is very large; Kerala forming an exception with the smallest size of agricultural holding yet with almost twelve acre of net sown area per pair of working animals. On the other hand the net sown area per pair of working animals is the lowest in Eastern India, viz., Assam, Bihar, West Bengal and Orissa—4.5 to 5.5 acres—and here too the average size of agricultural holding is also the lowest in the country. For India as a whole there is a pair of working animals for 8.5 acres of net sown area against only 5 acres in Bihar which is the lowest in India except Assam. The most common size of farm in Bihar is of less than 3 acres; so that much of the potential working capacity of his farm animals remains unutilised and is wasted. We have thus reached the conclusion that even if a holding of 3.5 acres may under existing rates of yield prove sufficient for meeting the ordinary consumption needs of the cultivating households at the present standard of living yet it is too small to give full employment to his working cattle. Much of animal power in Bihar, therefore, runs to waste.

Economic Holding And Man Power :

At the Census of 1961 some data were collected regarding the different sizes of farm cultivated by agricultural households and the numbers of family workers and hired workers employed for cultivating different sizes of farm. It has already been seen that the median size of rural agricultural holding in Bihar consists of 2.6 acres of land which is cultivated by 2.4 family workers and 0.5 hired workers. The data for different farm sizes show that the family labour employed on the farm increases from a minimum of 2.1 persons for a farm size of 1 to 2.5 acres to a maximum of 2.8 persons for a farm size of 10 acres and above, although the

average size of agricultural family goes on increasing from 5.1 persons households with a holding of 1 to 2.5 acres to 9.5 persons for holdings of 50 acres and above. The number of hired agricultural labourers excluding casual workers, however, goes on increasing from 0.24 persons for farms of 1 to 2.5 acres to 4.83 persons for farms of the size of 30 to 50 acres. The total number of workers (family and hired workers) employed for farming increases from 2.3 persons for farms of size 1 to 2.5 acres to 7.5 persons for farms between 30 and 50 acres. The proportion of hired workers to total workers increases continuously from 10 percent for farms of 1 to 2.5 acres to 64 percent for farms between 30 and 50 acres.

Analysis of the available data shows that with the methods of cultivation and the cropping pattern followed in Bihar although even for a very small holding a minimum of about two workers is necessary yet a holding of 5 acres in size can be cultivated by 3 workers (including family and hired workers) and for every addition of two and a half acres the addition of half a worker is needed upto a farm size of 15 acres. The requirement of additional workers for farms of even larger size decreases still further. Judged by this standard of 3 workers for holdings of 5 acres it appears that for 71 percent of the total rural agricultural holdings in Bihar which are of a size of less than 5 acres, about 50 percent of the labour employed is surplus in the sense that they would not be needed for the work of cultivation if all the farms cultivated had been at least five acres in area. Although, therefore, the average for Bihar is 3 workers for a farm of 5 acres and in the sense a farm of 5 acres may be regarded as an economic holding so far as employment of man power is concerned, yet it should not be confused with the idea of optimum holding, for the data shows that farms of a size of even 15 acres can be managed by 3 workers.

Low productive efficiency and overcrowding in Bihar's agricultural economy :

A study made with 22 crops covering 94 percent of gross cropped area of Bihar in 1955-56 showed that the cropping pattern followed by Bihar raised the value of her gross outturn by 27 percent over what it would have been had she followed the average all-India cropping pattern (vide I. J. A. E., April-June, 1962). At the same time, however, it may be noted that the physical outturn of crops per acre in Bihar was generally lower than the all-India average. Taking 18 crops covering 92 percent of the total sown area of Bihar in 1962-63 the index of productive efficiency in Bihar, i.e., the yield rate of crops per acre using "weights" given to different crops by the State Statistical Bureau, Bihar in calculating the index of agricultural production, was about 9 percent lower than the all-India level of efficiency.

Bihar employed, in 1961, 53 cultivators, 22 agricultural labourers and 39 working animals per 100 acres of her net sown area against all India 31, 10 and 24 respectively. Thus Bihar uses 70 percent more cultivators, 120 percent more agricultural labourers and 62 percent more cattle power per acre of net sown area than all-India. In fact except for Assam the densities of cultivators, agricultural labourers and draught animals per acre of net sown area in Bihar agriculture are the highest in India. This may be partly accounted for by the higher intensity of farming in Bihar (double

crop area in Bihar being 39 percent against India's 15 percent). In fact it is the highest in India and the smallness of the size of her agricultural holdings the lowest in India except Kerala, yet there is no doubt that there is a redundancy of both man and cattle employed on land in Bihar. According to Bihar Unemployment Committee, 1959, an average subsistence holding of 7 to 10 acres can be worked by to full labour units with the help of a pair of bullocks. On this basis the Committee estimated that 44 lakhs out of a total of 110 lakhs farm workers in Bihar*1951 were redundant. Even if we could have maintained in 1961 the same land labour ratio in cultivation as we had in 1951 (525 workers in 1951 as against 745 workers in 1961 for 1000 acres of net sown area), the (net) value of agricultural produce per head of agricultural workers would have been 42 percent higher in 1961 than it actually was, viz., Rs. 247 as computed by the S. B. B., Bihar. In fact, the agriculture economy of Bihar is so over-crowded that a study made by some local economists (published in the I. J. A. Economics, April-June, 1962) showed that although the agricultural (net) income per acre in Bihar in 1955-56 was Rs. 82 which was higher than that of Bombay, Orissa, Madhya Pradesh and Rajasthan yet calculated per head of the agricultural population, it fell to Rs. 57 only the lowest in the whole of India.

Land tenure and productive efficiency :

In Bihar the vast majority of cultivators cultivate lands which are either wholly owned by them or mainly owned but partly supplemented by land taken on lease. Thus according to the Census Report of 1951 almost 88 percent of the self-supporting cultivators in the rural area of Bihar cultivated land mainly owned by them while only 18 percent cultivated land mainly unowned. The percentage of cultivators cultivating mainly owned land was the highest in the scheduled tribe areas comprising Chotanagpur division and Santhal Pargana, varying from 92.5 percent (Palamau) to 98.5 percent (Ranchi).

Bihar is a land of small holdings; holdings of a size of less than 5 acres forming 71.6 percent of total holdings of which 21.5 percent were made up by holdings of less than one acre, 26.7 percent of holdings between one and 2.5 acres and 23.4 percent of holdings between 2.5 and 5 acres. These 71.6 percent of the small holdings, however, contained only 29.3 percent of the land cultivated in Bihar. As many as 86.5 percent of these small cultivating households cultivated only their own land, 9.2 percent cultivated only leased land and the remaining 22.3 percent cultivated partly owned and partly leased land. It is interesting to note that as the size of the holding goes up from less than one acre to 10 acres, the proportions of both those who cultivate only owned land and of those who cultivate only leased land decrease continuously from 72.7 and 14.1 percent respectively for holdings of less than one acre to 62.8 and 2.6 percent respectively for holdings between 7.5 and 10 acres.

CHAPTER III

THE CONCEPT OF MARKETABLE SURPLUS

The present era is characterised as an age of economic development which has attracted the attention of modern economists towards the various problems involved in this field. The ever-growing importance of economic growth has thus led to the wide discussion of literature on this topic. But it remains a fact that the literature on economic development is unfortunately lacking in explicit definition of the basic terms it employs, and one finds that the term "economic development" covers a wide range of different and some times conflicting ideas. Various terms such as 'economic development', 'economic growth', 'economic progress', 'economic welfare' and secular change etc. are used to connote the same kind of meaning. In fact, they are synonymous. And yet it is difficult to locate any single concept which may convey a precise and generally acceptable meaning of economic development. Some writers have used the term 'Economic Development' in the sense of a mere increase in the national income, without regard to the size of average per capita income or the distribution of income. To some economists, the concept "Economic development" seems to imply nothing more than an increase in the "supply of capital available to "underdeveloped" areas.

Despite the conflict in the concept and nature of the problem, a growing unity of concept has gradually emerged which regards economic development as an increase in the national product that results in the raising of the average per capita income. Thus the core of economic development is the increase in real income of the nation. Keeping this idea in our view, "Economic Development" may be defined as a "process whereby an economy's real national income increases over a long period of time."¹ If this accepted concept of "economic development" is examined and elaborated we come across with three distinctive characteristics of the problem. Firstly, economic development is not a fixed goal, rather we are concerned with the process of change. "Process" implies the operation of certain forces; these forces operate over the long period and embody change in certain variables. Details of the process vary under diverse conditions in space and time. But there are some basic common features. For the sake of simplicity and analytical examination of these common features, we can classify most of these as the changes in the fundamental factor supplies and changes in the structure of demand and products. It is possible, therefore, to interpret economic development in terms of specific developments in factor supplies and product demands. Secondly, economic development brings about a definite and sustained augmentation in the production of material goods and services. Above, we have based our definition of "economic development" on the concept of real national income which refers to the country's total out-put of final goods and services.

1. Economic Development, Theory, History, Policy; Meir and Baldwin Page—3.

expressed not in money terms but in real terms; the money expression of national income must be corrected by an appropriate price index of both consumer and capital goods. Here a distinction must be made between Gross National Income and Net National Income. Here "National Income", however, refers to net national income and not gross national income for provision must be made for the wastage of machinery and other capital goods. Thirdly, from the stand point of economic development, the increase in net national product must be a sustained increase. A short period expansion, such as occurs within a business cycle, is of secondary importance a minor wave compared with the upsurge of rising time. Really, it is the increase in real national income between cycles that denotes development. Economic development is a long-period process.

Lastly, we must bear in our mind that the definition of 'economic development' should focus on an increase in real national income rather than on real per capita income. If an increase in per capita income is taken as the measure of development, we would be compelled to say that a country has not developed if its real national income has increased together with the rise in population at the same time.

It appears desirable to link economic development with general in all spheres of life. Thus in the process of economic development, the element of improved welfare should be maintained. As a matter of fact, "economic progress is sometimes regarded as a process of change leading to greater and better supply of material goods and services, for the safeguarding of human personality and capacities".² A nation aspiring to switch over from a stagnant to developing phase of its existence will have necessarily to pass through a period of stresses and strains in respect of economic and cultural values. The process of development should be such that these stresses and strains are minimised and the transition to a higher level of economic and cultural values is achieved smoothly.

Such a wide interpretation of the term "Economic Development" involves consideration of proportionate relationship between rate of economic growth and rate of population increase, pattern of income distribution, qualitative composition of production, ethical value, judgements about social relations and institutions, about working condition and about the concept of human welfare, etc. It is true that the welfare of the society as a whole is the sole objective of material advancement. For, economic goods and services are the means to an end-maximum satisfaction of human wants. Thus, an adequate and cheap supply of goods and services is one of the many pre-requisites of social welfare in general. In order to maintain accuracy and to evaluate its results in a scientific way, it is better that, 'economic development' be considered a long-term process leading to a sustained increase in an economy's real national income, accompanied by other changes which contribute to social welfare in general. Therefore, economic development is a process consisting of a long chain of inter-connected changes in fundamental factor supplies in the structure of demand for products, finally leading to a rise in real national income over a long period.

2. Agriculture and Economic Programme, Ojula, Page—1

The conceptual analysis indicates that economic growth is of the same genus as economic wants : the time for its cessation never comes. Even so-called 'developed' nations are seized of the problem of growth so that the population may be maintained at an ever-rising level of living. In fact, the terms 'developed', 'undeveloped' and 'under developed' are only relative terms.

In recent years, the term "marketable surplus" has become a catch-word in the discussion of agricultural economics. The raising of agricultural productivity for the creation of a sizeable volume of marketable surplus is regarded as indispensable for rapid industrialisation and economic development of under-developed economics where agriculture is the main industry. Though it is a common opinion, it has hardly been processed. In simple language, the term 'marketable surplus' connotes the meaning of differential surplus. It is the difference between the total volume of farm. Production and the volume of retention maintained by agriculturists and house-hold consumption, seeds, payments to the labourers in kind and wastage undergone in the process of storage. The agriculturist does not sell the whole of the farm produce, rather a portion is retained on the farms for different purposes mentioned above. A certain quantity is also wasted on the farm and in transit. Therefore, the quantity which leaves the farm after making allowances for the above uses and losses constitutes the marketable surplus. Hence, "it represents the theoretical surplus available for disposal with the producer, left after his genuine requirements of family consumption, payment of wages in kind, seed and wastage have been met."³ "Marketable surplus, thus interpreted, in the most simple words is the difference between the total volume of the agricultural produce and retention by the farmer's family for different uses."⁴ The farmers are both producers and consumers of foodgrains and, therefore, dispose of only what is in excess of their requirements.

Sometimes, the concepts of 'marketable surplus' and 'Marketed surplus' are both used to convey the same meaning. But if examined scientifically, we mark a fundamental difference between them. The former is a broader concept whereas the latter is a narrow one. 'Marketed surplus' represents that portion of "marketable surplus" which is actually marketed and is placed at the disposal of non-farm producers. What this explains is that the total volume of 'marketable surplus' does not move to the urban area for the use of non-farm producers, rather a portion of it. Marketable surplus is thus 'gross surplus' whereas the marketed surplus represents a 'net surplus.' All that is marketed by farmers—the gross marketed surplus—does not obviously enter urban areas. A portion of what is, disposed of after harvest season may be bought by the farmers at later stages for their own consumption or seed requirements. A part of the surplus may be consumed by the non-agricultural rural population. When these are deducted from the 'gross marketed surplus,' the remainder may be called the 'net marketed surplus.' The residual net balance of the marketable surplus is made available for the consumption to the urban population (or for export, beyond the level of self-sufficiency). What is, therefore,

3. The Journal of Agricultural Economics (January-March, 1961, Page—26.

4. Indian Economy, G. C. Jangir, Page—232.

important for all practical purposes is the 'marketed surplus' as against the "marketable surplus." But for raising the volume of 'marketed surplus' in an economy, increase in the size of the marketable surplus becomes essential and in turn it requires augmentation of the total volume of farm-production. "First is the basic question of continuing growth in the out-put of agricultural commodities, in order to generate an increasing proportion of absolute surplus, over and above the productive and personal consumption of the producers. This we might call the problem of generation of potential surplus. The other is the question of the conversion of this potential into actual marketed transaction, that is its movement from the producing point to the consumers in the villages and cities."⁵

Both the marketable surplus and 'marketed surplus' will be equal only under ideal conditions.

In the paragraph above, concepts of 'marketable surplus' marketed surplus' and 'potential surplus' have been examined with a brief reference to their significant roles in the field of economic development. As the concept of marketable surplus is mathematical in character, its calculation becomes a complex problem. So far use of two approaches has been made for defining and calculating, 'marketable surplus' of the various Indian crops. They are as follows :—

The subjective approach, which has been adopted by the Directorate of Marketing and Inspection, Govt. of India leads first to the determination of farmers' retention of seeds, wages, personal consumption etc. and rest of the produce is taken as average marketable surplus of the crop. It is usually expressed in terms of the percentage of total production. In short, total production—(minus) farmer's retention comes to marketable surplus. For simplicity, if we can express the total production as P and farmers' retention by R then we get M. S. (Marketable surplus) as $P - R = M. S.$ It is a sort of subjective guess work rather than a result of arithmetical calculations of the actual quantity of the produce sold in the market. The figures arrived at according to this approach, after a careful, detailed and micro-study of the farmers' retention based on case-study method, can yield reasonably satisfactory figures at least in the case of cash crops where the percentage of the crops retained by the farmers is very insignificant. But the result arrived at under this approach for the commodities in which farmer's retention constitutes a significant portion of the total produce, such as in the case of food crops like wheat, rice, jowar and gram, may not be satisfactory.

Another approach for calculating marketable surplus of agriculture crops is known as the objective approach. Here an attempt is made to calculate the actual quantity of the produce entering into the markets. This approach has been developed by the panel of Experts appointed on the recommendations of the Price Variation Enquiry Committee, 1956. Marketable surplus as defined by the Panel of Experts, is to comprise only the "arrivals," direct from the producing areas, out of the new crop. It is

5. Problems of marketable Surplus in Indian Agriculture, S. Naqvi, (I. J. A.E.) Page-67.

only these arrivals which can be correlated with the production of new crops to arrive at the proportion of marketable surplus out of the year's crop.

Though this approach is based on arithmetical calculation, yet it suffers from several limitations. The magnitude of such limitations may be so immense at times that it may be difficult to calculate the probable margin of error as well. These limitations may be summarised as follows :—

The production season of each crop differs from one region to the other; therefore, it is very difficult to arrive at a common production year for the country as whole.

The second difficulty is that of demarcating the arrivals of the old crop from the new ones.

In a secondary market, the product is bought from the farmers and assembling mandis, the latter being already recorded at the point of their first arrival.

As a result of imposition of Sales Tax on the sale of the agricultural commodities, there is a tendency among certain traders to collect the produce from the farmers and store the same in villages near the road from where it is dispatched direct to the consuming centres with a view to evading sales tax and even market charges in some cases. Such market arrivals are omitted altogether from the calculations.

In certain regulated mandis, particularly those of market committees, which are weak and inefficient, the traders usually try to report underestimated figures to the market committees regarding market arrivals at their shops with a view to evading part of the market fee.

The collection of the statistical data relating to marketable surplus in the unregulated mandies is a result of merely the guess work of the reporting agent who is sometimes hardly capable of making reliable estimates of the same. He may not even try to verify the figures by going into the market.

The market arrivals are sometimes influenced by the State policies as well. During recent years (1965-66 and 1966-67) there was a trend in certain areas, particularly foodgrains growing areas, to dispose of the produce in the villages rather than to bring them to local mandis. This is due to the declaration of the State Policy for monopoly purchase of foodgrains in the district of Saharsa and Purnea.

In view of these difficulties, it may appear better to depend more, even in case of food crops, on the subjective Guess Method rather than on objective Assessed Method based on arithmetical calculations.

Owing to various difficulties inherent in the calculation of marketable surplus, we do not get exact estimates of the same, specially of food-grains. Really, what is true with the country as a whole is also true with our State. We must admit that there is no precise or upto-date estimate of either gross or net marketable surplus covering the entire agricultural crops. Haphazard attempts have been made to calculate the marketable surplus

Purpose	Pre-War	Post-War
Percentage of total production		

1. Household consumption.	42.0	44.4
2. Payment in kind and use for barter.	11.8	21.7
3. Seeds.	5.7	6.4
4. Total retention by farmers.	59.5	72.5
5. Balance representing marketable surplus.	40.5	27.5

Source :—Report on the Marketing of Rice in India; 1951.

TABLE NO. 3
Utilization of Rice production by farmers.

The percentage of marketable surplus does not vary only from State to State it also varies from regions to regions and crops to crops as well. This may be negligible in the case of subsistence farmer and may be small in all cases of cereals since bulk of the grains is used for consumption in the agriculturists' family. Their percentage of marketable surplus in case of commercial crops is very high and is about 80 to 90 percent. In North Bihar, the main commercial crops are jute, sugarcane, tobacco and chillies in which the sugarcane has got the highest percentage of marketable surplus which may come to 85 to 90 percent of the total production as the farmers' retention in case of this commodity is very insignificant. In case of cereals, the percentage of marketable surplus is very low.

The various Reports of Marketing of different commodities published by the Directorate of Marketing and Inspection, Govt. of India give estimate in respect of marketable surplus. According to the estimates as contained in the Reports on the Marketing of Rice and Wheat, the marketable surplus of these commodities comes to 35% and 37% respectively. Attempts were made by the official agencies to collect figures of net marketed surplus for wheat and rice in a few States in 1955-56 and 1956-57 respectively. The average marketable surplus of rice in the States in the 1956-57 was about 31.4 percent of the total output. The agricultural Prices Commission estimated 31.4 percent as the marketable supply of foodgrains for the year 1965-66. It is apparent that the percentage of the marketable surplus has been on decline since 1941 when the first attempt was made to examine the problems of marketing of wheat and rice in India. As per estimates of the side Report, the marketable surplus in respect of rice, wheat and grains was to the extent of 41 percent, 45 percent and 44.3 percent respectively. Thus the marketable surplus is a variable quantity depending upon many special and economic factors.

TABLE NO. 3.1

Proportion of Marketable surplus of different crops in Bihar during 1964-65 to 1966-67.

Crops.	Years.		
	1964-65	1965-66	1966-67
1. Rice	25.0	20.0	19.5
2. Arhar.	20.0	18.0	16.5
3. Urid.	38.0	34.0	39.0
4. Moong.	30.0	32.0	25.5
5. Masur.	44.0	45.0	39.0
6. Gram.	16.0	13.8	11.0
7. Potato.	65.0	68.0	60.0
8. Khesari.	30.0	32.0	N.A.

Source :—Superintendent of Agricultural Statistics, Bihar, Patna.

