Article ID 240203021

Common Problems and Challenges Indian Farmers Face in Fruit Production

Ajay Singh

Ph.D Research Scholar, Department of fruit science, Indira Gandhi Krishi Viswavidyalaya Raipur, Chhattisgarh

*Corresponding Author: ajaysinghpaikra720@gmail.com

An important part of the Indian economy is the agriculture industry. Approximately 18% of India's GDP comes from agriculture, which employs about 60% of the nation's population. Numerous problems afflict farmers. These impact the farmer's life either directly or indirectly. Farmers have numerous difficulties in everything from input procurement to marketing and post-harvest operations. But the issues that farmers face are frequently ignored. There are numerous problems that face farmers worldwide. The lives of farmers are impacted by these issues both directly and indirectly. Resources and time may also be required for farming operations and other agricultural activities. This article aims to highlight the major problems faced by Indian farmers. They are:

Small and Dispersed land holdings

Indian Agriculture is mainly dominated by small and fragmented land holdings. This makes the farmers less competent. According to the 10th Agricultural Census in 2015-16, India's total operational land holding was 146.45 million hectares and the total operated area was 157.82 million hectares. Among them, marginal and small operational holdings together (0–2 ha) constituted 86.2% of the total operational holdings. Due to this fragmentation of land, farmers do not generate adequate income. This is because of difficulty in mechanization, practicing usual agricultural practices like monocropping and products which leads to deterioration of land quality.

Insufficient marketing and storage resources

Problems faced by farmers in agricultural marketing include transportation costs, inadequate market infrastructure, price fluctuation, lack of proper market information, and the role of exploiting local traders and middlemen. Lack of storage facilities in rural areas has been a limiting factor for post-harvest losses. Nearly 16% of fruits and vegetables, 10% of oilseeds, 9% of pulses, and 6% of cereals produced are being wasted every year due to lack of storage facilities. Since most of the agricultural produce is perishable, farmers are distressed to sell the produce immediately after harvest even at lower prices. This gives them a meager income. Insufficient storage facilities make it difficult for the farmers to meet people's demands during the off-season.

Poor Adoption of Mechanization

Regardless of the expansion of mechanization in India, most of the agricultural operation is still done by labourers. The highest level of mechanization in India about 60 – 70% is observed in plowing, harvesting, threshing, and irrigation. Although machinery has been invented in seeding, weeding, and other agricultural operations, only a few farmers use it for crop production. Due to small land holdings, small farmers find it difficult to adopt mechanization. Lack of awareness among rural farmers and capital constraints create this problem.

Credit Availability

Improved credit access may facilitate optimal use of inputs and have a major impact on crop productivity. Availability of credit may allow farmers to satisfy their cash needs induced by the agricultural production cycle and requirements for consumption. Even though governments are improving agricultural credit policies, regional imbalance in credit distribution is still persistent over the years.

Poor irrigation facilities

80% of water consumption in India is for irrigation in agriculture. Depletion of the groundwater table is a major factor affecting agriculture. Good irrigation helps farmers to carry out timely agricultural activities. The steady decline in the groundwater table can be noticed in recent times due to its over-exploitation as 65% of irrigation uses groundwater sources. In India, irrigation facilities are limited, and the majority of farmers are still dependent on rainfall. Rainfed agriculture accounts for about 51% of the net sown area in our country and occupies nearly 40% of total production.

Depletion of soil fertility

Imbalanced use of urea leads to soil fertility depletion over a period of time. In the year 2022-23, urea accounts for more than half of the total fertilizer production (58.4%) total consumption (57.9%), and 35.9% of imports. Other causes of soil depletion include a lack of proper cropping systems and continuous cultivation. In India, the total area under the monocropping system during the year 2015-16 was approximately 52.8 million hectares, which is about 47% of the total cropped area.

Inadequate transport

Farmers in developing countries have a hard time transporting their produce to markets due to lack of roads, vehicles and money. They often have to carry their produce from the farm to local markets on foot or by bicycle, which can be challenging and time-consuming. This means that they often have to sell their produce at very low prices because they cannot transport it to places where there is better demand for food.

Lack of capital

Farmers need capital to get their businesses off the ground and grow them into successful operations. However, they often have little access to credit or financing because lenders don't understand their unique needs. The lack of financial resources affects not only productivity but also affects the quality of agricultural produce. Farmers in some developing countries do not have access to adequate funds to invest in better technologies, machinery and equipment which results in poor-quality agricultural produce.

Lack of high-quality seeds

The quality of seed used in farming is essential in attaining a higher crop yield. It is also important in getting sustained growth in agricultural production. Distribution of high-quality seed is as important as seed production. High-quality seeds are typically out of reach for most farmers, especially marginal and small farmers due to their prohibitively high prices.

Insufficient availability of crop insurance program

Crop insurance is essential but easy, quick settlement of claims is vital. There's a need for transparent index-based insurance that treats policyholders equally within a defined geographical area. Index-based insurance system has low operational and transnational costs and ensures quicker payouts. The major problems persistent with crop insurance schemes faced by farmers include lack of proper awareness of insurance schemes, evaluation of extend of damages caused due to crop losses, inadequate coverage of insurance schemes and non-payment / delayed settlement of claims.

