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Impact of New Economic Policy on Export of Agricultural Commodities from India

Brahm Prakash, Sushila Srivastava and S. Lal*

In order to examine the impact of new economic policy on agricultural exports, a study was undertaken to examine the current trends in foreign trade of India, contribution of agricultural exports to total exports, the share of India in the global production and export of agricultural commodities, changing composition of major exportable commodities over time, major steps of liberalisation in agricultural export-import policy, to identify the newly emerging agricultural commodities having vast potential for steady exports and to suggest a strategy for realising full export potential of agricultural commodities. The study is based on secondary data collected from different sources. The foreign trade of India revealed unfavourable balance of trade position. India's share of trade has been reduced to about 0.5 per cent in world trade today. The share of agricultural and allied products in total exports of the country has been on the wane. Our share of agricultural exports in global export has been reduced to about 1 per cent. The composition of major exportable agricultural commodities has changed entirely during the last three decades. In the eighties, tea and mate, coffee, tobacco and cashew kernels were the major agricultural commodities which were exported from India but during 1990 to 1993, the major agricultural commodities exported were marine products, oilcakes and rice.

With the liberalisation of agro-based industries and reduction of excise duties of processed foods and import duties on capital goods used for processed food industries, there is more scope for producing and exporting processed food products. Other steps in the new economic policy like permission for exporting tobacco, basmati rice, guar gum, orchids, meat of sheep, goat and buffalo and wheat products without minimum export price, reviewing minimum export price for rice, durum wheat, pulses and cotton from time to time, pruning the negative list of exports, canalisation of export of onions and niger seeds through National Agricultural Co-operative Marketing Federation of India Ltd. (NAFED) and TRIFED and exempting cess on export of pepper, sugar, spices oils and oleoresin have paved the way for boosting the exports of agricultural commodities. The export of these commodities can further be boosted by proper co-ordination between national and international trade agencies, raising the outlay for research and development for exportable crops, investment in the agricultural sector, exploiting the value added products rather than raw materials, providing brand status to the items, developing processing and post-harvest handling technologies, decreasing the minimum export prices of a few commodities, adopting the differential procurement prices for durum wheat, creating required infrastructure for the export of marine products, incentives for export and publicity.

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Structural Change: Implications for Agricultural Production Environment in India

R.K. Singh, G.M. Rather and S.K. Singh[†]

The paper examines the implications of the Structural Adjustment Programme for agricultural production environment, as enunciated in the New Economic Policy of the Government of India. The paper pinpoints some of the aspects which are biased against the agricultural sector, which include a drastic reduction of funds to the agricultural sector, adverse terms of trade due to declining trends in commodities prices; domestic market restrictions; issues associated with food security and environmental and sustainability in agriculture. The study makes a plea for revisiting economic policy to capture India's comparative advantage in agriculture. The suggested major elements of strategies for promoting agriculture during the New Economic Policy regime are price policy, trade policy, investment for infrastructure development and augmenting productivity to the levels of developed countries.

Agrarian Policy Reforms - A Few Posers

P.G. Marvania*

Over a period, the share of agrarian sector in the gross domestic product has declined. However, the agrarian sector is still a major avenue for the employment and income generation in the economy. But this sector has been devoid of holistic and consistent policy measures. In India, agriculture is a way of life in rural areas. Besides, development efforts have not been successful in freeing agriculture from the clutches of natural vagaries. The secular trend of agrarian production growth indicates stagnation marked by uncertainty of production conditions. Besides, a large mass of poverty and under-employment have got concentrated in this sector still.

The wind of change in the policy perceptions and prescriptions of industrial and trade sectors is bound to affect this sector too. Already a fresh look is given to issues like input subsidies, output pricing, export-imports of agricultural produce, etc. And the policy emphasis is on free interplay of market forces. The more pertinent issue is to assess if our agrarian sector is mature enough to receive such changes at its present level of development. Also, can we treat this sector as a purely economic sector? And whereby can we withdraw all support in the form of various subsidies and price support? Can we leave the development of infrastructure and management of agriculture related common property resources to market forces alone? These and a few other issues have been raised in this paper.

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The Impact of the New Economic Policy on Indian Agriculture

R. Mukherji[†]

For long, India has been coaxed to serve the cause and interest of the international monopoly capital and global market economy under its command. The new economic policy of the Government of India would further aggravate it. Indian domestic and international conditions are economically unfavourable to cater the goods of market economy to the mass of the Indian people at a cheap rate. M. Narasimham writes: "The two major areas where the thrust of liberalisation has made little headway, are agriculture and labour policy. Agriculture is yet to have the benefit of deregulation and freed of various structural rigidities. Nor have we made any progress towards evolving an economically rational and socially equitable labour policy, which would help to reduce restrictive practices and open the way for both efficiency and, in the longer run, employment generation." He further observes: "Reforms and structural adjustment cannot be altogether painless. It is not for the faint hearted. It is well to recognise that in the short run, some aspects of reform would hurt those now obtaining privileges." A recent study shows that in the agricultural economy farmers received only 20-50 per cent of the value of their produce as the existing trade policies are not favourable to them. The response of agricultural exports to incentives in countries like India has been estimated to be even higher than that for all exports. It points out that, as increasing value of openness or liberalisation witnessed, "the same is not attained in the agricultural sector." Another recent study examining the growth rates of import and export to gross domestic product (GDP) shows that the export sector seemed to influence GDP positively and exports and GDP grew rapidly for India, while its import substitution has shown a decline over the years.

An empirical study from 1970-71 to 1992-93 shows that, in the Indian context, in general, it yielded low price elasticities of demand for exports and imports. The existence of supply bottlenecks and so inflexibility of production structures in relation to price signals, the preponderance of the domestic market resulting in a strong internal demand for tradeables and, above all, the commodity composition of exports and imports are the 'intrinsic' arguments in support of low price elasticities in the foreign trade of the country. In the Indian context, the availability of large monetary, fiscal and other subventions enable the exporters to meet cost conditions so that less than 50 per cent of the exchange rate is passed through in the form of lower foreign prices.

