

Chapter X

Summary and Conclusions

In 1995 India became the second largest rice exporter in the world. What is more significant is large increase in the share of non-basmati rice, in comparison with earlier years. The rice economy in India all these years is characterised by a large degree of government intervention, in the form of export controls, import restrictions, and domestic market regulations. This study examined the current rice export prospects and explored the various possibilities of India increasing rice exports in a liberalised and post-GATT era. Since rice is an important staple food for a majority of the Indian population any reduction of its supplies to the domestic market is bound to raise domestic prices and affect the food security of poorer sections. Thus before making any pronouncements on India's rice export prospects it is important to examine the nature and structure of the world and domestic rice market and to make a careful assessment of the impact of increasing rice exports on the domestic market.

Since it is not possible to look at the rice markets of the world without paying attention to policies and policy instruments and the manner in which they work and likely to work, rice production trends for five major rice producing countries viz., China, India, Indonesia, Philippines and Thailand are analysed in Chapter II. These trends revealed that a remarkable progress in rice productivity has been achieved in all these countries since the advent of green revolution technology. However, patterns of rice productivity growth in India showed a remarkable contrast to the patterns in Southeast Asia such as those in Indonesia and Philippines. While yield growth was relatively low in India in the pre-green revolution period, the rate of growth increased substantially in the early 1980s. HYV adoption has been much lower in India compared to Indonesia and Philippines despite similar irrigation ratios because the rainfed areas in India are more drought- and flood-prone. Despite the diversity in the policies and programmes followed in these countries, there are some common elements. Food policies in these countries responded

to the opportunities and challenges generated by the new agricultural technology in the mid-sixties. They seized these opportunities by expanding investment on irrigation, extension and credit services. Special programmes like the High Yielding Variety Programme in India, BIMAS in Indonesia, and Massagana 99 in Philippines were undertaken. They responded positively to the agricultural technology in budget allocations, and in giving subsidies to the farmers and providing production incentives. Agrarian reforms were undertaken in some countries to provide security of tenure and conferment of ownership rights on tenants although these reforms could not be implemented with the same vigour in South and Southeast Asia as in East Asia (China). Nearly all countries tried to provide price supports and subsidised agricultural inputs like irrigation and fertilisers in order to stimulate production. These policies have been successful in increasing the growth rates of rice production and reducing the dependence on world market. Thus our review on rice production trends showed the very significant role played by policies followed by different governments in the determination of demand and supply patterns.

Structurally, the world rice market is a thin residual market. The thinning process was further accentuated with the emergence of new agricultural technology of the mid-sixties. Differential growth rates in rice production and consumption across regions have led to changing patterns in the regional distribution of world rice trade. The export side of the rice trade is more concentrated than on the import side. Because of the concentration of import demand in a few countries, competition among exporters for a share in the world market is very strong. The changes in rice trading patterns are, in part, a consequence of the technological shift during the mid-sixties. Since rice importing countries had a comparative advantage in adopting this technology initially in comparison with the traditional exporters almost all rice importing countries became self-sufficient in rice production; this reduced the number of actors in an already thin world rice market. The number of participants is not only small but also their trading patterns are highly unstable. Many of the countries enter the world market whenever they find themselves with a temporary surplus. Different qualities and grades of rice traded in the market

fragment further an already thin market. This thin market would result in high search and transaction costs due to the lack of any clear price discovery process because of the absence of any "central market" price for rice. Apart from these, the governments in most of the countries have the twin objectives of self-sufficiency and domestic price stability; this also contributes to volatility in world rice prices and quantities traded in this market.

The central problem of food policy in most developing countries is how to reconcile the conflicting objectives of providing low food prices to consumers and remunerative prices to farmers. Maintaining the stability of these prices is an equally important objective in these countries. Trade policies that are designed to regulate the volume of trade flows are found to be effective instruments in imparting stability to domestic prices. Chapter IV made an attempt to analyse the behaviour of world and domestic rice prices in important rice producing and trading countries. Our analysis of world rice market integration demonstrates firm linkages in both indica and japonica (varieties of rice) trading countries. This is true not only spatially but also between different qualities of Thai and United States rice both in annual and monthly data. This also suggests that the large degree of government intervention and quality variations do not prohibit the effective functioning of the world rice market and the international rice market is well integrated over the period 1960-93. This suggests that in the absence of complete data on prices for imports and exports of any given country, the price of a dominantly traded indica variety such as Thai 5% broken can be used as a world price under the assumption that the relationships discovered will be indicative of the true factors under study. Exporters and Importers showed sufficient substitution effects across qualities and trading patterns for keeping prices in line with each other. Due to fluctuations in quantities traded on the world market world rice prices are highly unstable compared to domestic prices. Trade policies are often found to be effective instruments in transmitting the domestic market instability, which is the result of output fluctuations, to the world market. Government control of rice exports and imports to stabilise domestic rice prices contributes to the higher variability of world rice prices. Our analysis of variability in world prices clearly revealed that consistent exporters such as Thailand, Myanmar, Pakistan and USA are responsible for variability in