The vital role of marketable surplus in agricultural sector in the field of economic development of a country which is predominantly agricultural in character hardly needs any explanation. For the development of a backward agricultural economy, the importance of marketable surplus is now well recognised. An increase in agricultural productivity and consequently in the volume of agricultural surplus, is an indispensable basis for rapid economic development of underdeveloped and developing economies like ours. However, an over-all increase in agricultural production or agricultural productivity in general may not be itself sufficient to sustain the tempo of development. It has rightly been observed that "it seems clear that India has not as yet fulfilled the most fundamental pre-condition for its economic development—the achievement and maintenance of an adequate and reliable food surplus or, at least, the reduction of its food-deficit to a magnitude which expanding manufacturer for export might realistically be expected to cover in the near future." It must be pointed out clearly that it is not the total agricultural production rather it is the marketable surplus which is important for rapid industrialisation. What is more germane to the process of development is the marketed surplus (the actual quantity marketed) out of the increased production. If the marketable surplus does not increase pari-passu with the increase in production, it may well constitute a limiting factor on the tempo of development, by reducing the supplies necessary as a source of funds for capital formation and for increasing foreign exchange earnings through exports of surplus or for relieving the strain on balance of payments by reducing imports of foodgrains and materials. Recognising the importance of agricultural marketable surplus in the process of economic development, we mark that it is a crucial question from three points of view, specially in the agricultural sector of under-developed economy. Firstly, marketable surplus in the agricultural sector would contribute to capital formation in the non-agricultural sector of under-developed economy.

cultural sector. Secondly, it would contribute to an improvement of the standard of living in the agricultural sector by making available to it the industrial consumer-goods; and thirdly, it would contribute to capital-formation in the agricultural sector by fetching to it the requisites of agricultural production.

In the different stages of economic development, an underdeveloped economy has to face many big difficulties. Amongst them, availability of international liquidity for financing imports poses a great hurdle. If the country happens to be an agricultural one, it can solve this problem to a great extent by creating marketable surplus in agriculture. Exports of farm products may be pushed up for obtaining foreign exchange. "Agricultural exports play a vital role in the economic development of an underdeveloped country by enabling it to earn international liquidity for the import of capital equipment, strategic raw material, technical know-how and a number of intermediary goods, etc."⁷ If these developments are financed by loans and foreign assistance, it merely postpones the necessity for exports but does not solve this problem. As a matter of fact, it will require a greater volume of exportable surplus in future for meeting the debt charges and to pay for the normal volume of imports. Hence, the capacity of import will depend to a great extent on the capacity to export. The maxim is "Export pays for Imports." Apart from its role in import financing "the export sector plays by itself a powerful level of economic development because of its "spread" and "linkage" effect."⁸

This analysis assumes a particular importance in view of the recent devaluation of the rupee resorted to with a view to improving the rate of exchange in order to push up the exports and thus earn more foreign exchange which is crucial for the economic development of our nation. For achieving the targets of agricultural exports as envisaged in the Draft outline of the Fourth Five-Year Plan, marketable surplus of the commodities like jute, tea and tobacco must be augmented. It may be mentioned that the principal increase in exports envisaged during the Fourth Five-Year Plan period are mainly in respect of agricultural commodities like tea, jute manufactures, fruits and vegetable (including cashew kernels) vegetable oils (non-essential), oil cakes, fish, tobacco (unmanufactured) and cotton fabrics, etc."⁹ North Bihar is very famous for fruits like mangoes and lichi. These two commodities are exported in huge quantities from the different stations of Muzaffarpur, Darbhanga and Champaran districts to many distant places of our country. If these may be exported under refrigerator, it can earn foreign exchange. Purnea district is noted for jute manufactures, the marketable surplus of jute must be increased. The whole discussion indicates that for rapid industrialisation and economic development, a predominantly agricultural country must plan to strengthen the position of exportable surplus in agricultural sector by expanding the marketable surplus. If the country fails to raise the

7. Ibid. Page :—13

8. Indian Agricultural Exports And Economic Development, Economic Review (A.I.C.C.) Vol. 18, No. 12. Page—15

9. Fourth Five Year Plan—A Draft outline, Page—98

level of marketable surplus in subsistence sector, the nation is bound to lag behind in the race of progress and prosperity. The magnitude of export surplus, in the absence of foreign aid, initially and almost directly regulates the rate of growth of industries, though subsequently, as the other sectors develop export-capacity, the strain on the primary sector is correspondingly reduced. For transformation of an unbalanced and low-income economy into a more balanced and higher-income state, industrialisation is inevitable. The necessary capital equipment for industrialisation in under developed economy is ex-hypothesis unobtainable internally, and thus it has to be imported from abroad. Since the country in question is primary agricultural one, no other sector of the economy except agricultural is likely to have any capacity to export. Naturally, agricultural exports must go up to finance the growing imports of capital equipment necessary for rapid and balanced development. How crucial has been the role of this marketable surplus in economic development may be illustrated by the past experiences of predominantly agricultural countries like the U.S.S.R., China, Japan and Poland which have seen rapid economic growth.

The period between 1922-23 and 1927-28 in the economic history of the U. S. S. R. is known as the "Scissors-Crisis" which occurred as a consequence of rapid decline in the volume of marketable surplus in agricultural sector. This created the problem for feeding the urban population and providing raw materials for industry and expanding foreign trade. This sudden fall in the volume of surplus in agriculture restricted the imports of capital goods for industrialisation. No doubt, agrarian reforms introduced in the U. S. S. R. just after the War Communism, had influenced the agricultural production but the marketed surplus remained well below the pre-war level. While in the pre-war days, the marketable surplus covered about 30 percent of the total agricultural production, it came down to less than 25 percent of the total production in 1923. The fall in the prices of agricultural commodities along with a marked fall in the volume of marketable surplus and on the other hand the steep rise in the prices of industrial goods burst out into an economic crisis—the "Scissors Crisis" of 1923. The shortage of consumer goods and the unfavourable price relationship between agricultural and manufactured goods also reduced the farmers' incentive to part with their surplus crops. Soviet Planners and economists took measures immediately for solving this crisis by raising the prices of the agricultural commodities on the one hand and reducing the price of the industrial goods on the other. The decline in the marketed surplus was tending to be a serious drag on the industrialisation which Soviet Russia had set her course. With narrowing down of the spread between agricultural and industrial prices, the Soviet Planners switched over to the organisation of large scale State Farms and then they took up the programme of collectivisation of agriculture.

As a consequence of the various measures, the marketable surplus of agricultural commodities considerably increased. In case of foodgrains, it went up by two and half times in 1938 as compared in 1928. The rapid growth of marketable surplus in agricultural sector of the Soviet economy paved the way for quick industrialisation and economic development. The food shortage as well as the problem of feeding machines and factories was thus over-come. "By substantially increasing the marketable surplus

of agricultural produce, they created the food and raw materials base for rapid industrialisation. The collective farmers played a decisive role in this process."¹⁰

Similarly the economic history of Japan¹¹ (1880-1920) reveals the significant role of agricultural marketable surplus in her economic development. Adoption of mechanised and intensive farming with increased use of chemical fertilisers and improved techniques resulted in considerable expansion of agricultural out-put which even out-stripped the population growth. Prior to this, Japan had been experiencing the problem of food shortage. But the rapid rise in the farm out-put with a heavy dose of input averted this situation and protected the drain of foreign exchange which was required to finance the food imports from India. In order to expand the flow of marketable surplus as a consequence of increase in the total agricultural production, Japanese Government introduced the payment of land revenue in agricultural commodities. As adequate quantity of marketable surplus from agricultural sector was not coming forth, Japan had to take recourse to this unique system of land revenue.

Japan thus solved the problem of marketable surplus by the State's appropriation through heavy land taxes. It may be said that land taxation played in Japan the same role as compulsory grain collection from collective farms played in Soviet Russia; both constituted the means by which the agricultural surplus was diverted for industrial development.

Let us now examine the case of People's Republic of China where creation and mobilisation of marketable surplus has influenced the path of industrialisation and economic development to a great extent. The introduction of revolutionary land reforms and organisation of collective farms covering nearly 91.7% of the rural households have not only resulted in a substantial increase in agricultural production but have also made possible for the State to transfer to the Government, a considerable share of agricultural out-put. In China, the State is now the sole buyer of all important agricultural commodities with co-operative marketing societies acting as the agent of the Government. Besides monopoly purchase of food-grains and other important agricultural commodities, agricultural tax is also collected in kind. The agricultural tax accounts for about 10 percent of the total revenue. About 93 percent of the collection of the agricultural tax is made in kind and the remaining in cash.

Thus through the organisation of agrarian cooperatives, collection of agricultural tax in kind and provision of liberal credit facilities for production purposes, China has sought to increase the flow of marketable surplus for urban consumption and industrial development. The Indian Delegation which visited China in 1957 to study agricultural planning and techniques have pointed out that the increasing requirements of urban consumption arising from the accelerated tempo of industrial develop-

10. Studies in Agricultural Economics, Vol. III-Issued by the Economic and Statistical Adviser, Ministry of Food and Agriculture, India. Page-30.

11. For Further details see (a) Journal of Political Economy, Dec. 1951.

(b) The Economic Development of Japan, W. W. Lookwood, Page.....300-1

(c) A short Economic History of Japan, G. C. Allen, Page;...106

ment and the need for export of agricultural produce have been important factors which hastened the transition from a controlled market economy to the unified system of purchase and sale of foodgrains which have been developed since 1953.

How marketable surplus can play a limiting factor in the process of economic development is also illustrated by the experiences of post-war (World war II) period of the economic history of Poland. The sweeping land reforms inaugurated in the year 1944 and completed in 1949 brought about a revolutionary transformation in the agrarian economy of Poland. Availability of adequate credit facilities and organisation of collective farms with heavy investment resulted in the tremendous rise in agricultural output and thus the volume of marketable surplus increased in Poland.

The comparative examination and analytical review of the process of economic development and industrialisation of the different countries clearly highlights in the first place the importance of increasing agricultural productivity as a basis for rapid industrialisation and secondly the importance and the flow of marketed supply to sustain and quicken the tempo of development. Increase in productivity has been brought about by the organisation of collective farms and by heavy in-put of capital in the Soviet agriculture, by intensive farming with improved techniques on small farms in Japan and by organisation of co-operative farming in China. Measures to augment marketed surplus have also differed from country to country depending upon the nature of economic and social set-up of the country. Communist countries like the U. S. S. R., China and Poland have relied on the compulsory grain levies as a measure to mobilise the marketable surplus while Japan relied on heavy land taxes. But Collection of agricultural taxes in kind has been also been a means of generating the marketable surplus in China.

Against this background, we may now conclude that our State stands in great need for expanding the level of marketable surplus in order to bridge the gap of food deficit and to meet the growing demand of urban population.

The crucial role of marketable surplus in the field of economic development of the countries like ours clearly indicates that there would be a greater demand for marketable surplus in order to pave the way for rapid industrialisation and meet the growing needs of food grains and raw materials in the economy. Attempts must be made to safeguard the economy from being caught in the inflationary spiral resulting from an imbalance between the actual flow and demand for marketable surplus in a growing economy." With the increasing tempo of industrialisation and urbanisation, common in developing economy, the pace of flow of marketable surplus has to be stepped-up."¹² But before examining the measures for augmenting the flow of marketable surplus, we must make ourselves fully acquainted with those variable factors which may exert their influence on the demand for marketable surplus in future. Briefly discussed, these factors are the following :—

12. I bid- Page—232.

Food is the first requisite of human beings. As a result of growth of population in an economy, there will be pressure on the supply of food grains for the teeming millions. "Assuming that no changes occur in taste and income distribution, demand for food will be a function of population. This function can be further broken down into two parts; natural growth of population and occupational shifts of population."¹³ In Bihar, changes have taken place in both these directions and so increased demand for more marketable surplus is quite natural. As a result of the vast explosion in our population, there will be a greater demand for more food in rural as well as urban areas and thus there will be a marked pressure on the future demand for marketable surplus.

The second determinant of the flow of marketable surplus is the rise in the level of income. The income elasticity of the demand for food is relatively low for middle class families: that is as income increases, the demand for food rises, much less than proportionately. But for the poor class, the income elasticity of the demand for food is relatively high as the greater proportion in the rise of income is spent on the food and less is spent on other items of family budgets of this section. But it is an established truth that the rise in income results in the rise of consumption but less than proportionately. Failure of consumption to rise proportionately with a rise in income is a familiar economic relationship. Indeed, it is upon this relationship that much of stress has been laid by Keynes' analysis and his theory. Keynes' statement of the principle is that "men are disposed, as a rule and on the average, to increase their consumption as their income increases, but not by as much as the increase in their income"¹⁴. This has been particularly underlined by the Food Grains Enquiry Committee (1957) in the following words:

"The relevance of the consideration of changes in the per capita national income lies in the fact that all available data relating to the consumer expenditure, both past and more recent, show considerable income elasticities of demand for food-grains throughout the existing range of consumers income. This means that with higher income to spend, the consumers tend to spend a high proportion of the increased income on food-grains."¹⁵ This has also been confirmed by the National Sample Survey that with rise in levels of income per capita consumption of food-grains has increased to a marked extent in the lower income groups while it has remained fairly stable in middle income group."¹⁶ In Bihar two-thirds of the State population are half-fed and so an increase in the per capita income is bound to push up the demand for food-grains for which economy will require a greater volume of marketable surplus in the future. Any imbalance in the demand for and supply of the marketable surplus is sure to affect the prices of food-grains. If the marketable surplus is not augmented, the prices of food-grains will result in inflationary trend in the economy.

13. Agriculture and Industrialisation : Poi-King-Chang Page-24.

14. General Theory of Employment, Interest and Money; Keynes. J. M. Page—96.

15. Food-Grains Enquiry Committee, Govt. of India, 1957. Page—53

16. Quoted in "Agricultural Marketing in India." B. B. Mukherjee, 1960. Page—5.

A shift in the consumption pattern of the people is bound to be reflected in pushing up demands for those commodities in favour of which this shift takes place. A rise in the marginal propensity to consume as a consequence of the change in the level of income exerts influence on the consumption pattern of the people. In recent years, this change in consumption pattern has taken place in two directions viz. (i) Quantitative and (ii) Qualitative. Quantitatively, the demand for more quantities of the same farm product has gone up in the low-income groups and qualitatively, the consumption has shifted from coarse grains to superior quality of good grains. "The system of rationing has converted many who formerly used to live on coarse grains to eating rice and wheat, people who used to live on roots like tapioca or sweet potatoes are now transferring their demand to millets or coarse rice and people who used to take millets formerly are now gradually shifting over to rice and wheat."¹⁷ It is but quite natural that the introduction of partial rationing in towns and villages will surely change the consumption-pattern of the people and thus there will be a greater demand for marketable surplus in the future.

Quick tempo of industrialisation and opening up of new avenues of employment in cities and towns have attracted the migration of people from rural areas to urban areas. The pace of tendency of urbanisation has been facilitated with the development of transport and communication. The setting up of new industries in North Bihar like Barauni Oil Refinery Company Ltd., The Thakur Paper Mill, Samastipur and the The Ashoka Paper Mill, Darbhanga have attracted more labour force from their neighbouring areas resulting in urbanisation of these towns in a rapid way. Apart from this, the ex-zamindars attracted by the various facilities of town life have tended to settle in towns. The combined effect on the rise of the percentage of the urban population has gone up in the recent years.

The following tables will clearly show us the tendency towards urbanisation :—

TABLE NO. 3.2

Distribution of Rural and Urban population in the District of Darbhanga.

Census year.	Total population.	Population		Percentage	
		Urban	Rural.	Urban.	Rural.
1921	2,913,529	52,599	2,820,930	3.6	96.4
1931	2,166,094	104,823	3,051,271	3.7	96.3
1941	3,457,070	122,259	3,334,811	3.6	96.4
1951	3,769,534	160,091	3,600,443	4.2	95.8
1961	4,422,363	191,853	4,230,505	4.4	95.6

Source :—Bihar District Gazetteers (Darbhanga 1964) Page—58.

17. Ibid....Page-39.

TABLE NO. 3.3

The distribution of rural and Urban population of the district Saran.

Year.	Total population.	Urban population.	% of Urban population.	Rural population.	% of Rural population.
1931	24,86,737	70,475	2.81	24,26,262	97.19
1941	28,60,537	84,171	2.90	27,76,366	97.10
1951	31,55,144	1,26,158	4.00	30,28,986	96.00

TABLE NO. 3.4

The growth of population in some of the important towns of North Bihar since 1931.

Year	Name of towns			
	Muzaffarpur.	Darbhanga.	Madhubani.	Katihar.
1921	32,755	53,700	16,582	15,533
1931	43,049	60,676	18,789	15,864
1941	54,139	69,203	20,272	26,326
1951	73,594	84,816	23,283	42,365
1961	1,19,789	1,03,106	28,557	59,419

Source :—District Gazetteers of Saran, Muzaffarpur and Darbhanga Districts.

A glance at these tables clearly indicates that with the growth of population, the percentage of urban population has gone up steadily and so there is a tendency towards urbanisation. As a result of this urbanisation, the demand for superior food grains like rice and wheat will go up. Naturally, there will be a high pressure on the marketable surplus in the future.

Rapid growth of industrialisation has an important bearing on the future demand for more marketable surplus. In all the plans, emphasis has been laid on the significant role of industrialisation for economic development of our State economy. Though North Bihar does not possess great potentialities for industrialisation in comparison to South Bihar and the plateau of Chotanagpur, yet this part of our State presents great environment for the development of agro-industries. In the field of Sugar industries, this part has an important place in our country. Paper industries have a good future in North Bihar. As new industries will grow up,

the demand for good grains and raw materials will also increase. Concentration of labour from neighbouring and adjoining villages will naturally push up the demand for food. This future rise in the volume of supply will have to be met by increasing the size of marketable surplus. "Thus the farmers would have to be induced to part with a larger amount of marketable surplus to feed the non-farm and urban population."

In the foregoing paras, we have examined the main factors influencing the size of marketable surplus for an economy. Bihar being a deficit State in the field of food-grains, steps must be taken to raise the total production of agricultural commodities so that the flow of marketable surplus may be strengthened in the future. Now, we propose to examine in the next few pages the measures for augmenting the volume of marketable surplus.¹⁸

Having examined the role of marketable surplus in a developing economy and the different factors influencing its volume, we must now devote ourselves to the study of ways and means for augmenting and mobilising the marketable surplus in order to create exportable surplus in our agricultural sector. We have marked that it is not the total agricultural production rather it is the creation of marketable surplus which is more important in underdeveloped economies like ours. Naturally, the analysis of the techniques for expending and mobilising the volume of marketable surplus can not be neglected in our discussion. The pace and flow of marketable surplus will play a very important role in the next few years for two basic reasons (i) increase in the country's population; (ii) expanding food needs of the urban areas as the tempo of development and urbanisation increases. The rate of the growth of industrial sector and of non-agricultural employment depends, to a great extent, on the success with which we are able to transfer the increased production of food and raw materials to the urban-industrial-sector. If the quantity of food required to sustain a given increase in the industrial employment is not forthcoming either industrial development will be slowed down or inflationary pressures will develop in the country. "Hence mobilisation of agricultural surplus is ultimately a part of the problem of augmenting the investible surplus or savings in the economy."¹⁹

In course of discussing the various measures in the field under review, we must bear in mind the creation of marketable surplus poses no great problems in the case of commercial crops. But some times, the creation of marketable surplus even in commercial crops like sugarcane and jute has created problems for industries depending upon the flow of these commodities. But it is not the fall in the marketable surplus, rather it is the shrinkage in the total production that has been responsible for such a malady. Any how, it remains a fact that a high dose of incentive can produce a far healthy effect on the behaviour of agriculturist for expanding the volume of marketable surplus in cash-crops like sugarcane, jute, tobacco, chillie, oil seeds and pulses. The reason that these commodities are mainly produced for meeting cash-needs and purchasing non-

18. Studies in Agricultural Economics Vol. III-Page:33.

19. Problem of Marketable Surplus in Indian Agriculture B, Not Rajan (I. J. A. E.) Page—182

farm products from the sale of these commodities. Domestic consumption and house-hold retention in cases of commercial crops is very negligible.

The picture regarding the percentage of marketable surplus in case of food grains seems to be quite different as the consumption demands of the agricultural food producers are relatively great. Since population is increasing and the majority of the farmers are at a near subsistence level, an increase in the put-out of food grains tends to be absorbed by increased consumption. As the rate of growth in non-agricultural employment will depend to a large extent on the magnitude of transfer of food to the urban sector, means have to be devised to transfer a part of increased production of food grains, if this is not brought about by the automatic working of the market forces. "Thus to sustain an increasing tempo of development of the economy, it is essential that the magnitude as well as the flow of marketable surplus should be increased. This means that side by side with measures directed to raising agricultural productivity, steps have to be taken to ensure a larger flow of marketed surplus out of the increased productivity."²⁰

Measures for expanding and mobilising the marketable surplus may fall under two categories, viz. (i) Industrial changes and (ii) Technical changes. Here, we have introduced the word "changes" in place of techniques in order to demonstrate that it is the technical as well as institutional changes in the present structure of agricultural economy that can prove to be of great help in raising the volume of marketable surplus. Though these two changes are predominant in our economy consequently, we now propose to proceed on with the measures relating to institutional changes. As stated above, marketable surplus of food grains is the excess of production over the family requirements. The requirements here should be considered in a broad sense, so as to include not only the quantities needed for consumption of the family, but also those needed to pay to the labour and other services in kind and also needed for stocking feeding and seed purposes. Obviously, the marketable surplus can be increased either by discouraging the retention of the produce by the farmer for one purpose or the other or by encouraging the production. Let us see how far we can reduce the proportion of retention.

