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protective foods drawn mainly from fish and live-stock, *e.g.*, milk, eggs and meat and also from fruits and vegetables. This group of farm products being perishable presents special problems and, more than fixation of statutory prices, measures such as marketing facilities, bulk handling and arrangement for sale on fixed price basis through co-operative or State organizations, etc. are likely to prove successful in increasing production.

Prices of these products are much higher in the cities and towns. If the present policy of establishing dairy schemes like those of Bombay, Calcutta and Delhi is extended to practically all the important towns and cities and milk as well as milk products are made available to the consumer at fixed prices along with a guarantee of quality, prices of such producčts are bound to remain within the desired limits. Prices will naturally be stabilized at the producing centres as well. With an assured demand, production will also get sufficient incentive.

As for meat, slaughter and sale houses will have to be licensed so as to ensure quality and prices. Egg Boards like those of United Kingdom and proper marketing as well as warehousing facilities for fish may serve as an answer to all those other items which are likely to be in great demand.

Once we succeed in keeping the prices of all these major items of consumption within desired limits, it may not be necessary to bother about the prices of the remaining crops like fruits and vegetables. Incentives for their increased production and the provision of necessary marketing facilities alone may be more than sufficient.

It should not, however, be forgotten that though a sound price policy is one of the essentials in planned development of agriculture to meet the requirements of food for the people, to ensure balanced diet to them, to produce for industries and foreign exchange, price alone cannot tackle all the farm problems. This has to be one of the links in the whole chain, the other links being technical knowledge, intensive cultivation, irrigation, effective extension education, agrarian reform, credit, co-operation, etc. In the present context, the problem is not that of increasing the production of one commodity at the cost of another, but increasing the production of all the commodities. While a stable and remunerative price level with maintenance of parity between competing crops will play its role in providing the necessary incentive by reducing unhealthy fluctuation and balancing production in the direction desired, increased production over the present level has to be achieved by commanding and using all the factors of production in the best possible way. The problem of production can best be tackled by a judicious combination of economic as well as technical policies and measures.

PRICE POLICY FOR AGRICULTURE IN THE CONTEXT OF INDIAN ECONOMIC DEVELOPMENT

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Price manipulation is an acknowledged method of planning in all economic system, and particularly so in a private enterprise economy. By price manipulation the planning authority may, in theory, affect costs and profits and thus create the necessary inducements or disincentives for diverting the flow of resources between various lines of investment. The *modus operandi* in brief is that by affecting the relative profitability of investment through manipulation of relative prices allocation of investible resources is influenced by the planning authority.

Price manipulation as a practical policy instrument has not, indeed, been tried so far in this country on any significant scale with the objective of varying the relative volumes of investment. The rather precipitous fall in agricultural prices following the bumper agricultural production of 1953-54 witnessed another aspect of price policy in relation to agricultural commodities in action. To prevent price declines affecting the farmer too adversely Government announced minimum prices for certain crops in certain areas of the country at which it would be purchasing the crops in question from the market in any quantities. The experience that even in an overall shortage economy like India's, price declines may occasionally constitute a problem altered the perspective of discussions relating to price policy in the Second Plan period and the outlines of a price support policy started emerging.

A Price Support Policy

In an excellent paper on Price Policy, Dr. S. R. Sen discusses in some detail the essentials of price policy for agriculture.[1] After discussing the requirements of development and stability in agricultural production Dr. Sen evolves a formula stating the relationship between the various quantities concerned, *viz.*, provisional estimate of output, provisional price fixed by the Government on that supposition, the final quantity turned out and the final market price relating to each crop as it concerns Government policy. Dr. Sen lays down a number of indicators of the basic economic trends in a community which will help Government to determine minimum and maximum permissible prices for each crop. Announcement and implementation of these minimum and maximum prices constitutes the principal feature of the operational part of this approach.

A Minimum Income Policy

The case for a minimum income for the farmer is theoretically better than the case for minimum prices for crops produced by him. The case rests on grounds of equity rather than of production incentive. From that standpoint what has to be guaranteed is a minimum price for the marketed produce and not the total output. According to the formula suggested in the paper by Dr. Sen, well before the sowing season for each crop, the Government may announce a specific size of the crop that it expects (provisional quantity = Qp) and the price per unit (Pp) which it would expect to rule and be ready to purchase in the market for a crop of that size. The anticipated or targeted size would bear a certain ratio to the previous year's crop. The quantity $Qp \times Pp$ represents the anticipated income from the cultivation of that crop. After harvesting, the actual or final size of the crop (Qf) may come to differ from the anticipated-cum-targeted quantity. The final price (Pf) should be so regulated that $Pf \times Qf = Qp \times Pp$ or $Pf = \frac{Qp \times Pp}{Qf}$, and taking account of the amount not marketed, $Pf = \frac{Pp\,(Qp-r)}{Qf-r}$ where r is the quantity of the crop retained by the farmer.

