

ROLE OF PUBLIC POLICY IN AGRICULTURE IN INDIA*

I am glad to be here today in your midst to deliver the Rajendra Prasad Memorial Lecture. I consider this to be a privilege for I have been influenced early in life by the patriotism, sacrifice and the simplicity of Dr. Rajendra Prasad. The political imprisonment in 1942 gave me an opportunity to read a lot about the freedom movement, especially the writings of leaders like Dr. Rajendra Prasad. Agriculture was very dear and close to Dr. Rajendra Prasad's heart. He appreciated the problems of agriculturists and advocated the need for introducing agrarian reforms. In fact, in close association with Mahatma Gandhi, Dr. Rajendra Prasad fought for ending the exploitation of peasants and rural workers. He believed firmly that the country had no future unless agriculture was developed. Most of us are familiar with his role in the Champaran Satyagraha launched to end the exploitation of peasants and rural workers by the foreign indigo planters. I come from a drought prone district where, in the past, the agriculturists used to be exploited by money-lenders and traders. Freeing the peasants from such exploitation has been an important aspect of my political work. It is all the more reason why I deem it to be a great honour to be able to pay my humble tribute to the memory of this illustrious son of India.

During the British Regime, agriculture like many other sectors of the economy had remained stagnant. Growth of agriculture during that period was either negative or almost negligible. It was the indifference of the British Rulers towards agriculture that led to the progressive deterioration of agriculture in India. The public policies which the British Government adopted towards Indian Agriculture were mainly responsible for this state of affairs. Public policies, as you all know, always play a very important and vital role in all developmental activities including agriculture. The British Government was responsible for the establishment of the Zamindari system. It was also indifferent towards absentee landlordism. Land owners used to exploit the tenants. Actual cultivators had not only no interest in bringing about improvements in the land but even if

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they were interested, they had also no surplus to invest in the land. Rural credit structure, despite the fact that the British rulers called themselves as very enlightened and modern, was almost non-existent, particularly in the field of agriculture. Though in the beginning of the 20th century, round-about 1904, some haphazard efforts were made by the British Government to establish some co-operatives for meeting the requirements of rural credit, the efforts were almost half-hearted and did not make any dent on the problem. Marketing policies were directed to secure raw materials like cotton, at the cheapest possible price to meet the requirements of British industry ; hence there were deliberate efforts to depress the prices for the producers. Imperial interests benefited, a few textile mills also came into existence in India. Mercantile class and middlemen thrived but peasants were totally ruined. Thus, cotton production had never received proper attention during the British Regime. Similar is the story of jute. Foodgrains shortages were so frequent that famines used to visit various parts of the country and millions of people suffered. This happened despite the fact that the highly surplus areas like West Punjab, now part of Pakistan, and Burma were at that time part of the British Empire in the sub-continent. Agricultural research hardly received any attention. Only after the Report of the Royal Commission on Agriculture, that is, after 1928, some efforts were made to establish skeleton research organisations. Agriculture Department as an instrument of development of agriculture came into being only in the last phases of the British Regime. The Bengal famine of 1943 was the final culmination of the disastrous agricultural and food policies followed by the British rulers. The statistical base then available for policy formulation was very weak and was naturally of little use.

In contrast with what happened during the British period, a number of important developments in the field of agriculture have taken place in India in the post-independence period. The growth rate of Indian agriculture now is much higher, and recently, there has been worldwide appreciation of the great strides made by India in the field of agriculture. There is no comparison between the growth rate during the British time and that in the post-independence period as far as agriculture is concerned. Though our understanding of problems in Indian agriculture in the initial period after independence was not very clear, still, policy makers started giving more and more attention to agricultural development problems in India. A number of important policy decisions were taken in the post-independence period which had a very favourable impact on the development of agriculture in the years to follow. The first major policy decision taken in the beginning of the post-inde-

