

THE PROBLEMS AND PROSPECTS OF SMALL SCALE FARMING

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Abstract

Small scale farming referred to the method of farming in which farming has been done on a small piece of land. Apart from various benefits of small scale farming such greater productivity, improved quality and provide more employment, it has some drawbacks such as financial uncertainty, less profit and high risk of health (because most of the work has been done manually). Because of high quality of the food produced by small scale farming, the demand of the respective food is also high that leads to the improved health. By considering the all aspects of the small scale farming, this review paper discussed about the problems and prospects of small scale farming and will explore every diverse factor related to the small scale farming such as its characteristics, merits, demerits and challenges associated with this type of farming. Because small scale farming utilizes less machinery (more man power), it is necessary to promote small scale farming that will help in providing employment in rural areas in upcoming time.

Key words: Crop, Farming, Food, Small Scale Farming, Small Scale Farmers

Introduction

Farming can be considered as a foundation of our society from thousands of years because it provides food for living. In order to produce food, it utilizes natural resources such as land, water and light. From many years, people use small lands for producing food for their families and close to their families. Using small land for farming generally referred as small scale farming. Small scale farming usually done in rural areas by small farmers because they don't have enough capital[1]. As time passes, the population of the world also increases drastically due to which the demand of the food also increases. The demand of the food gives birth to the commercial farming. Commercial farming usually done at large area land and produce food for the society rather than for their families. Commercial farming is influenced by the profit. It produced food in large quantity for the society but the most common issue associated with commercial farming is poor quality of food. For producing food by commercial farming, it utilizes chemical pesticides and plant growth regulators that have adverse effect on the health as well on the environment.

In contrast, high quality food produced by the small scale farming because it uses bio-fertilizers and self-grown seeds that produces optimal quality crops. Presently, most of the people have unhealthy lifestyle such as less physical activity, high consumption of junk food and stressful professional life due to which most of the people suffered from poor health. The people living in the urban areas mostly consume food produced by commercial farming; food produced by commercial farming has fewer nutrients that lead to the lack of nutrients in body[2]. Nowadays, peoples are gives preference to the health that is why they are looking at healthy food. The exceed demand of high quality food gives positive direction to the small scale farming. Small scale farming utilizes biological components in order to grow the crops that are why the produced food by the small scale farming is full of nutrients. Small scale farming offers various advantages such as better supervision (because it done on small piece of land), more employment (because utilizes less machinery), more productivity (because it exhibit high cropping rate) and possibility of quick reaction (because it is easy for the owner or farmer to take quick decision in frequent weather and climate change condition for relatively small land farm). Apart from various advantages small scale farming has some drawbacks also such as less profit because of weak commercial motive

crop rotation is complicated and highly dependent on unpredictable parameters such as frequent weather and climate change[3]. This review paper focused on the problems and prospects of small scale farming. It is mainly focused on the discussion of the various subjects of small scale farming including advantages, disadvantages and characteristics of small scale farming followed by possible challenges associated with small scale farming. This review paper provides a good reference to the researchers who are working in the field of agriculture.

Evaluation Of Farming

The evolution of farming started from at least ten thousand years ago in southern and northern China and in some regions of America. Farming practices including crop rotation, pesticides, irrigation and fertilizers explored long time ago but in past century, significant progress has been made. At early stage, peoples are hunted animals using different handmade tools and after the awareness of fire, they have started to cook animals in fire by hanging on top of that. As human knowledge progresses, they explored plants and animals for their food followed by exploring the knowledge of production of crops[3]. After getting the enough knowledge of plants, peoples have started exploring the crop production methods.

Initially, most of the people started farming using small piece of land. They started utilizing the natural resources such as land, water and light in order to produce their foods. Farmers grow their own seeds for their crops using natural methods. The quality of the food by small scale farming is excellent because it is mostly utilizes the bio fertilizers that has positive impact on the crops. Small scale farming plays an important role in terms of environment health protection and human health. As population increases, the demand of the food also increases. In this regard, there is a need of advanced farming system that fulfills the need of the food for the growing society. For fulfilling this need, commercial farming comes into the picture. Commercial farming done on relatively larger land in order to produce food at large scale. Commercial farming system is generally profit oriented. Instead of bio-fertilizers, commercial farming system utilizes chemical pesticides and plant growth regulators for the production of the food. The main drawback associated with the commercial farming low quality food due to chemical fertilizers. Another drawback is emission of carbon dioxide because of uses of machinery.

