Emerging Perspectives of Agricultural Development in India

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I

INTRODUCTION

In India, agriculture accounts for about 30 per cent of Gross Domestic Product (GDP) and employs about two-thirds of the labour force. Agricultural exports account for about 5 per cent of the total agricultural production and about 16 per cent of the country's exports. Agriculture has grown at a rate of about 2.2 per cent per annum (Rao, V.M., 1994, p. 999), a rate that is quite close to the rate of growth of the country's population. As a result, the per capita availability of foodgrains increased only slightly from 418.5 grams per day in 1965 to 435.3 grams per day in 1990 (Government of India, 1993). Relative productivity of workers in agriculture has declined as the share of agriculture in GDP has steadily gone down whereas the proportion of labour force dependent on agriculture has not changed much.

The marginal and small holdings with less than 2 hectares constitute about 76 per cent of the total holdings. Only 2 per cent of the total land holdings are large (above 10 hectares). Structural reforms of Indian agriculture cannot bypass the aspirations, needs and limitations of more than three-fourths of our farmers. Agricultural development is an integral part of the general economic development which has the following major goals: eradication of poverty and, for that matter, malnutrition, satisfaction of minimum needs of the people, prospect for a richer and more varied existence for the people of the country, and a steady increase in the per capita income by means of efficient use of resources and progressive absorption and application of the fruits and possibilities of modern science and technology. Realisation of these basic goals requires sufficient production and domestic availability of foodgrains, growth of mass purchasing power to integrate demand with the needs, increase in the relative weight of superior goods both in the food basket (by eventually making milk, fruits, fish, meat, eggs, etc., as necessary items of mass consumption) and in the general consumption basket, and development of environment-friendly technology based primarily on the country's endowments and ethos and capable of progressively increasing productivity and production. It may be particularly noted in this connection that the relation between the cost of the subsistence basket and modal income of any group is the prime determinant of its poverty or affluence. Moreover, the surplus above subsistence (the cost of which very much depends on the prices of agricultural commodities) will ensure (i) a richer and more varied existence to the common people, (ii) a substantial domestic saving rate which is necessary for growth with self-reliance, and (iii) a large market for profitable absorption of the country's production. Further, while talking of incentives to farmers one should bear in mind that it is the higher income and not the higher price which really matters.

The current structural reforms programme lays emphasis on marketisation, involving

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decision-making primarily guided by market prices and market incentives, and globalisation involving mainly deregulation of foreign trade and foreign investment. The paper examines the problems and prospects of market orientation and globalisation of Indian agriculture.

II

MARKET ORIENTATION OF INDIAN AGRICULTURE

Input Subsidies

The recurrent expenditure on various input subsidies for fertiliser, irrigation, credit and other agricultural inputs has been mounting and the governments at various levels have less surplus for investment. There is need to gradually reduce the subsidies and allocate resources so saved for investment in irrigation systems which have a high potential to increase yields (Government of India, 1993). The Finance Minister, Dr. Manmohan Singh has called for reduction of the subsidised supplies of inputs and for increasing the profitability of agriculture by altering the relative prices in favour of agriculture so that agriculture may profitably use the now subsidised inputs at their free market prices (Singh, 1995). As has been pointed out by Hanumantha Rao, for every rupee of investment in agriculture, there is more than a rupee by way of subsidies on inputs in agriculture. These subsidies have led to excessive, unbalanced and, therefore, inefficient use of chemical fertiliser, endangering the intrinsic fertility of land. Further, the over-use on the part of some reduces the availability of fertiliser to many others, leading to irrational allocation among users and less than full utilisation of the production potential. The excessive use of fertiliser also leads to over-exploitation of water resources (leading to severe subsidence of natural water level) encouraged by subsidised irrigation and electricity charges (Hanumantha Rao, 1994; Rao and Gulati, 1994). Some of our economists have become so obsessed with the Dunkel model of development that they proudly proclaim that the General Agreement on Tariffs and Trade (GATT) accord does not require reduction of subsidy on agricultural inputs and, therefore, fertiliser subsidy may continue. In their eagerness, they tend to forget that fertiliser subsidy involve subsidisation of a high-cost, import-intensive, environment-inimical technology which has tended to reach the plateau of its production potential within a short span of about 25 years, that has put severe strain on our exchequer and has severely hampered the expansion of irrigation facilities which benefit all sections of our farmers and which provide a congenial setting for the development of appropriate indigenous agricultural technology.

