Research Article

Encouraging Rural Youth Participation in Agriculture: A Case Study of District Sargodha

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Abstract | Involvement of rural youth in agricultural activities, factors hindering their involvement, and what they think about having a career in the sector have the vigor to provide us with facts about rural youth. Keeping in view the importance of rural youth in agriculture, the present study is designed to find the reasons that hinder rural youth involvement to encourage their participation in agriculture. Based on the facts regarding the population of rural youth, a sample of 450 respondents was selected using a multistage sampling technique. Statistical Package for Social Sciences (SPSS) was used to have descriptive statistics of data. The majority of youth respondents were taking part in agricultural activities like land preparation, sowing practices, irrigation, harvesting and storage obtaining a percentage of 80.2%, 77.6%, 79.3%, 90%, and 75.8% respectively. Lack of basic farming knowledge and skills is the topmost factor hindering youth involvement in agricultural activities with a mean value of 4.63 and S.D. value of 0.522. The government should give loans to youth for establishing their agriculture business ranked at 1st with a mean value of 4.72 for youth priorities in agricultural activities. Results of this study would be helpful for public and private sector institutions working for youth engagements to encourage rural youth participation in agricultural activities.

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1. Introduction

Agriculture helps in the provision of different agricultural opportunities to the laborers, growers, and consumers. Different terms could be used for the implementation of larger sustainability in the system of agriculture; productivity is the most important factor (Sulewski and Kloczko-Gajewska, 2014). Another important aspect in this regard is the economy impeding on the sustainability of agriculture. This helps in paying attention to rural youth to the factors, which help in reducing the resources for the system of production. Lastly, it is the duty of all the policymakers, researchers, consumers, and farmers that they should help in achieving the goals of sustainable agriculture. There is a huge need to address this issue at the national, regional, and grass-root levels (Singh *et al.*, 2018).

The main prevailing problem in Pakistan is that the youth of the country is not participating in agricultural activities. The youth is aware of the food insecurities and shortage in the country but they are not motivated to join the field as a profession. The less participation of the youth in agriculture is resulted in lowering the productivity of agriculture. The low productivity and youth participation is dimming the hope of food security and the rise of agriculture in

the country. The absence of any formal system to organize the enthusiastic youth in Pakistan is one of the main reasons for the low participation of youth in agriculture (ILO, 2017). The disappointing factor is that most of the youth in the country are getting away from the agricultural sector due to their limited scope. More than 55% of world youth live in rural areas (Ertiaei *et al*., 2012). They are considered the most disadvantaged groups because they have limited access to educational programs. Most of them could not find a way to get rid of poverty. Maximum youth focus is on getting the education to work in urban areas, there is no education provided for preparing the youth for their future in agriculture (Valrus and Fletcher, 2006).

Cotter *et al*. (2017) drew that agricultural programs are very helpful for enhancing the knowledge of the community members related to the significance of agriculture because a maximum number of young people prefer to avoid the field of agriculture as their profession. Colombo *et al*. (2018) have highlighted when youth cannot get the proper education they remain deprived of developing their basic skills for effective employment. FAO (2011) has explicated that the contribution of rural youth is very low in the growth and development of the national economy. Different reasons in this regard are the lack of proper education or indicate an education system. UNESCO's (2004) research results put light on a different kind of reason due to which youth is lacking their interest in agriculture. According to the agriculture needs to be rebranded so that youth could take interest and this field could appeal to them. The study focuses that there should be awareness among the ruler youth in Zimbabwe that they could create wealth from agriculture as well.

Rural youth do not get attracted to agriculture to adopt it as a profession. The main reasons in this regard are the low profit and productivity and a large number of debts on farmers. Rural youth who has adopted agriculture as their profession is due to their family traditions or inheritance. The objectives of the present research are to identify factors hindering the involvement of rural youth in the agriculture sector and to explore various priorities of rural youth concerning their career.

2. Material and Methods

Sargodha is located in the Punjab province of Pakistan. Sargodha district has seven tehsils including Bhalwal, Sahiwal, Kotmomin, Shahpur Sadar, Silanwali, Bhera, and Sargodha (GoP, 2020). The majority of the population in District Sargodha is living in rural areas and they are mostly associated with agriculture as the major source of income (Hayat, 2007). This was the reason that Sargodha district was selected purposively. A descriptive nature survey research design was adopted in the current study.