While developing the concept of marketable surplus, we have noted that it is a residual balance over and above the domestic requirements of the total production. Therefore, our first attack should be on decreasing the percentage of the farmers' retention kept for different purposes. So far as this sort of retention is concerned, the most important purpose is household consumption followed by the payment in kind, utilisation for seed and stock feeding. With progressive monetisation of economy, the practice to pay in kind is on the verge of decline. But recent abnormal rise in the prices of foodgrains has once more attracted the agricultural labourers to demand their wages in kind. On personal investigation, I found that at present nearly cent percent of the rural labourers demand the payment of their daily wages in kind. This tendency of labourers

workidg in rural area clearly indicates that there is a little scope for reducing the percentage of reserves to be used for the payment of wages in kind. Since the emphasis in our Fourth Plan is on achieving targets of agricultural production mainly through higher yields rather than extension of cultivation, the requirements of seed will also not go down significantly. On the other hand, in view of the stress being laid on live stock and poultry development, it seems certain that a higher percentage of food grains production like jwar, Bazara, Millet and Khesari would have to be retained for stock feeding. Thus the only way left to the farmer's retention is to discourage household consumption. Is it possible to cut the proportion of the grains retained by the agriculturist for household consumption? Can we tighten our belt more for releasing foodgrains for urban population? Obviously not. It will certainly be against the principle of equity to expect the small producers to tighten their belt further. It may encroach upon the subsistence living of small producers and may even impair their health and efficiency.

It is a well-known fact that in developing economy like ours the the marginal propensity to consume is high. The income elasticity of demand for foodgrains is also very high-much higher than in developed countries. Thus with an increase in level of incomes consequent on the execution of development projects, many of the farmers being small producers would tend to consume more of their farm produce or switch on to the consumption of superior cereals. Naturally, this would result in the the reduction of the marketable surplus. It is, therefore, obvious that left to the forces of market, the retention of goodgrains by the farmers for house-hold consumption would increase at least in the initial stage of economic development. Thus, the only alternative is to revolutionise the outlook of the farmers who are oriented towards family needs rather than the market demand. In subsistence sector, the farmer's main objective behind this farm production is not to move his produce to the market, rather to preserve it for domestic consumption. Our farmers being deprived of these rupees lack in the consciousness of business initiative. "In case, the marketable surplus of food grains is to be augmented, it is necessary to make the farmer more market-conscious so that his requirements of nonfarm products which are now very limited show a progressive increase."²¹ One way to stimulate the flow of marketable surplus, is to encourage sale of articles of consumption like cloth and kerosene oil etc. on payment (in kind) basis in rural areas. The adoption of hire-purchase system will also stimulate demand for such articles as bicycle, radios and cosmetic goods. Here the consumers' cooperatives can play a vital role in mobilising the marketable surplus. All the articles of daily use (non-farm products) may be supplied by these co-operatives and the farmers may be encouraged to pay their prices in kind. This would naturally push the flow of marketable surplus.

Apart from the articles of consumption for which payments are made, there are a number of pre-requisites of production such as fertilisers, improved seeds, insecticides, cement, etc., which can be purchased mainly in market; Again, according to the criterion laid above, the

21. Ibid Page, 75.

marketable surplus would increase only if the prerequisites of production are made available at relatively high prices. But in actual practice, this may act as disincentive in the way of adoption of improved methods of cultivation, it is therefore, very necessary to make these items of requirements available (in kind) on loan basis and also on subsidised in case there is not much demand for them. Here the service co-operatives can transact this sort of credit business. The capital-equipments of farm may be made available to the member-agriculturists on credit basis and they may be induced to execute a bond for paying off their dues in kind. Besides this, the agriculturists may be persuaded to pay the share, money of the village co-operatives partly in cash and partly in kind. Though these institutional changes may not be successful in discouraging the domestic consumption and thus reducing the farmers' retention yet they may push up the level of marketable surplus making it available for the consumption of urban population.

Extension and growth of monetisation in rural economy can stimulate greater flow of marketable surplus. In rural sector, most of the village sales transacted by women folk in shape of "Bencha" is an example of monetised marketing. In true sense, it is a sort of barter economy. Most of the consumption-needs of village economy is in kind. At present 45 percent of other total consumption in the rural sector is non-cash. In the words, barter sales are frequent in some areas even at the present day. "Tharus" living in the Northern side of Champaran district, generally represent the character of barter economy where the percentage of non-monetised marketing is high. Similar picture can be seen amongst the Adivashi living in the Chotanagpur Division of the State. Rapid development of educational facilities and means of transport can encourage the tendency of monetisation in such rural areas and with a progressive monetisation of economy it can be expected that the farmer will tend to part with a larger and larger amount of his produce for meeting his cash-needs. It should not be forgotten that progressive monetisation of the economy is only a long-term process which takes place very gradually. But it remains a fact that the growth of monetised marketing will no doubt have a favourable effect on marketable surplus. As this institutional change in our socio-economic structure can bear fruit in the long run, other measures for expanding and mobilising marketable surplus will have to be taken.

Expert of Agricultural Economics have some times discussed the payment of land revenue, irrigational fees and agricultural income tax in commodities as a measure to give a fillip to the flow of marketable surplus. The rise in the prices of agricultural commodities specially after the Second World War has improved the retentive capacity of the cultivator. The land revenue of our country has remained virtually static for the entire period of the Second War and post-war years till 1949-50. In Bihar, the land-revenue has been revised only after Zamindari Abolition in 1950-51. What this analysis indicates is that the "cash needs of the cultivator are never very long large and most of them, such as for rent and land revenue, have remained unchanged over a long period".²² With agricultural prices

22. Report on Market Arrivals of Food grains, Session 1958-59. (Directorate of Economics and Statistics, Ministry of Food and Agriculture, Govt. of India, 1959) Page—22.

standing several times above the pre-war levels, the real burden of the tax demands in fixed monetary terms has become much lighter. This *prima facie* warrants assumption of large stock with growers who can now meet their tax liabilities by parting with smaller physical quantities of farm output. A study of the price changes of agricultural commodities and of consumer goods of industrial origin leads generally to the conclusion that terms of the trade of agriculture have improved over the last two decades. The relative improvement in the bargaining capacity of the agriculturists as a consequence of the reforms made in the field of Agriculture marketing have enhanced the hoarding capacity of the cultivators. All this has resulted in the shrinkage of the marketable surplus. Therefore, one way to mobilise the surplus in agricultural sector may be the collection of land-revenue and irrigation charges in shape of agricultural products. This suggestion may be supported by the experiences of the Russian and Japanese economies.

An experiment on this line may be made in the selected panchayats of the package Programme Areas of the State. Co-operative societies of the concerned Panchayats may be entrusted with the collection of the land revenue of the area in collaboration with Panchayats and the collecting institutions may be given a good margin of commission i.e. a slightly higher margin of the commission than what is being given to the Panchayats for the collection of land revenue at present in our State. This may encourage the co-operatives to take up this new business with a great zeal. Though this suggestion sounds well, still there are certain inherent difficulties in introducing this scheme even on experimental basis. Since most of the payments will be small and will be in dribbles, the cost of collection will be inordinately high. This means that collection of land revenue and irrigation charges in kind as a means of increasing the marketable surplus is not justified on the principle of economy.

If this measure cannot be put into practice owing to reasons more than one, as an alternative, we can resort to the measure directed to the collection of the prices of fertilisers and seeds in the form of gains. Here again the difficulties of collection from a large number of small producers have to be taken into account and unless the entire distribution of the fertiliser is not made through a single agency in the village, the difficulty of collection is bound to persist in one way or the other. Moreover, in our State the co-operatives are not well-developed to take up this business. When the village co-operatives have failed to supply the fertilisers to the agriculturists and act as an agent for the distribution of fertilisers in their respective areas, we cannot hope much from co-operatives in this field.

Experiences in the other States like U. P., Maharashtra, Madras and Punjab have shown that the gradual development of regulated markets have encouraged the quantum of the arrivals of food grains in such markets. Regulated markets promote fair market practices and save the cultivator-sellers from the arbitrary deductions and other malpractices. Thus well organised system of regulated markets of important mandis can easily serve two important services i.e. firstly, it can reduce the proportion of the market charges and secondly, it can tone up the flow of arrivals in the markets. Therefore, regulated markets should be organised on a sound

line covering the important marketing centres of our State. Though a start has been made in the regulation of markets in our State, yet the progress in this field has been miserably poor. Except a few markets that can be counted on fingers like the market of Kushanganj and Sasaram, all regulated markets of our State are on paper.

A well-defined price policy coupled with income-support programme may constitute a powerful instrument for facilitating a larger flow of marketable surplus. "One of the major uncertainties which afflicts farming activity emerges from not the infrequent phenomenon of a sudden precipitous fall in prices of agricultural commodities."²⁸ The agriculturists must be assured of minimum return of their produce as an inducement to the flow of farm products in the market. To impart a certain measure of stability to the market and induce the growers to dispose of a larger amount of their marketable surplus, it is imperative that reasonable minimum prices for principal food grains should be announced at the time of harvest and the prices should be kept stable for over a period. Such programme will act as an incentive to the agriculturists for marketing more of his produce and so the volume of marketable surplus would increase.

Multiplicity of intermediaries in the marketing organisation also restricts the flow of marketable surplus and hence their elimination is essential. It has been noted that what is marketed by the farmers does not often reach the ultimate consumers because of the activities of intermediaries. A more direct and close relationship should be established between the producers and the ultimate consumers. Improvement in our marketing structure can solve this problem. What is surplus in agricultural sector must be brought to the market for non-farm population. Agriculturists can be persuaded to market his surplus produce with the improvement in the existing marketing arrangements. No doubt, efforts have been made to reorganise our agricultural marketing, but with no result. What is ultimately needed is the establishment of co-operative marketing societies of farmers which will establish direct link with consumer co-operatives in urban areas. This will ensure a social control over the flow of surplus to urban consumers, and at the same time it can eliminate artificial scarcities generated by anti-social elements. But alas! the movement of co-operative marketing has failed to a great extent in our State.

Reforms of the existing system of land tenure and consolidation of holdings have a great impact on the farmers' incentive for more investment in the land and this to raise the productivity of agriculture. One of the principal impediments to efficient cultivation in Bihar is that agricultural holding generally consist of scattered fields lying at considerable distance from one other. Size of holdings of land has a close relationship with the magnitude of marketable surplus.

The following table will clearly show this relationship. It may be noted that for increasing the volume of marketable surplus the size of the holding of land between 50 acres to, 150 acres is desirable.

28. Report of the Agricultural Prices Commission for 1965-66, Page—1.

TABLE NO. 3.5

Distribution of Marketed Surplus by Size-level of Holding,

Sl. No.	Size of the farms in acres.	Marketed surplus as percentage of total production,
1.	1.25 and less.	5.8
2.	1.25	32.0
3.	2.50	34.6
4.	3.75	15.1
5.	5.00	35.5
6.	7.50	37.3
7.	10.00	34.2
8.	15.00	36.6
9.	20.00	26.8
10.	25.00	23.8
11.	30.00	26.2
12.	40.00	21.7
13.	50.00	50.0
14.	100.00	53.6
15.	150.00	39.5

Source :—A. M. Khushro; Reflection of Redistribution of Income, Wealth and Opportunities in India : 1950-60. Enquiry No.—4.

The table suggest that consolidation of holdings coupled with the introduction of cooperative farming can greatly help us to raise the level of marketable surplus. "For one thing, the little surplus emerging on a number of small farms, which may otherwise be frittered away, are brought together to form a sizeable pool in the cooperative farm." But recent investigation into the working of the cooperative farming in Bihar has shown that it has failed to achieve its objectives in total.

We have already examined the institutional change that can help us in raising the marketable surplus in our State. But the originating point of the agricultural surplus is the total production. Unless, total production is augmented, we cannot expect greater flow of marketable surplus. Thus the main problem of the creation and mobilisation of marketable surplus is the problem of raising our agricultural productivity. Institutional changes in the field of credit, marketing and land revenue will not only affect the creation of marketable surplus rather they will have a simultaneous effect on the productivity of the land. But the technical factors are more important in raising the total production of agricultural sector. Under this head, improved variety of seeds, more irrigational facilities, adequate and timely supply of credit protection farm insects and use of chemical fertilisers may be mentioned. We do not want to examine these factors

in detail as most of them have been discussed in a separate Chapter and remaining factors do not come under our reference.

Mobilisation and augmentation of marketable surplus in agricultural sector has to play a significant role in the field of industrialisation and economic development of an agrarian economy. Social and economic changes as a consequence of economic planning are expected to influence the future demand for more marketable surplus of food-grains and raw materials. Failure to raise the level of agricultural productivity in response to the growing needs of urban and rural population may result in the vicious circle of inflationary spiral. This may act as a limiting factor in the process of economic development. Naturally, ways and means have to be devised to raise the level of marketable surplus in subsistence sector. But the real solution of the problem would lie in increasing actual production.

However, a mere increase in the volume of agricultural production is not sufficient unless the surplus created in the agricultural sector is mobilised efficiently and regularly. Thus the problem of increasing marketable surplus requires double-barrel attack i. e. on the one side, the total volume of production in agricultural sector has to be raised with the help of improved techniques of farming coupled with institutional changes in our agricultural sector and on the other farmers have to be induced to release greater portion of their surpluses for other sectors. An efficient marketing may work as an incentive in both these directions.

this institution. But now most of the major kaccha roads have been transferred to the P. W. D. and villages roads connecting the village with Pucca or main roads have come under the control of Gram Panchayats. Lack of adequate funds at the disposal of Gram Panchayats is one of the basic factors which has restricted the rural road development. The state Government of Bihar has recently organised a separate department "Rural roads Development Department" under the community Development Department of the State Government whose main objective is to develop the village roads. But it will take still some time to reach the objective laid down by the Nagpur Plan (1943) that no village in an agricultural area should remain more than 5 miles from the main road and that no village in non-agricultural area should be more than 20 miles from the main road.

If the east tract of north Bihar is illequipped with proper villages-roads, the position of metalled roads is also every appalling and insignificant. It is only after Independence that some progress has been made in the construction of Pucca roads in our State but still the percentage of the total metalled road in North Bihar is far less than in South Bihar. There are nearly 50,000 miles of roads in our State in which 82% consists of local road and village-roads and rest 18% comprises of National Highways, State High ways and Major District Roads. But major portion metalled roads falls in South Bihar. Thus North Bihar is extremely poor in having all weather roads. If Nature has favoured the northern side of the holy Ganga with fertile land, it has also given some furious rivers for plunging the major portion in flood during rainy season. Naturally, North Bihar is in disadvantageous position in enjoining the privilege of metalled roads. There are natural difficulties in the construction and maintenance of metalled road in the Northern part of this State, specially in those areas which are frequented by heavy floods. "North Bihar presents difficulties in the quick development of any road system. Coal, Stone, metal, steel and cement have all to be transported with considerable difficulty and against a number of bottleneck." ³ The entire region falling on the northern side of the river Ganga constitutes a huge drainage basis for a large number of rivers and streams originating from the Himalayan Range, some of which present a horrible scene during the rainy season by rendering many villagers homeless. This has involved a huge expenditure in construction of many costly drainage structure for a satisfactory system of communications. Flood become so terrible on many occasions that railway lines have been washed away on several occasions by the swift current thus dislocating the communication.

In the districts of Saharsa, Darbhanga and Purnea the construction of metalled roads is particularly difficult owing to the unpredictable character of the Kosi river,—“Sorrows of North Bihar.” The Kosi Project works have tried to stabilise the flow and in its work a large number of bridges have been constructed which have facilitated the construction work of metalled roads in North Bihar, but still its position in respect of metalled roads in comparison to South Bihar is far from satisfactory.

3. Bihar, (Issued by the Public Relations Dept., Govt. of Bihar), 1960-61
Page---172

In the matter of surfaced roads, the position is really disquieting. Considering the fact that the factors for development of industries are so favourable in this State, the State should have been leading other States in the length of surfaced roads, but when the position is compared with the average figure of India, we find this State almost at the bottom of the ladder. This will be borne out from the following details. We may skip over the small percentage of Air transport in the State which is really of limited importance. So far the question of bringing agricultural produce to the market concerned, Export Mangoes and Lichis on other agricultural commodity reaches the market through this medium of transport. Thus there remains (a) Roads (b) Railways and (c) Water transport system for discussion.

Roads :—So far, the roads are concerned even on the eve of third Plan⁴. Thus, even at the end of the Third Five Year Plan, if implemented as planned, the population-wise State average (roads mileage population) is still to remain below the average of 1956 figure for India as a whole. If road mileage per million population and per thousand square miles is broken into North Bihar and South Bihar, the former will show a very poor picture. It must be noted that North Bihar is mainly agricultural in character, the South Bihar particularly plateau of Chotanagpur is the seat of mineral resources and has got vast industrial-potentialities. But "if agriculture and industry are the back bones of the national organism, transport and communication are its arteries."⁵

TABLE NO. 1.5

4. Statement showing the length of surfaced and road mileage to per million population and per thousand sq. miles.

Year.	Length of surfaced roads	Road mileage per million population.	Road mileage per thousand sq. miles.
India (1956)	1,01,141 miles.	312 miles	104.0 miles.
India (1961)	1,44,000 miles	445 miles	148 miles.
Bihar (1956)	4,756 miles.	122 miles.	70.7 miles.
Bihar (1961)	5,330 miles.	163 miles.	94.5 miles.
Bihar (1966)	7,800 miles.	200 miles.	166.0 miles.
(On the basis of the Plan)			
P. W. D.	6,500 miles.		
I. S. G.	1,300 miles.		

With the transference of the District Board to the Govt. a good number of Kaccha road mileage connecting the sub-divisional headquarter to Block headquarter has come under the P. W. D. and now it has become possible to increase the road mileage of metalled roads in the State. In

5. J. C. Jangir; Indian Economy; 1965 Page—502.

the planned development, the crucial role of transport system in State economy has been recognised in the following words; "If there are no veins and nerves in a human body the flow of blood in the different parts of the body will not be possible with the result that the human body will cease to exist. Just as for the existence of a human body, it is essential that there should be proper veins and arteries, it is necessary that there should be a net work of roads all over the country for its proper and integrate working and development."⁶

Before the dawn of independence, the country had very bad roads and so was the case with the State of Bihar also. During the Second World War, the conditions of roads of Bihar deteriorated considerably for want of materials and repairs. Subsequently, First Five Year Plan, Second Five Year Plan and Third Five Year Plan have been formulated for the improvement of roads.

At the time of Independence in 1947, the Bihar Public Works Department had only 1,315 miles of roads under their charge, out of which 201 miles were in North Bihar. During the period under review, the total length of the metalled roads in Bihar under P. W. D. was only 897 miles, out of which North Bihar had only 32 miles of metalled roads."⁷

In the Post-war period, the P. W. D. was entrusted with the special responsibility for improving the old roads and constructing new ones. North Bihar was extremely backward in the matter of good roads. Tremendous efforts were required to develop road communication in the North Bihar.

The progressive development of roads in the State started with the Post-war Road Development Scheme prepared on the basis of recommendations contained in the Nagpur Plan of 1943. This Scheme, however, was actually started after Independence. The mileage target laid down in the Nagpur Plan was of the pre-Independence era and naturally did envisage the tempo of development obtaining now.

The First Five Year Plan was the starting point in our planned development. This State Plan⁸ envisaged an outlay of Rs. 11.04 crores on road development which was approximately 15.1% of the total outlay of the State Plan. In spite of transport difficulties and scarcity of road building materials, the result achieved at the end of the First Five Year Plan, was gratifying. In 1956, the mileage of road under P. W. D. went up to 5,544 miles which metalled and surfaced road were 3,707 miles. The share of the North Bihar in this period rose to 1,804 miles against 201 miles in 1947. The road mileage of the State increased four times and that of North Bihar nine times and all this was more than the plan target.

The Draft Outline of the Second Five Year Plan was so ambitious for the development of road and communication that it proposed an out-

6. Bihar; 1962-63, Page-192.

7. Bihar; 1960-61, Page-171.

8. Third Five Year Plan of Bihar, Page-28

9. Bihar; 1963-64, Page-186

lay of Rs. 45 crores¹⁰ for their the development with in the State. But this allotment was drastically cut down to Rs. 15.06 crores, which was nearly 8.25% of the total outlay of the State plan. Even essential demands for more and better roads for the industries and the people could not be met. The plan Schemes executed by the P. W. D. of the Government of Bihar during the Second Five Year Plan may be grouped under the following three categories :—

- (i) Improvement of State Highways.
- (ii) Improvement of Roads around Sugar Factory area.
- (iii) Improvement of Roads around Jute growing area.