Domestic and international situations and events thus very much belie the rosy idea of competition and development propagated by the Government officials and many other theorists. Indian agriculture under the new economic policy would remain much more acutely dependent and vulnerable to the internal structural and institutional rigidities, manoeuvres of international finance capital and world market vicissitudes, as a part of a large typical colonial economy. Indian economy, especially its agricultural sector, would

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not be able to reap the advantages of surging capitalism of a bygone era, in an era of senile monopoly capitalism. It would be, certainly, more lop-sided, coercive, exacting and perverted to pay more tribute for the international finance capital in the near future.

GATT, Intellectual Property Rights and the Indian Seed Industry

Gurdev Singh and S.R. Asokan*

The Structural Adjustment Programme initiated in 1991 and signing of General Agreement on Tariffs and Trade (GATT) agreement in 1994 ushered in sweeping changes in industrial and agricultural policies hitherto followed in the country. The impact of GATT agreement on Indian agriculture is on two major areas: (i) market access to agricultural commodities and (ii) seeds. The paper examines the likely impact of GATT agreement, specially the intellectual property rights on seed industry in general and seed research in particular. Indian farmers used seeds worth well over Rs.4,200 crores in 1990-91 and the turnover of the seed industry was Rs.600 crores during the period. It is apparent that less than 15 per cent of seed comes from formal sources and the rest is met through retaining crops for seed purposes and exchanging it among themselves. The low seed replacement rates for different crops (just 6.4 per cent for wheat and 11 per cent for paddy) confirm the prevalence of this phenomenon. However, along with GATT negotiations the entry of multinationals increased the clamour for protection of plant varieties. The domestic seed industry also joined the fray.

The Government of India has drafted a legislation on plant varieties protection known as Plant Varieties Act (PVA) 1993. The major concerns of farmers about PVA are that in the PVA regime (i) the farmers will have to pay royalties to use their own crop produce as seed, (ii) the small seed companies may be taken over by big companies and multinationals leading to higher seed prices and (iii) the mini kits and trial packs of the new varieties given to the farmers by the agricultural universities may be stopped under the new regime.

The proposed PVA recognises the right of the farmers to save seed for the subsequent generation. However, the Trade Related Intellectual Property Rights proposal envisages a review of Article 27 after four years when patent like protection may be introduced and the farmers may lose their right to save seed. L.J. Butler and B.W. Marion found that the introduction of the Plant Varieties Protection Act in the U.S. has contributed to a large number of mergers. They also found that there was an increase in seed prices in the post-PVPA period. One argument in favour of plant breeders rights is that it will lead to higher private investment in seed research. However, studies in U.S. reveal that private investment spread unevenly among crops. Minor crops have received no investment at all.

Public sector research in India should be strengthened. It should continue to develop new cultivars and provide them to private seed companies at reasonable prices so that quality seed is made available at affordable prices to the farmers. There should be increased

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South-South co-operation in sharing the genetic materials and sharing the fruits of research. As proposed in the U.N. convention on bio-diversity regarding the exploitation of the genetic material and the preferential treatment in transferring technology for the countries of origin, the access to germplasm should be made contingent upon sharing the variety developed. A strong public sector would facilitate in absorbing the technology and diffusing the variety developed.

Structural Adjustment Programme and Indian Agriculture - Towards an Assessment of Implications

Sukhpal Singh[†]

In the wake of Structural Adjustment Programme initiated in India in the early 1990s, it is inevitable that agricultural and rural sector will experience its share of threats and opportunities. The severe effect of the economic and the policy changes in the agricultural sector will be felt in the areas of agricultural trade and capital investments in agro-activities. This paper looks at the emerging evidence on these two crucial aspects of agro-sector and argues that there will be serious distortions in these sectors with the emergence of new trade regime - both internal and external, and the dominance of agribusiness corporations by way of corporate and contract farming. The penetration of the market into the rural economy will put pressure on the already marginalised sections and make small and marginal producers assetless workforce. The only available mechanisms to reduce this impact will be the producers' organisations of various types like co-operatives, informal groups, and the political pressure groups.

Economic and Financial Feasibility of Technological Options for Managing Salt-Affected Soils in the Context of the New Economic Policy

K.K. Datta and Ir.c.de Jong*

In the context of the New Economic Policy, the paper attempts to evaluate the cost of different reclamation technologies, the financial feasibility of alternative technological options for crop production in the degraded soils and the implications of the New Economic Policy on the technological options for reclaiming degraded, salt-affected soils in Aligarh district of Uttar Pradesh. Over the past few decades, fertiliser-based HYV technology, along with direct state support in the form of input subsidies, no doubt, has helped Indian agriculture to meet the internal food demand. But undesirable side-effects, like regional imbalances and widespread land degradation, came with it. Recently massive subsidies for irrigation water, electricity, credit, and fertilisers, and five successive (above-) normal monsoons in

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a row, have considerably enhanced production through intensive cultivation in the better resource endowed regions. But, in the backward regions, where around 75 per cent of the agricultural holdings are smaller than 2 hectares - and two-thirds of these are even less than 1 ha -, the farmers could hardly take advantage of the favourable circumstances, because of lack of basic infrastructure and because of their own poor resource base. None of these constraints will be alleviated without substantial public investment. But, public investment in agriculture is slowing down, partly, because of the high level of public spending on subsidies on farm inputs, which are largely consumed by the better-off sections in the better resource endowed regions. The Government's intention to gradually withdraw the latter subsidies under the New Economic Policy will hopefully result in an increase in public investment in basic infrastructure for sustained agricultural development, and in measures aimed at improving the poor resource base of the small farmer in the backward regions. One of the most urgent problems is to protect the degrading soils from further degradation, and to reclaim, where possible, the land that has already been lost.

