

Green Revolution in Pakistan

Annual growth rate in agriculture between 1949 and 1958 was a 1.43%, less than half of the annual growth rate in population. Ruling elite believed at that time that it is essential to industrialize at all cost and at high speed. At the end of 1950s when it became clear that growth in agriculture was necessary for survival of country. Between 1959 and 1964 agriculture grew at rate of 3.7% and 6.3% between 1965 and 1970.

The phenomenal increase in growth took place in two phases. In the first phase 1960-1965 the main cause of the growth was the increase in irrigation facilities, mainly tube wells. The second phase between 1966-1970 showed impressive growth by the technology package of high yield variety (HYV) seeds, chemical fertilizers and pesticides.

Between 1960-1965 about 25000 tube wells were installed each costing Rs 5000-12000. In the second half of 1960s, two HYV seeds, one for wheat developed by International Wheat and Maize institute in Mexico and the other for rice developed by International Rice Research Institute in the Philippines introduced in Pakistan. Output of major crops between 1960 and 1970 increased, wheat production by 91% and rice by 141%.

Issue of Tube Wells

Growth in tube well from a few hundred in 1960 to 75000 in 1968 and 156000 in 1975 was a key factor in providing irrigation.

First issue concerns the location of tube wells. In KPK and Baluchistan shortage of ground water due to hard stony mountainous terrain. In Sindh the fact is ground water is saline meant this water could not be used in agriculture. In Punjab 91% of the tube wells in 1968. It was not the entire province of Punjab but only handful districts and gain all benefits of green revolution.

Secondly their size and cost, tube wells were mainly installed by landowners with over 35 acres of land. Agriculture development Bank followed a liberal credit policy and made numerous loans to farmers, so they could setup private tube wells.

Tractorization

Tractors import were encouraged by the provision of cheap credit through ADBP. At the same time the overvalued exchange rate made tractors available in Pakistan at price below world market prices. In 1959 there were 2000 tractors in the country which increased by over 8000% to 18909 in 1968.

Clearly tractorization took place in those areas which had complementary inputs carried out by larger and more resourceful farmers associated with a urban markets and services.

Regional and Income Disparities

private tube well development is closely relative to concentration of land in large farms, the green revolution has tended not only a intensify already large disparities in come and wealth of the different strata of rural population but by the same time it has also widened disparities between different regions. Income of the rural elite increased while the income of the small farmers in their district where green revolution was most successful and in the poorer regions have failed to improve. The KPK and south eastern parts of Sindh had inadequate access to water and the HYV technology. The difference between poor and rich farmers also increased due to unequal access to inputs. It was the farmers who owned between 50 to 100 acres almost all of them in the Punjab who produced Pakistan's green revolution.

Elite farmer Strategy and Capitalist Development

The rapid agriculture growth was led by a new breed of dynamic middle-class farmers who were capitalist to start with. These farmers had been created by shift in political power under

Ayub Khan. It was these middle-class farmers owning between 50 to 100 acres of land in Punjab who produced revolution in Pakistani agriculture.

Some believed that it was large farmers not middle class which was responsible for green revolution. They believed that farmers who had land over 100 acres were dominant in the adoption of new technology.

There was increased leasing in of land as large farmers were now willing to take back the land previously leased to sharecroppers. Due to large scale of tube wells, tractors, more and more land was resumed for production under capitalist means. Capitalism had entrenched itself forcefully and permanently.

Social and Political Effects

The displacement of labour both at the low end of the spectrum in the form of sharecroppers and at higher end where those with land either sold it or rented it out to neighbours increased rural urban migration, the emergence of small towns near agriculture areas that were using capitalist techniques and required new and different services and the awareness of disparities between farmers and regions.

There was also a change of attitude towards education especially amongst the big farmers. Revolution in the mechanical chemical technology which is now employed in agriculture is making new demand upon capabilities of the farmers.

The election result of 1970 from the rural areas were a direct consequence of the green revolution and even urban areas were not spared the outcome of agrarian change as migrants from rural areas began to play some role in industrial and urban areas as well.