Under this scheme, the target fixed was to spend Rs. 1,275.46 lakhs over the improvement of 1,452 miles of roads during the Second Five Year Plan. Against this, P. W. D. spent Rs. 1,318.31 lakhs and improved 1,465.5 miles of roads, thus P. W. D. achieved both financial and physical target in each year of the Second Five Year Plan.

This scheme is a part of Agricultural Sector of the plan. Selection of roads to be executed under this scheme is made by the Agriculture Department. P. W. D. is responsible for only executing these schemes. The department improved about 145 miles of roads under this scheme against the target of 133 miles. Apart from this, the Sugar Factories have also taken initiative in improving the roads falling under "reserved areas". They have created "Development Fund" which finances the road construction around factories. But villages falling within the radius of five miles only are covered under this scheme. Any how, these factories have added to the total mileage of metalled roads of our State.

Purnea district is the most important region for Jute cultivation where inadequate facilities of metalled road is a problem in marketing Jute. For improving the roads in such areas, a new scheme in the Agriculture sector was initiated in 1959-60. Actually speaking, the work started in 1961 and during 1961-62, about 59 miles of roads in Jute growing areas, were improved.

Thus at the end of the Second Five Year Plan, the P. W. D. had 7,645 miles of roads, of which 3,100 miles fall in North Bihar. The total mileage is over 6 times of the 1947 level, while in North Bihar, the road mileage increased by nearly 15 times. The length of the metalled roads increased from 897 miles to 5,300 miles during 1947-56 of which North Bihar got 1,600 miles against 32 miles in the pre-Independence period, thus recording 50 times increase.

The road development in our State under the Third Five Year Plan is based on the recommendation of the Second All India Road Development Plan, 1958, which was drawn up by the Chief Engineers of Central and the State Governments under the direction of the Government of India. This is a twenty years plan stretching from 1961-81. It envisages an increase of road mileage of India from 3,32,000 miles in 1957 to 6,57,000 miles in

10. Ibid; 1963-64, Page-186

1981. Bihar will have nearly 54,339 miles of metalled road by the end of this ambitious plan.¹¹ On the pattern set out in the Second All India Road Development plan (1961-81) the Third Plan of our State was drawn up which envisaged an outlay of Rs. 32 crores in the proposed plan. As usual, it was slashed down to Rs. 19 crores which is nearly 14.8% of the total outlay of this plan by the planning commission. The P. W. D. has been allotted Rs. 17.45 crores only, the balance Rs. 1.55 crores is the share of the L. S. G. Department.

A road connecting to States or two countries is known as National Highways. In other words, the roads which are the main highways running through the length and breadth of India, connecting parts, foreign highways, capital of States and including roads required for strategic movements for the defence of India, are known as National Highways. The concept of National Highways was firstly originated by Sher Sah. Such roads are planned and financed by the Govt. of India, but the State Government through which such roads pass are also responsible for the execution of such roads. In the North Bihar, notable National Highways are :—

- (i) Sugauli-Raxaul road, upto the Nepal boarder.
- (ii) Peparakoti to U. P. boarder.
- (iii) Muzaffarpur-Barauni-Khagaria and Phulwaria Section connecting West Bengal and Assam.

Except the road from Piprakoti to U. P. boarder, all are complete. Road bridges on the Muzaffarpur-Barauni-Khagaria Section are under construction. Such roads have immensely benefited the agriculturists of the North Bihar, specially the vegetable and fruit growers. Direct truck traffic from Calcutta has opened new avenues for such cultivators.

The Government of India have decided to undertake the development of Lateral roads covering 1,100 miles along from Barailly in U. P. to Amingaon in Assam passing through Bihar and West Bengal and across the Northern boarder of India for the purpose of all round development of the country. The length of this road in Bihar is nearly 411 miles, which is entirely in North Bihar. In North Bihar, it will pass through Gopalganj, Pipara Kothi, Muzaffarpur, Begusarai, Purnea, Araria, Bahadurganj and Galgalia. Besides this, there would be link roads from Sugauli to Betiah, from Muzaffarpur to Darbhanga and from Araria to Forbessganj, Pratapganj, Narpatganj, Supaul and Maricha.

A separate wing of the I. D. A. (The International Development Association) in the State P. W. D. has been created to handle only the specific National Highways which are financed by the loans obtained by the Govt. of India from International Development Association, Washington. Out of the total aid of Rs. 29 crores given for India upto the year 1966 about 50% has been received by Bihar.¹² This Scheme consists of constructing nearly 500 miles of roads in our State.

Thus by the end of Third Five Year Plan, Bihar has 9,108 miles of metalled road which consists of 1,120 miles of National Highways, 6,126 miles of State Highways and 1,852 miles of the Major District Roads.

11. Ibid. Page—187.

12. Third Five Year Plan of the P.W.D., Bihar. Page...13.

TABLE NO. 4.1

Statement showing the progressive construction of metalled roads in Bihar during Plan Periods.

Year.	Total mileage of important roads.			Total.
	N. H.	S. H.	M. D. R.	
1956.	1,101	3,580	863	5,544
1961.	1,120	5,112	1,412	7,644
1964.	1,120	5,892	1,572	8,584
1966.	1,120	6,126	1,862	9,108

Source :—An Intricm Appreciation Report on the Highways C.P.W.D.

In Eastern region which consists of Bihar, Orissa and West Bengal, Bihar will lead in the metalled roads construction. West Bengal and Orissa can be poorly compared with Bihar as they will have 3,656 and 5,462 miles of roads by the end of 1966-67.

TABLE NO. 4.2

Statement showing the total mileage roads, road mileage (pucca) per thousand square miles and per lac of population (district-wise of North Bihar) upto 31. 3. 64.

Name of District.	Total mileage.	Mileage per thousand of sqr. miles.	Mileage per lac population.
1. Muzaffarpur.	532.14	18.29	13.44
2. Darbhanga.	677.25	20.25	15.34
3. Saran.	512.26	11.69	14.27
4. Champaran.	515.14	14.50	17.13
5. Purnia.	510.14	11.99	16.55
6. Monghyr.	500.54	14.59	14.77

Source :—Third Five Year Plan' Bihar.

It is apparant from the above table that in North Bihar Darbhanga had the longest road mileage from the point of view of length and per thousand square miles. But on the State basis, the district of Singhbhum has the smallest (7.82 miles) road mileage per thousand miles where as the district of Dhanbad has the longest road mileage per thousand sqr. miles (26.56). But from the population point of view, Ranchi district has the longest road mileage (28.37 miles) per lakh of population and Patna district is the poorest (15.05).

The Chinese aggression of 1962 has alerted the State Government to the construction of metalled road along the boarder districts of our State. A scheme for construction of boarder-roads is under the active consideration of the State Government. The construction of such roads will not only strengthen our defence, rather it will also open new avenues to the boarder areas. It is expected that the roads development in the district of North Bihar will prove a boon to our poor agriculturists and will give an impetus to our industrial programmes. "Transport and communications are essential economic overheads and must always go ahead of industrial development".¹³ There is a proposal to construct a road connecting the boarder districts of North Bihar commencing from Raxaul in Champaran district to Jainagar of Darbhanga.

The State is served by railway net work with different guages; the North Eastern Railway (meter guage), the Eastern, South Eastern and North West Frontier railway (broad-guage), the four light railways in South Bihar and the narrow guage railway in Chota Nagpur. The bifurcation of the State by river Ganga divides the railway net-work, into two different systems.

Prior to the construction of railway-cum-road bridge at Mokameh, there was no direct railway link between the North and South Bihar. Steamer ferries were the only connection links between North South Bihar. Naturally, North Bihar was a great sufferer for supply of essential commodities and transporting agricultural commodities like tobacco, Chillie etc. to the other parts of the country until a railway-cum-road bridge was built on river Ganga connecting Mokameh in Patna district with Barauni in Monghyr district. It is only after the opening of this bridge ("Rajendra Pul") in the year 1959 that North Bihar has been brought nearer to South Bihar. Now from Patna, the capital of the State, one can easily motor to practically all the districts of North Bihar except Purnea. This bridge has intensified the movement of food-grains from either sides by truck traffic. The construction of railway-cum-road bridge at Mokameh has proved a great boon to the cultivators of Northern Monghyr, Samastipur sub-division of Darbhanga district. A great quantity of Chillies tobacco and mangoes is directly transported from these areas to Calcutta, and important industrial centres of the Chotanagpur plateau. This has thus cheapened the transport facilities which have provided the cultivators with the benefit of higher prices in distant markets. In other words, since the opening of this bridge, a notable improvement in the economic condition of the cultivators belonging to the neighbouring areas has been marked.

A similar bridge on the Ganga near Patna to link North and South Bihar is a vital necessity for commercial, industrial and economic development of the State as a whole. It will be a great boon to the Hazipur Sub-division which has specialised to a great extent in the production of vegetables and bananas. At present these agricultural products of this area are being transported from Konhara and Bhairampur ghat by country boats which entail much time and transport cost. Opening of this bridge at Ganga near Hazipur will provide a direct route for truck traffic which will

13. Techno-Economic Survey of Bihar, Vol. II; 1959, Page.....53

take less time than country boats. The Government of Bihar have made a detailed survey of the area around Patna and Chanchar. Aerial land survey, river survey, cross-sections of the rivers, flood observations, collection of geological and hydraulic data and a tentative selection of sites have already been done. The Poona Hydraulic Research Institute has recommended the site at Raghapur (near Hazipur). Opposite Patwah (Patna district) for the construction of this bridge on the Ganga. The scheme has been included in the Fourth Five-Year Plan. A road bridge crossing the river Ganga at Buxar to link U. P. with Bihar is also under active consideration of the Central Government.

There is also a pressing need to restore the direct link between Bagahan and Gorakhpur for shortening the distance to U. P. by nearly 250 miles. Bagahan had a railway bridge on the river Narayani (Burhi Gandak). But this has been cut off by the collapse of the railway bridge at Bagahan in the year 1924. This line is most valuable for carrying the grain traffic of Nepal and North Champaran.

But the water transport is on decline. Competition between road and railway and the higher of "Conservancy" are the main reasons for this decline. "In the existing conditions of Bihar's economy which is insufficiently served by road and rail, inland water transport does have a place."¹⁴ The completion of Multipurpose-River valley projects viz, the Gandak Project and the Kosi project, will give an impetus to the development of inland water-transport in North Bihar. There is a need for establishing a public Corporation known as "State inland Water Transport Corporation" which should be responsible for the development of inland waterways in our State. The possibility of providing power for country boats, extensively used for cross-river and short distance hauls, should be considered, as this would help to speed up much traffic. The State Government in the labour Department originally submitted a scheme for developing Inland Water Transport in Bihar at the estimate cost of Rs. 3.62 crores to the Govt. of India and requested for its inclusion in the Third Five Year Plan. The Government of India recommended to the Planning Commission for making provision of Rs. 40 crores for developing water transport in the country, out of which a sum of Rs. 2 crores was proposed to be allotted to Bihar. But the planning Commission agreed to make provision of Rs. 5 crores only for the whole country and in view of this drastic cut, the Government of India recommended to the planning Commission that out of this provision a sum of Rs. 55 lakhs should be earmarked for Bihar. But as yet it has not been possible for the planning commission however, to make any provision for commercial inland water transport services. A fresh Scheme has now been sent to the Government of India.¹⁵ As the railway system is State owned and managed, there appears a justification for nationalising water-transport for bringing co-ordination between the two systems of transport. It will also contribute towards the smooth running of different modes of transport system". Just as, inspite of the advent of motor lorries,

14. Ibid.—Page—...67

15. Bihar; 1963-64 Page—...168

the bullock cart has an assured place in our transport system, so also the boat traffic is likely to remain the cheapest means of transport"¹⁶

Inland water transport in India has a very brilliant past. In pre-British days, the inland navigation of India was very important. As roads and railways had not developed by those days, the inland water transport played an important role in transport. "The introduction of steamvessels in North East India during the early part of 19th Century completely revolutionised inland water transport and assisted in the growth and development of the indigo industry in Bihar, the Jute industry in Bengal and the tea industry in Assam, Sylhet and chcher valleys, and brought down the products of these areas to Calcutta for distribution to world markets."¹⁷ "Inland waterways played an important role in the transport system of India till the middle of the nineteenth century."¹⁸ Since then on account various factors including the development of railway and withdrawals of large amounts of water for irrigation, water transport has been steadily declining. But even to-day, in some areas of this vast country, inland water transport carries considerable amount of freight traffic. Nearly 93% of the Assamese tea and 90% of her Jute are transported by waterways. "Assam will have to continue to depend on the river transport system as hitherto, not only for its export of jute and tea, but also for the large tonnage of by-products for the new oil refinery, the expanding timber production and various other transport requirement connected with industrial and economic development of the State."¹⁹ In the North Bihar, water transport occupied the place of chief means of communication before the development of railway in this part. Rivers were the chief means of communication before introduction of the railways. "The Statistical Report" for August, 1876 mentioned that "the principal river as means of communication in Tirhut were the Great Gandak, the Bagmati and the Burhi Gandak. The rivers carried the produce of the Eastern Tirhut to Calcutta."²⁰ "Revelganj in the district of Saran, appears as the second largest river mart on the river Ganga. In exports, it stands first of all, but in imports it is headed by Patna; and the average of both exports and imports added together exceeds ten lakhs of mounds per annum."²¹ Though the river Ganga acts as a boundry line between North Bihar and South Bihar, no important town has developed in North Bihar along the river-bank of the Ganga. All commercial centres situated on the bank of the Ganga fall mostly in South Bihar. Rivers like the Burhi Gandak, the Kosi, and the Gandak have got an important place in inland water transport. The Ganga passes in North Bihar touching southern borders of the districts of Saran, Muzaffarpur, Purnea and northern side of Monghyr. Naturally important Ghats have developed on the Northern bank of the river Ganga which serve as transporting centres agricultural commodities. Notable among them are Sinha Ghat, Dighwara Ghat and Pahleza Ghat in Saran district, Mahanar and Bhairapur in Muzaffarpur district, Sahpur Kamal in Monghyr district and

16. Rural Marketing and Finance; (N. P. C.) Page—65.

17. Report of the Inland Water transport Committee (Govt. of India), 1956 Page :—...16

18. Second Five Year Plan (India); Page—...486.

19. Ibid; Page...22.

20. Bihar District Gazetteers (Darbhanga); 1964; Page—363

21. Bihar District Gazetteers, (Saran); 1960; Page—265

Manihari Ghat in Purnea district. Besides country boats, private steamers also ply from these Ghats to the other important business centres. "Boats carry agricultural produce (Sugar, rice and grains) from Bihar to Assam, ranging about 50,000 to 60,000 maunds per month and on the way back these boats load Jute, timber and other products in Aassam for exchanging at Calcutta."²²

What sort of conclusion can now be drawn from the above analysis? Can we satisfy ourselves with the adequacy of cheap and quick transport facilities that are available in our State? Our answer is naturally negative. If any progress of metalled road has been made, it is in Sourth Bihar and the Chota Nagpur plateau. North Bihar is poorly served by railways and road transport. The State as a whole has the density of roads to the extent of only 12 miles per 100 sq. miles of area against 30 miles in Madras, 33 miles in Kerala and 25 miles in West Bengal. In Bihar there is only one vehicle for a population of 1000 against one vehicle for every two persons in the U. S. A.²³ Similar is the case with the railway transport. On the whole North Bihar is poorly served with inefficient system of transport and communication facilities. If Bihar is to be given a place of pride in the industrial map of India, transport system has to be developed to meet the growing needs of our economy.

22. Techno-Economic Survey of Bihar, Page—...67

23. Speech delivered by Sri V. Narayan, Chairman of the Sonal Conference of the Indian Roads and Transport Development Association Ltd., New-Delhi—May, 30, 1967, (Published in the Search Light, dated 31. 5. 67).

CHAPTER V

THE ECONOMICS OF STORAGE AND CONSERVATION.

The function of storage is regarded as the second foot-step in the field of agricultural marketing, the first being the assembling of the produce at the farm level. Movement of agricultural products from the growers to the consumers is facilitated by means of the activities like transportation and storage. Transportation is the physical movement of products from the places of production to the places of consumption, and storage is holding back all goods that are produced from the time of completion of production to the time of consumption. Naturally, storage forms an important stage in the process of orderly marketing. The existence of an efficient system of storage is a measure of the efficiency of a marketing system.

There is an economic reason behind storage and conservation of agricultural products. It benefits both ends of our marketing ladder i. e. the producers and consumers as well. The need for storage arises out of the fact that most of the agricultural products are seasonal and cannot be disposed off immediately after harvest. But the consumption of food resources is a continuous day-to-day process. Therefore, the importance of storage function arises from the periodic and fluctuating agricultural production on the one hand and, relatively speaking, the continuous process of consumption of most of the agricultural products on the other. These peculiarities of the agricultural production necessitate the importance of conservation of what is produced in one crop till the time of next one. "The economic motive, therefore, is to hold over the supplies during the glut period to more favourable selling period." Secondly, some food resources like food-grains are durable and may be stored and consumed over a series of years, while others like fish, fruits, vegetables and milk are perishable and can be carried over time only by means of special devices and processing.

Again, the production of different food resources is localised owing to various causes, and the main centres of production and consumption are separated by space from one other. For example, urban and industrial area do not generally produce food materials but represent dense centres of consumption. Again different localities even within the same region may specialise in production of different kinds of food resources owing to natural or acquired conditions. But while production is so diversified, consumption habits are structured, even standardised, to a great extent, so that different varieties of food resources are required at each place.

Moreover, the supply of agricultural production is not regular and uniform, the reason being the predominant role of Nature in agriculture, but the demand for it remains more or less regular and in order to have a regular flow of marketable surplus to the markets, the conservation of agricultural products becomes essential. Thus storage, in other words, brings out an adjustment necessary for the post-production period and for

neighbouring markets. The insignificant portion which is retained by the farmers for the domestic use is generally stored. When our state is passing through the acute problem of food-deficit, care has to be taken at the different points of our distributive system to minimise the percentage of losses in course of storage and conservation. Food-grains must be preserved like arms and ammunition.

There is no doubt that our agriculturists are fully acquainted with the economics of storage but their cash-needs are so urgent and pressing that they are left with no other alternative except to sell their produce in the villages. "There are inherent difficulties under which Indian Agriculturists are forced to sell their produce within a month or so of harvesting the crops. To them might be added another cause-insufficient and poor storage".⁴ Poor agriculturists of North Bihar are not an exception to this broad generalisation. As a result of inflationary trend in the prices of food-grains, the traditional attitude of our agriculturists in respect of disposing the entire marketable surplus at the close of the harvesting season has undergone change. In recent years, agriculturists are conscious of holding their produce in anticipation of rise in prices of agricultural products. They are reluctant to bring the whole marketable surplus to mandis with the end of the harvesting season. This has also been corroborated by the Food-Grains Enquiry Committee (1957), in the following words: "Data available from most sources show that stock-holding at the farm level has increased considerably in 1956-57 as compared to 1955-56. Less than 60% and in some areas, even less than 50% of the crops came to the market in 1956-57 within two or three months of the harvest season as compared to 70 to 80 percent in normal years. Sales in the middle and to some extent even in the end of the season became relatively more important".⁵ But this must be pointed out that it is not the result of improvement in the storage facilities at farm-level, rather it is the consequence of the rise in the prices of the farm products which has enhanced the retaining capacity of the farmers. It is an open secret that our agriculturists are poorly equipped with storage facilities for holding the production for any long period of time and they do not make any arrangement for long-term storage.

Lastly, we must mention that the system of servers and storage is a versatile weapon to meet two diametrically opposed situations. It is known that demand for food is typically inelastic. A small storage of one percent may force prices to a level many times higher on account of the anxious competition among the consumers. Similarly, a small excess of supply may make the price come down very much, because beyond a certain point the capacity for consuming food grains is limited, however low the price. The function of storage and buffer-stocks, therefore, would be to take a long-range vision and even out or flatten the demand-supply relation in spite of the fluctuations in production. Thus, in years of lean production and for regions hit by adverse climatic and rainfall conditions, the reserves in store would release the supplies to equate the total supply with demand. In the years of high productivity, the load of stock can be taken away from the market to prevent prices storage facilities in surplus as in deficit areas

4. Ibid. Page—...144

5. Report of the Food-Grains Enquiry Committee 1957; Page 44-45.

will occupy an important aspect of the buffer-stock organisation in food-grains.

The function of the storage is performed at the different stages of marketing by the various agencies in the marketing activities. For example, it is the agriculturists and itinerant merchants who perform this function at village level where as Arhatiyas—both kachha and Pukka—operating in big mandis discharge this function in secondary market.

