

Artificial Market Prices and Subsidies Implication for Indian Agriculture

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Agriculture in India is the most important segment of the economy. Growth of Agricultural sector is crucial for Indian economy as it employs two-third of its population and contributes nearly one-third of national income. However its importance in the economic, social and political fabric of India goes well beyond what is indicated by its contribution to the economy. The large number of poor agricultural households and their income vulnerability are major concern among policy makers. These concerns have driven both agricultural policies and public expenditures in agriculture in India as well as in other part of the globe. Agriculture is also one of the major sources of export earnings of our country and is crucial for improving the balance of payments. In recent years, the export of agricultural and allied products accounted for about one-fifth of total export earnings of India. India's share of agricultural export has remained very low in many commodities despite inherent strength of Indian agriculture with the exception of few commodities.

Present paper is an effort to evaluate competitiveness of Indian wheat and rice in international market. Keeping in view the overall food-grain production, marketable surplus and number of farmers, among the major food-grain producing states, here Uttar Pradesh has been taken for comparison of trade competitiveness. Since agricultural trade is highly distorted due to huge subsidies and support to agriculture in developed countries; paper also evaluate competitiveness of these commodities in alternative case, if both countries withdraw their subsidies to these commodities in form of Producer Support Estimate (PSE) (Usually WTO uses Aggregate Measurement of Subsidies for referring the subsidy but Producer Support Estimate (PSE) is comprehensive concept). The Paper is divided in four parts; Part one is about the methodology to calculate trade competitiveness. Trade competitiveness of wheat and rice at normal prices and at PSE adjusted prices has been calculated in part two. Part three evaluate the implications of agricultural subsidy and part four is the concluding part with suggesting some corrective measures for fair agricultural trade and due space of developing countries in international agricultural trade.

Trade competitiveness of Wheat and Rice:

There are many indicators to evaluate competitiveness of agricultural commodities i.e. Nominal Protection Coefficient (NPC), Effective Protection Coefficient (EPC), Effective Subsidy Coefficient (ESC) etc. In this paper NPC; which is the simplest indicator of competitiveness has been calculated for wheat and rice under both importable and exportable hypothesis. The Tables-1 in appendix reveals that from the inception of WTO in the case of both, Wheat and Rice the NPC under importable hypothesis is less than one indicating that these two crops are competitive. This indicates that U.P. (representing here the Indian produce) was an efficient producer of Wheat and Rice and can efficiently compete with the imports of these commodities. But from 1998-99 as the impact of Agreement on Agriculture (AoA) started taking place, NPC under importable hypothesis becomes greater than one, reflects that these produces turn into non-competitive. One of the main reasons for declining competitiveness is very hefty falls given to price in international market of both Wheat and Rice over these years.

The scenario for exportable hypothesis is rather similar. Although in case of wheat, it has retained its competitiveness for some years but recently its production has become non-competitive. Whereas, in case of rice competitiveness decline earlier in comparison to wheat. However over the period, for all these two crops in both cases i.e. importable and exportable hypothesis; NPC is attaining closer to one, indicating that the competitiveness is getting eroded. It may however, be remembered that rice is one of the highly subsidised commodity by U.S. Since the subsidies continue to the quite high level, its international prices tend to remain too low.

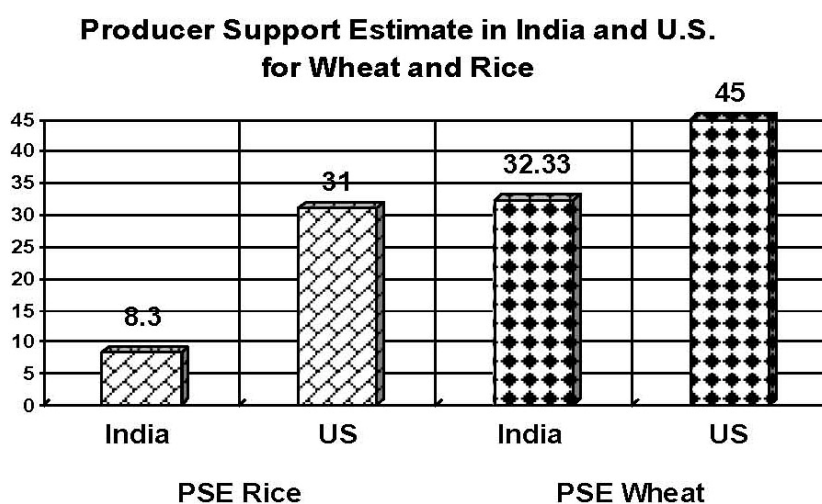
Competitiveness without Domestic Subsidies:

Under the Agreement on Agriculture, the impact of domestic support measures is captured through the aggregate measurement of support (AMS). Which further divide in product specific support (PSE) and in input subsidies i.e. non product specific support. India maintains a product price support system in form of minimum support prices (MSP) announced by the government for different commodities. For India, the total AMS tends to be negative, suggesting taxation rather than protection of agriculture. Gulati and Pursell present detailed estimates of the margins of protection provided to Indian agriculture by the policies that have been applied. These estimates are based on extremely detailed calculations, taking into account transport costs and the net trade situation of producers in key regions within India, as well as impacts at the border. The negative producer support observed in India stands in very sharp contrast to the high levels of support observed in U.S., E.U. and other OECD countries, where Producer Support Estimates averages over 30 per cent. These high rates of protection reduce the demand for agricultural products and hence reduce the demand for exports from India and other net agricultural exporters.

The exporters of agricultural products do not receive direct export subsidies in India. However, the U.S., E.U. and developed countries provide export subsidies vis a vis direct product specific subsidies for several commodities like wheat, rice, coarse grains, oilseeds, vegetable oils, sugar, dairy products, fruits and vegetables, which are of great significance for food security in developing countries. Five-sixths of all export subsidies in the mid 1990s were granted by the EU and all but 2 per cent of the rest were on account of exports-support measures given by the US, Norway and Switzerland. Export subsidies have far-reaching trade-distorting affects. In developed countries, the Total Support Estimate (TSE), exceeding US \$310 billion, encourages overproduction and causes world price levels to fall close to, and even undercut, producer's cost in developing countries. The figure below shows the Producer support estimates for wheat and rice in India and US. However, if we eliminate the Product Specific Support which is a small part of total support for concern commodities i.e. wheat and rice in both countries the competitive situation will be different.

Producer support Estimates (PSE) in India for wheat was negative from 1995-96 to 1997-98 after that it become positive for last few years. For rice it was negative from 1988-89 to 1999-2000. From the year 2000 it become some positive While in U.S. average Producer Support Estimate for 1998-2000 was 45 percent for wheat and 31 percent for rice.

Figure-1: Producer Support Estimates (PSE) in India and US



(Source: OECD, Reference Year - 2003)

Breakdown of total support into its components: producer support, support granted to agriculture in general, and consumer support suggest that since 2000-01 in U.S. PSE has declined from 50.2 percent to 41.7 percent, while General Support Service Estimates (GSSE) and Consumer Support Estimates (CSE) have increased from 25.2 to 31.6 and 17.9 to 26.7 percent respectively in same period. Amount of Total Support Estimates (TSE) also in this period; instead of decline has increased from US \$ 93,504 million to US \$ 96,972 million. Support granted to agriculture in general gives indication of the real danger of “non trade concerns” being used as substitute for straight protection in United States and other developed countries. Further decomposition of PSE in U.S. reveals that input subsidies has increased 168 percent in period from 2000-01 to 2003-04.

Studies suggest that total AMS in India is much below the WTO commitment while in U.S. and other developed countries their support to agriculture is continued in different form and does not declined despite their commitment, contentions and many round of talks under the auspicious of WTO.

Trade Competitiveness in Artificial Market Price and PSE - Equilant Adjustment Scenario:

As discussed in previous section, NPC lower than one indicates the competitive position of a country in international and domestic markets. The figures 2 & 3 below suggest that wheat was fairly competitive in international market (Exportable hypothesis scenario) and domestic market (under importable hypothesis) till 1999-2000. The extent of competitiveness was higher under importable hypothesis. Once India has signed the WTO and in reduces its support in form of subsidies to small and marginal farmers, the market prices in India increases sharply. Whereas in developed countries especially in U.S. subsidies to agriculture (to agribusiness companies) was continue. In result, an Indian price of wheat and rice rises sharply and both commodities become non-competitive in market due to artificially lower world prices of U.S. wheat and rice. It can be realised in following figures.