Without government intervention and financial support, it is doubtful whether the available technologies for reclaiming degraded lands, and especially those for reclaiming alkaline soils, will be feasible from the point of view of the small farmer. To encourage the reclamation of alkaline soils through chemical amelioration, the government has always given high subsidies on amendments. This has been essential for the success of the amelioration programme. But, in the context of the New Economic Policy, where policy choices and regulatory systems are governed by the need for global competitiveness rather than national coherence, the subsidies on amendments might be abolished. In considering this, it is essential to (re-) evaluate the financial feasibility of the presently applied chemical amelioration technology, - with and *without* subsidy -, under the resource constraints prevailing in the affected areas in Uttar Pradesh. It is also essential to search for alternative, more cost-effective technologies for the poor resource endowed farmers. Finally, the need is suggested to stimulate grassroot organisations to tackle common problems of small farmers producing under poor conditions, to increase public investment in irrigation and drainage for the benefit of the poor, to design and implement an effective agricultural credit policy, and to devise a specific, selective subsidy policy for the poor resource endowed regions, instead of indiscriminately withdrawing all subsidies.

Economic Reform - Fertiliser Decontrol and Its Impact on Consumption

A. Narayanamoorthy[†]

Fertiliser decontrol, a part of economic reform introduced in August 1992, has made adverse impact on the consumption of phosphate and potash in Indian agriculture. For the first time after a long gap, the consumption of fertiliser recorded a negative growth. It has not only reduced the consumption of phosphate and potash but also widened the existing NPK ratio more violently. Studies so far have analysed the impact of decontrol on the

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consumption pattern of fertiliser and changes in NPK ratio at macro level without considering crucial fertiliser determining factors like area under irrigation including different sources of irrigation, area under food crops and cropping intensity. Since the fertiliser determining factors are widely varying across states, the decontrol impact will also vary. In this paper a modest attempt has been made to understand how the impact of fertiliser decontrol (economic reform) varies across the states and which are the states affected largely. *Before and after approach* is used to assess the impact of decontrol. The year 1991-92 is considered for before decontrol and both 1992-93 and 1993-94 are taken to study the post-decontrol changes. The main source of data which is used in this paper is compiled from *Fertiliser Statistics* of Fertiliser Association of India. The study has shown that, among the four zones, the consumption of phosphate and potash fertiliser has reduced and widened the NPK ratio more significantly in north zone which has more irrigation intensity, area under food crops and cropping intensity compared to other zones. The analysis related to irrigation has shown that the states which come above national average in terms of gross irrigated area and area under groundwater are the worst affected both in terms of reduction in phosphate and potash fertiliser and widening of NPK ratio. Decontrol could not make heavy damage on the states which have more area under tank irrigation and non-food crops. However, the states which have above national average in area under food crops and cropping intensity are also the worst affected due to fertiliser decontrol or economic reform. Since decontrol has increased the price of potash much higher than that of phosphate, it resulted in heavy reduction in potash consumption in almost all states. Agriculturally advanced states like Punjab, Haryana and Uttar Pradesh are the worst affected among various states. The results indicate that if the existing situation of imbalanced ratio in fertiliser consumption is allowed to continue for some years, the soil health will deteriorate and finally productivity of crops will come down sharply.

Agricultural Development in Madhya Pradesh: Myth and Reality (A Comparison of Pre- and Post-Liberalisation Period)

Narendra Kumar Koshti and N.G. Pendse*

The paper compares the performance of crop groups, cereals and pulses crops and commercial crops with reference to area, production and yield in the post-liberalisation period with pre-liberalisation period in Madhya Pradesh. The study covers all crop groups and almost all the crops grown in the state. The analysis is done by using simple average change and cumulative change technique. The study covers a period of six years, 1987 to 1992. The overall period is divided into two periods, namely, pre-liberalisation period (1987-88 to 1989-90) and post-liberalisation period (1990-91 to 1992-93). The study reveals declining performance of all crop groups as well as major cereals and pulses. The performance of commercial crop has improved in the post-liberalisation period. The benefits of liberalisation have not become a reality. The area of operation by multinationals has

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promoted the cultivation of commercial crops, particularly oilseeds and plantation crops which can adversely affect the structure of agriculture. The production relations are likely to change and will move in favour of large farms. Thus there is a fear of unemployment in the agricultural sector in years to come. Therefore, there is a need to review the pace of ongoing reforms so that the problem can be properly diagnosed and suitable prescription can be provided to the healthy development of the most important sector of the economy.

Agricultural Trade in India in the Light of New Trade and Industrial Policy

Sib Ranjan Misra[†]

The paper attempts to analyse the performance of India's agricultural trade and to examine the agricultural policy in the light of new trade and industrial policy. The achievement of trade surplus in recent years in agricultural trade is mainly through the policy of import substitution rather than through an export-oriented policy. For Indian agriculture to be globalised, export market should be considered as a priority market. Commodities for exports should be selected on the basis of comparative advantages as also on the strength that these should not hurt the vulnerable sections of the community adversely. As regards imports, selection of items for decanalisation and imposition of tariffs need to be worked out cautiously.

Neglected Farm Sector in Economic Reforms

Mahesh V. Joshi*

During the plan period in spite of efforts towards farm development and so-called Green Revolution, subsistence farming has not been converted into commercial farming. Reforms are essential in our country to increase agricultural production. This calls for technological and organisational improvement within the agriculture framework. Non-irrigated areas have not been benefited from the green revolution. Even in the irrigated areas issues relating to productivity crop up. The green revolution has bypassed many parts of India and similarly certain crops. If the wasteland of 56 million hectares is converted to cultivable land, the agricultural production in India will receive a shot in the arm. Adequate steps have not been taken to increase investment in agriculture and allied sectors. There are no attractive incentives or plans to develop this sector. The land reform acts have not been implemented effectively. The Government is planning to abolish the subsidy on chemical fertilisers. The resultant increased expenditure in agricultural production will mean increased procurement prices and inflation. Constant and concentrated attention is necessary in the new economic reforms in new areas, for new crops and amongst new farmers, where the effects of the green

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revolution are not evident. All-round efforts should be made for the development of farm-related sectors. There should be package plan for agricultural development, including better availability of technology, adjustment in cropping pattern for higher yield, profitable pricing of farm production, farm financing, farm marketing, etc.