But like other States, North Bihar also presents a primitive picture of the system of storage at village as well as mandi level. The home-made receptacles such as 'Berib', 'Dhansar', 'Kothi', and 'Mojar' used for storage purposes in the rural areas are open to various defects. 'Golas' or godowns of Arhatiyas in the secondary markets are also not free from evils and insects. Here the grains-elevators working in the foreign countries like the U. S. A. and Canada are the subject matter of theoretical analysis only. The State-sponsored Ware-housing and Cold storage facilities are still in the initial stages of their development.

COLD STORAGE

Due to the high temperatures prevailing in the potato-growing areas of North Bihar for the longer period of the year, special facilities of cold storage are called for in respect of this commodity and more so of fruits. Besides a suitable temperature, a proper amount of humidity and ventilation is also necessary to avoid excessive losses of fruits and vegetables. But for three to four months' storage, heat even upto 52°F may not prove damaging and 80% to 90% of humidity is regarded as satisfactory. Such atmospheric environment can be maintained by cold storage only. The provision of cold storage will benefit both producers and consumers. The producers will benefit from protection against decomposition and deterioration in quality, where as consumers will derive benefit from the lower prices of these commodities which will be ensured by a regular supply in post-harvest season of potatoes and onions. The glut in the vegetable market, specially of potatoes and onions, lowers the prices in the market. The prices of potatoes and onion begin to rise since April and by the end of September and October of the year, potato prices rise by 3 to 3½ times and onion prices about two times. The consumers are the worst sufferers from the abnormal rise in prices of these vegetables. Thus adequate cold storage facilities will be of an immense value to both producers and consumers. In 1928 the Royal Commission on Agriculture remarked that "cold storage is, in other countries, such a remarkable part in the marketing of goods both for export and internal consumption, with results generally so profitable to the private enterprise undertaking the arrangements as well as to the farmers, that we do not doubt that sooner or later there will be development in India."

After the Second World War, the system of cold storage has received a new impetus. Although the first cold storage in India was established as early as 1912, the major development of this industry took place during the last 25 years only. In Bihar, Patna is regarded as the pioneer in the field of cold storage system. It was in the year 1940 that the first cold storage in

our state was established here with an installed capacity of 10,000 maunds. Between 1940-45 the growth of this system has remained almost stagnant. The difficulties created in the import of the machinery due to war and the non-availability of electricity in potato-growing areas stood in the way of further expansion of cold storage in Bihar. By 1945, however, people were convinced about the suitability of potatoes stored in cold storage for seed and table purposes. The assurance of adequate supply of electricity in the areas also attracted attention of businessmen towards this enterprise. The financial assistance provided by the Industries Department of the State Government has increased at a fast rate after 1945. By the end of 1966, the number of cold storage has gone upto 67 from 1 in 1940. The progressive growth in the establishment of cold storage is really remarkable. Simultaneously, the installed capacity of cold storage has also gone up from 10,000 maunds in 1940 to 18,30,700 maunds in 1966. Thus the increase has been both in respect of number of cold storage as well as in the capacity of established units.

The year wise progress of cold storage and the installed storage capacities from 1940 onwards is given below :—

TABLE NO. 5

Statement showing the establishment of cold storage in Bihar since 1940.

Year.	No. of Cold Storage.	Installed capacities (In lakh maunds)
1940 to	1	10,000
1945	2	28,000
1946	2	46,000
1947	9	1,48,000
1948	10	1,71,000
1949	11	1,94,000
1950	13	2,19,000
1951	16	2,39,600
1952	18	2,51,800
1953	20	3,24,000
1954	20	3,56,000
1955	24	4,30,000
1956	30	6,92,700
1957	34	8,30,000
1958	38	10,84,200
1959	67	18,30,700
1966	67	18,30,000

Source :—Report on the Cold Storage in Bihar the office of the Dy. Director (Marketing) Deptt. of Agriculture, Govt. of Bihar, Patna.

Most of the cold storages are concentrated in the potatoes growing area in our State. In North Bihar, Potato-growing area is insignificant in comparison to Patna Division which has acquired national reputation for potato cultivation. On the northern side of the river Ganga, it is only the district of Saran where potato is grown on a big scale. Next come Muzaffarpur and Champaran. Naturally, nearly 97% of the total cold storages established in North Bihar are concentrated in Saran District. Out of 67 cold storages in our State in the year 1966, only 26 i. e. nearly 37% were in North Bihar out of which 50% were in Saran district. In Champaran district, a cold storage has been established at motihari in 1965.

The Bihar State Financial Corporation and the Department of Industries are playing a vital role in the development of cold storage by providing necessary financial assistance. Up to 27. 3. 1967, loans amounting to Rs. 1,01,400.00 were sanctioned by the Bihar State Financial Corporation out of which a sum of Rs. 90,40,300.00 has already been disbursed by the Corporation. Under the State Aid to Industries Act also a sum of Rs. 51,76,158 has been given to individuals for setting up cold storage. A major portion of this financial help is given in the shape of capital equipments and machinery on the hire purchase system.

Paradoxically enough, even these cold storages are not fully utilised and that nearly 95% of them are used for storing potatoes rather than other vegetables and fruits. Attempts are now being made to investigate the possibilities of storing all fruits, vegetables and other perishable commodities. This points to the need for better know-how and for educating the producers in the economics of cold storage and developing among consumers the demand for frozen food.

As regards the place of storage, the consuming centres are more appropriate than producing centres. Cold storage vegetables and fruits do not stand transport and handling. As production is seasonal and demand continual, storage at production centres would entail repeated transport and reduce the size of consignment. In order to ensure that the producers take due advantage of price fluctuations, they should have a say in the time of disposal of the produce stored by them. These stores, should, therefore, be run by organisations which have representatives of producers. Market Committees of the regulated markets and the cooperative associations seem to be the most suited for undertaking this service in regard to the various interests involved. But the cooperative institutions of our State are too weak to take up such kind of risky business. Out of 24 co-operative cold storages in India (1964-65) 15 were in Punjab, 2 in Maharashtra, 2 in Bengal, 2 in Orissa and one each in U.P., Bihar and Jammu and Kashmir. It was in the year 1961 that a cooperative cold storage was established in Biharshariff (Patna). It had 327 individual members on 30. 6. 1965 with a total share capital of Rs. 3.86 lakhs. But even this solitary cold storage organised on cooperative basis is running under loss. Bold steps have to be taken to put this cold storage on sound footing. In order to provide advantages of the cold storage to the agriculturists of the potato-growing areas, necessary arrangements should be

made to organise more cold storages on cooperative basis, such a step will ensure the growth of an orderly marketing in our state.

WARE HOUSING

With the realisation of the crucial importance of agriculture in national economy, the Governments of many advanced agricultural countries have come forward in strengthening this second ladder of marketing structure. The U. S. A. have taken a lead in the development of warehousing scheme. It was as early as 1916 when a ware-house Act was passed in the U.S.A., and the said Act was amended in the years 1919 and 1923. The establishment of the Commodity Credit Corporation (C.C.C.) in the year 1933 introduced a new element in the grain storage. Under the Canadian Grain Act, 1922, country elevators are bound to supply storage at established rates, so long as they save space. During the period of Second World War, the Ministry of Food, Great Britain, undertook the direct responsibility for providing suitable storage facilities to the farmers. Consequently, a number of grain silos, well equipped with bins and cleaning and drying machinery have been constructed by or brought under the direct control of this body.

Long ago the Central Banking Enquiry Committee (1929) recommended the establishment of ware-houses as a means to provide storage facilities and opportunities to our agriculturists for obtaining favourable prices for products. In inviting attention to this important defect of our rural marketing, the foreign experts associated with this Enquiry Committee remarked : "that survey leads to the conclusion that considerable improvement of the credit situation and the money market in India can only, under present conditions, be achieved by improving and extending so far and as soon as possible, the storage and ware-housing of goods in order to enlarge the basis of the credit system".

Though the importance of the State action in the field of the warehousing in our rural marketing was recognised long ago yet the start has been very late. This has retarded the growth of rural banking and agricultural marketing in our country. Provision of ware-housing facilities has always been recognised as an important adjunct to orderly marketing.

Since its very inception, the Reserve Bank of India has been taking an active interest in the development of the ware-housing system in our country. It circulated a ware-housing Bill in 1944 to the State Governments and requested them for enacting ware-housing legislation. Accordingly, some States enacted the necessary legislation and displayed interest in the construction of godowns. But except in Madhyapradesh and Bombay (now Maharashtra) hardly any progress was made in the development of an organised scheme of ware-housing.

Really speaking, a well-developed scheme of ware-housing in India had to wait till the publication of the Report of the Rural Credit Survey in the year 1953-54. This Survey laid a great emphasis on the importance

of developing storage and ware-housing facilities as an integral part of the rural marketing and credit structure. The need for concrete measures emphasised by the Agricultural Marketing Sub-Committee (1945) and the Rural Banking Enquiry Committee (1950) was reiterated in the Report of this Survey in the following words :—

“We are not less impressed than previous Committees with the magnitude and urgency of a problem which is connected with one of the gravest economic handicaps of the cultivators. The effort called for in its solution has to be concentrated and country-wide.” The broad lines of solution suggested by them were the establishment of (i) a national board which plans and finances (ii) an all-India Corporation with share capital from the Central Government and from various institutions, (iii) State Ware-housing Corporation in which the State Governments on the one hand and the All India Corporation on the other hand participate, and (iv) the cooperative societies at the very base of the programme”.

As a result of the acceptance of the recommendations of the All India Rural Credit Survey, an Act known as The Agricultural Produce (Development and Ware-Housing Corporation) Act of 1956 was passed by the Parliament in June, 1956. Consequently, the Central Ware-Housing Corporation was set up in the same year. Under section 28 of the said Act, every State was requested to enact a similar legislation for itself. The Bihar Assembly passed an Act known as The Bihar Agricultural Produce (Development and Ware-Housing) Act of 1957. This Act provided for the establishment of a Corporation which was virtually set up in the year 1958 under the name of The Bihar State Ware-Housing Corporation and it commenced functioning from the same year. The State Ware-Housing Corporation works under the guidance and supervision of the National Co-operative Development and Ware-Housing Board, but it is predominantly under the Central Ware-Housing Corporation.

The authorised share capital of the State Corporation is Rs. 1 crore divided into one lakh shares of Rs. 1000/- each. The State Government and the Central Ware-Housing Corporation have contributed to the share capital on the basis of 50 : 50. The paid-up share capital consists of Rs. 22 lakhs divided into 22,000 shares of hundred rupees each. The Corporation has set up branches in most of the important agricultural mandis of the State. There are 20 branches of the Corporation working at present in Bihar. It had increased to 30 in the year 1964-65 but, due to heavy losses sustained by the Corporation, 10 branches have been closed during the year 1962-63 and 1963-64.

In course of investigation into the working of the Corporation, it was revealed that generally four types of owners store their produce in the Ware-Houses. These are (i) State Government, (ii) Traders, (iii) Agriculturists and (iv) Cooperative Societies. In recent years, the percentage of the Government Storage has increased enormously. If agriculturists have failed to reach the Corporation for utilising their services, the cooperative societies present a dismal picture in this respect.

TABLE NO. 5.1

Statement showing the percentage of storage under different categories of owners of goods.

TYPES OF OWNERS.

Year.	Government.	Traders.	Producers.	Coop. Societies.
1. 1962-63	0.31%	83.35%	16.29%	0.05%
2. 1963-64	5.16%	85.65%	9.06%	0.13%
3. 1964-65	80.28%	16.72%	2.86%	0.14%
4. 1965-66	78.89%	16.38%	3.57%	1.16%
5. 1966-67	75.91%	21.55%	2.47%	0.07%

Source :—Annual Report and the Accounts of the B.S.W.C.

It is apparcntly clear from the above table that the Corporation has totally failed to achieve the main objective i. e. to provide storage facilities to agriculturists. If in its initial stage, the traders have been benefited, at present, it is the Government which has occupied the main position. Poor agriculturists and down-tradden cooperatives are rather no where in the Corporation. The Scheme of the State Ware-Housing Corporation is an integral part of the regulated markets and the cooperative marketing. The total failure of the development of cooperative marketing and regulated markets in our State has restricted the benefits of the Corporation going to the agriculturists.

The main reasons for the rise in the percentage of the Government storage and subsequent fall in the agriculturists' percentage in the total storage of the commodities by the Corporation may be mentioned as follows :—

- (i) Maintenance of more buffer-stocks of foodgrains by Government as a result of the extension of partial rationing in the State.
- (ii) Introduction of paddy-levy scheme in the year 1964 has frightened the agriculturists who are afraid to store their produce in the ware-houses, as this may reveal their production-position.
- (iii) Lack of the transport facilities from the farm to the godowns of the Corporation.
- (iv) Reduction in the margin of advance against foodgrains.
- (v) Non-availability of sufficient numbers of branches in the rural areas.
- (vi) Delay in the advances by the banks on the production of the ware-house receipts.

The most striking feature of the Bihar State Ware-Housing Corporation is that it has been incurring loss since its commencement. The net annual loss which stood at Rs. 2,237.52 np. in the year 1958-59 has gone to Rs. 2,11,872.28 np. on the 21st. March, 1962. The annual net loss sustained by the Corporation came to Rs. 4,68,675.07 np. in the year 1964-65. Thus the net loss has been multiplying year by year and it has accu-

mmulated to Rs. 15,09,386.76 up to 1964-65. This huge financial loss is a matter of grave concern. Immediate steps have to be taken to stop this financial loss.

TABLE NO. 5.2

Statement showing the Net loss sustained by the Corporation since its commencement is given below :—

Financial year.	Amounts of Net loss.
1958-59	2,237.52
1959-60	96,157.21
1960-61	1,63,723.08
1961-62	2,11,872.38
1962-63	3,00,795.49
1963-64	2,65,926.01
1964-65	4,68,675.07
	15,09,386.76

Source :—Annual Report and Accounts of the B.S.W.C. from 1958 to 1964-65.

The profit and loss Account for the 1964-65 shows that the main reason for such a huge loss is the defalcation by the staff posted at Jainagar and Jogbani ware-houses. Besides, the expenses incurred on rent, municipal rates and taxes also attribute to this heavy loss. All godowns running under the Corporation are on rent. It does not possess even a single building of its own for godown purposes. A blue print must be prepared by the Corporation in consultation with Public Works Department for constructing its buildings for godowns. It was due to this heavy loss that the State Government had decided in the year 1963 to wind up the Corporation. Since the Centre was opposed to this move, the State Government could not do so.

A bird's eye view of the main objectives behind the establishment of the Ware-Housing Corporation fully convinces us that provision of storage facilities and necessary funds, till the goods stored are not finally sold, are the goals of the Corporation. When goods are stored in the godowns of the Corporation, the owners of the goods are granted receipts by the Corporation. Such receipts contain the information regarding the name and full address of the party, name and value of the commodity stored etc. There are two kinds of ware-house receipts, (i) negotiable and (ii) non-negotiable. Each serves a separate and distinct purpose. As these receipts are practically all uniform, at least uniform in information given, they are assumed to be negotiable unless it is specifically stated on the receipt that it is non-negotiable. Negotiable receipts become discountable by any scheduled bank in the State. It has rightly been observed by the Rural Banking Enquiry Committee (1950) that "However, perfect may be the ware-house system, the cultivator with no resources at his disposal and faced with various claims for cash, for paying interest and capital to his creditor, rent and land revenue, will in general be not in a position to avail

himself of such storing facilities unless he can pledge his produce to borrow funds". Besides, there are sufficient reasons for creating genuine trade bills in India if the credit machinery is to operate to the maximum advantage of the economy as a whole.

On the production of the ware-house-receipts, the scheduled banks, specially the State Bank of India, advance cash to the owners of the receipts after keeping a suitable margin. Upto 1961, the margin kept on the advances against foodgrains was 25% of the value. But it has been raised to 40% in recent years. The rise in the margin requirement has diminished the business of the Corporation. The margin requirement differs from commodity to commodity. Fixation of margin and observation of set rules regarding the advancement against the receipt are not the concerns of the Corporation. These belong to the banking authorities. The Corporation's function ends when it has issued receipts to the owner of the goods.

TABLE NO. 5.3

Statement showing the quantities of grains stored and the advances made against the negotiable receipts by the scheduled bank in Bihar.

Year.	Quantities of grains stored in ware-houses.	Amount advanced against the security of the house receipt.
1958-59	40,065 maunds.	Rs. 1,95,866.00
1959-60	3,46,396 maunds.	Rs. 35,12,356.00
1960-61	6,34,931 maunds.	Rs. 1,09,86,608.00
1961-62	5,15,997 maunds.	Rs. 32,38,029.00
1962-63	19,589 metric tonnes.	Rs. 44,01,737.75
1963-64	16,191 metric tonnes.	Rs. N. A.
1964-65	32,317 metric tonnes.	Rs. N. A.

Source :- Office of the B.S.W.C. Boring Road, Patna.

In the U. K. and the U. S. A. private agencies also provide warehousing facilities. These ware-houses are licensed ones. The Central Banking Enquiry Committee (1929-30) and the Rural Banking Enquiry Committee (1950) has greatly emphasised the unique role of licensed ware-houses in the field of rural marketing. But no steps have been taken either by the State or Central Government to encourage the development of private ware-houses in rural areas. In North Bihar, it is only the tobacco-growing area of Dholi in the district of Muzaffarpur where a few private ware-houses are operating for the last 20-25 years. Figures of such private ware-houses are not available and naturally their role in the rural marketing cannot be adequately examined. These private ware-houses are greatly helpful in providing storage facilities to the tobacco growers of these areas. If adequate facilities can be provided to these licensed ware-houses, they and play a better role. The Department of Industries of our State Government can meet their financial needs under the State Aid to Industries Act.

CHAPTER VI

REGULATED MARKETS.

They can be easily eliminated by organising cooperative marketing. Marketing being a complicated business, development of one or two aspects of marketing alone will not bring the desired results unless a comprehensive plan embracing all the principal and ancillary marketing services mentioned above is put into operation.

The elimination of middlemen from the different stages of marketing raises another issue i.e. the problem of their absorption in other business of life. This problem may be treated on the same footing as the problem of surplus hands already working in the field of agriculture. "The surplus number when it is weeded out will, it may be presumed, have to be dealt with in the same manner as the surplus population which now crowds in agriculture. It follows that any excess of population over the optimum number at present employed either in the actual cultivation of land or in the distribution of the produce from the land, will have to be absorbed in other spheres where the social marginal utility from their work be higher".¹

REGULATED MARKETS.

In the previous chapters, we have been mainly concerned with the main difficulties and hardships under which our poor cultivators market their produce in towns and mandis. Apart from bad communications and lack of storage facilities, the cultivators who venture to bring produce to mandi have to suffer a lot due to the various malpractices and arbitrary deductions prevalent in the mandis. The poor and ignorant cultivators are helpless in such a state of affairs and they are thus left at the mercy of Arhatiyas and "Dalals" who always claim a share in their toil. "Coupled with high market charges, the common practice of the prospective and the pseudo-buyers a like of taking away, under the name of samples, substantial quantities of produce, the incorrect and false weights, and the almost universal custom of secret or "cover-bids", thereby keeping the seller in dark, and placing him at the mercy and honesty of his Arhatiya, are further defects found in the mandis".²

It is well established fact that various types of arbitrary deductions made in mandis such as Arhat Kharch, Tolai, Dalali, Goushala, Dharmada and commission are truly unjustified in favour of which no logical argu-

1. Report of the National Planning Commission on Rural Finance and Marketing, 1945; Page—8.

2. Ibid. Page—280.

ment can be advanced. "The farmer, in general, sells his produce at the unfavourable place, and at unfavourable time, and usually he gets very unfavourable terms".³

To meet this challenge—a challenge of reform in the marketing structure—state regulation of marketing, becomes an essential part of the State policy. The regulation of markets is one of the measures that are taken for social evolution. If the producers do not get the full return and instead distributors get more, there would be no incentive to producers. Regulated markets have been developed in our country since the beginning of the twentieth century in order to protect the farmers from being helpless before the powerful commission agents who operate in towns and mandis. Unless the cultivator is sure of the return to his labour, no amount of any incentive will encourage him to take up new plans of agricultural production, and improvement of soil. "The importance of such markets lies not only in the functions they fulfil but in their reactions upon production. Well regulated markets creat in the mind of cultivator a feeling of confidence and of receiving a fair play and this is the mood in which he is most ready to accept new ideas and to strive to improve his agricultural production. Unless the cultivator can be certain of securing adequate value for the quality and purity of his produce, the efforts required for an improvement in these will not be forthcoming".⁴

If our agricultural mandis are expected to function smoothly and efficiently without jolts and jerks, they must have a firm grip over the wide range of activity covering all these stages. A logical corollary of this is that the market must afford facilities for trading, regulate it in an impartial manner, facilitate the speedy settlement of disputes associated with the trading activity and place of the disposal of the buyer and the seller a mechanism under which bargains can be struck and completed without causing any loss to any one. Keeping this idea in mind, the Royal Commission on Agriculture (1929) recommend the establishment of such regulated markets throughout the length and breadth of our country, in the following words :-

"The establishment of properly regulated markets would confer an immense boon on cultivating classes of India. It must indeed, in our view, form essential part of odered plan of agricultural development in this country, for only in this way can be work of the agricultural departments be brought to full fruition".⁵

The history of regulated market in our country starts with the implementation of the recommendations made by the Royal Commission on Agriculture. The Berar Cotton and Grains Markets Act of 1897 which was designed to purge marketing of its abuses, is a landmark in the historical development of regulated markets in India. In 1919, the Indian Central Cotton Committee recommended the establishment of regulated markets for cotton and it suggested to follow the example of Berar which had already enacted a special legislation for protecting the cotton-growers

3. Ibid. Page—42.

4. Ibid. Page—388.

5. Ibid. Page—389.

and saving them from malpractices of the cotton mandi. Though Berar had set a good example in this direction, it is a sad commentary that this example remained unemulated by other States until the recommendations of the Royal Commission on Agriculture (1929) were published, except Bombay where the Government of Bombay passed a legislation entitled "Cotton Market Act" in the year 1927. Hyderabad was the first State in India to pass the Agricultural Produce Markets Act in the year 1930. By the end of the year 1958-59, almost all the States of India took steps to pass special legislation with a view to regulating agricultural markets in their respective areas.