Impact of climate change

Climate change can lead to changes in weather patterns, such as increased frequency and intensity of extreme weather events like droughts, floods, and storms. These changes can affect soil fertility, crop yields and livestock production, leading to reduced productivity and income for farmers. Farmers may need to invest more in pest and disease management practices, which can increase their costs and reduce their profits. Heat waves can cause heat stress in crops, which affects the yield especially when they occur during pollination, pod or fruit set. Farmers may be forced to rely on rain-fed agriculture, which can be more unpredictable and vulnerable to the effects of climate change.

Price volatility

Price volatility can have a significant impact on the livelihoods of farmers, especially small farmers who are more vulnerable to market fluctuations. Price volatility can lead to income instability for farmers as sudden drops in prices can reduce their income and profits. This can make it difficult for farmers to plan and invest in their farms, leading to a vicious cycle of poverty and low productivity. This situation creates uncertainty for farmers as they are not sure of the prices they will receive for their produce in the future.

Less Use of Modern Farming Equipment

In most areas, to date, farmers follow primitive cultivation methods; traditionally-used plough and relevant native accessories continue to be farmers' preference. Despite no shortage of efficient equipment and machinery, there's very little use of modern equipment, majorly because most farmers don't have lands huge enough to use advanced instruments, heavy machinery.

Poor training and extension facilities

Lack of training and extension services can make farmers vulnerable to pests and diseases that can cause reduced yield. Without access to information on how to prevent or mitigate these risks, losses are incurred. Farmers may not have knowledge of recent schemes, financial assistance and how to access the financial resources to invest and increase their yield due to lack of training and extension activities.

Transportation Problems

Lack of cheap, efficient means of transportation is a big problem widely seen in the Indian agriculture sector; small farmers still rely on bullock-carts for transporting their produce. Moreover, lakhs of villages are connected with highways and market centres with temporary (kutcha) roads that become muddy and useless in rains. Consequently, farmers cannot deliver their produce to the central market and helplessly sell it in the local market at low costs.

Limited spending on R&D by Government

Limited spending on research and development (R&D) by Government have a negative impact on farmers in agriculture including reduced productivity, increased costs, and reduced profitability. If Government spending on R&D is limited, then farmers may not have access to new technologies and practices, improved crop varieties, leading to reduced productivity and competitiveness in the market.

Global warming

Global warming and climate change are the major concerns today for the mankind. The extreme weather events are universal; weather events like increased global temperatures, melting the polar ice, increased sea water levels, drought and floods, hailstorms, tornados, causes severe loss to the crops and human beings. The present-day cultivars / varieties may perform very poorly in an unpredictable manner due to aberration of climate. Almost all fruit crops are generally cultivated under open field conditions, with the climate change commercial production of these crops may severely affect. Increased temperatures effect on establishment, growth and yield of the majority of fruit crops. To sustain the productivity, modification of present horticultural practices and greater use of greenhouse technology are some of solutions to minimize the effect of climate change.

Over Dependence on Traditional Crops

Indian farmers are growing rice and wheat for centuries now in several regions. The excessive production of the two grains, many times lead to the storage, sale problems and shortage of other farm products.

Farmer organizations

Farmers' associations play a pivotal role in ensuring farmers are represented at all times. They can also ensure proper participation in creating and implementing agricultural transformation procedures. These associations should be designed to represent the interest of each of their members while ensuring they offer food security. The role of the farmer's organization is extremely important as it ensures farmers are all singing from the same hymn sheet. For this reason, farmer's associations are a great concept to have.

Introduction of modern farming technology

The use of conventional and crude tools instead of machines in the farming process required to feed the world's growing population isn't something that should be allowed to fly. There is a plethora of benefits associated with introducing mechanized farming. Nevertheless, various measures will need to be put in place for this to happen. Some measures will require forward-thinking government policies, such as subsidizing machine purchases and promoting the re-education of farms on the benefits of improving their agricultural processes with the times. Doing this can result in a increased agricultural produce yield.

Conclusions

Indian farmer community is comprised mainly of small and marginal farmers who majorly face all the above challenges in agriculture. In all, these are just some of the problems faced by farmers. All of the issues, as well as their solutions are connected. Farmers face a lot of problems in agriculture right from nature's activities to man-made activities including climate change, soil erosion, biodiversity

loss, water resource depletion, lack of capital, labour and other inputs etc. Major cause of these problems is mainly due to lack of proper awareness, less adoption of modern technologies, lack of capital or gap between farmers and government institutions. Problems related to lack of infrastructure, such as irrigation, market and transport, add huge costs to farmers' operations. In addition, there are no proper delivery systems. There are several schemes to bring development to agriculture. But there is no effective delivery mechanism that can improve productivity, reduce costs, or increase price realization at the grassroots level. Moreover, without government support, the issues only worsen.

* * * * * * * *