



Environmental Impact On Agriculture: WTO And Indian Economic Reforms

* Dr. Shivasharanappa Dhaba

* Associate Professor & HOD, Dept. of Economics, Govt. First Grade College, KALAGI

ABSTRACT

In competitive world our strategy should be to produce the best quality at the lowest cost. This can be encouraged and supported by proper policy reforms and public investments in strengthening agriculture infrastructure and research. At the same time it is important to read between the lines, why few countries are so much interested in India and pushing WTO provisions to enter the Indian markets. India is located in ideal location with all possible natural advantages for most of the crops and animal products. There is every possibility to become an agricultural superpower in the world in the days to come.

Keywords : Agriculture, WTO, Economic, Rural, Environment

Introduction:

The nation is gripped with the idea of doubling the rate of growth of the agricultural output, the environment will be a direct victim if proper attention and steps are put in place. The purpose of the present is to give a description of the status of agricultural sector in India before the introduction of economic reforms. The achievements and the required second phase of reforms to bring about second green revolution and causes responsible for such an act is given a complementary treatment. What has been the damage to environment before reform and after reform coupled with the things to come about in influencing the environment is no less important aspect which needs some elaboration. The scope for balancing the two, i.e. increasing production and protecting environment in the agriculture sector is a very delicate issue deserving our separate attention. For the convenience the paper is divided into following part.

Part-I

The State of Art

Before any attempt is made, in understanding the requisites of launching pad for second green revolution duly supported by second stage of economic reform save the impact of environment on Indian agriculture. It is imperative to know the state of art in Indian agriculture before the advent of economic reforms. However, the environment will receive its due share of treatment in following sections.

It is needless to recapitulate the fact that India truly heralded the green revolution way back in the year 1965. This revolution paved the way for food security needs and self sufficiency of the country in food and food matters. Indeed, it is noteworthy that the production of food during the period of green revolution increased to more than two hundred million tonnes which thereby could satisfy the hunger of the people (if managed well). Farther, there has been a substantial increase in the export of primary agricultural products which could bring foreign exchange improved the countries balance of trade.

The great tragedy of green revolution has been due to a host of mixed factors. For example,

- a) Small landholders were unable to compete with the farmers of larger size. They were even made to sell their land make the way towards migration to urban areas.
- b) The patented seeds by Multinational National Companies started rushing into the market and made the farmers a

slave the improved seeds genes.

- c) Similarly, the seeds could be used only once for all and the farmers inventories were of no use for re-sowing.
- d) Besides, the seeds did not have full proof-ness. In the sense that the seed producing companies did not guarantee the quality of seeds. Many of the farmers had lot of difficulties and rope failures attributed to poor quality of seeds bought from MNCs.
- E) The chemical fertilizers come to occupy a prominent place among the farmers who used the modern HYV seeds. Unfortunately some illiterate (or otherwise) farmers had a mind set that more fertilizer would result in increase in more yield.
- F) The use of more water (with a large quantity waste method) comes to occupy the minds of farmers in their greed for increase in production.

In the period of more than a quarter century i.e. from 1960s to 1990, there has been a very unhealthy development in the agricultural sector. There has been insufficient credit, mal-distribution of subsidized fertilizer, under paid procurement prices for the products, decline in exports, difficulties in withstanding the emergence of new technologies, inability to adopt to the new genetic era and diversification of agricultural activities, fall in the land fertility (attributes to modern methods of cultivation) the cob-web of government policies and the policies of MNCs left very strong food prints on the state of art in Indian agriculture. The sustainability of growth had been a matter of serious concern. The farmers' suicide and unsatisfactory distribution of food grains in the country resulted in starvation death.