pendence period was regarding the abolition of the Zamindari system. The second major policy decision which came subsequently was about confirming tenancy rights on tenants. This was not implemented satisfactorily in a number of States but, it gave a new direction to Indian agriculture and provided a basis for modernising the agricultural economy. These measures coupled with subsequent legislation putting maximum limits on land holdings have gone a long way in bringing about a basic structural change in Indian agriculture. The basic constraints in increasing production were thus removed. Later on, a number of decisions were taken regarding consolidation of holdings, making tenants permanent cultivators or occupants of land, putting maximum ceiling limits on the holdings of land, strengthening the credit structure, and creating infra-structure for marketing for various agricultural commodities. Agricultural research started receiving more and more attention particularly during the Third and the Fourth Plan periods. Food Corporation of India, Cotton and Jute Corporations, Central and State Warehousing Corporations, National Seeds Corporation, State Farms Corporation of India, State Agro-industries Corporations, Agricultural Universities, etc. were created for helping the development of agriculture. Thanks to some of these bold policy decisions, Indian Agriculture is today in a vastly improved shape. Through all the Plan periods, development of irrigation received encouraging attention though minor irrigation, including exploitation of groundwater, was still to get its due share in development of the irrigation potential of the country. Modern inputs like fertilisers and pesticides also started playing an important role in Indian agriculture. Last year, the country produced more than 118 million tonnes of foodgrains. This was not merely an accident or freak of Nature. We had many good years of favourable weather in the past, but this level of production was never reached even in the most favourable year. Two years earlier, cotton production also showed very encouraging possibilities for the future. Similar encouraging developments took place in a number of other segments of agriculture. This was the natural outcome of a number of policy decisions taken by the Government.

But these achievements should not lead us to complacency. We have still to insure the country against the ups and downs in foodgrains production and see that, in future, we are not required to spend valuable foreign exchange for the import of sizable quantities of foodgrains. In the field of foodgrains production, it is both the national and the international experience that ups and downs do come. There are years when we can have good production, and there can be years when the production is not likely to be satisfactory.

Food in the world today is an important instrument in the hands of some of the powerful countries for influencing the policies of other countries, and sometimes even to interfere in the internal affairs of other countries by using this tool. We have to protect our national interests against all these eventualities by creating conditions in which, we are in a position to produce enough in the years to come and, even in bad years, we are not required to depend on the mercy of others. Cotton is another important crop in which there are very rich possibilities of producing enough to meet the requirements of our textile industry for domestic consumption and exports. But, unfortunately there has been a setback in the cotton production. If the problems of cotton economy would have been properly assessed, the outgo of valuable foreign exchange could have been avoided and the current pressure on price stability because of cotton could have been minimised. The oilseeds economy continues to present very many problems and apart from hardship caused to a very large number of consumers, it leads to distortions in the price structure, disturbs the general price stability in the country and leads to inflationary pressures. Pulses provide the most important protein to meet the nutritional requirements of our population. But, the production of pulses is almost stagnant for 20 years. As far as jute production is concerned, we have still to overcome some of the basic problems by increasing production. I think India has the capacity and potential to overcome the shortcomings in the various agricultural sectors mentioned above provided some of the basic policies relating to agricultural development are further improved upon and the missing links are provided.

The land reforms have played a vital role in the development of agriculture and this has been already highlighted by me earlier. But there are still some gaps in the policies formulated and the actual implementation in the field. To my mind, in Indian agriculture today, the most important problem in many areas is still regarding the tenancy rights or the rights of the share-croppers. With a very strong hand, the eviction of tenants has to be completely prevented and the tenants or the share-croppers have to be given permanent occupancy right of cultivation. In the North-East India and some other parts of the country, this is still a serious problem and the policy makers at the State level have to act with determination in this regard. The Centre has repeatedly drawn the attention of the State Governments to this aspect of agrarian problem. Almost all the State Governments in the country now have ceiling laws enacted according to the national guidelines formulated by the Centre. But

there is another area where I see the possibility of great harm being done to agriculture unless remedial steps are taken in time. Laws of inheritance as they exist in our country lead to partitions and fragmentation. Alternate avenues of employment do not practically exist and therefore pressure on land is increasing day by day. Population explosion is also adding to this problem and fragmentation of land continues unabated. As I mentioned earlier, the need under Indian conditions to have a maximum limit on large holdings by individuals has been recognised and ceiling laws have accordingly been enacted. But it is not realised seriously enough that equally important is the need to define the minimum size of economic holdings, which would of course vary from one region to another depending on irrigation and other factors. If we allow too much fragmentation, this will have a very adverse effect on productivity in the long run and large chunks of land will get parcelled out into fragments. Therefore, ways and means have to be found and suitable policies evolved to prevent this process of fragmentation. There has been quite a good deal of statistical data about the tiny holdings in the country but Statisticians have to help the policy maker to highlight this problem.

Research activity in agriculture has received tremendous impetus during the last decade. Fundamental as well as applied research has been receiving close attention from policy makers. But research activity still needs to be strengthened particularly with regard to oilseeds, pulses, jute, sugarcane, millets etc. More resources have to be made available for agricultural research, and institutional structure may have to be modified to meet the requirements of some of these sectors of agricultural economy.