Will the withdrawal of fertiliser subsidy inevitably depress production and increase cost? Resource use is rational only when both the average productivity and marginal productivity of the resource are diminishing. The farmer who maximises his profit by equating marginal value productivity with price will attain equilibrium at lower level of resource use when the fertiliser price goes up because of withdrawal of subsidy. A lower level of fertiliser use will increase the average productivity of fertiliser at the farm level (because of the falling average productivity). And this may happen to all the users. Further, a lower rate of farm level use of fertiliser will release fertiliser for use in a much larger number of farms each of which may be able to use it at a higher level of average productivity. Thus when the fertiliser subsidy is withdrawn, more output may be forthcoming per unit of fertiliser and more farmers are likely to benefit from the use of fertiliser. Further, the changing pattern of fertiliser use
that may emerge due to withdrawal of fertiliser subsidy may also reduce the cost of fertiliser per unit of output. If the rate of increase in the average productivity of fertiliser is greater than the increase in the effective price of fertiliser in consequence of withdrawal of fertiliser subsidy, the cost of fertiliser per unit of output may also decline (Chatterjee, 1993).

Concessional institutional credit has benefited rich farmers more than the poor farmers because of institutional imperfections, but has adversely affected the viability of credit institutions and has resulted in high capital intensity in labour surplus Indian agriculture (Rao and Gulati, 1994). Withdrawal of interest subsidy on institutional credit may not harm the farmer if the supply of institutional credit is sufficiently increased (in which case there may be significant reduction in the effective weighted interest rate payable by the farmers on all his loans) and made available to the farmers ensuring enterprisewise adequacy and timeliness. Various experiments of group lending by the Non-Governmental Organisations (NGOs) have been fruitful in ensuring proper utilisation and timely repayment of loans because of group pressures on the borrowing farmers to attain certain standards of behaviour and action in conformity with group interests and objectives. Further, farm-level credit planning and budgeting may make transparent the farmer’s requirement of credit and ability to pay amountwise and timewise (Chatterjee, 1993). Credit books may be issued to individual farmers indicating in detail their rights on land and borrowings to enable them to readily establish their creditworthiness.

**Land Market**

Any framework of development which does not lead to substantial shift of labour force away from agriculture will not be conducive to rational land use and hence agricultural development in India.

Economies of scale are not very significant in Indian agriculture and the pressure of population on land continues unabated. Therefore, abolition of ceiling on the ownership of land is not considered desirable at this stage (Rao and Gulati, 1994). Indeed, without alternative employment opportunities, millions of farmers who may be bought out of their land due to the abolition of land ceiling will just swell the ranks of the hapless and helpless rural landless labour force. This reality of the agricultural scene indicates that India may not be ready for full marketisation of the agricultural sector in the near future.

The farmers with uneconomic holdings or otherwise unable to efficiently carry out agricultural operations should be able to lease out their land to efficient operators who may be sometimes small and marginal farmers. Freeing the lease market may thus be conducive to both efficiency and equity (Rao and Gulati, 1994).

The control of land may be transferred as far as possible from the inactive/inefficient operators to enterprising operators. But some words of caution are necessary in this context:

(i) Significant and sustained decline in the proportion of labour force dependent on agriculture is an essential condition for any sound land development policy or programme.

(ii) Land reforms should not just increase the number of uneconomic holdings.

(iii) A rational land market should be developed where there will be no extra-economic premium attached to land ownership and where the market value of land should be commensurate with its economic value indicated by the expected average annual earnings from land. Under such circumstances, land may be transferred (subject to statutory ceilings) to
efficient operators through the operation of market forces aided by credit institutions who may find land-purchase loans creditworthy.

(iv) A well-regulated lease market will also ensure transfer of the operation of land from the less able to the more able operators. But where the rights and obligations under lawful lease agreements are not enforceable due to political manipulations, the prospective lessors may prefer under-utilisation of their land (including fishing ponds, etc.) to their leasing out. The rights on land, like credit, when obtained through political manipulations and not on the basis of some rational disciplined process, may not be optimally utilised. The case of West Bengal may be cited in this connection. In spite of the claim made by the West Bengal Government about the spectacular progress of land reforms in the state, the share of West Bengal in the total production of foodgrains in the country declined from 7.3 per cent in 1987-88 to 6.3 per cent in 1990-91, (Government of India, 1993). The excessive politicisation has seriously hampered the realisation of the agricultural potential of West Bengal where rice prices have more than doubled in the course of the last four years.

If labour cannot be transferred from land, land reforms may turn out to be at best a single-generation relief in only a limited number of cases. For example, a man who gets a holding of economic size now because of land reforms may eventually find that his children who cannot move away from land, will have to eke out their substandard existence on the basis of tiny plots of little economic consequence.