world prices rather than the countries that enter occasionally whenever they find themselves with a temporary surplus. To find out the real opportunities open to countries through rice trade, domestic rice prices are compared with border prices for major rice importers such as Bangladesh, Indonesia, Japan and South Korea and major exporters such as Thailand and Pakistan. Except for one or two years, domestic rice prices in Bangladesh are higher than the world price by a substantial margin. The same is true even in Indonesia and Japan. The implication of this is that comparative advantage, in addition to domestic needs, might have compelled these importers, except Japan, in importing rice.

Though importing countries tend to pursue productivity enhancing policies somewhat more vigorously than exporting countries both these groups of traders do not find the thin world rice market as a reliable source to import rice during periods of scarcity or to export during periods of bumper harvest. World prices fail to provide proper signals for countries in respect of their export and import decisions. The results from the estimation of rice export and import functions clearly demonstrated the insufficient degree of price responsiveness in the world rice market. Thus we can conclude that the world rice market operates in a highly imperfect setting.

India became the second largest rice exporter in the world by increasing her share in world rice exports to 17.4 per cent in 1995 from just 4 per cent in the preceding three years. Among principal competitors, Thailand accounted for 28.4 per cent, USA 15 per cent, Vietnam 10.3 per cent, and Pakistan 5.7 per cent. World rankings as for quantity of rice exports show that Thailand has occupied the top position for the last three decades. US, which was the second largest exporter until 1994, lost its position to India in 1995. Of the 20 million tonnes of rice that enter the world market, less than 10 per cent is of basmati quality. Yet, among all the grades of rice, basmati commands the highest premium and prices are about three times that of high quality non-basmati. Until 1989-90, 90-95 per cent of the rice exported from India was of basmati quality and its share and volume started dwindling rapidly since then due to a spurt in the export of non-basmati

rice. Though the country's rice exports have mainly been of basmati so far, there has been a marked change in the trend with huge quantities of non-basmati shipments moving to Bangladesh, Indonesia, Philippines Russia and African countries such as Libya, Morocco and Brazil.

Pakistan's basmati rice is more competitive in the world market than Indian basmati partly because of minimum export price restriction on Indian basmati rice exports and partly because of the variable levy policies of the European Union which imposes lower duties on Pakistan exports than on Indian exports. However, the major rice exporting countries such as Thailand and the USA started breeding high yielding varieties of typical basmati quality. The signal of this trend is apparent from the release of "Siamathi" from Thailand and "Texamathi" from the US.

Since Thailand is a strong competitor of India in superfine non-basmati rice exports, an attempt is made to review the rice policies in Thailand. Export taxes on rice were found to be effective instruments in maintaining domestic price stability in Thailand. We were trying to answer one important puzzle in this Chapter viz., how Thailand has been dominating the world rice market despite heavy taxation on rice exports. To resolve this puzzle we have compared the cost of rice production, area under rice, and yield per hectare for Thailand and India. Our analysis shows that it is neither the cost of production nor the productivity levels that are placing Thailand in an advantageous position vis-a-vis India; it is only the land expansion under rice which is making the Thai economy a food surplus economy.

The comparison of Indian domestic rice prices and world rice shows that during the 1980s Indian price of rice was lower than world price except in 1986. The difference in prices ranged between 2 per cent and 50 per cent. However, these relative price movements of domestic and world prices are not sufficient for judging the country's export competitiveness, rather they mislead us, because of the existence of transport, processing, marketing, distribution margins and so many other charges. A study by Gill

and Brar (1996), which takes into account all these charges, concludes that Punjab super fine rice is not competitive. However, other studies, with some limitations in the estimation of these costs, demonstrate slender competitiveness.

