Globalization and Socio-Economic Status of Agricultural Community of Pakistan - An Overview

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Abstract: The agriculture sector stands for the country’s food security, livelihood, and development of the rural community. The socio-economic behavior of the farming community in Pakistan plays a vital role in determining the growth and development of the agricultural sector. This research article aims to analyze the technological adaptation, and globalization of the socio-economic attitude of the farming community in Pakistan, with a focus on their income, landholding patterns, production practices, and marketing behavior. The article provides further insights into the socio-economic behavior of the farming community in Pakistan, including the impact of technology adoption, credit access, and extension services on farmers' livelihoods and production practices. They also shed light on the determinants of farmers' participation in contract farming, crop insurance, and credit demand, and their impact on income generation and economic growth in the country. Overall, this review article aims to provide a comprehensive understanding of the socio-economic behavior of the farming community in Pakistan. The policy of the Government would be to enhance productivity, profitability, and sustainability of agriculture in Pakistan while ensuring equitable distribution of benefits among smallholder farmers.

Key words: Farming · Growers · Livelihood · Productivity · Income · Advanced Technologies

INTRODUCTION

Agriculture is one of the most important sectors of the Pakistani economy, employing approximately 44% of the labor force and contributing 24% to the Gross Domestic Product (GDP) of the country [1]. It is accounting for 18.9% of the country's gross domestic product (GDP) [2]. However, the economic performance of the agricultural sector in Pakistan is largely influenced by various factors such as climatic patterns, weather conditions, availability of water resources, access to modern technologies, and government policies [3]. During 2021-22, the agriculture sector recorded a remarkable growth of 4.40% and surpassed the target of 3.5% and last year’s growth of 3.48%. High yields, appealing output pricing, supporting government policies, and improved access to certified seeds, pesticides, and farm loans are the key drivers of this rise [4].

Pakistan has a diverse farming community (innovators, early adopters, late adopters, and laggards) and aptitude for the adoption of innovation in the agriculture sector. A distinguish is made between innovations that are brand-new to the farmer but already well-established in the industry, innovations that are just starting to spread, and innovations that are brand-new to the farmer's industry. A structured approach was used to relate adoption behavior to variables that capture characteristics of the farm (labor and financial resources and market position), of the business environment of the farm (type of production and market, degree of regulation), and of the farmer (access to information, capabilities, preferences). Data on social behavior was used and it was found that innovation adoption was positively associated with labor resources, market position, access to information, and past adoption behavior, and negative to solvency and the degree of market regulation [5].

According to a research study by the Pakistan Institute of Development Economics (PIDE), the agricultural sector in Pakistan faces several challenges such as low productivity, insufficient investment, inadequate infrastructure, and insufficient credit facilities [6]. These challenges have resulted in low crop yields and limited profitability for farmers, particularly smallholders.
In addition, the lack of diversified crops and limited access to markets has also limited the sector's growth potential. Despite these challenges, the agricultural sector has the potential to contribute significantly to Pakistan's economic growth and development. The government has implemented various policies and initiatives to support the sector, such as providing subsidies on fertilizers, seeds, and irrigation systems, and establishing agricultural research institutes and extension services to promote modern farming techniques [7].

Additionally, it identifies the numerous adaptation strategies used by farmers and clarifies the rationales behind certain farmers' decisions not to adapt to climate change. It employs a sample of 150 rural agricultural households in three semi-arid areas of Pakistan: Faisalabad, D.G. Khan, and Mardan. D.G. Khan, Mardan, and Faisalabad are the next most sensitive districts to the effects of climate change, accordingly, according to the livelihood vulnerability index (LVI). The findings demonstrate that, for every given level of exposure and sensitivity, households' livelihood risk is significantly shaped by their (lack of) adaptive capacity. Mardan is more vulnerable to climate change than Faisalabad due to lower exposure and susceptibility to it as well as exceptionally low levels of adaptive capacity.

