Agrarian Crisis in India

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Abstract

Agrarian crisis in India is a serious issue of concern as it is adversely affecting the livelihood of people who depend on agriculture. It refers to sluggish growth of agricultural sector due to decline in agricultural productivity and profitability. An attempt has been made in this article to analyse the causes of agrarian distress in India. Faulty implementation of agricultural policies, excessive use of chemicals degrading agricultural lands, price volatility shocks faced by farmers with reduction of trade barriers on agricultural commodities, distress sale of crops due to poor market infrastructure, rise of fragmented landholdings leading to uneconomic way of cultivation are some of the contributing factors of agrarian distress. The necessary initiatives that could be undertaken in resolving the various agrarian issues includes setting up of seed saving banks, encouraging cooperative farming, entitling farmers to free training programmes regarding efficient use of resources and improvement of infrastructural facilities to strengthen the agricultural sector.

Key Words*:* Agrarian crisis, green revolution, marker imperfections, distress sale.

Introduction :

India has emerged as one of the major economic power in the world with impressive growth of Gross Domestic Product. But, it is very incongruous and difficult to believe that the people residing in rural areas are in the grip of severe agrarian crisis. Manifestations of agrarian distress in contemporary India are not only confined to the backward areas where conventional agricultural techniques are applied but is also a serious issue of concern in the prosperous agricultural zones with high degree of commercialization of agriculture where relatively better agricultural techniques are applied. Agrarian crisis encompasses two aspects – livelihood crisis and agricultural

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development crisis. Livelihood crisis implies intimidating the very basis of survival of small and marginal farmers as well as agricultural labourers due to decline in productivity and profitability. Agricultural development crisis refers to the stagnant growth of the agricultural sector due to misallocation of resources and poor implementation of agricultural programmes (Government of India 2007, Reddy and Mishra 2009). This article makes an attempt to analyse the underlying causes for agrarian distress in India and suggest some specific measures which shall help in attainment of growth of agricultural sector, which is the need of the hour for inclusive growth of the Indian economy.

Faulty implementation of Green Revolution: A Curse in disguise

The agricultural system in India is deteriorating and the cause of this crisis lies in 50 years of the intensive use of chemical, capital and monoculture based green revolution and 26 years of corporate globalization, that has transformed Indian indigenous agricultural system. Various agricultural policies in India are destroying indigenous agriculture, diversity, destroying farmer's self-reliance, adversely affecting the soil and water.

The green revolution was started in the 1960s with the sole aim of increasing agricultural productivity. It was a curse in disguise for the small and marginal farmers who had to indulge in huge debt to purchase the costly non-renewable high yielding variety seeds and toxic inputs such as fertilizers, chemicals, pesticides etc. According to the Indian Council of Agricultural Research (2010), out of country's total land area of 328.7 million hectares, nearly 120.4 mha is affected with land degradation of some sort, whether water and wind erosion, water logging, soil alkalinity or seepage of mining and industrial waste, along with excessive use of fertilizer, intensive cropping and depletion of organic matter. The green revolution in India destroyed diversity in favour of monoculture. As monoculture and hybrids are vulnerable to pest attack, use of insecticides and pesticides has also increased. The rampant use of pesticides has played havoc upon the lives of common masses who are suffering from various diseases with the consumption of less nutritious food that are highly toxic and is also affecting the environment as these chemicals persist and seep in environment for a long time because of more tendency to absorb to the soil (Bharadwaj and Sharma, 2013). The Green Revolution financed by the World Bank has contributed to drought vulnerability by displacing drought resistant local varieties, replacing them with thirsty seeds which are

highly responsive to chemicals and needs three to four times more water than indigenous seeds. Native wheat requires 305mm of water while a green revolution variety requires 914 mm. When measured in terms of water use efficiency, the Green Revolution model of industrial agriculture is extremely inefficient and wasteful. Indigenous crops produce far more nutrition per unit of water used than Green Revolution monocultures. Monoculture typical to Green Revolution practices also increases risks of crop failure. In India about 2,00,000 varieties of rice were grown but the monoculture of the Green Revolution destroyed many species and the number has come down to 17,000 and today majority grow just a few varieties. Indian farmers has also lost many varieties of wheat and now they are restricted to only a few varieties (Shiva,2000). The monoculture model and loss of seed diversity generated new insect pests and diseases which required large infusion of pesticides and herbicides. Inputs of chemicals only work for a limited time, so farmers had to steadily increase amounts of NPK, pesticides and herbicides to see an effect. Adoption of High Yielding Variety seeds required proper irrigation facilities, so government subsidized the digging of thousands of tubewells to pump irrigated water to the surface specially in states like Punjab, Haryana and Uttar Pradesh. This had an adverse impact on environment as over the last decades due to excessive use of irrigated water had led to depletion of ground water level. In Punjab about 80 percent of the ground water is overexploited and the quality of water and soil had been deteriorating due to intensive use of pesticides. The fertility of land had also been reducing due to excessive use of agrochemicals and soil salinity had been a matter of concern which had been inhibiting the growth of crops. However subsidies for these inputs were no longer provided to the farmers and so they began to fall into debt from which they could not recover. Farmers committed suicides by drinking pesticides in order to relieve themselves from the burden of indebtedness. The epidemic of suicides among farmers in Punjab was severe where vast stretches of land have become waterlogged; desert and trees have stopped bearing fruits because of heavy use of pesticides that has killed the pollinators – bees and butterflies. According to National Crime Records Bureau's estimate about 3,18,528 farmers had committed suicides between 1995 and 2015. Farmers not only end their lives to escape from debt, some also sell their kidneys to reduce the burden of debt.