Bihar remained the only State where no step was taken to organise regulated markets in the end of fourth year of Second Five-Year Plan. If our agriculturists are illiterate and ignorant and thus unable to take up any programme of reforms or improved techniques of cultivation, our administrators are not less responsible for this State of affairs prevailing in the field of marketing. The Agriculture Department of our State Government remained deaf and dumb on the issue of regulated market till the year 1960 when the Government of Bihar announced the Act for regulating the agricultural mandis. The first step taken by the State Government in this direction starts with the introduction of the "Bihar Markets and Dealers Bill" in the Bihar Assembly on the 5th. May 1939. The Bill was circulated for public opinion. The opinions received were given consideration but the proposal had to be abandoned for the time being owing to the resignation of the provincial Ministry in the year 1939. It was again taken up in the year 1944 but it was considered that the Bill which had been prepared in 1939, required modification and redrafting in view of the changed conditions. It was then decided that the question of regulating markets should be taken up after the war (Second World War). Though the Congress Ministry was formed as early as 1945 and since then the Congress has been in power in our State for many years, the question of regulated markets was thrown in the waste-paper basket and the State Government slept over this Bill until the year 1958 when another Bill known as The "Bihar Agricultural Produce Markets Bill" was introduced in the Bihar Legislative Assembly. While introducing the Bill in the Bihar Legislative Assembly, the then Agriculture Minister, Bihar, explained the main object of the Bill in the following terms :—

"The main object of having regulated markets is to secure to the cultivator better prices, fair weighment and freedom from illegal deductions. A fair deal for his produce is a good incentive for the agriculturist to adopt improved agricultural programme."⁶

The preamble to the said Act reads—"To provide for the better regulation of buying and selling of agricultural produce and the establishment of market for agricultural produce in the State of Bihar and for matters connected therewith."⁷ The framers of the Act have tried to incorporate

6. Bihar Extra Ordinary Gazettee (4-12-1958) Speech delivered by Sri Birchand Patel, the then Agricultural Minister, Bihar, Page 24.

7. See the Bihar Agricultural Produce and Markets Act, 1960 Page..... 1.

the merits of various Markets Acts prevailing in the country and thus the Act has been made as the most comprehensive one. It includes, cereals, pulses, oilseeds, fruits and vegetables, fibres, animal husbandary products, condiments, spices, grass and fodder narcotics. Though the Act appears to be a restraint on the liberty of traders, essentially it is democratic in character. The act has provided the traders with the right to file any objection in respect of organisation of any regulated markets in our State and only when no objection is received within the period not less than two years from date of such notification by the Deputy Director of Agricultural Marketings, the said area is declared regulated. Section (3) of the Act incorporates such conditions. The said Act was passed on the 20th. May 1960. In brief, following advantages flow from regulated markets :—

- (i) Market charges are clearly defined and specified; excessive charges are reduced and unwarranted ones are prohibited;
- (ii) Market practices are rationalised;
- (iii) Correct weighment is ensured by periodical inspection and verification of scales and weights through the system of licensing of weighman and supervision of weighment becomes possible;
- (iv) Suitable arrangements for settlement of disputes regarding quality, weighment and reduction etc., prevent litigation and safeguard the interest of the seller and smoothen business;
- (v) Insistence on prompt payment of the value of the produce by the buyer considerably helps the poor seller;
- (vi) Reliable and up-to-date device is made available to the users of the market;
- (vii) Suitable quality standards and standard terms of contract for buying and selling can be conveniently enforced in regulated market;
- (viii) Reliable statistics of arrivals, stocks and prices can be maintained in a regulated market; and
- (ix) Various facilities and conveniences can be provided in a regulated market such as sheds for the use of sellers, shady space for parking carts, water cisterns for cattle, and storage accommodation for agricultural produce etc.

To what extent the growth of regulated markets in our country has reduced market charges is clear from the statistics given below :—

TABLE NO. 6.

Statement showing the market charges and after Regulation.

States	Market charges per Rs. 100 worth of produce.		
	Before Regulation.	After Regulation.	Saving.
Bombay.	2.74	1.37	1.37
Andhra.	4.09	2.30	1.79
Madras	4.65	1.45	3.22
Mysore.	4.14	2.20	1.94
Punjab.	2.43	1.76	0.67
All India average.	3.41	1.79	1.62

Source :—Indian Journal of Agricultural Economics. Vol. XVII No. 1 year 1962.

It is thus quite clear from the above statistics that the establishment of regulated markets has reduced the market charges in the various States where such markets have been fully developed with the mutual cooperation of the State Government on the one hand and the traders and agriculturists on the other. Besides reduction in the market charges, false weights have also been eliminated from the mandis. If the market charges are rationalised and false weights are driven away from the market, our agriculturists will be relieved of the malpractices to a great extent. But it must be emphasised that regulated market is not a magic and which can be able to cure all ills from which our present marketing system suffers. Anyhow, regulation of market can prove to be of great advantage to our farm-producers who are always at the mercy of traders in the mandis.

Let us now examine the growth of regulated market in our State.

(ii) Progress in Bihar

Bihar is one of the poorest States in the progress of regulated markets. It was proposed to regulate 55 markets within the period of three years commencing from 1958-59. These markets were classified in two categories viz. (i) Class 'A' and (ii) Class 'B'. Eighteen markets were put under class 'A' and remaining thirty seven in class 'B'. In the first two years, 15 markets in each year were to be regulated and remaining 25 in the third year of this phased programme. But in the first year, only 10 markets (class 'A') were taken for regulation. These market were Patna, Gaya, Ranchi, Bhagalpur, Mokamah, Sasaram, Muzaffarpur, Sitamarhi, Darbhanga and Purnea. At present, Bihar has got in all 60 regulated markets. On personal survey of the Muzaffarpur Regulated Market, it was revealed that the market for regulation was notified in the Bihar Gazettee in the year 1961 but it took nearly four years to commence its activities. But until the year 1967 on steps had been taken to establish market yards and sub-market yards. Within the period of two years, only 16 traders out of nearly 50 have been

licensed. Every trader has to pay Rs. 75.00 only as license fee and on renewal fee is required to be paid.

(iii) Constitution of Market Committee

Every Act of the regulated market makes a provision for the constitution of Market Committee. Though the composition of the Market Committees differs from State to State, the main features and ingredients of this regulation are broadly similar. The first step is the declaration of the market area and the notification of commodities to be brought under regulation. The next step consists of the constitution of market committees in accordance with the Act and Rules framed by the State Government.

The novelty of the constitution of market Committee lies in its democratic character. Attempts have been made to incorporate and provide representation of interests of every section of the community. The Bihar Agricultural Produce Markets Act, 1960, deals with the subject matter of the constitution of the Market Committee under Sections 6 and 9. The total number of the members of the Market Committee has been fixed at fifteen. But the first committee will be constituted by the State Government itself. The strength of the Committees working in the regulated markets of the different States varies from 8 to 16 members. But in Bihar the strength of the Committee is 15. The term of the office of the members of the first Committee extends for one year only. The members of the second Committee are partly elected and partly nominated by the Government. In Bihar the Second and the subsequent Market Committees are constituted as given below :—

(i) Seven members are elected by the agriculturists of the area for which it is established from amongst themselves in the manner prescribed.

(ii) Three persons are elected by traders, other than cooperative societies, holding valid licences under this Act, from amongst themselves in the manner prescribed.

(iii) Two persons are elected by cooperative societies holding a licence under this Act from amongst their members in the manner prescribed;

(iv) One person is appointed by the Co-operative bank of the market area provided that if there are more cooperative banks than one in the said area the appointment is made by the Co-operative banks in such order of rotation as is specified in this behalf by the State Government;

(v) One person is appointed by the State Government; and

(vi) One person is elected by the members of the municipality or the Executive Committee of the Gram Panchayat established under Section 3 of the Bihar Panchayat Raj Act, 1947, within whose jurisdiction the Principal market yard is situated, from among the members of the municipality or the members of the Executive Committee of the Gram Panchayat, as the case may be.

Apparently the constitution of the Committee maintains the representation of each section such as traders, agriculturists, co-operative societies, municipality and Gram Panchayat. Though the strength of the trader is only

three out of fifteen of the Market Committee, the hold a key position in mananement of the regulated market. The idea behind the representation of traders is to utilise the experiences of businessmen in the maarketing activities. The representatives of agriculturists and cooperative Societies hardly take any interest in the management.

(iv) LICENSING

Licensing of functionaries is an unileral feature of regulated markets and it is the chief means of enforcing various provisions and effecting improvements. In Bihar, every trader the jurisdiction of the regulated market is legally responsible to take licence from the "Market Committee" for which Rs. 75.00 is to be paid as licence fee.

(v) CESS (LEVY)

Cess is another chief source of income to the Market Committee. In fact, in many States the income of the Market Committee from cess is higher than that from licences. Levy of fees on the sale of the agricultural produce in the jurisdiction of regulated market and the taxes on bullock carts, tyres and trucks constitute the main sources of the income of the market Committee.

Section 27 of the Bihar Agricultural Produce Markets Act, 1960 has made provision for levy of fees. The section reads as follows :—

(i) The Market Committee shall levy and collect market fees on the agricultural produce bought in the market areas, at such rate not exceeding fifty paise per Rs. 100 worth of agricultural produce, as may be prescribed.

(ii) The fee realised from the buyer under sub-section (i) shall be recoverable by the buyer from the seller as a market charge.

In Muzaffarpur, the levy has been fixed at twenty five paise per Rs. 1.00 but until the end of the year 1966 not a single paise has been realised. In course of discussion with the staff of the office of the Deputy Director (Marketing) it was revealed that this section of the Act has proved to be a great hurdle in the progress of the regulated market in the State.

T A B L E NO. 6.1

MARKET CHARGES AFTER REGULATION

Names of the market.	Market fee Paldari, Weighment for Rs. 100 sewing per bag. worth of stacking produce. etc. per bag.			Commision. Broke- Godown for Rs. 100 rage for charges. worth of Rs. 100 Per bag produce. worth of per Month.		
1. Jainagar	0-25 np.	0-06 np.	0-03 np.	1-50 np.	0-06 np.	0-06 np.
2. Darbhanga	0-19 np.	0-06 np.	0-03 np.	1-56 np.	0-10 np.	0-05 np.
3. Sasaram	0-25 np.	0-12 np.	0-03 np.	1-56 np.	0-12 np.	0-06 np.
4. Bhagalpur	0-15 np.	0-10 np.	0-03 np.	1-75 np.	0-10 np.	0-06 np.

Source—Deputy Director of Agricultural Marketing, Govt. of Bihar; Patna.

attempts have been made to realise the cess from the buyer (trader), legal points have been raised in Courts. In the mandis like Sasaram, Gaya and Purnea, the traders have gone to the High Court for making this section of the Act as null and void. It is thus the non-co-operative attitude of the trader class which has been responsible for the poor progress of regulated markets in our State.

(vi) Market Charges:

The most visible effect of this legislation has been on the Market charges. The existence of numerous unjustified market charges has been the main genesis of market regulation and it must be admitted that the regulated markets have amply justified themselves on this score. Through the reduction in these charges, the producer-seller has benefitted a lot. Other economic gains have been the correct weighing, timely and correct payment, competitive conditions of sale etc. To what extent the market charges in our State have been rationalised is apparent from the tables no. 3-6 and 4-6.

(vi) Evaluation of the Achievements of the Regulated

Market in Bihar;

It is needless to say that the achievements of the regulated markets in our State have been miserably poor. Though nearly 60 wholesale market out of 325 (nearly) have been brought under regulation, yet there are only 5 or 6 regulated markets which are in working condition. Among them, the names of Jainagar (Darbhanga district) Bhagalpur, Kishunganj (Purnea district) Sasaram (Shahabad district) regulated markets deserve mention. But not a single regulated market of our State deserves to be compared favorably with that working in the other States like the Punjab, Maharashtra, Mysore and Madras. In course of my personal visit to some of the regulated markets like Kishunganj, Sitamarhi, Katihar and Sasaram, I found that no where either principal or sub-market yards have been covered out or necessary buildings have been constructed. Thus the regulated markets of our State are mostly in early stage. Very few agriculturists living in the neighbouring villages of these regulated markets know about their existence. This only shows the failure of the department of agriculture (Marketing) in respect of popularising this scheme amongst the agriculturists for whom these markets exist. It is the lack of the responsibility on the part of the State Government which has been one of the basic reasons for not evoking enthusiasm in the rural areas. Failure of the Marketing Department of the State Government has thus retarded the growth of regulated market in our State. The sooner the State Government realises its responsibility in this respect, the better it is for the future prospect of this scheme. The initiative particularly in initial states must come forth from the State Government. The Government must establish some important regulated markets as model ones which can be able to attract the eyes of agriculturists.

In brief, following are the main difficulties before the Market Committee and the State Government in developing the scheme of the regulated markets in our States :—

(i) One of the most important of these difficulties is the acquisition of proper site for the market yard, office and ware-houses at fair prices

and at places where the Market Committee under the Act is set up. Unless a proper site is acquired, advantages of regulation would be practically very little, as the bulk of the trade in agricultural commodities would not be transacted in that event in the market yard under the close supervision of the Market Committee and its staff. It is pretty difficult to control transactions taking place outside the market yard, nor would there be any extensive competition amongst the buyers for the purchase of agricultural products, if dealings are freely permitted in the premises beyond the market yard. The normal procedure for the acquisition of land for the market yard is very clumsy and complicated. Where ever the market committee of the selected regulated markets of our State has moved the Government for acquisition of land, legal objections have been raised by the local trader and general public. This is the main reason why not in a single regulated market, we find market yard.

(ii) Efficient functioning of a Market Committee would also necessitate the construction of godowns, office-rooms, sales-hall etc. within the market yard. These would require considerable financial outlay which an infant Market Committee finds it hard to incur. The State Government is helpless to meet the financial needs of the Market Committee. But the Committees are hardly in a position to meet even their necessary expenses.

(iii) Another difficulty which a Market Committee has to face is the absence of co-operation from local bodies which stand to gain much after the establishment of a regulated market within their jurisdiction. Municipalities working in the areas of the regulated markets have virtually failed to extend their whole-hearted co-operation to the Market Committee. It was revealed by the members of the Market Committees that the municipalities generally treat them as their competitors. They think their control over traders will end in regulated markets, the reason being that the local traders will have direct dealings with the market committees and not with the municipalities. Such a feeling of jealousy on the part of local bodies has prevented them from extending full co-operation to the Market Committee.

(iv) Similarly, the traders and businessmen have failed to co-operate with the Market Committees. In spite of several reminders and warnings, only one-fourth of the total traders dealing in the Muzaffarpur regulated market has taken licence from the Market Committee for carrying out their transactions in agricultural products. Besides, the traders and local Arhatiyas have objected to the imposition of fees by the Committee. In Sasaram and Gaya, the businessmen have failed objection in the High Court for declaring this section of the Act void. The case is pending in the High Court. The State Government will have to think over this issue seriously. Steps have to be taken to remove this lacuna of the Act.

(v) Lastly, the lack of trained personnel for carrying out the business of the Market Committee is also a hurdle in the progress of the regulated markets in our State. If the Market Committee are to carry out the various reforms in the marketing system, an essential condition is that there must be a trained personnel to act as Secretary, President, Treasurer and members of the Committee. The Directorate of Marketing of our State Government has no scheme for imparting necessary training to the office bearers of the Marketing Committees. The difficulty which a Market Committee

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(iii) Another difficulty which a Market Committee has to face is the absence of co-operation from local bodies which stand to gain much after the establishment of a regulated market within their jurisdiction. Municipalities working in the areas of the regulated markets have virtually failed to extend their whole-hearted co-operation to the Market Committee. It was revealed by the members of the Market Committees that the municipalities generally treat them as their competitors. They think their control over traders will end in regulated markets, the reason being that the local traders will have direct dealings with the market committees and not with the municipalities. Such a feeling of jealousy on the part of local bodies has prevented them from extending full co-operation to the Market Committee.

(iv) Similarly, the traders and businessmen have failed to co-operate with the Market Committees. In spite of several reminders and warnings, only one-fourth of the total traders dealing in the Muzaffarpur regulated market has taken licence from the Market Committee for carrying out their transactions in agricultural products. Besides, the traders and local Arhatiyas have objected to the imposition of fees by the Committee. In Sasaram and Gaya, the businessmen have failed objection in the High Court for declaring this section of the Act void. The case is pending in the High Court. The State Government will have to think over this issue seriously. Steps have to be taken to remove this lacuna of the Act.

(v) Lastly, the lack of trained personnel for carrying out the business of the Market Committee is also a hurdle in the progress of the regulated markets in our State. If the Market Committee are to carry out the various reforms in the marketing system, an essential condition is that there must be a trained personnel to act as Secretary, President, Treasurer and members of the Committee. The Directorate of Marketing of our State Government has no scheme for imparting necessary training to the office bearers of the Marketing Committees. The difficulty which a Market Committee

has to face in having trained personnels could be over come if the Department of Co-operation is to select proper personnel and get them trained at the Cooperative Training Institutes which are being run by the Department. The services of such trained personnel properly acquainted with the problems of agricultural marketing may be made available to the Market Committee on the condition that the cost on account of such officers is wholly or partly met by the Committees concerned. But alas, the Committees are themselves in the grip of financial crisis. The only alternative is thus the State assistance. In the early stage of my scheme of economic development the initiative must come from the State. It is gratifying to note that the Co-operative Department of the State Government has taken up responsibility to provide the co-operative marketing societies with trained personnel. Similarly it should be the first responsibility of the Director of Marketing (Agriculture) of the State Government to impart necessary training to the selected personnel and office-bearers of the Committee. Thus, the whole programme of the regulated market depends upon the full co-operation of the State Government, local bodies, traders and businessmen and lastly, the agriculturists.

To conclude, Marketing is a socio-economic institution. It is a natural out come of the growth of exchange economy. An efficient marketing brings an adjustment between production and consumption on the one hand and supply and demand on the other. It also helps in discharging the functions of distribution with less cost. Disorganised markets act as a great hurdle in reducing the level of marketing cost.

In north Bihar, the primary markets known as 'Hats', 'Bazars' and 'Pethiyans' are completely disorganised. We cannot call them markets. False weights and low prices paid to the agriculturists are the common features of the village markets. Secondary markets are also undeveloped and disorganised. A long chain of middlemen such as 'Kachha Arhatiyas', 'Pakka Arhatiyas', 'Dalas' and 'polledas' operating between the real procurer and the ultimate consumer is a great challenge to the reformers of agricultural marketing. The State legislation in the field of regulated market has not brought any substantial change in the marketing organisation. The implementation of the scheme of regulated market is still in its initial stage and consequently the achievements of the Marketing Directorate (Agriculture) of the State Government are negligible. We can hardly come across any single regulated market in our State which can favourably be compared with into counterparts in other states such as Madras, Maharashtra and Punjab. If the agriculturists are to treat their industry as a gainful business rather than a way of life, regulation of marketing becomes a part and parcel of agricultural planning.

ing which strengthens the farmers' position as a seller, assures him of the regular trade outlet, and enables him to obtain better prices".¹ Further, individual farmers are in a weak bargaining position as the local merchant is also the money-lender and the marketing system "usually degenerates into a truck system that embraces the weaker partner in a complicated network of indebtedness, obligations and eventually economic exploitation".² The middlemen are in a better position in respect of bargaining capacity and the cultivators on the other hand lack the capacity to bargain in the present environment of rural marketing. He has no alternative but to accept the prices fixed by the traders and bow down helplessly before them. Co-operative marketing aims at eliminating the chain of middlemen operating between producer and the ultimate consumer and thus to secure the maximum price for their produce. The situation can only be remedied if the farmers sell their output collectively through their own marketing co-operative, instead of selling individually in local 'mandis'. Consequently, a co-operative-form of marketing is an attempt at self-help to overcome the difficulties arising out of the smallness of operations and to undertake one or more functions performed by the middlemen and other servicing agencies. "Co-operation is a weapon to bring about the correction of many of these abuses of the private marketing system and in this sense the benefits of co-operation are given to all farmers, whether or not they become members of co-operatives".³

The potentialities of co-operative marketing against the background of existing system of marketing structure clearly justify the case for the organisation of rural marketing on the co-operative basis. Co-operative marketing is, thus, not only an essential adjunct for the success of agricultural plan, rather it occupies a central position in the field of rural reconstruction. The sooner the whole sale mandi and rural marketing are brought under the co-operative fold, the better the result.