Indian agriculture is today on the threshold of modernisation. The faster the speed of modernisation, the higher will be the rate of growth of the agricultural economy. The modernisation of agriculture under Indian conditions need not lead to less employment. On the other hand, intensive methods coupled with modern practices will necessarily lead to more employment potential being created in agriculture. Almost 85 per cent of farms in Japan use power tillers, threshers and small tractors but the per acre human labour input on Japanese paddy farms is almost three to four times more as compared to that on farms in the traditional paddy growing areas of our country.

Unfortunately, there has been a controversy in India about the bullock power and mechanical power. Nobody would like to minimise the role played by bullocks in our agricultural and rural economy.

Energy crisis has given added strength to this controversy. But we have to remember here about some of the aspects of Indian situation. Though I realise that the policy frame under Indian conditions will necessarily be a compromise between bullock power and the mechanical power, it is nonetheless necessary that some of the limitations of this problem are properly understood. Bullock power in the country today is totally inadequate to meet the requirements of Indian agriculture. Even fodder resources are not there to sustain the present bullock strength and the allocation of fodder resources between dairy animals and draught animals would impose further limits to the policy of increasing the number of bullocks. Already, as a country, we are suffering from inadequate availability of milk for our children. Weed is the greatest enemy of any crop. Over large tracts of the country weeds could not be eradicated because the lands have never received the deep ploughing which is necessary for such lands. A substantial portion of fertilisers or organic manures added to the soil go to feed the weeds and yield levels of crops necessarily remain low as a result. Further, in quite a few regions of the country, there is the black cotton soil, which is naturally hard and difficult to open up without proper preparation and tillage of land. Ploughing of black cotton soil through traditional means is not very satisfactory. This soil can be opened up properly only with mechanical power.

Regions like Punjab, Haryana and Western U.P. have thrown up new rich potential of agriculture and paddy-wheat rotation or multiple cropping is becoming a common cropping pattern in these areas. Possibly, such intensive methods of agriculture will have to be developed in other parts of the country also if we have to reach higher and higher levels of production. One can imagine how the country would have suffered if the mechanical power had not been used in these regions. Tractor population today there is highest in the country. One can have endless theoretical controversies but practical and field experience should be the best guide to us. Under Punjab and Haryana conditions, it has been proved that increasing tractor population and setting up of a very large number of diesel pumping sets and electric motors have not resulted in displacement of agricultural labour. Not only the employment potential has gone up, but lakhs of labourers are also migrating to Punjab and Haryana from the neighbouring States, and even from a far away State like Bihar, for employment. But whether discouraging the use of tractors, electric motors, etc. by imposing heavy excise duties is in the interest of Indian agriculture needs to be looked into very carefully, and the position reviewed from the point of view of removing some of the

bottlenecks in promoting the use of these vital and modern inputs of agriculture to a much larger extent.

Fertiliser is recognised to be a vital input for increasing agricultural production. Reliance on imports for meeting a sizable part of our fertiliser requirements makes the position vulnerable because of shortages and high prices in the international markets and difficulties of foreign exchange. Although the need for increasing indigenous production of fertilisers had been recognised for quite some time, developments in this regard, particularly in the sixties, had been halting because of policy uncertainties with regard to feed stocks, production technology and foreign collaboration. There has been considerable vascillation for quite some time as to whether naphtha or liquid ammonia or coal should be used as feed stock for fertiliser production. This had inevitably led to delays in commissioning of new units and creation of additional capacity for indigenous production. We had the access to the latest technology which had been successfully adopted by other countries but, because of policy uncertainties we had to import large quantities of fertilisers from abroad. Fortunately, these uncertainties have now been removed and we are stepping up indigenous production but much time has already been lost.

Irrigation is another crucial input. Although the country was very much deficient in irrigation facilities, there had been policy reservations with regard to the role of minor irrigation schemes. Until the mid sixties, there was hardly any vigorous policy for expansion of minor irrigation programmes. It was the sad experience of the drought years *viz.* 1965-66 and 1966-67 that brought to sharp focus the need for going in a large way for groundwater development programmes backed up by institutional credit arrangements. In fact, the role of minor irrigation programmes could have been better appreciated if we had detailed studies on costs and benefits of minor irrigation sources, and their complementarity with the major and medium sources in meeting the irrigation requirements of improved agricultural technology.