Fisheries and Seafood Market Development in the Context of New Economic Policy

M. Krishnan and B.M. Sharma[†]

Seafood exports have been one of the most promising segments of the export sector, especially in the post-liberalisation era. This paper examines the performance of Indian seafood exports in the framework of the pre- and post-reform period, the composition of seafood being exported and the geographical distribution of these exports, and the current trends in Indian seafood exports, international trends in seafood marketing and the impediments to effective and speedy adjustments to market demand. The devalued rupee camouflages the real earnings from foreign trade in seafood exports. Nevertheless, the compound growth rates in the post-reform period showed substantial increase in the quantities of seafood exported but not backed by growth in unit values realised, substantiating the fears that high volume-low value items are being increasingly exported. The composition of Indian seafood exports show predominant dependence on frozen shrimps for its sway over the international market. The major markets are Japan and the U.S.A. for Indian shrimps. Over-emphasis on a single product in a product-mix and geographical concentration on a couple of international markets are not good marketing strategies in the long run. Development via shortage of social overhead capital is expected to generate backward linkages for enabling sustained development. But delivering a suitable product to foreign customers at the right time, in the right quantity and at a competitive price is a formidable task. Impediments to product and market diversification include lack of indigenous technology, lack of brand or image identity, GATT regulations and subsequent compulsions on strict quality control norms, etc. The study identifies the unified European Economic Community (EEC) and the Middle East as markets with great potential for Indian black tiger shrimps.

Relevance of Minimum Export Price, Canalisation and Quantity Ceiling on Export of Agricultural Commodities

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Agricultural commodities which are being exported for the past several years are not due to the effect of only surpluses or higher prices in the world market, but also depend

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upon the export policies, namely, minimum export price (MEP), canalisation of commodities for exports through particular agency and maximum ceiling on quantity to be exported. In this paper, an attempt has been made to examine the relevance of these three policies on export of major agricultural commodities. The details about policies were obtained from Export-Import Policies for different periods, published by Ministry of Commerce, Government of India, New Delhi and secondary data were obtained from other sources.

India earned foreign exchange to the tune of \$ 270 million in 1981 from agricultural exports, which formed 32 per cent of the total export earnings. Thereafter, there has been a steady fall in the share of agricultural exports in the total exports to 15-16 per cent during recent years. The decline in the share of agricultural exports in total exports is attributed to proportionately increased exports of industrial products, implying thereby India is marching towards advancement.

The policy of MEP has been implemented for basmati rice, black pepper and tobacco. The study revealed that the MEP of basmati rice was raised from Rs. 5,500 per metric ton (mt) in 1981 to Rs. 7,500/mt. in 1988. In the existing policy (for 1992-97), the MEP for basmati rice has been fixed at \$ 550/mt. The MEP for black pepper in 1983 was Rs. 13,000/mt and raised to Rs. 19,000/mt in 1990-93 policy. For tobacco, there are a large number of blends for each of which prices are specified. For a particular commodity, if the MEP is higher than the price offered by the importing country, then the competing country (e.g., India) for export of that commodity finds place for export of its commodity and consequently it adversely affects the export performance of our country.

Exports of major agricultural commodities like sugar, jute and onion are canalised through government agencies like State Trading Corporation of India, Jute Corporation of India and National Agricultural Co-operative Marketing Federation respectively. At present only export of onion is canalised and the other two commodities are deleted from the canalised list. The 'Quantity Ceiling' which is also a vital export policy is being implemented for non-basmati rice, wheat, cotton, sugar, potato and onion exports. It appears that most of the essential commodities are covered under this policy. Quantity ceiling policy protects the interest of domestic consumers.

Indian Agriculture in the New Economic Era

R.K. Khatkar[†]

On the basis of secondary data taken from the *Economic Survey* and various other published sources, an attempt has been made to examine the growth of Indian agriculture in the context of new economic policy. It was observed that although the balance of payments position has improved after liberalisation, yet the agricultural domestic product and domestic capital formation in the agricultural sector, both in private as well as public sector, have declined. Even during the Eighth Plan the relative share of investment in agriculture and irrigation projects has declined compared to the previous plans. A major share of external assistance is still going to debt service payments, indicating the dismal condition of the

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Indian economy. Although the total agricultural exports has increased by 222 per cent in the triennium ending 1992-93 over the triennium ending 1982-83, yet its relative share to total merchandise exports has declined to 16.68 per cent from 29.19 per cent during the period under reference.

Keeping in view the improvement in per capita availability, rate of export price to domestic price and share in total world's export, there is a vast potential for export of non-traditional export commodities of rice, wheat and cotton having comparative advantage in production. On the other hand, considering the low expenditure elasticities of foodgrains and the likely higher demand (due to rise in direct and indirect demand owing to rise in population and higher requirement for feed, seed, etc.), there is little scope for foodgrain export unless adequate surpluses are created. Thus we need to concentrate on high value and labour intensive agricultural allied products like horticultural crops, floriculture, mushroom, dairying, poultry, fishery, sericulture and apiculture, etc., for exports. To absorb the surplus labour created due to the entry of multinational corporations, there is a need to increase the public and private investment for creation of infrastructural facilities and on irrigation projects and agro-processing units. The policy makers will have to look at various handicaps as challenges and challenges as opportunities in right perspective.

Growth, Instability and Future Prospects of Agricultural Exports in the New Economic Environment

Krishan Kanta Kaushik*

Buoyancy in agricultural exports has been perceived in recent years, as agricultural exports earnings recorded an increase of 24.35 per cent in dollar terms during 1992-94. However, world trade in agricultural commodities is highly volatile. Inter-governmental consideration of commodity problems has also focused on short-term instability and on the measures to reduce instability. With this backdrop, the paper attempts to analyse growth, instability and future prospects of agricultural exports pertaining to the period 1985-94. The data for value and volume for principal agricultural exports were compiled from relevant issues of *Economic Survey*. The growth rates and instability indices were computed by fitting a log-linear regression through ordinary least squares method and the instability measure was constructed based on residuals.

Among the various agricultural export products, the growth was the highest from the export earnings of sugar, followed by raw cotton, rice and fruits and vegetables. Coffee and spices recorded a negative growth rate in export earnings (6.33 per cent each) despite a positive growth rate of 3.77 per cent and 7.95 per cent of export quantity respectively. In this case, India continued to export more, but earned less, as she might have scrambled for a share of smaller and more competitive world market.