These efforts have the potential to increase farmers' incomes and create new employment opportunities in rural areas. The agricultural sector in Pakistan faces several challenges, but it also has immense potential for growth and development. The government's support and initiatives can play a significant role in improving the economic performance of the sector and contributing to Pakistan's overall economic growth. Furthermore, the government has also implemented programs to promote crop diversification and value addition to agricultural products, such as establishing agro-processing industries and promoting exports of high-value crops [8].

The aim of the review article was to identify the key socio-economic factors affecting the farming community in Pakistan, such as access to credit, technology, extension services, and market opportunities. Further, the article examines the impact of these factors on the livelihoods, production practices, and income generation of farmers in different regions of Pakistan. To explore the determinants of farmers' behavior, such as their willingness to adopt new technologies, participate in contract farming, and purchase crop insurance.

The Impact of Advanced Technologies on Pakistani Farmers: Advanced technologies have been mixed, with both positive and negative effects on their social and economic well-being. Here are some of the social impacts that advanced technologies have had on Pakistani farmers: A study was designed on Mobile Internet Technology (MIT) which is seen as a major advance in Information and Communication Technology (ICT) and has a profound impact on the financial system and social life. It is also an essential technology for bridging the digital divide between urban and rural areas. When it comes to advancing agriculture, MIT can play a key role in data collection and the implementation of smart farming technologies. The main objectives of this study were to investigate the adoption and use of MIT in sustainable agricultural development among selected wheat farmers in Pakistan, and its indicators. The study selected 628 wheat farmers from his four districts in Pakistan's Khyber Pakhtunkhwa Province (KPK) for sampling. In this study, we sampled wheat farmers using the bivariate probit method. Analysis of wheat farmer data showed that farmer age, farm size, farm location, and internet technology (IT) knowledge were strongly correlated with MIT adoption in sustainable agricultural development of rice fields. The results showed that, on average, 65% of wheat farmers own mobile devices that support these internet technologies, and 55% use MIT in agricultural settings. As the existing research on MIT adoption for agricultural production in Pakistan is sparse, this study will help advance research based on MIT adoption. These results may attract the attention of decision-makers involved in IT infrastructure and agricultural machinery that can help farmers adopt MIT [9].

Farmers who combined several different adaption tactics saw greater rewards. In order to produce sustainable food and ensure local food security, the study advises putting an emphasis on farmers' education, simple access to farm advisory services, and knowledge of innovative adaption techniques [10].

The Challenge Facing Rural Communities in Pakistan: One of the most pressing challenges facing rural communities in Pakistan is poverty. According to the Pakistan Social and Living Standards Measurement Survey (PSLM), the poverty rate in rural areas is significantly higher than in urban areas, with over 70% of rural households living below the poverty line [11]. This poverty is linked to a range of factors, including low levels of education, limited access to markets and credit, and weak agricultural productivity [12]. According to the Pakistan Social and Living Standards Measurement (PSLM), literacy rates in rural areas are significantly lower
than in urban areas, with only around half of rural adults able to read and write [10]. This lack of education has significant implications for social and economic development, including limited access to job opportunities and reduced productivity in the agricultural sector [12].

Health is also a major concern in rural communities in Pakistan. According to the World Health Organization (WHO), rural communities face a range of health challenges related to poor sanitation, limited access to health services, and high rates of malnutrition [13]. These challenges are exacerbated by a weak health system, which is characterized by inadequate infrastructure, limited resources, and a shortage of trained health workers [14].

Access to basic services is another challenge faced by rural communities in Pakistan. According to the PSLM, access to safe drinking water is significantly lower in rural areas than in urban areas, with around one-third of rural households lacking access to safe drinking water [13]. Similarly, access to electricity is also limited in many rural areas, which can have significant implications for economic development and quality of life [9]. A previous study of internal migration brought on by the climate in Pakistan described that the agricultural productivity of winter crops, such as wheat, a staple food farmed in Pakistan's dry and semi-arid regions, is particularly affected by heat stress. Given that wheat crops are sensitive to heat stress, the expected drop in wheat output by 2030 will have an impact on rural poor and marginal households throughout Pakistan, who will be forced to deal with the situation and be encouraged to emigrate [15]. Farmers’ adaptation towards climate change regarding changes in the sowing and harvesting time of crops, irrigation scheduling, and improving breeding methods to develop varieties for tolerance to heat and cold has been remarkable for the Planning and Development Department of Pakistan [16].