Figure-2: NPC of Wheat (Exportable Hypothesis)

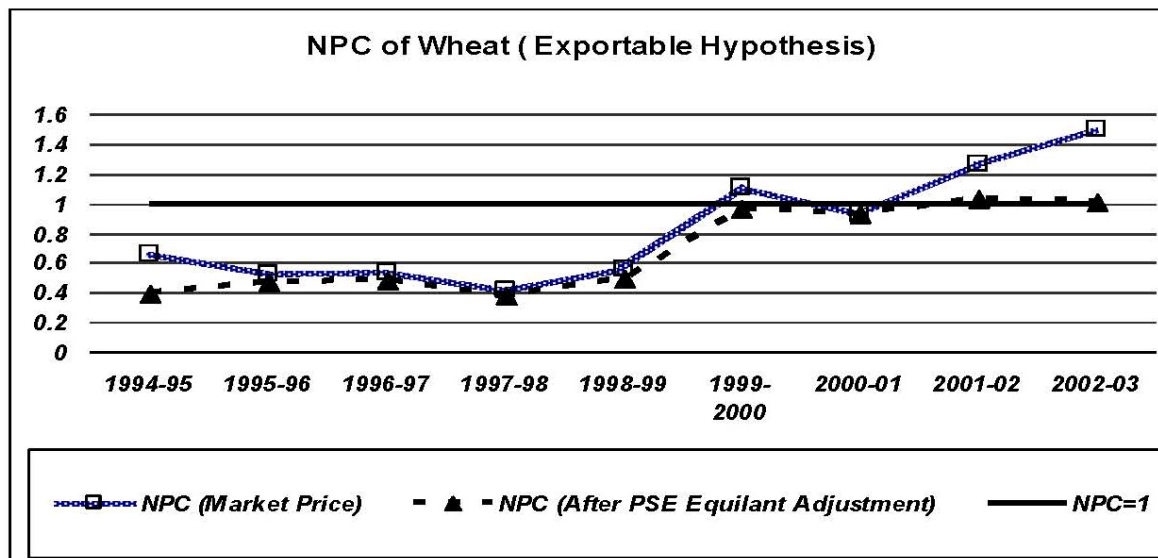
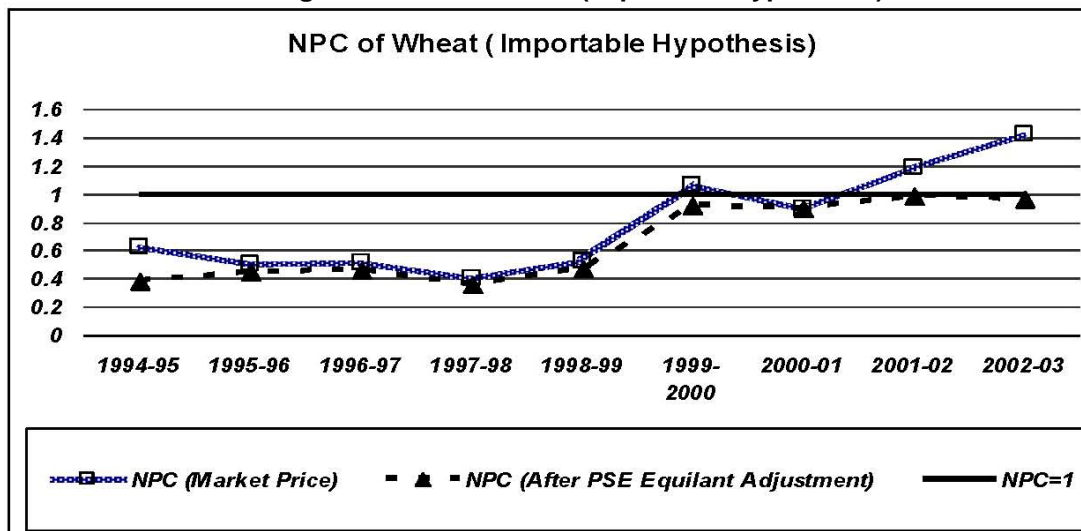
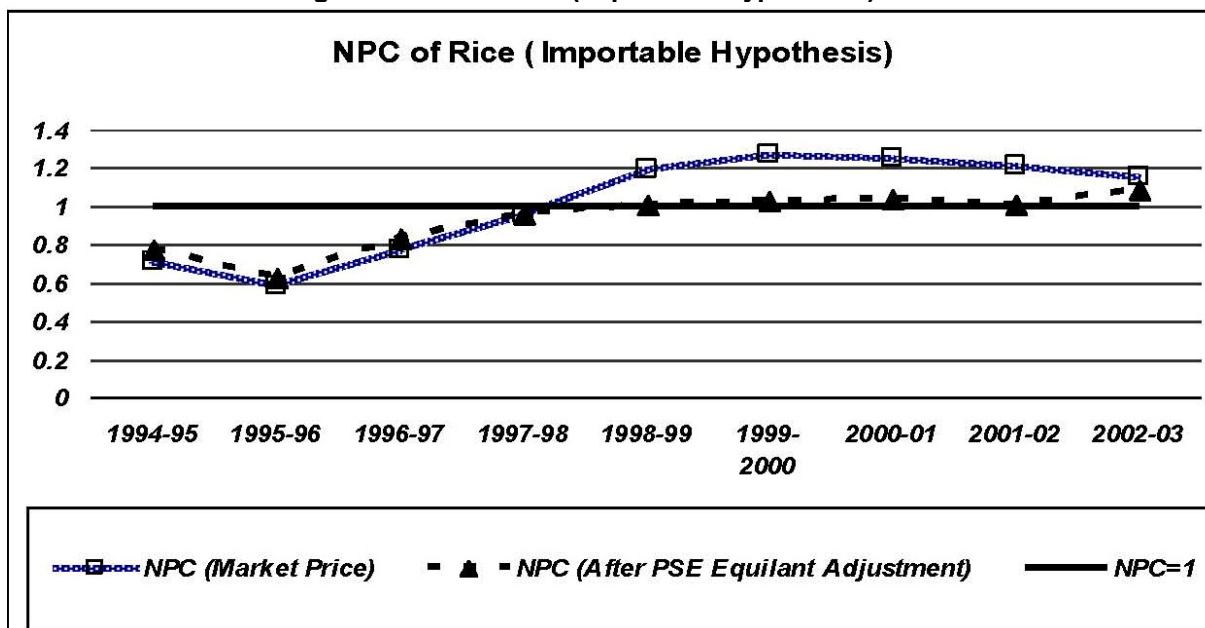