Integrated Credit And Marketing Scheme.

The present set up and working of rural credit and finance is the direct outcome of the main recommendation of the All India Rural Credit Survey, popularly known as Committee of Direction. The whole body of its recommendation is based upon three principles :—

(a) Integration between credit and marketing societies, (b) State participation in the share capital and the management expenses of the co-operative societies beginning from the primary level to apex institution and (c) Supervision of co-operatives by trained personnel. Though these recommendations of the Committee are inter-related and so they cannot be studied in isolation, yet we shall be mainly concerned here with the "Integrated scheme of rural credit" as visualised by the Survey. The Committee was highly influenced by the working and success of the "secured credit" system working in Salem district of Madras. In its opinion, one of the basic reasons for the failure of co-operative credit and marketing societies is the absence of close co-operation, co-ordination and lastly

1. Report of the Co-operative Planning Committee (1964) Page.....56.
2. Rural Progress through Co-operatives; U. N. O. Newyark; Page.....66-67.
3. Aspects of Economic Development and Policy; Prof. B. K. Madam, Page.....115.

integration in their working. Working in isolation, credit co-operatives as well as marketing co-operatives have failed to achieve their main goal of movement. Naturally, the Committee of Direction has pointed out that "Co-operation has failed". But it rightly avoids the inference that the path of co-operation can be abandoned. So it says "Co-operation must succeed"⁴, and has suggested an integrated programme of credit and marketing co-operatives, fostered and assisted by the State, to help the agriculturist.

The 'integrated' aspect of the programme for the development of co-operatives in India as recommended by the Committee of Direction is the effort link credit and marketing. The credit co-operative is to finance its members on condition that the produce of the member is sold through the nearest marketing co-operatives. One of these marketing societies is to serve a number of credit societies. The credit co-operatives are to arrange for collection and transport of the members' produce to the marketing societies. The sums due to the members for their produce are to be paid through the marketing society, which first deduct for outstanding loans. In this way, the integrated scheme is intended to ensure recoveries of loans for members. The Scheme, as it appears, has a double advantage i.e. on one side the cultivators will be relieved of the difficulties in marketing their produce and on the other hand loans outstanding against such agriculturist members will be easily recovered by the marketing societies. The Committee has called for a more business-like approach to peasant farming. This is to be achieved by concentrating credit on the productive needs of farm-business. Naturally, the co-operatives are to make advance to the cultivators as producers of crop (not as owners of land). The loans are to be given on the basis that a crop is anticipated and the amounts of the loans are to be related to the estimated outlay for raising the crop. The recoveries are to be made as and when the crop is sold, from the proceeds of the sale. But the success of the "crop loan" system entirely depends upon the implementation of the integrated credit scheme. The whole scheme of "integrated credit" has been elaborated by the Committee as follows : "The system of crop loans cannot be regarded as really effective and complete unless integrated, within the larger system, with co-operative marketing. There should, therefore, be a close link between primary agricultural credit societies and marketing societies. The primary society should finance its member on the condition that the produce of the member is sold through the marketing society with which it works in co-ordination".⁵

We must note that the need for linking of co-operative credit with marketing has been recognised for a long time and thus the scheme of "integrated credit" as envisaged by the Committee of Direction is not an entirely a new innovation. Really, Madras has been pioneer of this scheme. In Salem district of the State (Madras) a system of 'controlled credit' was introduced as far as back in 1935. The Co-operative Planning Committee (1946) highly appreciated the success of the working of the scheme and came to the conclusion that the scheme should be introduced throughout India.

4. Ibid. Page.....432.

5. Report of the All India Rural Credit Survey Vol. II; Page.....454.

Apart from the acceptance of this scheme by the All India Rural Credit Survey (1954), the Committee on Co-operative Credit (1958) strongly commended that there should be a close link between the agricultural credit society and the marketing society. "The former should finance members on conditions that their produce is sold through the marketing society with which it works in close co-ordination. The Primary credit society should act as the agent of the latter, assemble the produce of its members and arrange for its transport to the marketing society. These arrangements should be introduced throughout the country".⁶

The subject of "integrated scheme of rural credit" was also considered in the conference of State Ministers of Co-operation, held in New Delhi in October, 1961 which made the following recommendations: "It was stressed that the development of co-operative marketing was condition precedent to the large-scale expansion of Co-operative credit envisaged in the Third Plan. Hence, the need for linking of credit with marketing was considered paramount. It was agreed that effective measures should be taken to introduce this linking on an adequate scale and where-ever possible, suitable incentives should be given. For instance, it might be considered whether producer-members undertaking sale through marketing societies should be given production finance on a more liberal scale".⁷

Though the scheme under reference was accepted in our State at the end of the First Five-Year Plan i.e. in 1956, it was put into actual operation with the commencement of the Second Five-Year Plan. By the end of this Plan, 220 primary marketing societies were organised at block level. (In a few cases, two blocks were combined together) While publishing the blue print of the Third Five-Year Plan (Bihar) it was clearly mentioned that "co-operative marketing is a new experiment in this State and the existing marketing organisations have yet to gain experience and develop their business"⁸ Keeping this in view, a small target for the organisation of 50 primary Marketing Societies during the Third Five-Year Plan Period was fixed so that greater attention could be paid towards consolidation and expansion of the activities of the existing marketing societies. By the end of the Co-operative year 1965 Bihar had 272 primary marketing societies popularly known as "Vyapar Mandal".

6. Report of the Committee on Co-operative Credit; 1958; Page.....25.

7. Policy circulars (Co-operative Agriculture) Marketing and Processing National Co-operative Development Corporation, Page.....129.

TABLE NO. 7

Statement showing the number of primary marketing societies organised in Bihar and their share capital since 1955-56.

Year.	No. of marketing societies.	Share capital (Rs. in lakh)
1955-56	49	2.64
1956-57	84	6.43
1957-58	89	16.07
1958-59	120	45.42
1959-60	220	45.92
1960-61	220	46.02
1961-62	230	48.62
1962-63	234	51.83
1963-64	259	58.79
1964-65	272	65.00

Source :—Co-Operative Statistics Bihar (1965-66).

TABLE NO. 7.1

Statement showing the number of primary marketing societies and their paid up capital as on 30th. June, 1965 (State-wise).

Sl. No.	State	No. of primary co-operative marketing societies.	No. of primary co-operative marketing societies State participation.	Total paid up share capital of primary co-operative Marketing societies.	Total Share Govt. contribution to the share capital of the primary marketing societies.
1.	Andhra Pradesh	235	165	136.61	60.81
2.	Assam	195	126	32.50	25.70
3.	Bihar	272	272	65.00	56.60
4.	Gujarat	276	125	90.65	24.52
5.	Kerala	74	51	28.51	17.67
6.	Jammu & Kashmir	50	43	70.11	4.44
7.	Madhya Pradesh	239	204	117.60	76.00
8.	Madras	129	91	80.14	28.37
9.	Maharashtra	385	304	249.48	182.22
10.	Mysore	245	181	263.66	232.62
11.	Orissa	72	57	48.05	40.86
12.	Punjab	174	147	69.88	28.09
13.	Rajasthan	146	115	43.01	27.18
14.	Uttar Pradesh	199	149	114.85	49.75
15.	West Bengal	281	113	33.50	16.87
16.	Union Territories	160	38	120.03	5.75

Source :—Review of National Co-operative Development Corporation 1965-66.

The measuring rod of the viability of the society is its total share capital and membership. Though the quantitative progress of the co-operative marketing in our State appears satisfactory, yet our qualitative achievement cannot be compared favourably with other States. It is clearly evident from the table no. 2-7 that states like Andhra, M.P., Maharashtra, Mysore, U.P. and Gujrat, having less number of primary marketing societies, have got a better base of share capital. By the end of the year 1964-65, Bihar had 19,338 agricultural credit societies out of which 12,000 had been affiliated to the Primary marketing societies. But in Maharashtra, 18,322 societies had been affiliated out of 20,039 agricultural credit societies during the same period.

TABLE NO. 7.2

Statement showing the progress of affiliation of agricultural credit societies to the Primary marketing societies in Bihar.

Year.	No. of agricultural credit societies.	No. of credit societies affiliated to primary marketing societies.
1961-62	5,177	2,753
1962-63	18,943	7,219
1963-64	19,568	12,649
1964-65	19,338	12,000

Source :—Annual Review of N.C.D.C. for year 1965-66.

We have already mentioned that the main goal of the development of Co-operative movement on the lines suggested by the All India Rural Credit Survey was the integration of credit with marketing. If the achievements of primary marketing societies are examined in the back ground of this scheme, we can find that the movement of linking credit and marketing has sustained total failure in our State. I note with great surprise and disappointment that by the end of the 30th. June, 1965, the scheme has not been put into actual operation. Not even a single society has taken up this scheme. There is not even a solitary co-operative marketing society where credit and marketing has been linked in our State. But the States like Kerala, Madras, U.P. and Maharashtra have made a good progress under this scheme. Madras had been pioneer of this movement and steel holds the supreme position in our country.

TABLE NO. 7.3

Statement showing the value of agricultural produce marketed by Co-operatives in Bihar—Trend of progress.

(Rs. in lakhs.)

Year.	Marketing societies Primary.	Central.	Sugar or cane supply society.	Co-Opera- tive sugar factories.	Proce- ssing socie- ties.	Primary Ag. Credit societies.	total
1	2	3	4	5	6	7	8
1961-62	N. A.	—	733.16	—	—	70.95	804.11
1962-63	29.44	—	326.66	—	—	81.81	437.91
1963-64	54.49	—	480.56	—	—	102.10	637.15
1964-65	50.80	—	550.75	—	—	N.A.	601.55
1965-66	93.00	—	1,415.00	—	—	33.00	1541.00

TABLE NO. 7.4

Statement showing the value of retail distribution of production-requisites by co-operatives in rural area (Bihar)—Trend of progress.

(Rs. in lakhs)

Year.	Chemical fertilisers.	Seeds.	Agricultural implements.	Other produc- tion requisites.	Total produ- ction requis- ites.
1961-62	65.84	9.81	6.53	—	82.18
1962-63	79.42	15.70	0.92	0.72	96.76
1963-64	119.97	19.87	0.79	1.15	141.78
1964-65	150.45	11.95	0.75	11.25	174.40
1965-66	561.15	15.92	30.04	—	580.21

Source :—Review of National Co-Operative Development Corporation for the co-operative years 1960-61 to 1965-66.

Kerala holds the second position in implementation of this scheme. Bihar does not find its name even though the start was made in the beginning of the Second Five-Year Plan. It is apparent from the table given on the next page that though village credit societies of our State had been advancing short-term and medium-term loans to agriculturists, for one reason or the other, the primary marketing societies have failed to recover the amounts of behalf of the village credit societies. Thus the "integrated credit" scheme is still under the waste-paper-basket box in our State. The primary marketing societies have been doing the business of pledging of produce, acting as a sale agent of fertiliser and stockist of food grains. Thus Bihar has record of the marketing of agricultural produce on co-operative basis but it has failed to touch even the outer point of the objective

for which these primary marketing societies have been set up on the recommendation of the Rural Credit Survey. Amongst the various co-operative marketing institutions doing the business of marketing, the place of sugar cane supply societies is striking one in our State. During the year 1964-65 the value of agricultural produce marketed by co-operatives was to the extent of Rs. 601.55 lakhs out of which the sales of the primary marketing societies and cane growers' societies came to Rs. 50.80 lakhs and Rs. 550.75 lakhs respectively. Similar is the case with the year 1966. Out of Rs. 15.41 crores which is the total value of agricultural produce marketed by the co-operative marketing societies in the year ending 30-6-1966, the cane Growers' Co-operative Societies have shared to the extent of Rs. 14.15 crores and the shares of primary marketing societies and primary agricultural credit Societies come to Rs. 0.93 crores and 0.33 crores of rupees respectively. Marketing Societies, thus, present a very poor picture in our State. Central marketing societies, co-operative sugar factories, and processing societies have failed to find any place of record during the period under review.

TABLE NO. 7.5

Statement showing the number and operations of retail depots of chemical fertiliser run by co-operatives in Bihar (Trend of progress)

(Rs. in lakhs)

Year.	No. of depots.	Value of fertiliser sold.
1961-62	129	65.84
1962-63	126	79.42
1963-64	3,129	119.97
1964-65	3,129	150.45

Source :-N.C.D.C. Review 1964-65.

TABLE NO. 7.6

Statement showing the value of retail distribution of consumer articles by co-operatives in rural area of Bihar (Trend of progress)

(Rs. in lakhs)

Year.	Total value.
1961-62	19.76
1962-63	8.87
1963-64	10.26
1964-65	38.35

Source :-N.C.D.C. Review from 1961-62 to 1964-65.

Fourthly, there is a false apprehension amongst the cultivators that the marketing of their produce through the primary marketing societies will disclose their financial position before the Government and thus they would be subjected to agricultural income tax and levy procurement scheme. Naturally under such psychological atmosphere, they do not take interest in either marketing or pledging their produce through the Co-operative marketing societies. For instance in the case of one Vyapar Mandal (Paru under Muzaffarpur district) pledged produce of one member was seized by the B. D. O., Paru, for the recovery of the Government loan. Any scheme of rural development requires some incentive in initial stage. Such type of action on behalf of the Government officers can only discourage the movement.

Fifthly, absence of collecting agents at the village level is also one of the reasons for retarding the growth of the co-operative marketing in our State. Either the Manager of the Vyapar Mandal should collect the produce of the members or the Secretary or any body assigned by the society can spare himself to carry on this business. When the society fails to collect the produce at the harvesting season, the total volume of the agricultural produce marketed by the co-operatives is bound to be poor.

Sixthly, inadequate transport facilities are one of the difficulties for the development of an efficient marketing system in our State. The villagers have to bear the cost of transporting their produce from the farm to the godown of the Vyapar Mandal. Under such circumstances, the agriculturists will hardly feel any enthusiasm to market or pledge their produce with the primary marketing society.

Lastly, we must mention that the Scheme, of course, rests on the assumption that the members of the co-operatives produce crops primarily for sale. As it happens, the main crops of India and particularly of our State, specially of North Bihar are food-grains, most of which the peasant families do not sell but retain for their own consumption. A system such as the Reserve Bank proposed on the recommendation of the Committee of Direction would work best with growers of perishable cash crops like Sugar cane and potatoes which require heavy investment and must be sold after each harvest.

We may also note that Reserve Bank's scheme did not face up squarely to the credit needs of the peasantry for family living. From time to time, the peasant families must spend on marriages, education, illness, funerals, journeys, pilgrimages, etc. Ceremonies and festivals are either the most solemn occasions of life, or occasions for the greatest rejoicing. "The peasantry can and will do without neither. One of the main points made in the Rural Credit Survey was that the borrowings of the peasants must be understood as an over all "balancing factor". Their loans are a "balancing factor" making up the difference between their total current needs and their current resources".⁹

In such environment, it is the strength of the village money lender that he is prepared, at heavy cost to the peasant, to play the role of over-all "balancing factor". On this crucial ground, the Integrated Credit

9. Ibid; Page—16.

The statistical picture given above indicates that the Cane Growers' Co-operative Societies occupy an important position in the co-operative marketing in our State. The value of the agricultural produce marketed by the primary marketing societies appears poor in comparison to the sugar cane supply societies of our State. So far the marketing of production-requisites by co-operatives is concerned, the position of the supply of chemical fertilisers is the highest in the table no. 6-7. The supply of seeds through the marketing co-operatives is apparently poor. It is also quite clear from the appendix that the value of food grains marketed in Bihar during the year 1964-65 is comparatively low in comparison to the other states. Thus an inference can easily be drawn that the 'integrated marketing' is still in its initial stage in which cane marketing societies have a good record of success. However this failure of the scheme may be attributed to a few reasons.

Firstly, the originating point of the marketing scheme is village agricultural credit society i. e. Multipurpose Co-operative Society in our State. But "Co-operatives in Bihar and Orissa have been notoriously weak. The village co-operatives are not financially sound enough to meet the credit needs of the agriculturists. The very base of the scheme is the village credit society which is very weak and when the germinating point is weak, we cannot hope for strength in future."⁸ Under the scheme the initiative must come through the village society to market the produce of agriculturist-member through the primary marketing society. This only indicates that for the success of the scheme, we must revitalise the weak societies and make them a viable one in order to meet the growing credit needs of the agriculturists.

Secondly, no step is being taken to get an agreement executed by the members concerned to the effect that the recovery of the loan advanced by the village society will be made through the sale of the produce. No doubt, the Government circular is there but of no use. As the member concerned is not bound by any agreement, he is free to dispose of his farmproducts anywhere he likes. We think that the very sanctity of the 'crop loan' has been lost sight of. The village society should only advance loans to any member against the crop which is intended to be grown with the help of the financial assistance extended by the society.

Thirdly, lack of adequate supply of finance is one of the striking features of the primary marketing society in our State. Not a single primary marketing society is financially so sound as can take up the business with a great boldness. In course of survey, I came to know from the Managers of the Vyapar Mandals that even the Central Co-operative banks have failed to meet the financial needs of the primary marketing societies. The Manager of the Hazipur Primary Marketing Society (Vyapar Mandal) reported to me that a sum of Rs. 25,000/- only was sanctioned out of the indent of Rs. 1,50,000/- only in the year 1965-66. Sufficient supply of finance is the first requisite for smooth running of the co-operative marketing society.

8. Agricultural Co-operatives in India; A Field Report Daniel Thorner; Page-94.

Scheme, by contrast, offered him no competition. The Bank's scheme made rather vague and grudging allowances for subsistence needs in its system of crop loans. "Such needs will be automatically covered if the quantum of crop loans at so much per acre of the particular crop cultivated is properly fixed for each area after taking into account all relevant considerations."¹⁰ We can simply say that one can roughly allocate manure on a crop acreage basis, but it is not so easy to do so with marriage. The peasants thus must bow down helplessly before the money lenders who still occupy a dominant position in the rural credit structure.

Unless these occasional needs of our agriculturists are met by the village co-operatives they are bound to fall an easy prey to the village money lenders. For developing rural marketing on co-operative lines, it is highly essential that institutional arrangements should be made to free the peasant from the clutches of the modern "Shylocks". This will naturally widen the area of the success of the co-operative marketing in our State.

To conclude, the organisation of rural marketing on the basis of co-operative principle has been regarded as an indispensable factor for agricultural development. No doubt, regulation of agricultural mandis by state legislation can help the poor agriculturists by reducing and rationalising market charges, but the long chain of middlemen operating between the real producer and the ultimate consumer can only be eliminated, when the whole structure of agricultural marketing is placed on co-operative lines. Integration between marketing and credit is an essential aspect of co-operative marketing. Viewing the immense value of co-operative marketing the All India Rural Credit Survey (1954) has recommended the integrated credit scheme.

The success of the whole scheme of rural co-operative marketing depends upon the success of the Co-operative movement. But Co-operation has miserably failed in Bihar. The State of Bihar does not find its name along with the other States like Maharashtra, Madras, Kerala, U. P. and Punjab where co-operative marketing has developed to a great extent. We do not find in our State (Bihar) any Multipurpose co-operative Society where credit and marketing has been linked as visualised and recommended by the Committee of Direction. Like the scheme of regulated markets, the integrated credit scheme has also sustained total failure in our State. Thus all attempts of the State Government directed towards the revitalisation of agricultural marketing have failed to bring any change in the existing structure of marketing machinery. We can only be proud of the Cane Growers' Co-operative Societies which have a record of success in the field of co-operative marketing. But the reason of its success may be attributed to the compulsory channelling of delivery of canes through the co-operative society where C. G. C. S., is running. Naturally, the cane marketing as a Co-operative venture has been boosted rather artificially. So even the apparently bright record of C. G. C. S. in this respect is not a matter of much congratulation.

10. Report of the All India Rural Credit Survey (1954) Vol. II, Page—433.

CHAPTER VIII

THE ROLE OF STATE IN AGRICULTURAL MARKETING

The gradual evolution of the Welfare state from the "Police State" with the beginning of the twentieth century has increased the State responsibility in regulating economic activities of the society. This change in the outlook of the State has been responsible for the decay of the "laissez-faire" and emergence of the State Intervention. In recent times the policy of State intervention has touched every walk of life. Agriculture being the chief occupation of most of the under-developed countries, it is State responsibility to raise this business to a gainful occupation from a depressed one. "It is manifest that agriculture cannot be established on a remunerative basis by the unaided efforts of the agriculturists themselves..."¹ State regulation of the marketing operations in the developed countries, like Great Britain, the U. S. A., Canada, Denmark, Australia and Newzealand has influenced the State policy towards agricultural marketing in most of the under-developed countries. It has now been accepted by almost all the Governments guided by the Principles of different ideologies and 'ism' that agriculture can not be placed on sound footing and profitable business until the State steps in.