All adjacent uneconomic units should be brought under joint farming. This will make possible joint allocation of given resources between different technical units under joint farming, which will eliminate individual limitations and make possible equalisation of marginal returns to the mutual advantage of all the concerned farmers (Chatterjee, 1993).

Incentives

Opening up of trade in agricultural commodities may impose incentives by raising producer prices. It is also pointed out that diversification into areas like dairy, other animal products, horticulture and floriculture where demand is more elastic than that for foodgrains, will be profitable for the farmers. However, non-price factors such as investment in agricultural infrastructure, human development and institutional reforms are no less important than prices in inducing an effective supply response (Rao and Gulati, 1994). Price incentive is a lower level instrument in view of the more important objective of higher income. A yield-augmenting low-cost technology may be able to increase the farmer’s income even at lower prices if the reduction in unit costs and increase in the amounts of output are sufficiently significant. The producer’s interest (in terms of higher income) and consumer’s interest (in terms of lower price) may be mutually consistent if we are capable of evolving the right type of low-cost technology.

Research and Development

We want eco-friendly, yield-increasing, low-cost technology primarily based on indigenous endowments and ethos. Besides, an appropriate alternative technology is also needed to gradually replace the present eco-inimical high-cost chemical technology. Further, we need a variety of technologies to suit the varied agricultural situations in different regions
in the country. Research will have to be carried out to develop (i) eco-friendly nutrients and plant protection measures primarily based on native endowment which form integral parts of the ecological balance and (ii) high-yielding plant and livestock varieties which will be responsive to them.

Research will have to be conducted at three levels: (a) at the farm level guided by practical wisdom of ages, (b) private research, and (c) public research. Continuous involvement and interaction between field, laboratory and extension agency will form the basis of the first area of research. Mainly the rich farmers particularly engaged in the area of international trade-related agricultural development will be able to bear the high cost of fruits of private research patented under trade-related intellectual property rights. The public research system should mainly focus on the problems and challenges faced in our lagging agricultural sub-sectors (productwise and regionwise) where the marginal social benefit of research is significantly greater than its marginal private benefit. The public research programme should also aim at systematisation and improvement of indigenous varieties and practices.

Planning is basically an exercise in optimisation subject to opportunities and constraints. Since the feasible framework in agriculture is primarily based on natural conditions which are widely diverse in a big country like India, research and development programmes may have to prescribe diverse production and resource use patterns to suit different sub-sectors of our agricultural economy. In this connection, V.M. Rao’s classification of Indian agriculture into three sub-sections, viz., the green revolution area, the non-green revolution green area and the dryland areas deserves attention. According to him, marketisation of Indian agriculture at this stage may be restricted to organised parts which are now self-reliant, and Government’s involvement in the areas of research and development should concentrate on the vast backward unorganised parts to spread the benefits of growth to all regions and all sections of people (Rao, V.M., 1994).

III

GLOBALISATION OF INDIAN AGRICULTURE

The globalisation objective is embedded in the GATT accord which requires that our agricultural policies should be geared towards establishing a market oriented agricultural trading system and in our structural reforms which call for deregulation of foreign trade and foreign investment. Liberalisation of agricultural exports is the key element of this globalisation objective.

Liberalisation opens up the possibility of processing different varieties of fruits, flowers, fish into branded products for exports giving rise to enclave like development (Rao, V.M., 1994). Some economists strongly advocate deregulation of exports of items like rice, wheat, fish, cotton, fruits and livestock products in respect of which India has a comparative advantage in the international trade (Gulati and Sharma, 1994).

Rao and Gulati contend that there is a deceleration in the growth rate of demand for foodgrains; the total demand growth for foodgrains is unlikely to approach the observed long-term growth rate of 2.6 per cent in foodgrains output. This possibility ‘opens up prospects for and indeed necessitates the exports of foodgrains’ particularly because India enjoys comparative advantage in rice and wheat (Rao and Gulati, 1994). It is also pointed out that the growth of exports of horticulture and livestock products may widen the opportunities for raising farm income and employment by diversifying and modernising agriculture (Rao, V.M., 1994). Economists do not agree on the question of emergence of
foodgrains surplus. Bhalla considered different estimates of demand for foodgrains which
were worked out by other scholars and made his own studied projection as follows: The
requirements of foodgrains (direct household plus feed demand) would range from 243 to
259 million tonnes by the year 2000. To meet this requirement out of domestic production,
the country should achieve an average incremental output of 7.5 million to 9 million tonnes
a year during the nineties against the incremental output of about 4.5 million tonnes a year
during the eighties. In fact, Bhalla contends that India may in fact have to import foodgrains
(Bhalla, 1995).