Sugar and raw cotton registered high growth with high instability. The export earnings from rice, cashew kernel, meat, marine products and fruits and vegetables displayed fairly high growth with low instability. The export earnings from coffee and spices registered

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negative growth and high instability. The production of such commodities showing high growth and low instability should be encouraged while taking into account the ecological concerns. The export of coffee and spices should be discouraged or efforts should be made to enter into a long run stable contracts to ensure that the cost of instability is reduced.

India is price competitive in many agricultural products. The cut in export subsidies on agriculture by developed countries will make Indian exports of agriculture, forestry, marine products and processed food more competitive in the world market as India's existing and potential export competitiveness lies in these products. In order to realise the full export potential of the agricultural sector, investment, both public and private, into infrastructure, needs to be encouraged. The Central and the State Governments should join hands for sustained and broadbased agricultural development with focus on agro-exports. Bio-technology needs to be promoted in the country on a larger scale to tackle the various problems afflicting agriculture.

New Economic Policy and Its Impact on Indian Agricultural Export

S.K. Goyal and Satnam Kaur[†]

An attempt has been made in the paper to examine the performance of agricultural export in the light of New Economic Policy (NEP). For this purpose, the required data were collected from various secondary sources for the period 1980-81 to 1993-94. The findings of the study indicate that the share of export earnings from agriculture and allied products declined over the years. However, in absolute terms the export earnings doubled during the post-liberalisation era (1990-91 to 1993-94). After liberalisation, the commodity complex of export changed in favour of fish and fish preparations, oilcakes, cashew kernels and processed foods, contributing more than 40 per cent of the total exports of agriculture and allied products. It is further estimated that export of fish and its preparation increased by 162 per cent, oilcakes by 279 per cent and rice by 177 per cent during 1990-91 to 1993-94. Although the NEP has given boost to the production of several commodities like marine products, fresh fruits, vegetables, processed foods, etc., yet world share to the export is very low. For instance, India's share in the world production of fish and its preparations is about 4 per cent while its share in world export is only 0.78 per cent. The ratio of domestic price to world price was less than one for many commodities in the eighties which further came down in 1992-93 putting India at a advantageous position to export these commodities. Further, it has been noticed that world prices have shown a declining trend for most of the commodities during 1980-92 while Indian prices have shown a reverse trend during the same period. If we assume the same trend to continue in future, it would adversely affect India's exports. To make the export profitable and competitive, the adjustment of the

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exchange rate of the Indian rupee is of paramount importance. Emphasis should be laid on those commodities in which India has a comparative advantage and also on the export of value added products rather than on primary products for increasing the share of India in world agricultural exports.

New Economic Environment and Indian Agriculture - Some Emerging Issues

Kandarpa Kr. Barman*

In this paper a modest attempt has been made to visualise the impact of new farm policy measures on Indian agriculture. Specifically, the study briefly reviews the policies and strategies relating to Indian agriculture, highlights the new policy measures relating to agriculture, examines the various implications of farm policy with special emphasis on reduction in agricultural subsidy and the prospect of agricultural exports in the global market in the changing economic environment and discusses the implication of the Dunkel accord. The study reveals that the new agricultural strategy based on the principles of cost, efficiency, competitiveness and profitable price marks a clear departure from the past agricultural policies. The farm policy seeks to globalise the Indian agriculture by increasing its productivity through foreign technological collaboration and more credit flows by institutional reforms. Agricultural strategies and policies adopted in the past did not make any substantial impact on the economic development of the country. High degree of instability, unevenness of growth across crops and states over time, and shortage of agricultural inputs are some of the notable problems found in Indian agriculture. A cut in fertiliser subsidy and other inputs is likely to have serious implications on the poor and marginal farmers, but the study reveals that the increase in the subsidy in the past failed to spread the consumption of fertilisers in the agriculturally backward states. Moreover, the efficiency of the use of fertilisers depends primarily on water management, availability of high-yielding variety seeds, extension of research and farmers' training. Merely increasing the subsidy element would not help to improve agricultural production.

An increase of procurement-cum-minimum price of agricultural commodities will only benefit the rich farmers having adequate marketable surplus. Therefore, an upward revision of procurement prices cannot be justified for all the time, since vast segments of the population are the buyers of agricultural commodities.

The prospect of agricultural export in the new economic environment is bright only in the case of commodities like coffee, tobacco, tea, horticultural products and processed foods. But it requires foreign technological collaboration, economies of scale and organisational superiority.

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The New Economic Policy and Productivity in Agriculture - A Case Study of Two Villages in Andhra Pradesh

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The main objective of this study is to analyse the main trends in the productivity of the principal crops raised in two villages of Andhra Pradesh between 1988-89 and 1994-95 in the context of the new economic policy. The two typical villages are so selected that they represent the major agrarian features of two of the three geographical agro-climatic regions of the state, namely, the Telangana and the Coastal regions with dry and wet cultivation respectively. The first village, Donthi, had been a Zamindari estate till 1950 while the second village had been uninhabited till 1965 and it attracted the migrants to occupy its newly irrigated wet lands under the Nagarjunasagar and its population totalled 3,050 persons by May 1995. Jowar and rice are grown in the irrigated village which witnessed increase in population and prosperity, while poverty increased in the dry village, a few rich families left the village in the meanwhile.

The main finding of this study is that the productivity of crops increased in general in the wet village while it declined in the dry village during the period. The increase recorded in the gross out-turn per hectare was about 13 per cent and 25 per cent in the case of rice and groundnut respectively. The productivity of rice and jowar declined in the dry village by 16 per cent and 32 per cent respectively. Similar trends were recorded in the productivity of other minor crops also in these two villages during the above period. The immediate reason for variations in productivity of the crops is found in the variations in the quality and quantity of their inputs. The cost prices of inputs, especially fertilisers, pesticides and labour, increased leading to variations in their application. Changes in the technological and institutional factors also are noticed. The result is that the cost of production of rice has increased in both the villages. The cost of production of jowar too has increased in the dry village, while that of groundnut has come down in the wet village. On the whole, the cultivators of the wet village have gained largely by replacing rice by groundnut while those of the dry village incurred losses after replacing rice by jowar chiefly due to the degraded sources of irrigation (tank), and the frequent failure of monsoons. Agrarian relations in the wet village are commercial and the cultivators are highly entrepreneurial, while these qualities are scarce in the dry village. Incidence of tenancy increased in the wet village, while it declined in the dry village.