The need for providing institutional credit to agriculturists has been recognised long ago and several steps have been taken to promote co-operative credit institutions. The policy relating to development of co-operatives has undergone several changes and we have been experimenting with different types of institutions. We have also moved from single agency to multi-agency approach. There have been single village societies and societies serving a group of villages, single purpose societies and multi-purpose societies, and so

on. We had debated the advantages and disadvantages of alternative institutions in delivering the goods. After considerable experimentation, we have now come back to the concept of multi-purpose societies. We have recently adopted the concept of Farmers, Service Societies, which will provide not only credit but also input supplies and services in an integrated manner. We are also promoting Regional Rural Banks for providing credit and other services especially to the weaker sections of the rural community. These experiments in policy have had varying influences on the availability of credit for agricultural purposes. In a vast country like ours with diverse agricultural and socio-economic conditions, there is probably a need to experiment with different sets of institutions. However, we need to ensure that the costs of experimentation are not very high, and this would be possible only if we had detailed economic and statistical studies evaluating the advantages and disadvantages of different types of institutional credit arrangements. It has also to be appreciated that production will succeed only if these programmes are linked up with effective marketing arrangements.

Vast sections of consumers in India have a very low purchasing capacity. It would be unwise on our part to produce foodgrains and other agricultural commodities at a very high cost. Apart from exerting pressure on the overall price situation, the high cost-high price agricultural commodities will be just beyond the reach of common man, and therefore all efforts have to be concentrated on reducing the cost of production of agricultural commodities and maintaining price stability. Against this background, the entire range of policies regarding vital inputs like fertilisers, pesticides, can etc. needs to be reviewed afresh. Already, we have some disadvantage because of the small sizes of our farms. But by encouraging cheap inputs, mainly fertilisers and pesticides, intensive agriculture will become more popular and can provide more employment. If we ensure the supply of these inputs at reasonable and low prices, we avoid the normal annual controversies for effecting price increases in agricultural commodities. Any policy decision which goes to add to the cost of production of agricultural commodities has to be carefully weighed. This is the only key to abundance and price stability under conditions in our country.

Policy making in agriculture has to take into account the developments in other sectors of the economy also. For example, a close relationship is necessary between the agricultural and industrial sectors. Sometimes, unnecessary controversies are raised as to which should get priority: agriculture or industry? To my mind, such

controversies are unnecessary and counter-productive. It is particularly so since modern agriculture relies heavily on industry for its inputs and agriculture provides essential raw materials for the industry.

Public policy in agriculture cannot be rigidly laid down for all time to come here and now. It has to be flexible and take into account the changing situations and the emerging needs in agriculture. Most of you would be familiar with the debate that has been going on in academic circles about the relationship between the size of holding and productivity, based on the findings of the farm management studies carried out in the fifties and early sixties. I understand that the farm management studies subsequently carried out have shown that with the adoption of modern farming technology, the inverse relationship between size of holding and productivity has weakened. Such changes emphasise the need for readjusting policies, taking into account new facts and evidence.

My main purpose in raising some of the policy issues in a gathering of agricultural statisticians from different parts of the country is that when you go back to your respective positions, after this conference, you would think over these matters and see what studies are necessary, and organise them for the benefit of the policy makers.

I have not so far dealt with two subjects which have great relevance to development of agriculture. While it will not be possible for me to do full justice to these subjects in the course of this talk, I should not fail to make a brief mention atleast. Firstly, India is too big a country and agricultural programmes cannot be carried forward if we try to implement them through Government set up alone. Involvement of farmers, particularly the rural youth, is very necessary, in the developmental activities in agriculture. Unfortunately, we have not succeeded in building up powerful mass farmers' organisations and involving them in agricultural development activities. Secondly, agriculture today has to be developed in the general background of world experience about improvement of environmental conditions. Re-cycling organic materials, appropriate crop rotation, making countryside green, creation of forest belts, integration of forestry with farming, and soil conservation and land management, are some of the important features of this new policy approach.

I have touched only on some of the policy aspects which are relevant to the development of agriculture in India. Agriculture, as

such, is a highly complex subject, and it is not possible to deal with all of the policy aspects of agriculture in this talk. I have great faith in the future of Indian agriculture. I have confidence and trust in the Indian farmers, administrators, policy makers and scientists including statisticians. I have absolutely no doubt in my mind about the fact that India will become a great agricultural country in the world, and this will be realised in the not too distant future.