According to the estimates made by Bhalla (on the assumption of a 3 per cent rate of
growth in per capita income), during 1991-2000, the demand for cereals would grow at a
rate of 3.68 per cent; the corresponding rates of growth of demand would be 5.59 per cent
for pulses, 10.26 per cent for milk and milk products, 7.95 per cent for eggs and 10.17 per
cent for fruits (Bhalla, 1995). The milk production was only 5 per cent higher in 1991-92
over the previous year; the corresponding figure for egg production was about 4.5 per cent
and there was a fall in pulses production by over 16 per cent and a fall in total foodgrains
production by over 5 per cent in 1991-92 compared to the previous year (Government of
India, 1993). The past experience of domestic production and projection of domestic demand
in the coming years strongly indicate substantial shortfall of supply.

In this connection, it may be noted that according to the National Sample Survey
Organisation (NSSO) study, the per capita consumption of foodgrains for the richest
household in the rural sector was 22.18 kg whereas the poorest decile consumed only 10.17
kg per capita. The respective urban figures were 14.02 kg and 10.62 kg (Government of
India, 1991). The consumption requirement of foodgrains of the rich (whose consumption
basket is varied) is likely to be less than that of the poor (who have little scope to use superior
substitutes). Therefore, the standard foodgrains requirement per capita may be considered
to be at least 22.18 kg in the rural sector and 14.02 kg in the urban sector; the per capita
requirement would then be above 19 kg against the present availability of a little over 13
kg, indicating a substantial deficit.

The major beneficiary from enclave type development of agricultural export enterprises
may accrue to the processing firms, which may lead to contract farming where farmers may
be the weaker side losing in the deal. In fact, this happened in Bengal in the 19th century
in respect of indigo cultivation. Further, multinationalisation of a prospective part of our
agricultural sector may adversely affect conservation of our natural resources. Moreover,
liberalisation of exports of agricultural raw materials may excessively increase the cost and
price of products based on them. Indeed, the liberal exports of cotton and the consequent
high price of cotton may substantially damage the exportability of our value added garments
and other textile products (eventually degrading India to the 19th century status of primarily
an exporter of raw materials and importer of value added goods) and also aggravate the
problem of clothing of our teeming millions.

Export without exportable surplus and globalisation of prices of essential commodities
without globalisation of income will cause immense hardship to our people. It will be a
cruel joke on Indian if people with an average per capita income of about $330 are required
to compete with people with per capita income of over $15,000 for their essential con-
sumption for the sake of globalisation of Indian agriculture.

Development of horticulture and livestock products will surely help increase in
agricultural income. The domestic demand for milk and other livestock products and fruits
are increasing particularly because of rising per capita income. But if these items are liberally
exported on grounds of comparative advantage in international trade, their availability in
the domestic market will drastically go down, their prices will rise substantially, and they
will remain forever out of the reach of common people. Even what is common consumption
today may become luxury tomorrow whereas development implies that what is luxury today
should become necessary tomorrow. Further, when these items are directed to domestic
market, their processing and marketing will be more labour intensive and less costly.
Unorganised and small scattered farmers will benefit more from domestic marketing than
from exports of the processed items under the auspices of the multinationals. Indeed, the
craze for exports has already led to the initiation of proposals to lease out our sea water to
the multinationals endangering the livelihood of thousands of our poor fishermen. Moreover,
production for exports increases uncertainty due to fluctuations of international prices (which
are exogenous variables) and the bulk of our farmers are ill-endowed to cope with it (Bhalla,
1995).

The exports should be residual. It can at least be an instrument with limited sub-sectoral
and temporal usefulness. The prime determinant of the destination of the country’s agricul-
tural products is the needs of the people and not the comparative advantage in international
trade. Agricultural exports may particularly benefit selected groups of producers and
multinationals who may earn from processing (which may have weak spread-effect because
of the sophisticated technology involved) and oligopolistic controls over a significant part
of our land and water through contract farming and lease agreement. Agricultural exports
cannot be the pivotal element in the programming of agricultural development, which aims
at improving the lots of all strata of our farmers and ensuring a richer and more varied
existence for the common people of India. Export without exportable surplus is distress
exports. The question of exportable surplus will have to be examined with reference both
to the market demand projections and estimates of our needs. The gap between the need
and demand can be significantly reduced by development of low-cost technology in agricul-
ture, growth of mass purchasing power and selective nutritional intervention pro-
grammes.

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