Figure-3: NPC of Wheat (Importable Hypothesis)



It can be easily realize in figures- 4 & 5 given below, that under importable hypothesis the NPC become higher than 1 from 1997-98 at artificial market rates. Same is the case under exportable hypothesis.

Figure-4: NPC of Rice (Importable Hypothesis)



It implies that Indian rice is competitive in both; domestic and international market. But due to artificially lower prices in international market and high subsidies to producers in U.S. made Indian rice non - competitive international market and also in Indian domestic market.

It can be realised that competitiveness of Indian agricultural commodities can increase if we adjust all the support given to agriculture equivalent to Producer Support Estimates. The agricultural subsidies are maintained as AMS in aggregate rather than in product-specific terms in U.S. and many other developed countries. Consequently, such countries have been able to increase the domestic support for sensitive products such as rice, sugar and dairy products. On the other hand AMS in India tend to be negative in recent past.

Main reason for declining competitiveness of these crops is a general slump in world prices of agricultural commodities due to heavy subsidies by the U.S, which has adversely affected export prospect of the developing countries. It is interesting to note that despite these distortions, India was competitive in the production of both wheat and rice; a removal of trade distortions on these commodities would thus be of great advantage to India. The agricultural subsidies of developed countries as well as the barriers to agricultural imports erected by U.S., Europe and Japan prevent countries such as India from fully exploiting their comparative advantage.