Agriculture in India: Emerging Perspective and Policy Issues

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The acceptance of liberalised trade policy by India has opened many new avenues for trade promotion with varying degree of impact on the national economy in general and on

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the agricultural sector in particular. In this paper, an attempt has been made to examine the possible impact of liberalisation on food security and the development of agricultural/agro-based industries. The inferences drawn in this study which is mainly based on secondary data are as follows: Even though liberalised trade policy seems to be quite attractive but taking into consideration the weaknesses of the free trade system, elasticity of demand for foodgrains and political pressures with economic aids, it will not be in the interest of the country to abandon the policy of self-sufficiency in the production of foodgrains. The prices of fertilisers be kept within the reasonable limits so that the marginal and small farmers, having very little marketable surpluses, if any, also continue to use adequate and balanced doses of fertilisers. The medium and large farmers particularly in the green revolution tracts need not make any significant change in their cropping pattern. The existence of favourable prices of foodgrains and cash crops like sugarcane, cotton, oilseeds, etc., will encourage them to produce more of these products. There exists a very strong demand for fruits and vegetables and various livestock products in the domestic as well as export markets and to take advantage of this situation, agro-climatically and locationwise favourable regions/pockets in the country need to be identified and concerted efforts be made for production of fresh fruits and vegetables through creating/strengthening the required infrastructures for production, transport, storage, processing, packaging and marketing of these products. For increasing the output of milk and other livestock products, there is a strong need for strengthening/streamlining the existing set-up towards better feeding, better breeding, animal health improvement and disease control of the livestock, and processing and marketing facilities in the country.

Developing Agri-Business in Bihar: An Analysis in the Liberalisation Perspective

Jagdish Prasad[†]

The paper discusses the state of agricultural backwardness in Bihar, the constraints to its development, the potential of growth and a new strategy in the framework of agri-business, particularly in the perspective of economic liberalisation. The basic question examined in this study is how to bring about the benefits of liberalisation policy in an agriculturally backward state of the country which is still veering around the vicious circle of lop-sided development. The available statistics indicate that Bihar continues to be suffering from lower pace of agricultural development. Although many explanations have been offered in terms of institutional and technological lags, it is the topographical constraints which need a close examination.

The dominant feature of both the plateau and Gangetic basin is the availability of vast land stretches as culturable wasteland. In the districts of North Bihar (Gangetic basin), about 20 to 25 per cent of their total geographical area falls in the category of *chaurs* and *mans* which remain submerged for best part of any year of the harvest calendar. Likewise, the plateau region offers vast land stretches in three sub-heads of the land use as barren but

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cultivable, cultivable wasteland and other fallows. If all these culturable wastelands are brought under cultivation, the total cropped area in the plateau region would double giving a boost to the agricultural development.

Thus two situations of agricultural development in the state emerge. First, raising of agricultural productivity and second, tapping the vast potential of agricultural growth which can be realised through bringing vast stretches of culturable wasteland into cultivation and the allied activities of agriculture. The first problem may be tackled by raising public investment especially on irrigation infrastructure whereas the second may be tackled by huge private investment with the support base of big capital and modern management. Since the State Government is no longer in a position to shoulder any such responsibility, the only option left, therefore, is to go for a new strategy with the support of agri-business enterprise. Agri-business with sound technological and financial base can give an impetus to a chain of production and marketing activities in a single institutional framework and it thus deserves special attention in the present liberalisation perspective as it can help in the launching of enterprise whose basic thrust remains high production and marketing of quality agricultural products.

Foodgrains' Export Possibilities in the Wake of New Economic Order in India

Rachhpal Singh and M.S. Toor*

An attempt has been made in this paper to analyse the domestic production of foodgrains in the context of the growth in population over time and blend it with some demand projection studies. It was found that net domestic production of foodgrains from 1951 to 1994 as well as in the constituent decades grew in the range of 1.64 to 3.61 per cent per annum and the lowest rate being for the years 1991 to 1994. As against this, the rate of growth of population was in the range of 1.85 to 2.28 per cent. Thus the per capita net production and the net availability of foodgrain per head per day grew at a low rate and their growth rate even declined and was negative during the sixties and seventies and very low in the years 1991 to 1994.

The demand projections of foodgrains' domestic requirements exceeded 250 million tonnes for the year 2000 and called for employing all possible means to raise the productivity. The decline in the domestic demand for foodgrains in the past few years could be more positively related to the rise in their prices than to the shift towards non-foodgrains. Hence it could be concluded that the present scenario of domestic foodgrains production in the context of population growth leaves no surplus for their export. The rational demand projections also support this view, emphasising the need for a more strong domestic food security system.

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Trade Decisions and Price Variations in the Case of Large Country: Some Implications of India's Entry to the World Sugar Market

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This paper aims to examine the likely implications of free trade on a large country like India whose entry to the world sugar market is presumed to have repercussions on the international prices and to highlight the importance of analysing the real dynamics of the market structure before going in for outright liberalisation. The exercise points to the fact that India enters the world market as an exporter when world production was high and as an importer when the world production was low. This might have resulted in international price variability considering the size of India's trade. Our findings suggest that in the case of a large country, trade might not stabilise prices in contrast to the small country case. It was also found that India's decision regarding trade negatively influenced international prices, thereby questioning the price stability argument through free trade. These results are to be viewed in light of the recent changes in the economic policies aimed at liberalising the trade regime.