The advent of the twentieth century in the history of the economic thought is characterised by the decay of the Laissez-faire as an economic policy. Till the end of the nineteenth century, the principle of the laissez-faire dominated state policy and governments did not look with favour upon a policy of economic intervention. It is not possible to give an exact date when the policy of laissez-faire was established. But it is usually supposed to have been well on its way by the end of the eighteenth century when Adam Smiths followers expounded the theories of impersonal international price system, and of free trade as the most desirable regulators of economic action and the promoters of national wealth. Naturally, we find that the whole period of the nineteenth century has been dominated by the policy of "laissez-faire". This ever-rising policy of laissez-faire lured Cobden to prophesy in 1846 that "all civilized nations would very soon follow great Britain's example in removing the shackles of trade."² Under the working of this principle, the cost-price structure was considered to be the result of the market forces of supply and demand which reflected the capacity for production and the consumption requirements. The automatic adjustment of the domestic prices by the forces of demand and supply and the automatic adjustments of the international prices by the mechanism of the international gold standard constituted the anchor sheet of the economic system.

But the end of the nineteenth century marks the end of this policy. Economic society is not unlike a living organism which grows and functions

1. Report of the Prices Sub-Committee (1946) Page—11.

2. Agricultural Marketing in India and Abroad, S. R. Srivastava. Page—173.

by increasing adaptation to an everchanging environment. It is governed by the law of action and reaction. Every movement has within it the seeds of its own decay. There is always constant tide of evolution in which the old is almost imperceptibly blended with the new one. The rise of economic control, like that of the system it displaced, emanated from various sources. Political philosophers, economic thinkers, the trend of economic and political events, the type of economic and political organisations—all joined hands to bring about this revolution, a revolution in the economic policy. Thus, the tide of individualism, after attaining its high-water mark in the nineteenth century, receded fast in many countries. Naturally, the advent of the twentieth century marks an emergence of State intervention in economic activities.

The Great Depression of the thirties has worked as one of the determinants of the change in the out-look of the State. All nations of the world were affected by this depression which brought the evils of mass unemployment and miseries that shook the foundation stone of the non-interference policy of the State. While the depression affected all the countries in different degrees and intensities, its impact was particularly severe on predominantly agricultural countries like India, where because of the relative scarcity of capital and land, a majority of producers live at or near subsistence level even in normal times. The social consequences of mass unemployment and mass poverty were so grave and fraught with so many economic and political dangers, that it was impossible for the Governments of the world to stand idly by and wait for natural economic forces to save the situation. They had to give up their traditional policy of non-intervention in order to arrest the fall in prices and to shorten the period and severity of the depression. The measures taken varied widely according to the characteristics of each country's economy.

In the modern age, the growing responsibilities of the welfare States have been recognised as "Sui-qua-non" for enlarging the area of social welfare. State intervention is now no longer looked as a restraint on individual activities. State regulation of different occupations has become an archstone of the national policy. Agriculture being a distinct business exhibiting some special characteristics, there is a special case for State intervention in agriculture. Organisation of agricultural economy in modern lines can only succeed when State takes the responsibilities to safe-guard the interests of poor cultivators arising out in this operation from the farm to the point when their produce reaches the hands of consumers. "It has for a long time been recognised as axiomatic that to ensure the basis of progress and social justice in the rural community as well as to release the energies and enlist enthusiasm of all strata of population for success of the planned development, one of the foremost as well as one of the toughest problems of agricultural planner is that of agricultural organisation".³

Thus a special case may be advocated for the State Intervention in the field of agricultural re-organisation. Various reasons can be advanced in support of the need for the State interference in the field of agriculture. These reasons may be enumerated as follows :—

3. Aspects of Agricultural Development and policy, B. K. Madan; Page—110.

Firstly, agriculture is dependent upon the land and the system of land revenue and the law of inheritance play a significant role in determining the efficiency of cultivation. Thus the State can influence the pattern of agricultural operations through these two channels. Secondly, farming is regarded as a small-scale industry and in most of the underdeveloped countries it is carried on the fragmented pieces of lands. Thus a cultivator is put to a great difficulty in obtaining proper, adequate and timely capital for investment in comparison to large-scale business. "When he wants loan, he has no adequate security to offer to the creditors. He is therefore always in financial difficulties. He has no holding power. His bargaining ability is poor." ⁴ Hence State can help the agriculturists in many ways by introducing changes in land reforms policy. Finally, the agricultural prices and farmers profits fluctuate more violently specially in the short period when supply does not adjust itself to demand. In underdeveloped countries, due to the low income of people, the deficit nature of agriculture and the burden of indebtedness, the grower fails to have adequate purchasing power. This has resulted in a chronic state of under-consumption and a low standard of living for the majority of the people. This state of affairs required large scale assistance by the State for expansion and improvement in agricultural production and for ensuring a certain degree of stability and a reasonable level of income for the farmers. Further, the inelastic nature of agricultural production, its dependence on the vagaries of nature and the biological nature of its economy claim a special case for intervention and its assistance.

The role of agricultural marketing for increasing the size of marketable surplus and thus paving the way for rapid industrialisation in most of the agricultural countries has drawn the attention of the State for assistance in reducing the costs of marketing. The whole agricultural plan for its re-organisation and re-vitalisation entirely depends upon the efficiency of marketing machinery. Thus along with increasing the farms' efficiency, the problems of agricultural marketing are now occupying the highest place in agricultural planning of a nation. In India, the importance of agricultural marketing was not realised till the publication of the findings of the Royal Commission on Agriculture (1928). While commenting on the activities of the Provincial Governments in the field of agricultural marketing the Commission remarked—"It can not be said that they have been able to give him (Producer) substantial help in securing the best financial return for his improved quality and his increased out-turn. Except to a limited extent they have regarded the problems connected with the marketing of his product as outside their purview". ⁵

The State legislation can help the farmers in obtaining just price for his produce and in reducing the costs of marketing at various ladders of our marketing structure and thus creating an orderly marketing. In our State, the State legislation has influenced the marketing operations through various channels viz. (i) Strengthening the structure of co-operative marketing, (ii) developing regulated markets, (iii) providing Ware-housing facilities, (iv) bringing uniformity in weights and measures and (v) taking steps towards standardisation and Grading. The first three developments as a

4. Agricultural Price problems in India, B. A. Patil, Page—49-50.

5. Royal Commission on Agriculture (1928); Page—382.

consequence of the State-policy have already been examined in previous chapters. We now propose to examine the State policy towards weights and measures, standardisation and grading, Marketing Intelligence and Crop Insurance. The problems of grading, standardisation and marketing intelligence are well known. So we continue our discussion to crop insurance.

Crop Insurance

In recent years, agricultural insurance, particularly crop insurance, has come to be recognised as one of the essential conditions for the efficient working of the rural credit and marketing system. The natural risk in agriculture is so great that a scrupulous lender not only examines carefully the conditions existing at the time of lending, but also estimates probable future happenings and will try to protect himself accordingly. "Every application for loan needs to be judged in the light of what is likely to occur during the entire period covered by the loan. A rosy picture on the day the loan is made may be a dark one on the day the loan is due."⁶ But no device which the most conservative lender may utilise can give that measure of security or safe-guard which agricultural insurance is capable of affording.

Agricultural insurance is designed to safe-guard the material interests of the farmer by compensating him for his losses while at the same time adding to the security offered by the borrower for the repayment of his loans. The farmer cultivates his crops with high hopes of being adequately rewarded for his efforts. He sees in the future a rich harvest and fair prices. But some catastrophies like drought, floods or disease may occur and the farmer may fail to realise his hopes. In the event of crop failure, the agriculturist in the absence of reserves, if he needs funds, has to resort to borrowing or he may have to solicit public or private relief. At such times the cost of borrowing more often than not is high. Agricultural insurance eliminates the financial uncertainty that haunts the farmer in times of stress. It gives him a certain amount of financial security. It has been rightly observed by the Congress Agrarian Reforms Committee that "while the guarantee of fair price will assure fair income to the agriculturist in times of depression, there should be some device by which the cultivators could be protected against the hazards of drought, floods, hail, fire excessive rainfall, winds, plant disease and insectpests. This is possible only through a scheme of state subsidised crop insurance."⁷

In many countries of the world, particularly in Europe and America, agricultural insurance is available to farmers from stock or mutual (societies) companies. The Agricultural Insurance Institute in Greece undertakes direct insurance against hail and frost as also re-insurance of local agricultural association and mutual societies and unions. It indemnifies up to 30 percent of the value of the crops insured. It is subsidised by the Government, in addition to the share it receives from the export levy on certain types of produce. In Tunisia, where the

6. Agricultural Finance, Willing C. Murray, Page.....62.

7. Report of the Congress Agrarian Reforms Committee (1945) S, P. C. Page...153.

Government has organised a system of insurance against hail in conjunction with local Provident Societies, insurance has been made compulsory by law. Mutual or co-operative agricultural insurance is very highly developed in France, North Africa and Latvia. The commercial companies in these countries operate side by side with mutual societies. These societies are subsidised by the State which exercises control over them. The societies in France are also helped by the National Bank of Agricultural Credit. In Germany, private companies as well as public institutions undertake hail insurance. In the U. S. A. Mutual Property Insurance Companies provide insurance against wind, storm and hail.

Economic of Crop Insurance

Insurance is a protection against myriad risks which are inherent in every walk of human life but which cannot be predictably controlled. It has much social significance. Crops are subject to many hazards. Traditionally, Indian agriculture has been a gamble in the monsoon. Besides the main hazards of uncertain, inadequate and unpredictable rains, there are many other risks like, fire rodents and pests, frost and inclement weather to which the crops, whether cash crops or otherwise are subject. The problems are accentuated considerably by the fact that the farmer has not as yet completely eschewed outmoded belief and antiquated practices. The economic condition of our farmer who is involuntarily saddled with many social obligations, is weak and precarious. A single year of ruined crops will mean a complete catastrophe for him which he can seldom survive. It is to guard him against these risks that the scheme of crops insurance assumes and added significance. Now, for any scheme of insurance to be successful, it is imperative that the risks undertaken must be clearly and unambiguously brought out in the policy itself. To lend it credence, we will need a large quantity of scientific and statistical data. This aspect is particularly important in this type of insurance. "Described eloquently as the Magnacharta of Indian agriculturists it will be the harbinger of progress and prosperity of the farmer who feels virtually suffocated in his present plight. Though a belated realisation, the Scheme is bound to have a great impact on our economy in due course and would help in leading to self-reliance in food⁸."

Crop Insurance And Government Policy

Our agriculture has suffered much from the vicissitudes of nature not only because of crop and live-stock losses, but also because these losses very often make it impossible for farmers to meet even the interest charges on their loans. Crop failures occur in some parts of the country every year. The unprecedented drought of Bihar and Eastern part of U. P. in the year 1966-67 will be remembered for all times to come. Hence, farmers must have protection against them, more so now that our food problem has become grave and the nation is fighting to preserve its life and freedom. The agricultural front must be strengthened with the help of a crop insurance scheme. The importance of guaranteed returns to cultivators must not be belittled. "With an assurance of a reasonable return the cultivators will turn to their production programmes with greater confidence."

8. Economic Review (A.I.C.C.) Vol. 18, No. 13, March, 1, 1967.

Prices for agricultural commodities to-day are relatively high; they will probably stay high for some more years to come. But prices, as every cultivator knows, means nothing to him whose crop is destroyed by unavoidable causes. Indeed the higher the price, the greater his loss through crop failure and with each crop failure he suffers the risk of being thrown away from the rank of solvent cultivators to swell those of the paupers. The farmers, faced with the problem of accumulated debts and a miserably low standard of living, are compelled to find other means of livelihood in the event of a crop loss. Agriculture suffers as a consequence of such migratory movements. The farmer finds it difficult to continue his occupation owing to the lack of financial security. Against all risks, crop insurance is designed to give the farmer security of income and yield. The first countrywide experiment for providing all-risk crop insurance to farmers was made in the U. S. A., in 1938. And to-day it stands as a monumental illustration of Government policy in the agricultural field for other countries to emulate.

The Scheme of the crop insurance in India was first of all discussed by the Co-operative Planning Committee (1946) in the following words :— "Crop Insurance in India in the present circumstances appears, in our opinion, beyond the scope of private agencies or co-operative organisation, firstly because of the lack of reliable statistical data and secondly because of the inability of the peasantry to bear the incidence of its cost. At the same time, we believe that some scheme will have to be devised in course of time to protect agricultural classes."⁹ The Committee's suggestions were endorsed by the Registrar's Conference of 1947. The preparatory Asian Regional Conference (1947) convened in New Delhi stressed the necessity of affording income security to cultivators and recommended crop and cattle insurance for immediate consideration of the Government.

In pursuance of these suggestions Mr. G. S. Priolkar was appointed by the Central Government in 1948 to investigate the problems of crop and cattle insurance in India. In this report submitted to the Government of India in 1949, Mr. Priolkar indicated a line of approach to the subject in Indian conditions and recommended all-risk crop-insurance for protecting cultivators against all crop hazards beyond the control of the uninsured. His proposed plan for Crop Insurance was broadly based on the U. S. A. Scheme of the Federal Crop Insurance Corporation set up under the Agricultural Adjustments Act of 1938. As yet, however, no serious attention appears to have been given by the Government to any of these proposals.

As the centre is disinterested with regard to the introduction of crop insurance scheme on nation-wide scale, it is the duty of the State Government to approach the Centre with a proposal of this scheme prepared and drafted by the Department of Agricultural in consultation with the departments of Planning, Animal Husbandry and Co-operation. The Scheme should be introduced on experimental basis in the pilot projects Areas of Package Programme. Recently, the State Government of Punjab announced its decision for introducing Crop Insurance in the State.

9. Report of the Co-operative Planning Committee (1946) Page—152-53.

Some Factors to be Taken Into Consideration

Should we contemplate compulsion for insurance of his crops by the farmer ? or should a standard be set after taking into account the factors like acreage, annual yield, nature of crops, general topography of the region etc. ? Admittedly, the scheme can be most effective in regard to big and mechanised farms. This question is of paramount significance if the experience of co-operative farming is of any indication. Allied to it is the technical problem of premium determination. Can we fix uniform rates of premium for every part of the country ? or will they vary with the nature of crops and topography of the regions. Premium rates should not be prohibitive. It is equally important that the scheme be launched on all India basis. The fact that the scheme covers the entire country, will make the application of the cardinal principle of "Inertia of large members effective which explains the national basis of the science of insurance". Besides this, many technicalities of the insurance business should be enquired into before the formal launching of the scheme on a national scale.

Crop Insurance can prove a boom to our agriculture which is now in the doldrums. The agricultural sector of North Bihar is not an exception to this broad generalisation. In predominantly agricultural economy it is a necessary concomitant of any development plan. Two distinct advantages will accrue. A sense of security in times of disaster will keep the wheels in groove and lead to greater progress and prosperity of the farmer. Agriculture will come to acquire the complexion of an industry. Present condition is most of the states like Bihar, U. P., M. P. and Orissa have demonstrated that the lack of purchasing power with the farmers has been largely responsible for the pitiable situation. Under the circumstances of dire necessity resulting from the failure of crops, the farmers are compelled to sell their cattle and implements which places them in a vicious circle. This can be broken by insuring their crops.

CHAPTER IX.

THE NEED FOR PRICE STABILISATION IN AGRICULTURAL MARKET.

Stabilisation of agricultural prices in the background of stability of general price level has been recognised as one of the most important programmes of the re-organisation of agricultural economy. Any wide fluctuation in the general price level is not only injurious to the society as a whole, it also distorts the implementation of economic planning. The importance of stabilisation of agricultural prices and farmer's income hardly need any emphasis specially in agricultural countries like ours. "For ensuring a stable price level, the agricultural sector holds the key. This is not only because agriculture provides the raw materials for industrial development, but also because food-grains constitute more than 50 percent of the consumption expenditure of the majority of the population."¹ A sharp movement in the prices of agricultural commodities either in the upward or downward direction is the primary factor contributing to the instability of farmers' income. Thus fluctuations of wide range in the prices of agricultural commodities bring instability in the purchasing power of the agriculturist class. Though in secondary industries a rise in prices is marked by an increase in the total volume of out-put, yet the same is not true in agriculture. The biological character of agricultural production and its dependence on the vagaries of monsoon and weather conditions cause inelasticity in its supply. The basic truth is that the agricultural prices hold the industrial price.

The evils of rise in prices of food articles are responsible for the rising unrest in the industrial sector. It is also injurious to industrial peace. As the labour-class has to spend a major portion of their income on the consumption of food stuffs, any tendency towards rise in prices of food-grains is generally characterised by the clamour for higher wages, strikes and lock-outs. We have examples of Red China, where as a consequence the Communist captured the Government in the year 1947. The increase in the wage-rates is reflected in the rise of the cost of production. Thus a vicious circle is created in economy. The whole industrial sector is distorted as a consequence of rise in the prices of agricultural commodities, specially of foodgrains. The path of rapid industrialisation becomes difficult in absence of stabilisation of agricultural prices. "The strains and stresses of a growing economy cannot but continue to be reflected in the various types of price disparities that exist; special measures will, therefore, be necessary for keeping such disparities within reasonable bounds."²

1. Price Policy & Economic Growth : Institute of Applied Economic Research.
2. Report of the price Sub-Committee; 1957, Page.....75.

The hardships and miseries of the agriculturist class as a whole are more pronounced and acute during the period of falling prices of farm-products. The farmers show their inability to respond to a change in the price of agricultural commodities. As a general proposition of economics, we find that out-put changes as there is a change in the price of the commodity. A rise in the price level stimulates the manufactures and thus there is an increase in the out-put. Similarly, when there is a fall in the prices, a corresponding fall in the out-put is also marked. But the same generalisation does not hold good in the field of agriculture. Agriculture as an industry presents peculiar features which are not found in manufacturing industry. The reason why farmers exhibit reluctance to adjust their supply to changing prices is that the supply of various factors of production is itself highly inelastic i. e. the supply of the various agents of production is not responsive to the changes in the prices of agricultural produce. The whole analysis of the effect of rise and fall in agricultural prices indicates that the agriculturists are the worst sufferers during inflationary as well as deflationary period. Any attempt to arrest the fluctuations in the prices of farm products can benefit the agriculturists to a great extent. The stabilisation of agricultural income is more important than the stabilisation of agricultural prices. It is rightly maintained that "what is important is not so much stabilisation of prices of the agricultural commodities as a policy of stabilisation of incomes of farmers' families at a reasonable level."³

In our marketing structure, the producers and consumers are at two extreme points. Agriculturists are more interested in realising the maximum price of their yield whereas the consumers are keen on giving minimum price. A violent fluctuation in these prices adversely affects the agricultural productivity. Therefore a sound agricultural price policy should aim not only at increased production but also assure the farmer of a remunerative price enabling him to maintain a decent standard of living and at the same time, it should not undermine the interest of consumers. If our cultivators remain uncertain about the prices of their commodities in future, they will always be in darkness about future investment in the land. We must fully agree with the views expressed by the Krishnachari Committee on Agricultural Prices (1945) that "all the other measures combined will not succeed in attaining the objectives of raising agricultural productivity and out-put unless the producer is guaranteed a remunerative price for his produce."⁴ Thus the question of stabilisation of agricultural prices is the heart of agricultural plan which aims at a re-organisation of this primary industry.

In short, we can say that stabilisation of agricultural prices will not only introduce an element of stability in agriculture but will also produce stability in other spheres of economic life and will assist in securing general rise in national income. The maintenance of the income of the agriculturist at a satisfactory level will provide a large home market for the products of our industries and encourage their development. It will make the revenues

3. Studies in Rural Economy, Dr. R. V. Rao. Page.....189.

4. Report of the Prices Sub-Committee, 1945, Page.....19.

of State Governments more stable because of its direct effects on land revenue and water charge and its indirect effects on the yield of the other sources of revenue.

The method of buffer-stock-organisation is one of the techniques of price stabilisation of agricultural commodities. Defferent measures can be adopted for creating the buffer-stock-reserves. For instance, the Government of Bihar has chosen the method of monopoly purchase and the system of levy on agriculturists and rice mills. But the method of monopoly purchase had to be withdrawn as a result of serious criticisms and cracks in the constituent parties of the United Front Ministry of our State. At present it is only the method of levy which is in existence in our State. But the method of levy is also open to various defects, which have restricted the achievement of the objective of the Scheme. The Scheme of the State Trading in Food grains is still under consideration of the State Government. Naturally, the issue of the stabilisation of agricultural prices in our State has not been given serious thought as yet. The whole Scheme of monopoly purchase and the system of levy have to be examined in the back ground of our past experiences.

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