Many economists argue in favour of liberalisation of rice exports looking at these prices. However, even if price competitiveness prevails, we are not sure that the country would gain from rice exports in a highly imperfect world rice market setting, where there are strong consumer preferences and no fixed trade channels. Many views are expressed on the gains for India from rice trade liberalisation. Some argue that world rice prices are determined by the relatively small surpluses and deficits which enter world market and not influenced by world production and consumption. The implication of this is that world prices can respond disproportionately to even small changes in the proportion of world output which is subject to free trade. India's contribution to world rice production is more than 20 per cent but her share in total rice trade is less than 1 per cent until 1994. The implication of small trade in relation to world trade and a large share in output is that an opening up of India's rice trade may have an extremely large effect on world prices. Some economists argue that before making any pronouncement on price competitiveness of India's rice exports it is important to compare the Indian domestic price with the world market price that would prevail if India were to have a free trade in rice. Some economists argue that a small part of Indian rice output currently enters world trade does not by itself mean that rice trade liberalisation by India would lead to large changes in world prices. This fact can be established from the observed data on world rice prices.

An examination of the behaviour world prices in this context (when India enters into the world market) shows that the world prices did not crash in the manner in which Nayyar (1994) and Jha and Srinivasan (1995) have anticipated. This is supported by our analysis in Chapter IV on various determinants of world rice prices which shows that consistent exporters are responsible for variability in world prices rather than the countries which enter into world market from time to time. This fact demonstrates that consistent exporters such as Thailand able to influence the world price rather than India.

India's common rice, which is a comparable quality with the Thai 5% broken, was competitive in the world market, even after taking into account all the costs that the trader has to incur. This competitiveness can be further improved if the necessary infrastructure is provided. Success story behind our exports in the recent periods is abnormally large stocks of cereals with the government owing to the reduction of offtake from PDS following near-doubling of issue prices combined with high levels of procurement. Our ability to export depends, in addition to competitiveness, on the availability of these stocks in future. The existing empirical literature on the food demand and supply projections has clearly shown that the country would produce a surplus of only a couple of million tonnes which might be sufficient to maintain the buffer stock. The price comparisons showed that the world rice prices are more volatile than Indian domestic prices. The implication of this is that relaxing of trade restrictions on India's rice trade would result in instability in domestic rice market as in the world rice market.

Even if global market conditions are favourable, domestic market conditions are not favourable for the country to export, because a prerequisite for export potential of any country is its capacity to generate an exportable surplus. Many economists claim that India is self-sufficient in its food production. How far is our self-sufficiency in foodgrains real given that a sizeable proportion of our population who live below the poverty line cannot afford to buy even at the fair price under the public distribution for lack of purchasing power?. If surpluses for export exist at all this is not because domestic needs have been met but because there is lack of purchasing power. The swelling of buffer stocks does not imply that the country has a real exportable surplus.

Our analysis of whether the country will be in a position to generate exportable surplus or not shows that it would be possible to expand area under HYV technology but not overall area due to the near closing of the land frontier for further cultivation. On the contrary, area substitution in favour of more remunerative crops may result in shrinkage of area under this crop. Despite the increase in area under HYV technology, the stagnating yield at the national level implies a decay and obsolescence of the new

technology and this necessitates a search for alternatives for growth in productivity with sustainability. The yield stagnation is particularly apparent in those states which have adopted HYV technology for a long time. A detailed investigation can be done into the causes of such low yields in the above mentioned states. Appropriate research and development activities aiming at an improvement in yield are therefore necessary.

The econometric model that has been developed in Chapter IX to examine the impact of rice exports on the domestic price stability and food security demonstrates that the procurement price policy of the government contributes significantly to the food price inflation in India. The stock building operations, which were intended to reduce the market fluctuations arising out of output fluctuations, are the outcome of increasing government procurement operations. If these stocks are exported, instead of selling them in the domestic market, food security of vulnerable sections would be under threat as a result of a rise in domestic rice prices.

On the whole it is difficult to judge the prospects for a sustained high level of rice exports from India, although we have been able to export considerable quantities during the last two years or so without serious consequences to domestic prices. The difficulty arises from the fact that our analysis has been based on past data referring to a period when India was a minor actor in international rice trade. Moreover, much would depend on the different policies that would emerge in other exporting as well as importing countries. These policies are unpredictable.