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1. Government of India, Papers Relating to the Formulation of the Second Five-Year Plan, New Delhi.

This approach has the advantage of flexibility in the concept of the minimum or floor price, though its implementation would doubtless not be easy.

Price Support Measures in India

The price support that was extended to wheat, gram and rice between April and August 1955 and preceded by the announcement in 1954 of minimum prices for wheat, *jowar*, *bajra* and maize were probably the first examples of attempts at maintaining minimum or floor prices for selected crops in certain areas. Subsequently raw jute has been the only example of a crop in which steps were taken by the Government to prevent or minimize price declines. In December 1958, by way of supplementing the efforts of the Indian Jute Mills Association to restrain fall in prices of jute goods, the Government authorized the State Trading Corporation to purchase raw jute through co-operative societies in the principal producing areas, besides permitting the Corporation to export limited quantities of raw jute. In this case also, however, 1960-61 witnessed a very sharp rise in prices, necessitating measures of an opposite nature.

Except for the above two rather isolated instances, official price policy in India has all along been directed towards curbing the inflationary trends dominant throughout not only in agricultural but in the general price level as well.

Price Trends in India in a Decade of Planning

Despite, thus, occasional talks of the need to assure minimum prices to growers in the interests of higher production, the last ten years of planning and more, have been years of high and increasing prices for agricultural together with other prices, giving little occasion for formulation or implementation of a price support policy.

Table I illustrates the price behaviour of important commodity groups in recent years.

TABLE I — INDEX NUMBERS OF PRICES OF IMPORTANT COMMODITY GROUPS

(Base 1952-53 = 100)

Average of Weeks	All Commodities	Food Articles	Liquor & Tobacco	Fuel, Power, Light and Lubricants	Industrial Raw Materials	Intermediate Manufactured Products	Finished Manufactured Products
1950—51	111.8	112.5	98.4	92.6	130.9	112.4	101.8
1953—54	101.2	100.1	95.6	98.0	107.4	98.6	100.7
1954—55	89.6	82.1	85.0	95.6	94.6	97.0	100.1
1955—56	92.5	86.6	81.0	95.2	99.0	100.1	99.6
1956—57	105.3	102.3	84.3	104.2	116.0	110.9	105.6
1957—58	108.4	106.4	94.0	113.6	116.5	107.3	108.2
1958—59	112.9	115.2	95.4	115.4	115.6	110.3	108.1
1959—60	117.1	119.0	99.5	116.5	123.7	113.8	111.3
1960—61	124.8	120.0	110.0	119.6	145.4	130.5	122.8

Except for the group liquor and tobacco, the 1960-61 prices of all commodities ranged between 20 and 30 per cent, and in the case of industrial raw materials 45 per cent higher than the 1952-53 prices. This rise in the liquor and tobacco was relatively lower. Industrial raw material generally kept pace with prices of other groups till 1958-59 whereafter there has been a strong upward spurt in the prices of these groups, though the rise is not as great if 1950-51 prices are taken into account. It is only over the First Plan period, and that too in the last two years, that any trend became evident for a fall both in the general index as also in the indices for all prices. Since 1956-57, *i.e.*, right from the beginning of the Second Plan period, prices have been rising steadily, and food prices and prices of industrial raw materials have shared most in this rise. It is only in 1960-61 that the manufactures group has caught up with the rise in agricultural commodities. Tobacco is almost the only instance, together with liquor, that has failed to share in the consistent rising trend since 1956-57 to the fullest extent, though in this case also much leeway has been made good in 1960-61, the closing year of the Second Plan.

Price trend, so far, therefore, including prices of agricultural products have demonstrated little need for special measures for providing price incentives to manufacturers and growers. If the experience of the Second Plan period is any guide, agricultural prices in general hardly seem to need much support for development of production.

PRICE POLICY IN INDIA

Policy measures, naturally, have been therefore more concerned with curbing price rises than the other way round. Measures that have been taken so far may be classified as follows:

1. Monetary credit control.
2. Regulation of the distributory mechanism.
3. Increasing the supply of commodities.
4. Regulation of the market price mechanism through price control and control of speculation.
5. Buffer stock or open market operations.

The general tenor of these measures has been towards curbing inflationary price rises consequent on the large quantities of developmental investment being undertaken in the country. Whereas the First Plan period saw some sharp fluctuations in prices of agricultural products, mainly due to fluctuations in production, the Second Plan period has seen a steady upward trend in these prices, caused mainly by deficit financing and population growth, despite increase in production.