New Economic Policy and Subsidised Agriculture Loaning

R.K.S. Kushwaha,* G.N. Singh,* C.P. Singh[†] and R.N. Yadav[‡]

The paper critically examines the statement of Dr. Manmohan Singh that "our agricultural credit system has been seriously weakened by the burden of excessively subsidised interest rates, low recovery of loans, high intermediation costs of co-operatives and commercial banks and debt write-offs" in his presidential address delivered at the 54th Annual Conference of the Indian Society of Agricultural Economics. The study is based on the data collected from two surveys conducted at two points of time, i.e., 1970-71 and 1992-93 in Ghazipur district and in 1991-92 in Azamgarh district, Uttar Pradesh. The impact of subsidised loan on adoption of modern farm technology and production was found to be positive as the levels of input use and production were higher on target group of farms during 1992-93 compared to 1970-71. The recovery position of all types of loan was more or less equal, while the yield of target group of farms per hectare in physical terms was lower than on other farms because of the fact that institutional framework of India's rural economy has been such that it has always favoured big farmers, i.e., those who matter by virtue of their command over land and other resources. In comparison to these resources, subsidised agricultural development loan was very little. In the process a larger part of subsidised amount was appropriated by the intermediaries. With the proposed abolition of the subsidised rate of interest, as envisaged in the New Economic Policy, only the target group of

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farmers would become the sufferers, as they would not be able to avail of loans from the market at competitive rate of interest for agricultural development. Thus it may be concluded that the subsidised rate of interest to target group of farmers should be continued for some more years.

New Economic Policy and Indian Agriculture - An Overview

R.K. Pandey and Ashok Kumar[†]

As is now well known, the New Economic Policy envisages a stabilisation phase and an adjustment programme. A series of economic measures were announced in July 1991. In practice, the distinction between stabilisation and adjustment policies is not clear cut. These have mixed response for bringing about changes in the economy. A careful sequencing of implementation of policy instrument is necessary to avoid any adverse effects on the economy. The paper aims at examining the implications of the New Economic Policy in the context of the Indian economy. During the last four years of reforms, it was noticed that the rate of growth in real gross domestic product decelerated and it is still much below the rate of growth achieved prior to the initiation of economic reforms. The position of balance of payments is not encouraging. However, the response of inflation is satisfactory to some extent and the foodgrain stocks have increased. This shows that the economy has shown a mixed response to economic reforms. In the present context, stabilisation is more important. Once the stabilisation is successfully achieved, structural adjustment programme may be taken up. It is hoped that the New Economic Policy in the agricultural sector would bring about professionalism, and the dominant role of the private sector will increase the flow of investment into the agricultural sector, and long-term gains to agricultural production substantially. However, the vulnerable sections of the society would find it hard to pay for the increased output prices and are likely to slip below their existing level. The marginal and small farmers may find it difficult to pay for increased input prices, specially, if they do not produce adequate marketable surplus. Unskilled labour may be rejected in highly commercialised farming. Employment programmes for rural poor, which are already in operation like IRDP, TRYSEM, JRY and NRY, etc., be given special attention and continued. For agricultural exports, greater attention to India's comparative advantages within agriculture is certainly necessary.

New Economic Policy and Indian Agriculture

B.P. Veerabhadrappe*

The Government of India has adopted a new economic policy from July 1991 with a view to improving India's competitiveness in the global market. Many countries have

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already initiated structural changes in their respective economies. The main features of these changes can be summarised as privatisation of public sector, market friendliness and liberalising the economy on several fronts. India too has to respond to the changing global economic order for sustained economic growth. The new policy was *laissez-faire* in spirit as it reinforced the feeling that only liberalisation and opening up of the economy to global competition can remove the shackles that chained the Indian economy. Liberalisation is expected to provide a powerful thrust to growth and modernisation of the economy including agriculture. Agriculture is still the mainstay of the Indian economy and the importance of agricultural growth for economic development of the country needs no reiteration. Agricultural research and technology in the post-green revolution era has been focused mainly on foodgrains in the irrigated areas. Raising the productivity of resources used in agriculture through their better allocation between different crops and regions and by adopting improved technologies is a major objective of liberalisation. The Dunkel draft calls for a number of measures for reducing subsidies on agricultural products. It also lists a number of agricultural policies known as the green box which need not be reduced and which cannot be the subject of countervailing measures in foreign markets. These policy measures have been hailed as radical reforms as the Indian economy would be insulated from inefficiency, low productivity, alliance between bureaucrats and various vested interests and the parallel economy. This study is an exercise in the direction of understanding the new economic policy, the rationale of liberalisation, agricultural credit, technology and the related issues.

Prospects of Indian Agriculture in New Economic Environment

B.D. Bhole[†]

Recent introduction of economic liberalisation in 1991 coupled with the acceptance of GATT accord in 1994 have brought new challenges for India in the world market of agricultural commodities. An attempt has been made in this paper to identify the potential areas of export under new economic environment and the commodities having comparative advantage on the basis of domestic and world prices and to study the consequences of new economic policy on the agricultural sector. The data required for this study were collected from secondary sources. Nominal protection coefficient (NPC) used by Ashok Gulati *et al.* (1994) was used as a measure of competitiveness. NPC is the ratio of domestic price to border price.

The results of this study indicated that in 1993 India took the first place in the production of fruits (total) with 8.58 per cent share in world production, vegetables (total) (12.89 per cent), coffee (2.91 per cent), cashew kernels (31.25 per cent), jute and fibre (44.23 per cent), pulses (22.82 per cent), banana (14.23 per cent) and castor oil (51 per cent). India occupied the second rank in world production of rice (21 per cent), sorghum (21.7 per cent), groundnut shell (29.59 per cent) and papaya (21 per cent) and third rank in wheat (10 per cent) and cotton (13.88 per cent) production. In spite of the high rank in production, India's share in

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total world export of these commodities was negligible. India could contribute sizeable share in world export of tea (14.31 per cent), pepper (22.59 per cent), mango (40 per cent) and oilcakes (8.93 per cent).

Close examination of nominal protection coefficients and provisions under the new economic policy indicates that India is having most advantageous position for export of basmati rice followed by tea. Reduction in input subsidies by developed countries coupled with the increase in the subsidies by developing countries would create favourable atmosphere for export from India. However, India will have to face keen competition among exporting countries. Considering the comparative advantages in certain commodities, reallocation of area under different crops, for example, shift from sugarcane to grapes or cotton, can help in improving India's balance of trade.