This creates a paradox that the richest and the most industrialised countries, which enjoy no comparative advantage in agriculture, dominate the world export market for several agricultural products. Given their relative labour situation and natural endowment, one would expect, on purely economic ground, that they would specialise in the production and export of industrial goods, leaving to the poor agricultural countries the production and export of agricultural goods. But the fact is that, despite the high cost of labour and machine, they supply agricultural product to the world market at a price that is lower than that quoted by developing countries. The paradox is quite easy to resolve. These countries have succeeded in "creating" comparative advantage for their agricultural exports by way of subsidies to their very small number of agriculturists. The subsidy is of such an unimaginable scale that it has turned what is costly and non-viable and should not be produced in developed countries into one of their most lucrative export items.

Continued Protection and their Implications:

Besides subsidising the agriculture U.S. and other developed countries are using so many erstwhile instruments to protect their agricultural commodities; these include border barriers, non border price based and quantity based instruments. Agriculture sector in U.S. and E.U. doesn't need virtual support. Motive behind supporting their agriculture sector is to dominate the world trade by artificially make their produce exportable by keeping agricultural prices at low level. Main objective to support agriculture in U.S. are expanding market access abroad and maintain current farm lifestyle. For this purpose all policy directions have been made. Floor price support, domestic support subsidies and link support to environment are the main instrument along with export subsidies, restricted import access, production quota reduction, area reduction program and many others. The E.U. too is a major foul player of world trade. PSE in E.U. has decrease in recent years but subsequently it increases its input subsidies, indirect support to agriculture and consumer support estimates and provided preferential access to expand its market abroad.

Despite the establishment of the Agreement on Agriculture in the WTO, aimed at reducing subsidies and protection, the developed countries have continued high protection of their agriculture. This is largely due to the weaknesses of the AoA and its implementation. Firstly, the high tariffs on selected items of potential interest to the South have had to be reduced only slightly. In the first year of the agreement, there were tariff peaks at very high rates in the United States, the EEC, Japan and Canada. The AoA mandates the developed countries to reduce their tariffs by only 36% on average to the end of 2000, and thus the rates for some products remain prohibitively high. Secondly, domestic support has increased rather than decrease. Although developed countries reduced their Amber Box subsidies (as the AoA has obliged them to), they also increased the exempted subsidies (under the Blue and Green Boxes), resulting in an increase in total domestic support. Organisation for Economic Cooperation and Development (OECD) data show that the Total Support Estimate (TSE), a measure of domestic support, of the 24 OECD countries rose from US\$275.6 billion (annual average for base period 1986-88) to

US\$326 billion in 1999 (OECD 2000). Thirdly, export subsidies are still high as the AoA only obliges the developed countries to reduce the budget outlay by 36% and the total quantity of exports covered by the subsidies by 21%. Thus, even in 2000 export subsidies were allowed to be as high as 64% of the base level in 1986-90. It is established fact that such subsidised imports from developed countries have suppressed the prices of agricultural goods in India and other developing countries. The cyclical nature of prices of agricultural products, coupled with the exceptionally high amount of subsidies, has posed a threat to farmers in India.

Farmers in India and other developing countries incur losses in three ways:

- (a) They lose export opportunities and revenues from having their market access blocked in the developed countries using the subsidies;
- (b) They lose export opportunities in third countries, because the subsidizing country is exporting to these countries at artificially low prices;
- (c) They lose their market share in their own domestic market, or even lose their livelihoods, due to the inflow of artificially cheap subsidized imports.

There are many studies to suggest that Indian agricultural exports are competitive in some extent in the world market. But currently, Indian farm goods do not pass this test because of so many reasons. The alternative calculation of NPC after PSE adjustment suggest that India has a large export potential provided the developed countries remove their trade barriers and withdraw high domestic support to agriculture. India can easily withstand competition from abroad for import of most of the crops even at the current level of tariffs without having a big wedge in term of custom duty. Huge export subsidy and domestic support being given by the developed countries to their agriculture is a major factor for decline in international prices. However the import competitiveness is getting reduced overtime because of currently a global recession and general down turn in agricultural prices.

