

Assessing the Socio-Economic Problems and Environmental Implications of Green Revolution In Uttar Pradesh, India

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Abstract : Mid-1960's has been landmark in the history of Indian agriculture. It was in 1966-67 when a New Agricultural Strategy was put into practice to tide over chronic shortages of food grains in the country. This strategy adopted was the use High-Yielding Varieties (HYV) of seeds (wheat and rice), which was popularly known as the Green Revolution. This phase of agricultural development has saved us from hunger and starvation and made the peasants more confident than ever before, but it has also created a number of socio-economic and environmental implications such as the reduction in area under forest, salinization, waterlogging, soil erosion, lowering of underground water table, soil, water and air pollution, decline in soil fertility, silting of rivers and emergence of several diseases and health hazards. The state of Uttar Pradesh in the north is bounded by the country of Nepal, the states of Uttrakhand on the northwest, Haryana on the west, Rajasthan on the southwest, Madhya Pradesh on the south and southwest, and Bihar on the east. It is situated between 23052' N and 31028' N latitudes and 7703' and 84039' E longitudes. It is the fifth largest state of the country in terms of area, and first in terms of population. Forming the part of Ganga plain the state is crossed by a number of rivers which originate from the snowy peaks of Himalayas. The fertile plain of the Ganga has led to a high concentration of population with high density and the dominance of agriculture as an economic activity. Present paper highlights the negative impact of new agricultural technology on health of the people and environment and will attempt to find out factors which are responsible for these implications. Karl Pearson's Correlation coefficient technique has been applied by selecting 1 dependent variable (i.e. Productivity Index) and some independent variables which may impact crop productivity in the districts of the state. These variables have categorized as: X1 (Cropping Intensity), X2 (Net irrigated area), X3 (Canal Irrigated area), X4 (Tube-well Irrigated area), X5 (Irrigated area by other sources), X6 (Consumption of chemical fertilizers (NPK) Kg. /ha.), X7 (Number of wooden plough), X8 (Number of iron plough), X9 (Number of harrows and cultivators), X10 (Number of thresher machines), X11 (Number of sprayers), X12 (Number of sowing instruments), X13 (Number of tractors) and X14 (Consumption of insecticides and pesticides (in Kg. /000 ha.)). The entire data during 2001-2005 and 2006- 2010 have been taken and 5 years average value is taken into consideration, based on secondary sources obtained from various government, organizations, master plan report, economic abstracts, district census handbooks and village and town directories etc., put on a standard computer programmed SPSS and the results obtained have been properly tabulated.

Keywords : agricultural technology, environmental implications, health hazards, socio-economic problems

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