Regional Disparities in the Growth of New Technology and Agricultural Production in Madhya Pradesh - Implications of New Economic Policy

Narendra Shukla and C.K. Chouksey*

Agriculture in Madhya Pradesh contributes only 9.4 per cent to total production which is quite low compared to Uttar Pradesh and Punjab. However, in the last two decades regional imbalances in the growth of agricultural production have increased in the state. The objectives of this study are to examine the regional disparities in the growth of technological factors, to compare the growth of agricultural productivity among the various regions during the last decade in the state, and to focus on the role of government and private sector in the context of regional disparities. For the analysis the data were collected from secondary sources.

The study shows that during the last decade technological and mechanical power did not increase at the same rates in all the districts. The proportion of gross irrigated area to the total gross cropped area varied differently in the districts during this period. During the decade the annual growth rate of foodgrains yield is relatively higher in the districts of Indore, Morena, Hoshangabad and Raipur where considerable changes in the new technology, machinery, irrigated area and cropping intensity had taken place. Conversely, the districts of Rewa, Sagar, Bilaspur and Baster in which the new technology and other infrastructural facilities did not change much, the foodgrains yield had increased only marginally. Thus unequal growth in new technology, agricultural machinery and infrastructure could be responsible for inter-district imbalances in the growth of agricultural production in the state.

The results of the analysis reveal that the disparities in agricultural growth have tended to decrease mostly and relatively faster in areas where the government played a commanding role in promoting rural electrification, irrigation, electric and oil pumpsets, tractorisation and fertiliser consumption and disparities have increased with respect to per hectare foodgrains production in which other natural factors such as climate, soil fertility and above all

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farmers' efforts are much important.

Hence from the view-point of use of inputs and agricultural development there exist vast disparities. Consequently, the whole agricultural development is at a low level. It is necessary to remove various disparities existing at different levels of inputs use in order to have balanced agricultural development.

It is quite interesting to categorise variables of agricultural inputs and infrastructural inputs into government, private and government with private initiatives on the basis of their role in the expansion of that particular activity. It is clear that private enterprises affect the level of development disparities, since personal efforts are important in the extension of these inputs.

Liberalisation in Agricultural Sector: Implications for Rural Credit and Small Farmers

K.U. Viswanathan, K.J.S. Satyasai and V. Puhazhendhi[†]

The main objective of this paper is to examine the implications of liberalisation in agriculture on the credit to small farmers. The analysis reveals that small farmers' access to institutional credit is still restricted despite the increasing flow of institutional credit and as such they have to depend on private sources for their credit needs. The measures such as lifting of export control on agricultural commodities, restrictions on the imports of traded inputs, removing large subsidies as contemplated in liberalised agriculture sector might have adverse impact on the small farmers' economy mainly through increased input prices and realising low return as a result of poor marketable surplus. Promotion of capital intensive high-tech proposals have very little scope for the small farmer to be an active partner in liberalisation process. This is a disturbing phenomenon in view of the future demand for credit on these farms for short-term and investment purposes. Further, because of the dominance of these farmers in the agricultural economy, future strategies should not bypass them. The impact of the liberalisation may tend to be unfavourable for these farmers and almost all the future agricultural ventures would promote corporate culture where the small farmers may have precarious existence. But the country cannot miss the opportunities thrown open by the General Agreement on Tariffs and Trade accord. Hence, efforts to minimise the adverse impact of the reforms while developing strategies tailor-made for the small farmers are called for.

GATT Proposals and Indian Agriculture Situation

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Keeping in view the different aspects of General Agreement on Tariffs and Trade (GATT) proposals and Indian agricultural situation, the paper makes an attempt to examine the effects

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of the GATT proposals on Indian agriculture and to suggest some policy aspects on the basis of experiences and analysis. Out of a total seven sectors identified in GATT proposals, agricultural sector has been selected for the purpose of this paper. The basic objective of these proposals is to throw open the markets for all products including agricultural products for which binding commitments have been provided. In addition, the subsidy in the agricultural sector has also to be restricted to 10 per cent of the cost of production. These commitments and limitations will have serious impact on the growth of the agricultural sector and on the farmers. The public distribution system is also sought to be re-modelled keeping in view the nutrition level. Further, the Government will not be able to declare support prices for the agricultural products. They will have to procure foodgrains from food security angle and for catering to the needs of the public distribution system at market prices. There will be extensive interference in our domestic policies relating to agricultural development. Due to these proposals, there will be serious impact on the availability of new products as they will be available at monopolistic prices and on R and D activity as the same is mainly directed to development of innovative technologies. The product patent regime will take away the opportunity of developing innovative processes. The new patent regime will also have an impact on small and tiny sectors and many of them will face closure and consequently there will be a serious problem of finding employment opportunities.

Implications of New Economic Policy on Agricultural Exports in India

Usha Tuteja[†]

The Indian economy after the initiation of the new economic policy is in the process of transformation from controlled regime to globalised and liberalised economy. The performance of agriculture after integration with the world markets is greatly linked to the success of exports. The paper attempts to examine the performance of agricultural exports in the post-new economic policy period and discusses the policy implications and challenges it poses and strategy to be evolved. It is felt that the new economic policy has opened the floodgates of opportunities but there are limitations too. So far, India is not a larger supplier of agricultural commodities except for tea. It is expected that relaxation of trade restrictions would make agriculture competitive and farmers would get international prices for their produce by galvanising the export potential of the agricultural sector. This optimism should be reviewed carefully due to the following considerations. First, it relates to creating surpluses for exports. Normally, these exports would be at the cost of domestic consumers. Since the supply of exported commodities would shrink in the domestic market, prices may go up. In this inflationary situation, the poor would suffer and it would be difficult to buy even necessities for people living below the poverty line. Secondly, in the context of rising

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prices, inputs like fertilisers may become out of reach for the resource-poor farmers. This may have grave implications for productivity. Thirdly, it is not easy to sell in the international market because proper identification of products, superior quality, good delivery system and competitive prices are other pre-conditions. For this, we need to restructure agriculture as a business which ought to be dynamic and innovative.

In brief, the export potential for each agricultural commodity should be reviewed separately. Much depends on the efficiency and productivity. It requires vigorous implementation of the measures to improve the productivity by upgrading technology and to evolve a strategy for global competitiveness. This has to be a co-ordinated effort involving government, co-operatives, research organisations and farmers.