Corrective Measures to Level the Field

The agriculture in developing countries is critical to food security, poverty reduction and economic growth. It is therefore crucial that agricultural trade rules are designed to foster agricultural growth. However the system which governs world agricultural trade, in the form of WTOs Agreement on Agriculture, is inherently unjust. It legalise the unfair trading practices by developed countries, thereby denying the chance to benefit. Developed countries have clearly stacked the advantage of the AoA in their own favour. Tailoring the rules to their specific situation, they have secured the right to subsidise their own farmers at almost unlimited level. Since the introduction of the Agreement on Agriculture in 1995, domestic subsidies in the OECD countries have not fallen. Developing countries like India have limited funds to subsidies agricultural development, see domestic market protection as the major policy instrument to support their agricultural sectors and secure the livelihood of their rural poor. Keeping these facts in view the WTOs post Hong Kong development are critical to address the basic issues. Instead of working towards rebalancing the current agreement, developed countries are continuously protecting their farm sector and completely failed to register the very specific needs of developing countries. Achieving an equitable outcome from the WTO agricultural negotiations is still looked-for. Therefore WTO's Agreement on Agriculture should be amended in order to:

- End of all form of dumping of agricultural products; which not merely consist the elimination of export subsidies as negotiated in Hong Kong, but also a stronger discipline on domestic subsidies that facilitate export dumping, stronger discipline on food aid; the right of developing countries to apply additional tariff duties while phasing out trade distorting support.
- Recognise the special position of developing countries by providing meaningful special and differential treatment such as; lower reduction for developing countries on tariffs,

internal support and export subsidies; market access under Tariff Rate Quotas preferentially allocated to developing countries and

- Improved Market Access condition for developing countries.

As long as the subsidies continue, the dumping of artificially cheapened agricultural products to developing countries will continue. This has serious effects on rural livelihoods and food security in developing countries. Artificially cheapened products are being imported into developing countries. Often, the countries like India may have more efficient farmers, but their livelihoods are threatened by inefficient farmers in developed countries because of subsidies. The elimination of subsidies are how much important, it is reflecting in incessantly failure of Doha Development Round and related trade negotiations since 2000-01. Even the much hyped post Hong Kong dead line of April 30, 2006 to resolve the subsidy issue is passed but there is no consensus to breakthrough the deadlocks. The message is clear; subsidies to agriculture are most important matter to level the field and to provide the equal opportunity, so it can not be overlooked.

Appendix :

Year	NPC of Wheat (Importable Hypothesis)	NPC of Wheat (Exportable Hypothesis)	NPC of Rice (Importable Hypothesis)	NPC of Rice (Exportable Hypothesis)
1994-1995	0.63	0.66	0.71	0.74
1995-1996	0.50	0.53	0.59	0.62
1996-1997	0.52	0.54	0.77	0.81
1997-1998	0.40	0.41	0.96	1.01
1998-1999	0.53	0.56	1.19	1.25
1999-2000	1.06	1.11	1.27	1.34
2000-2001	0.89	0.93	1.25	1.31
2001-2002	1.19	1.26	1.21	1.27
2002-2003	1.42	1.50	1.16	1.23

(Source: Authors Calculation)

Year	NPC of Wheat (Importable Hypothesis)	NPC of Wheat (Exportable Hypothesis)	NPC of Rice (Importable Hypothesis)	NPC of Rice (Exportable Hypothesis)
1994-1995	0.38	0.39	0.77	0.80
1995-1996	0.45	0.47	0.63	0.66
1996-1997	0.46	0.48	0.83	0.87
1997-1998	0.36	0.38	0.96	1.01
1998-1999	0.47	0.49	1.01	1.07
1999-2000	0.92	0.96	1.03	1.08
2000-2001	0.89	0.93	1.04	1.09
2001-2002	0.98	1.03	1.01	1.06
2002-2003	0.96	1.01	1.09	1.15

(Source: Authors calculation)

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