



## A CASE STUDY ON SUSTAINABLE DEVELOPMENT IN AGRICULTURE VS. FOOD SECURITY

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India is a gifted country with multifarious natural resources and this divine land is endowed with rich soil resources, fertile hilly terrain that produces food rich in fibre, vitamin and other nutrients. To be precise, our land is the most suitable for agriculture development and the climatic conditions are very conducive for this productivity in agriculture. Keeping in mind the increasing population our planners, administrators and agriculture scientists decided to increase food production manifold. This was implemented about four decades back and it was named as “**GREEN REVOLUTION**” and the associated increase in milk production was named as “**WHITE REVOLUTION**”

As expected, our food production increased to a phenomenal level, but this productivity could not be sustained for long. These intensive methods could not be adopted for the soil conditions in India continuously. Our soils were suited mostly

for the traditional cultivation method and the long practiced traditional ways were suddenly given-up and this led to excessive absorption of unwanted chemicals by our soil. The pesticides played havoc on our soil and led us to a situation where our farming produces smacked of chemicals. The excessive chemicals in our food created other hazards like cancer, skin diseases and pulmonary problems among the humans and animals.

The greatest challenge before us is how to revert this trend and our scientists are actively engaged in moderating these intensive farming practices. It is high time we restored our richness of our soil and also reclaim the water bodies that surround our agricultural land.

We know very well that the water bodies absorbed excessive salt and other chemical contamination found in the soil. So the excessive chemical used in the form of pesticides for agriculture affect our water body also and the water that used to be once for potable purposes now requires to be treated before sent for human consumptions. We have also invited several diseases that were not known earlier.

The intensive cultivation farming practices have affected our atmosphere also in form of air pollution. Today, our people are undergoing



intense health problems associated with air pollution and not many are aware of the fact that this atmospheric pollution emanated from the farming practices.

According to UN-India, there are nearly 195 million undernourished people in India, which is a quarter of the world's hunger burden. Roughly 43% of children in India are chronically undernourished. People below Poverty Line in India decreased to around 22% in 2011-12. The Poverty percentage was calculated using the Tendulkar methodology. India ranked 76th in 113 countries assessed by The Global Food Security Index (GFSI) in the year 2018, based on four parameters—affordability, availability and quality, and safety.

As per 2020 country rankings, India ranked 71st among 113 countries in the GFSI. As per the Global Hunger Index, 2018, India was ranked 103rd out of 119 qualifying countries. According to Global Hunger Index, 2020, India rank has improved to 94th position out of the 107 countries but much behind countries like Bangladesh, Pakistan and Nepal. According to FAO estimates in 'The State of Food Security and Nutrition in the World, 2018' report, about 14.8% of the population is undernourished in India. We are facing Challenges with Food Security traditionally Unavailability of Food, Poor Purchasing Capacity whereas now it

increases because of increased India Population, poverty, climatic conditions, lack of awareness, inadequate food distribution and storage conditions.

India is known for innumerable natural, herbal plants and many of them were used by our forefathers for traditional healthcare practices. They were very effective and our society could remain healthier with the help of the herbs and medicinal plants but these days even the herbal medicinal plants are not as effective as they used to be because of soil conditions. Now we have entered into a situation where we have lost our soil richness, regular rains and other gifts of nature. The time has come for a radical review of our farming practices and we need to work for the optimum utilization of our land combining the best of the traditional practices and what modern science has given us.

Q:1: Whether switching over to traditional farming method will affect our Food Security?

Q:2: To what extent improvement of storage facility and effective public distribution system reduced our need to produce more food grains than required?