Presently, peoples aware about the health issues and they have started to give preference to the health. Food is the major source of living and helps in the gaining better health. In this regard, most of the people started farming in their balcony and garden in order to grow their food for own using natural ways. This type of farming referred as organic farming in which plants grows using natural ways. Organic farming is currently trending in nature and most of the people make organic farming as their hobby and profession. The quality of the food is excellent because it doesn't utilize any chemical fertilizers or synthetic plant growth regulators but the food is expensive as compared to the other farming system. Organic farming generally relies on agricultural principles of ecological balance such as crop rotation, biological pest control, and green manure and rock additives. Organic farming avoids synthetic materials in order to maintain fertility of soil[4].

Small Scale Farming And Its Characteristics

Small scale farming usually done by the small farmers from rural areas because they don't have enough capital. Generally, most of the farmers belong to rural areas owned small piece of land and this land they utilize for the production of the food. They usually produce food for their family and for the near ones. The produced food generally sells in the local markets. Small scale farming generally relies on man power and manual tools rather than machinery[5]. There are various characteristics associated with the small scale farming, these characteristics has been shown in Figure 1.

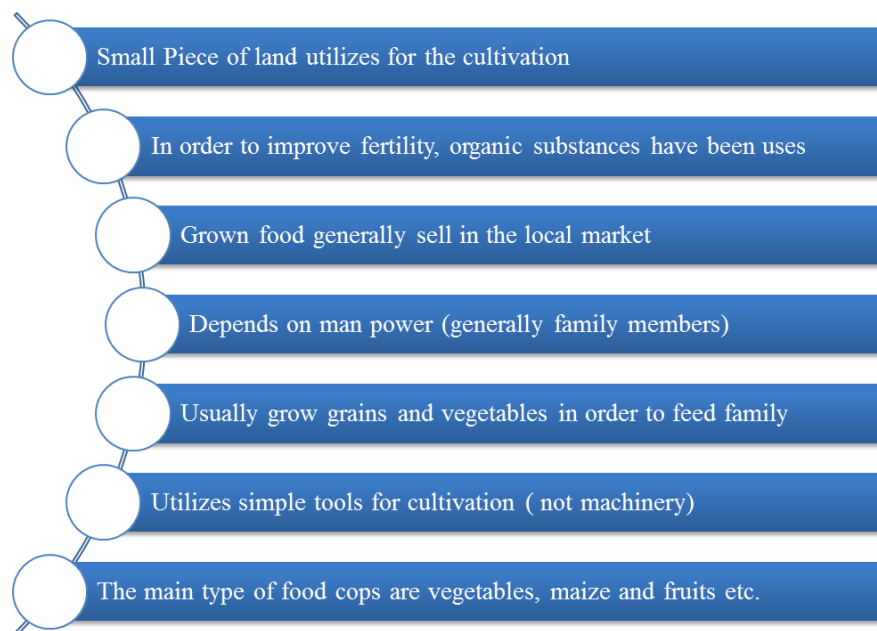


Figure 1: Schematic Representation of the Small Scale Farming Characteristics.

Merits Of Small Scale Farming

Small scale farming is well known for its quality of food and various other qualities and factors. The main merits associated with the small scale farming are shown in the Figure 2.

1. Better Management of Crop:

As discussed earlier, small scale farming done on small piece of land farms. Because of small land, it is easy for the farmers to manage the crop effectively. The cultivation based on small scale farming done by manpower. Due to lack of machinery, every process of cultivation in small scale farming relies on manpower[6]. In this regard, the supervision and management of workers plays a crucial role. In the small scale farming, better supervision can be providing easily and effectively so that work has been done properly and effectively.



Figure 2: Schematic Illustration of Merits Associated With Small Scale Farming

2. Provide Higher Employment:

Rather than using heavy equipment and machine, small scale farming depends on number of workers. Small scale farming generally done by the rural farmers and due to lack of enough capital and wealth, they doesn't use machinery for crop production. Small scale farming system provides employment at large scale in rural areas so that people who don't have lands also earn money for living. This is major advantage of the small scale farming. Particularly in India, most of the population living in rural areas that is why small scale farming plays a crucial role for providing employment.