Over the past few years, urban flooding has developed into a common occurrence in numerous towns and cities around the Asia Pacific area. Those involved in disaster management and climate change are leading the campaign against urban floods [17].

Landholding Patterns: Landholding patterns in Pakistan are characterized by small and fragmented farms, with an average size of 5.2 acres [1]. The majority of farmers in Pakistan own less than 12.5 acres of land, with only a small percentage of farmers owning larger farms. The small size of farms limits the ability of farmers to adopt modern farming practices, which require economies of scale. Moreover, the lack of access to credit and technology also limits the ability of small farmers to increase their productivity and income [18].

Traditional Production Practices: The production practices of the farming community in Pakistan are largely traditional, with limited adoption of modern technologies and practices. Irrigation methods are mostly outdated, with a large number of farmers relying on traditional flood irrigation methods. The use of fertilizers and pesticides is also limited, with a significant proportion of farmers relying on organic and natural methods of cultivation. The low adoption of modern production practices is attributed to the limited access of farmers to credit, technology, and extension services [19].

Marketing Status: The marketing behavior of the farming community in Pakistan is largely influenced by the prevailing market conditions and the limited access of farmers to markets. The majority of farmers sell their produce through intermediaries, who offer low prices to farmers. The limited access of farmers to markets also limits their ability to obtain market information and negotiate prices for their produce. Moreover, the lack of market infrastructure, such as storage facilities and transportation, further exacerbates the marketing problems faced by farmers [18]. The study's findings show a high correlation between small-to-medium size forest enterprises (SMFEs) and an improvement in the standard of living in rural communities. The findings also indicated that households involved in SMFE-related activities have roughly 24% greater assets and a 3% higher income. These results are reliable across a range of sustainable livelihood characteristics and demonstrate the beneficial benefits of SMFEs on assets supporting livelihood [20].

Income and Financial Change: The income of the farming community in Pakistan is largely dependent on the size of their farms and the type of crops they grow. Small farmers with less than 12.5 acres of land are often unable to generate sufficient income to support their households. Moreover, the low productivity of traditional farming practices further limits the income-generating potential of small farmers. On the other hand, large farmers with access to modern technologies and production practices generate higher incomes [21]. The income inequality between small and large farmers is a major challenge faced by the farming community in Pakistan [19]. The results of
farmers’ adaptation in Chakwal District in Pakistan under the change in rainfed conditions confirmed that education level, farmland size, household income, access to information, and access to advisory services determine farmers’ adaptation decisions. However, financial bottlenecks and lack of institutional support were cited as major obstacles. An integrated approach in terms of technical, financial, and institutional support for the socioeconomic resilience of such rainfed farming communities is therefore essential [21]. Climatic risks for crop production have made it a substantial need for government to subsidize small landholding farmers and devise a crop insurance policy [22-24].

CONCLUSION

The socioeconomic behavior of the farming community in Pakistan is characterized by small and fragmented landholdings, traditional production practices, limited access to markets, and income inequality. The limited access of farmers to credit, technology, and extension services is a major constraint to the adoption of modern production practices and the growth of the agricultural sector. Overall, while advanced technologies can potentially improve Pakistani farmers’ lives, it is important to ensure that the benefits are shared equitably and that the risks and challenges are carefully managed.

RECOMMENDATIONS

Keeping in view the above-mentioned literature, it could be recommended to take measures to improve their well-being and contribute to the country's agricultural development. The government of Pakistan needs to adopt policies that promote the development of the agricultural sector, including investment in modern infrastructure, access to credit and technology, and extension services. Such policies will help to improve the productivity and income of the farming community in Pakistan, thereby contributing to the overall economic growth and development of the country.

REFERENCES