Part II

Second generation Reforms

There are a number of reform steps which have been spelled out recently by the government these are as follows:

1. The banks should provide greater quantum of credit at a reduced rate of interest, that is, to say about 7% per annum. This is the basic responsibility of the nationalized commercial banks and the Grameena Banks without exception to the co-operative banks. The government feels that the co-operative banks have larger network and

- has large number of members. Therefore, channalising credit through these basic institutions would ensure credit needs of the farmers.
- The government is also aware of the subsidies of Rs.24.000 crores given to fertilizers companies. However, the philosophy of the government is that the fertilizer companies should become competitive and can sell their output in the free market. Whereas, the government should provide direct subsidy to the farmers. This method would help the farmers directly and would result in cost effectiveness with the use of fertilizer.
 - The third proposal as a component of second generation reform so as to bring about second green revolution in the Indian farm sector contemplated by the government is that the genetic seeds research which has been undertaken by governmental agricultural research institutes and laboratories and their results be made available to the farmers.
 - The reform step also included growth emphasis on extension services in the wake of new genetic seeds, application of fertilizer, breeding of new seeds etc.
 - The second generation reform has placed greater emphasis on organic farming and economical use of water and changes in the method of cultivation, including that of cropping pattern.
 - Besides, a patent regime for seeds has been introduced. However, the private companies should not be allowed to undertake bio-genetic research and produce seeds and obtain the patent. Because, this step has made the seed producing companies as a middlemen and exploit the poor farmers by supplying seeds at a higher price.
 - The use of conventional fertilizer at an appropriate time with a strategy for sound mixing with the soil is considered as an important step which would ensure a long term sustainable fertility in the soil. The Cowden would also bring about greater strength in the soil quality which can withstand the environmentally influencing diseases to the crops.
 - The Indian experience is a very simple and confirms with the dictum that prevention is better than cure. For instance, there are plants and plants' products available in plenty in our surrounding which can be used as pesticides for protecting the crops from disease. The neem seed, juice, cake etc has been found to be very effective pest control substance. Similarly the urine of the cow, goats and horse has also been found anti weed substances which can be used for preserving seeds.
 - There is need for construction and maintenance of village godowns for agricultural products, seeds and vegetables. In fact some of the short lived agriculture products become useless soon after the harvest if they are not preserved scientifically. The scarcity of the products has often been artificial in the Indian villages because a lot is grown and harvested at an appropriated time but lack of storage facility have brought many losses to the formers.
 - The farmers should be trained to undertake the cultivation of rare medicinal plants. In fact a country in the Asian subcontinent, India has large number of medicinal plants which have not been undertaken for commercial production and export.
 - The Indian species and coffee have a distinct flavor and have substantial international demand what we need is to enhance the cultivation of these products and can earn substantial amount of foreign exchange.
 - It has come to the attention of automobile engineers that there are some agricultural products which are used as effective bio-diseases. Bio-diseases could find a great place in the Indian Economy.

Part-III

Environmental Problems

There are directly man made and indirectly man made together, the natural factors which have degraded the environment insofar as the agriculture sector in India is concerned. The craze for producing more and more, routine cropping pattern, method of cultivation has degraded the various components of environment. Undoubtedly, the agriculture in the past was considered as a way of life. But today the agriculture has become a threat to the life and its existence, not only to the but also to a large number of animals, plants and other species of birds, the problem has become so serious that unless the immediate steps are taken the environment will effect the agriculture sector to the extent that it would result in an increase in the portion of barren land by more than 25%. It may be recalled that David Ricardo who was the first to give greater attention to the land was cleaver enough to classify lands into various categories. Further his concept of no rent land still a greater wonder child for many agronomists. However in his scheme of cultivation Ricardo has to be credited for his suggestion that there should be a practice called fallow land in which a piece land is not cultivated at least for two seasons or more which will enable the land to acquire its original character.

Part-IV

Remedial Measures: An Evaluation

The important measures to be followed in this context have been listed in the following.

- The new and scientific cultivation of land by making use of sound techniques and machinery. This would ensure no soil erosion and help in protecting the fertility content in the soil.

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