3. High Production:

Higher productivity is another positive aspect of small scale farming. High production is due to the utilization of the manpower per acre for the cultivation. The main reason behind the higher production in small scale farming is high cropping rate. In order to fulfill the desire of food for family, the domestic labor standard increases in order to cultivate on small piece of land farm. Many studies related to the agriculture have been shown higher productivity. Small scale farming promotes local fresh food that helps in health improvement. High productivity is the second main advantage of small scale farming after employment.

4. Better Control During Frequent Weather or Climate Change:

Weather and climate are completely unpredictable in nature. Since, farming is largely affected by weather and climate that is why it plays an important role in crop production using small scale farming. In the case of frequent weather or climate change, small scale farmers can take quick decision in the favor of saving crop production. Good and timely taken decision can improve crop yield, late decision can have adverse effect on crop production. Because of small land, owner or farmer can have close monitoring and observation of crop production that leads to the better control on farming during frequent weather or climate change. Areas where weather frequently changes, small scale farming will be more effective rather than commercial farming because in commercial farming land area is relatively high.

Apart from above four main advantages, small scale farming has some other merits including it helps in building communities, improve health of communities (because it provides fresh food to the local market that can consume by people just after harvesting) , better health and quality of soil (better maintenance of soil in small scale farming as compared to the commercial farming) and food security (small scale farmers produce different types of crops rather than single crop as produced by commercial farming system)[7].

Demerits Of Small Scale Farming

Apart from different advantages offering by different farming systems, small scale farming also exhibits some drawbacks as other farming systems. The possible demerits of small scale farming shown in the Figure 3.

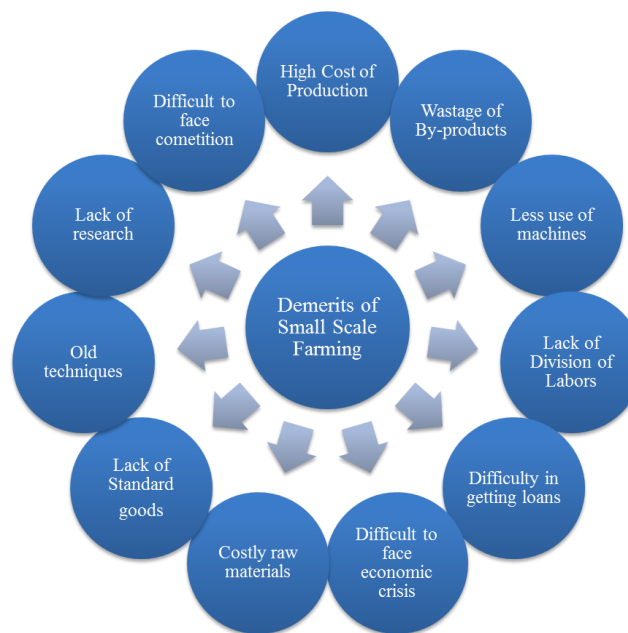


Figure 3: Schematic Representation of the List of Demerits Associated with Small Scale Farming

After deep observation, all possible disadvantages associated with small scale farming have been pointed out. The detail of the demerits associated with small scale farming has been discussed in Table 1. Based on these demerits of the small scale farming, the limitation of small scale farming can be explored.

Table 1: List of Demerits of Small Scale Farming and Respective Explanation

Demerits	Explanation
Less use of machine	Because of small piece of land for farming in small scale farming, it is difficult to utilize machinery power for the cultivation.
Difficult to face economic crisis	Small scale farming usually done by rural farmers and generally these farmers don't have enough capital to face economic crisis.
Wastage of by-products	By-products generated by small scale farming don't have economic used that is why most of the by-products go waste.
High cost of production	The production cost is higher in small scale farming because it is mostly relies on the local labors and the labor cost is high.
Lack of division of labors	In small scale farming, the production is less and there is lack of division of labors and less benefits to the owner.
Lack of research	Due to lack of financial assistance, it is very difficult to invest capital in research and development for industrial growth.
Difficult to face competition	Small scale farmers face difficulty to compete with large scale farmers because they have enough capital and wealth to utilize enough resources for cultivation.
Old techniques	In general, small scale farmer's uses old techniques for cultivation rather than upgraded and advanced techniques due to which crop yield affected.
Difficulty in getting loans	Various loans policies have been launched by the governments and banks but they face difficulty in getting loans because of higher interest rates.
Costly raw material	Small scale farmers, purchase raw materials in small quantity from local markets at higher prices.
Lack of Standardized goods	Goods produced by the small scale farmers are not standardized due to which it effects the selling of goods produced by small scale farmers.