Excessive application of agrochemicals: Hazardous impact on environment

Indian soil consists of primary nutrients such as nitrogen(N), phosphorus(P) and potassium(K), secondary nutrients such as sulphur, calcium, magnesium and micro-

nutrients such as zinc, iron and manganese. While the thumb rule for using N, P and K fertilizers is 4:2:1 (Indian, Ministry of Agriculture and Farmers Welfare, 2015), the overuse of urea has resulted in a highly skewed NPK application ratio of 8.2:3.2:1. This imbalances is resulting in widespread pollution of soil and water resources, diminishing biodiversity, declining vitality of Indian soils which in turn is threatening the goals of achieving food security (Ongley,1996; Gopikrishna, 2012). In order to promote the use of fertilizers by farmers, the Central government provides subsidy to the producers of fertilizers, which is determined by the cost of production incurred by the fertilizer company. As a result, companies with a higher cost of production received greater subsidies. This reduces their incentive to lower their cost of production.

The government is also facing the problem of rising cost of fertilizer subsidies, which accounts for nearly 1 percent of India's GDP. The major share of this public expenditure is for urea, the most commonly used fertilizer in India, though other fertilizers also receive much lower level of subsidy. Farmers often apply too much heavily subsidized urea in order to increase agricultural productivity. Allocations to fertilizer subsidy have been increasing at an annual rate of 11.4 percent between 2000 and 2016. In 2017-18, Rs 70,000 crore has been allocated to fertilizers, out of which Rs 49,768 crore has been allocated to subsidy for urea. The injudicious use of fertilizers and pesticides has damaged the larger ecosystems when excess nitrates from farming enter water systems and inadvertent ingestion of pesticides effects humans, animals and non-targeted plants and insects. Fertilizer nutrient runoffs from agriculture are causing algal bloom and are destroying wetlands and wildlife habitats (World Development Report, 2008). Pesticides are war chemicals which have unleashed a war against the nature on our farms and fields. The more the pest increase through this war against nature, the more the peasants spray the poison, the cost of which is borne through debts, aggravating their indebtedness problem. Pesticides destroy friendly species which control pests and contribute to emergence of resistance in pests. Non-sustainability of agriculture is based on the heavy use of synthetic fertilizers and pesticides which function like ecological narcotics in the sense that the more they are used the more they have to be used because they destroy nature's processes for renewal of soil fertility and control of pests.

Liberalisation of agricultural sector: A contributory factor for distress

Indian economy was liberalized during early 1990s with gradual reduction of trade barriers. Quantitative restrictions were also removed on imported and exported

commodities such as agricultural seeds, pulses, rice, wheat, ground nuts and oil. Integration of the Indian economy with the world economy had exposed the Indian farmers to international price variations for a number of agricultural commodities. They had to compete against highly subsidized low price commodities produced in developed countries. Price volatility shocks were faced mostly by farmers who produced soya beans, groundnuts and cotton. They had to face huge losses due to sudden fall in prices. For instance, in the mid-1990s there was widespread shift towards cotton cultivation, even in areas where land was not suitable for its cultivation. But the Indian market was flooded with low priced cotton from developed countries. As a result there was a fall in demand of cotton produced domestically since it could not be sold at a lower price due to high cost involved in its production in comparison to advanced economies. Moreover, with the changing government policies lead to change in cropping pattern and diversification of agriculture from food to non-food crops. Such shifts had also some negative impacts in the form of fall in production of foodgrains and sharp decline in per capita absorption of food in rural India (Patnaik, 2003; Vakulabharanam and Motiram, 2011; Government of India, 2013).