The Reserve Bank's Report on Currency and Finance for 1959-60 notes that the bulk of the rise of 32.9 per cent or so in the General Price Index in the preceding five years has been under food articles (which increased by 42.2 per cent) with a 50 per cent weightage and industrial raw materials (which increased by 40.6 per cent) with a weightage of 15.4 per cent, whereas manufactures with a weightage of 25 per cent went up during the period by 17.5 per cent only.

In general, therefore the problem within the last 10 years has been mainly one of reducing the price level and only occasionally of preventing a fall. In the Third Plan period inflationary pressures are likely to continue though the quantum of deficit financing will be lower.

MAINTENANCE AND DEVELOPMENT OF THE INSTRUMENTS OF CONTROL

The mechanism for price manipulation, as it exists already, however, has to be considerably improved and perfected and kept in a state of readiness for use not only for price restraining but for price support policies as well, should any such contingency appear. The policy of gradual socialization of the distributional trade, as stated by the Foodgrains Enquiry Committee of 1957 has, therefore, steadily to be pushed forward if the machinery of control has to function well in case of need. Complementary to the programme of socialization of the wholesale trade is the reorganization of marketing on co-operative lines at the level of producers, and the programme of warehousing construction under the State and the all-India Warehousing Organizations. As the Policy Statement of November 1958 declared, the ultimate objective was a system in which farm surpluses would be mobilized at the village level by service co-operatives and handed over to the marketing co-operatives, to be transported through the State Trading Corporation via the chain of warehouses to the markets which need them. This involves such a considerable stepping up of the programme of producers' and marketing co-operatives from their existing condition that it appears unlikely to be achieved in the near future. For the next several years, therefore, the existing channels of distribution will have to be properly controlled through the traditional instruments.

Open Market Operations and Buffer Stocks Organization

The principal instrument for any open market operation by any price fixing authority will, of course, be a buffer stocks organization which will keep a constant watch over the situation and be prepared to take the risk of loss involved in such operations, though taking a long view and taking account of the large variety of crops and the diversities of different areas, the profits and losses of the organization should balance against each other.

The instruments of selective credit control, control over movements of grains, regulation of futures trading, etc.—all have further to be kept in readiness and used as need arises.

The Problem of Parity

Apart from the direction of price changes, whether general or in individual crops, there is the very important problem of parity between agricultural and other prices, from the standpoints both of production incentives as also social equity or distributive justice.

The Krishnamachari Committee on Agricultural Prices had recommended maintenance of parity ratios that prevailed between agricultural prices and agricultural costs in the quinquennium 1924-29, agricultural costs, according to the Committee, being represented by the prices of cloth, kerosene, salt, *gur*, sweet oil, iron and steel, bullock, manure, oilcake and fodder combined in a suitably weighted index number series. According to this approach even if a rigid parity ratio has to be ruled out, the case for protecting the agriculturist from a rapidly declining purchasing power of his income has to be recognized. Any marked relative rise in these prices may jeopardize the agriculturist's capacity for increased production. With regard to consumption goods, the effect of higher prices on agricultural production will depend on elasticity of demand as also their availability. On the assumption of a low price elasticity the effect of rising prices may be favourable to increased output.

A Forward Price Policy

While in general it should not be necessary to adopt minimum price policies, a minimum income may have to be guaranteed to producers in periods of temporary fluctuations. Thus a Forward Price Policy as per formula suggested by Dr. Sen and referred to already should form a part of the armoury of price policy.

Limitations of Price Support Policy

Theoretically it is generally agreed that a price support policy is justifiable and feasible only in a relatively minor sector of an economy. It would be entirely unpractical to think of 70 per cent of the occupied population generating about 50 per cent of the national income being subsidized by the remaining 30 per cent of the occupied population, already over-burdened with a disproportionate share of the cost of economic development. Further it would clearly be beyond the scope of price policy to counteract persistent and strong forces in the economy making for price changes.

PRICE POLICY IN THE CONTEXT OF CAPITAL FORMATION

It is by now generally agreed that in a predominantly agricultural country like India the real burden of economic development has, to a great extent, to be borne by agriculture. It is also generally agreed that due to a number of reasons agriculture in India has so far escaped its due share of the burden of financing development. Any price rise in agriculture relatively to other sectors in the economy will aggravate the inequality in the sector-wise distribution of the burden of development. The agricultural sector is a poor accumulator of capital. The interests of capital formation are unlikely to be served by transferring to it net resources from other sectors. Without necessarily following their example, it may be instructive to recall the scissors type price policy followed in the early stages of planned development in communist Russia.

Prices as Resource Allocators

Basically the role of the price structure lies in bringing about necessary adjustments between demand and supply by influencing suitably the allocation or flow of resources between production channels. A backward agricultural economy that is out for a programme of industrialization should, in the normal course, make industry a more attractive field of investment than before. If, however, due to a combination of circumstances as in India, agriculture grows relatively more prosperous than industry, the planned allocation of investment funds may be disturbed; land may attract an unduly large share of monetary savings and land values may go up more than warranted by agricultural incomes and without a corresponding increase in agricultural outputs.