Challenges Associated With Small Scale Farming

Small scale farming faces some challenges and problems that makes barrier in growth. The possible challenges are discussed below:

1. Lack of Financial Assistance:

Due to lack of financial assistance among the small scale farmers, they face many difficulties during economic crisis. They doesn't afford enough comfort because most of the capital they invest in farming for the production of food to feed their family members[8].

2. Lack of Education and Research:

Small scale farmers don't have enough capital to spend on education and research due to which they are unable to upgrade their cultivation techniques that affects crop yield.

3. Health Risk:

Small scale farming usually done by the manpower rather than machines. For the cultivation, labors usually use simple tools that can be a possible reason for injury.

4. High Dependency on Natural Factors:

Frequent weather and climate change is the enemy of small scale farmers. In extreme bad weather conditions, the crops of small scale farmers can damage completely that will adversely effect on their financial condition[9].

5. Certification:

The goods produced by small scale farmers facing the problem of certification due to which their selling affects[10].

Factors That Promote Better Future Of Small Scale Farming

Goods produced by small scale farmers have many positive sides that make this farming system more popular. Apart from various advantages, there are some challenges in front of the small scale farming system. In order to make brighter future of small scale forming system, overcoming of challenges is very important. There are some factors that need to be addressed for the better future of the small scale farming. These factors are shown in Figure 4.



Figure 4: Schematic Illustration of List of Possible Factors that can help in Better Future of Small Scale Farming

1. Financial Assistance:

Better financial assistance can help to small scale farmers in many ways. During economic crisis they can continuously invest in farming that will help in feeding of their family members as well as can earn some money by selling some of their products in the market. Another advantage of financial assistance is that it can help in upgrading their cultivation techniques so that crop yield can be improved.

2. Better Transportation Connectivity:

In general, small scale farmers usually sell their products or goods in local market that contribute less profit. Better transportation connectivity will help to take their goods and sell in distant market so that they can get better profit.

3. Education and Research:

Education and research is very important for advancement of any field. Small scale farmers usually use old techniques for cultivation. In order to improve the crop yield or production, the investment in education and research can play a crucial role.

4. Certification and Promotion:

Currently, goods produced by small scale farmers facing the problem of standardized products. Due to lack of standardized products, the selling is affected. In order to promote goods produced by small scale farmers, certification and promotion is necessary. Here the role of government policies can play a crucial role. Proper certification and promotion policy will improve selling of the products produced by small scale farmers.

Discussion

Most of the population of the world still living in the rural areas and depends on the agriculture. The small scale farmers who owns small lands doing farming by using their small piece of land (generally referred as small scale farming). Feeding their family members is the primary objective of small scale farming. The quality of the food produced by small scale farmers is excellent because they utilize biological substances for cultivation. For cultivation in small scale farming system, family members and some nearby workers has been perform different task of cultivation rather than use of machinery. Utilization of large number of workers in small scale farming promotes employment in rural areas. Small scale farmers usually sell their products in local market that helps to provide fresh food to the people. Apart from various benefits, some challenges are also associated with the small scale farming. Usually, small scale farming done by small rural farmers. These farmers don't have enough capital to invest in education and research and during economic crisis they face many difficulties for survival. Another main challenge is frequent climate and weather change. During bad weather, there is a chance to damage crops. In order to make small scale farming more effective and productive, it is necessary to address some factors including financial assistance, certification and promotion, education and research and better transportation connectivity.

Conclusion

Small scale farming is well known farming system because of its produced food quality. Small scale farming done on a small farm land based on large number of workers by performing different tasks of cultivation using simple tools. High production, high employment, better control on crop production in frequent weather and climate change and better management of crop are the main advantages of small scale farming. Small scale farming can't take to the next level because it faces several challenges including financial crunch, high production cost, difficulty in getting loans, costly raw materials and lack of research and development and many more. In order to overcome such challenges, proper policies can help to promote small scale farming. By providing financial assistance, better transportation connectivity and investment in research and development will help to increase crop yield. It is recommended that, it is necessary to spread awareness through education among the small scale farmers about advancement. The education can cover following topics like water management system, soil's nutrients management and plant protection etc. Another recommendation is to empower small scale farmers so that they become self-reliant.

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