Market imperfections: Leading to distress sale of crops

Agricultural market imperfections arises due to poor marketing infrastructure, poor road connectivity in rural areas leading to high transportation costs, lack of cold storage facilities, godowns, and market uncertainties. So the farmers prefer to sell their produce to intermediaries even if they get a low price from them. Moreover some farmers are bound to opt for distress sale of crops immediately after harvest to the traders from whom they had taken credit to purchase various agricultural inputs. Due to non-availability of proper cold chain facilities, the fruits of good monsoon also could not be avail by them as during such season production increases leading to increase in supply of agricultural commodities and there is price crash.

Agricultural crisis in the present context in India is not because of food scarcity but due to market volatility. The prices of agricultural commodities are falling due to global boom in food grain production and opening up of the Indian economy has led to flooding of Indian market with foreign agricultural commodities of lower price. These are adversely affecting the poor farmers as the prices of their output are falling , input costs are rising, lowering capital formation which in turn is making farming an unprofitable venture to invest in.

Land Issues: Rising of fragmented landholdings, increasing landlessness and inequality in landholdings

With the increase in population there has been an increase in fragmentation of landholdings leading to reduction in the size of farm lands. The number of farmers possessing marginal landholdings has increased from 36 million in 1971 to 93 million in 2011. The small farm size make the land feasible for only subsistence cultivation and so many farmers now-a-days opt for either leasing in or leasing out lands. Moreover as farmers do not possess formal lease agreements and land records so they could not easily access formal credit nor they could easily avail government benefits in the form of input subsidies or crop insurance schemes. So they often opt for informal credit for various productive and unproductive reasons and are trapped in a vicious cycle of indebtedness as the interest rate charge by such informal sources are very high. They often had to give up their land to repay the debt. The small and scattered size of farm holdings makes it infeasible to use machinery. The overall level of mechanization in India is still less than 50 percent in contrast to 90 percent in developed countries.

Crop diversification has become a desirable phenomenon in the present neo-liberal policy framework. To obtain lucrative income, farmers now-a-days are shifting from less remunerative food grain crops to high value non-food crops. Private firms are entering the agricultural sector directly or indirectly. Some firms are purchasing lands or leasing in lands to cultivate cash crops and some are providing necessary agricultural inputs and credit to farmers with the condition that the farmers sell their produce to them at a pre determined price. Thus there has been an increase in inequality in distribution of landholdings during the post reform period. With the aim of taking advantage of economies of scale, small and marginal lands were leased in by big farmers and private firms. When leased lands are used to carry out large scale farming it becomes difficult to terminate such contracts and the ultimate result is that the land remains leased out or sold out (Hirashima 2000).

Concluding Remarks: The Way Forward

The contemporary agrarian crisis in India is a very serious issue of concern affecting the livelihood of many people who are engaged in agricultural sector. Public investment in agricultural sector should be increased and the farmers should be properly trained in efficient utilisation of land and water resources. It is very much essential to preserve the traditional variety of seeds because if the farmers rely on only a few varieties

of hybrid seeds which could not be saved, then those limited varieties may develop disease or may fail to adapt to the local conditions. So government should take initiatives in setting up of seed saving banks to preserve old varieties seeds. Cooperative farming should be encouraged among small farmers and credit at a subsidized rate should be made available to such cooperative farms so that they could purchase various farm inputs. Banks after providing credit should monitor whether the funds are properly utilised by the farmers. Proper cold chain facilities should be made available so that the farmers do not sell their produce at a low price after harvest. Rural haats and agricultural markets should be developed with proper storage facilities and farmers should be made aware regarding the prevailing market price of various agricultural commodities so that they get a remunerative price for their produce. Technological breakthroughs in the development of value added agricultural products is the need of the hour to reduce post harvest losses, to meet the needs of the affluent consumers abroad as well as the urban elite at home and to earn a remunerative income. Farmers should be encouraged to adopt organic farming and urea coated with neem should be provided at a subsidised rate so that it has least adverse effect on soil. Biodynamic agriculture technology needs to be developed for rejuvenating the earth and its natural resources so that the production systems become more resilient and highly adaptive to the unpredictability of climate change scenario and produce high quality adequate food to ensure food and nutritional security. Micro irrigation projects should be adopted and farmers should be encouraged to go for drip or sprinkler irrigation especially in dry areas in order to conserve water. Leasing of lands should be legalized so that the landowners have proper ownership rights over the farm lands and could easily access to formal credit and avail benefits from various government schemes which they often failed to access due to unavailability of proper land records.

The process of liberalization and WTO agreement on agriculture aggravates the problem of agrarian crisis in India due to reduction of subsidies, import liberalization and integration of Indian agricultural sector with the international markets deteriorating the condition of small and marginal farmers who would face stiff competition from cheap imported agricultural commodities. So the government should take necessary initiatives in resolving the various agrarian problems before adopting more liberal agricultural policies.

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