Prices as a Regulator of the Cropping Pattern

As stated in the beginning, there is, theoretically, a possibility of using differential price-incentives to different crops for bringing about a desired cropping pattern within agriculture, though the First Plan cautioned about the dangers involved. A beginning may, however, be made in marginal cases where left to themselves market forces may not fully bring about necessary adjustments between changing demand and supply conditions for different crops.

THE STRATEGY OF DEVELOPMENT

The traditional model for the process of industrialization of an under-developed agricultural country is agricultural development in the initial stage so as to generate surplus in the quantitatively largest sector of the economy, made visible through agricultural exports, transferance of the surplus to non-agricultural sectors through industrial investments in the second stage followed by shifts of labour and other factors of production from agriculture to industry and the related sectors.

The Indian Case

In view of the chronic state of food shortage in the face of an overgrown and still growing population, the chances of generation of an agricultural export surplus in Indian agriculture are very remote indeed. The strategy adopted in Indian Planning, therefore, has emphasized rapid industrialization right from the initial stages of planned economic development. Agricultural development has, however, the important objective of removing food shortage and attaining food self-sufficiency in the shortest possible time, and thus preventing dissipation of resources on food imports from abroad. An allied long period goal of structural reorganization of agriculture is also visualized when agriculture would be able to rid itself of the deadweight of surplus manpower with little alternative avenues of employment.

The Case for Relatively Declining Agricultural Prices

Thus we have to be cautious about any policy that would tend to retard shifts of labour, capital and enterprise away from agriculture. Rather a policy aimed at worsening gradually but surely of the terms of trade of agriculture *vis-a-vis* the rest of the economy would appear to be justified. At any rate, in the current context, there is hardly a case for improving agriculture's terms of trade much further. A rigid adherence to any historical parity either would be hard to justify.

The Case for Stable Prices

The utmost that can be a part of policy is prevention of any sharp and sudden relative fall in agricultural prices so as to avoid positive disincentives to the farmers. Such a possibility exists with respect to a few crops like jute, oilseeds, etc., which are susceptible to instable market and to speculative activity. Machinery should be kept ready to counteract such temporary contingencies whenever they threaten to develop by bringing to action the mechanism elaborated in considerable detail by Dr. S. R. Sen in his paper referred to previously. The success of any such counterveiling measure, of course, depends on the extent to which the policy is selective and the contingency necessitating it is momentary and largely the product of speculative activity. It is beyond the scope of price policy to counteract persistent and strong forces in the economy making for price changes, as happens, for example, with economic development in backward countries when the income elasticity of demand for food goes down as agricultural productivity and the national income rises.

A policy of further price rises over the already existing high levels would have clearly inflationary consequences of a destructive character. A policy of continuously falling prices again would be both impracticable and harmful. A reasonable course of action would appear to lie in an initial general fall from the present high levels, particularly in food prices and stabilization thereafter. This initial fall has to be brought about by improvements in production, supplemented by imports if necessary and should be attainable with the creation of certain physical conditions of a technical nature as are included in the Plan programmes, like provision of increased irrigation facilities, fertilizers, improved seeds, implements, better techniques, etc. A further argument in favour of stabilized and against rising agricultural prices in the Indian context is the fact observed in several studies in the past, of low price-elasticity of supply of agricultural commodities explained partly by the subsistence family farming type of organization prevalent in the country, with the result that the incentive effect of any price rise would be overshadowed by the inflationary effects.

CONCLUSIONS

The broad objectives of agricultural price policy in the context of the Third Five-Year Plan may thus be stated as follows :

(i) Maintenance of general stability in all prices, including agricultural prices, at levels a little lower than the existing ones, involving maximum prices as also flexible minimum prices.

(ii) Provisions for guaranteeing minimum incomes subject to variation according to changing circumstances to growers of different crops, through a Forward Price Policy.

(iii) Maintenance of a certain parity between agricultural prices and costs of production in agriculture including a minimum living standard for the agriculturist.

(iv) A limited degree of price manipulation to permit realization of the planned allocation of resources between crops as an aid to crop planning.

(v) A slow but sure manipulation of prices in the long run so as to cause a shift of men and resources away from agriculture to achieve the goal of rapid industrialization and reduced dependence on agriculture.

A PRICE POLICY FOR AGRICULTURE FOR FARM INCOME STABILIZATION AND INVESTMENT PROMOTION

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A pricing system has to perform four major functions: (*a*) guiding the allocation of resources in production, (*b*) channelling products into trade, (*c*) stabilizing income over time, and (*d*) reducing inequality of income among fami-