

## ABSTRACT

India, maybe diverging into many areas like Information Technology, Manufacturing and Services industries, but still is predominantly an agrarian economy. Agriculture is not lagging behind when it comes to these technological changes; it is slowly but steadily catching up to the modern advancement. Modern agriculture practices in India include use of modern machinery, new techniques and use of fertilizers. Chemical uses of fertilizers have become a concern for countries that are highly dependent on agriculture. Fertilizer consumption is increasing over the years and especially after Green Revolution took place, so much so that India is the second largest consumer of fertilizer next to China. This is concerning because fertilizers on the long run have a negative effect on the soil and the quality of produce. Green Revolution, was not all bad, it paved way to the new phase in Indian agriculture. It has made our country self- sufficient, less dependent on imports and has introduced modern advancement for common man, which otherwise was only accessible to the rich.

This dissertation work focuses on studying the fertilizer use from 1955 until 2009. Phase-by-phase analysis of the growth of Indian Agriculture is done to study how fertilizers affect yield. The empirical results show positive results indicating the use of fertilizer to increase yield in all the three phases. It also shows factors such as cropping intensity and area under irrigated land, which can affect the use of fertilizers. Other factors like, conspicuous consumption of fertilizers, drawbacks of Green Revolution, credit availability, climatic changes and introducing organic farming is also studied theoretically to understand why fertilizer-dependency has increased over the years.