The population for the present research includes rural youth of age 15-24 years (this age group is defined as a youth by UN; United Nations, 2020). The research covers the rural youth population of district Sargodha. Out of seven tehsils of district Sargodha, four tehsils were selected purposively based on having more union councils (U/C). The four tehsils having more UCs are Sargodha, Bhalwal, Silanwali, and Kotmomin. There are 62 UCs in tehsil Sargodha, out of these UCs 19 have been selected. From tehsil Bhalwal 16 UCs have been selected out of 53. Tehsil Kotmomin has 30 total union councils and 6 have been selected for this study. From the 16 UCs of Silanwali, 04 UCs were selected. Proportionate sampling was adopted in this study, therefore, 30% of data were collected from each of the two tehsils namely Sargodha and Bhalwal. Similarly, 20% of data were collected from each of the two tehsils namely Kotmomim and Silanwali. 10 respondents were selected from each UC using the equal distribution technique (Bell *et al*., 2020). Thus, a total of 450 respondents were finally selected for data collection. Following framework is the clear representation of the sample selection procedure.

In the present research study, an interview schedule was prepared as the main instrument of the study for data collection. The interview schedule was composed of both close and open-ended questions, which were designed to keep in view the objectives of the research study. Five-point Likert-type scales were used in the instrument to record the opinions of the respondents. During data collection, face-to-face interviews of the respondents were organized in rural areas to gather required data from rural youth of particular areas of research. The collected data were coded in Microsoft Excel and then analyzed using Statistical Package for Social Sciences (SPSS). Descriptive statistics were employed for data analysis. In descriptive statistics, frequency, percentage, mean, standard deviation were computed for interpretation of the results.

3. Results and Discussion

This section penlights' the socio-economic characteristics of rural youth, barriers to their involvement in agriculture, and their priorities to consider agriculture as their future career. In a study about youth, age is the factor of ultimate importance. Table 1 explains that the maximum numbers of respondents (above 58%) are falling in the age ranges of above 20 years. After that 22% of youth of 19-20 years age were the participants of the study. It means that the maximum participation of the study was close to the most eligible adults among the rural youth. This period of the age is the decision-making stage about their future career (Luzzo, 1993). This appropriates the stance chosen for this study that either they opt for agriculture as their future career or not.

Table 1: Rural youth distribution according to age.

Age range (years)	Frequency	Percentage
15-16	33	7.3
17-18	55	12.2
19-20	99	22.0
21-22	131	29.1
23-24	132	29.3
Total	450	100.0

Education is a key to make the person confident, creative and helps in maintaining a credible character. Therefore, education level could be stated as the yard for assessing whether having the specified education level lead them to an innovative approach in farming practices or farming as a profession (Siraj, 2006). Table 2 shows that an outsized greater part of the respondents collectively had different levels of education. The data given in Table 2 shows the education of the respondent according to which; 15.3% completed their graduation, 27.3% completed intermediate, 28.4% completed matric and 18.9% had a middle level of education. However, only 2.7% of the respondents were illiterate. This states that a bigger portion of rural youth had the education up to and above matriculation.

Landholding deals with the volume and size of the land that could be used by individuals for the production of crops or livestock. The data in Table 3 shows the landholding size of the respondents' families, the results showed that 11.3% of respondents cultivated up to 2.5 acres of land, 14.0% had between 2.6 to 5 acres, 24.2% have between 5.1-7.5 acres, 17.8% use between 7.6-10 acres of land to cultivate, 32.7% have Above 10 acres of land for cultivation of various crops. These findings justify that majority of rural youth have their association with a reasonable piece of farming land. In this way, their diversion towards sustainable agricultural practices can make a difference.

Table 2: Rural youth distribution according to the education.

Level of education	Frequency	Percent
Illiterate	12	2.7
Primary	33	7.3
Middle	85	18.9
Matric	128	28.4
Intermediate	123	27.3
Graduation	69	15.3
Total	450	100

Table 3: Family landholding size of rural youth.

Land size	Frequency	Percent
Up to 2.5 acres	51	11.3
2.6-5 acres	63	14.0
5.1-7.5 acres	109	24.2
7.6-10 acres	80	17.8
Above 10 acres	147	32.7
Total	450	100.0

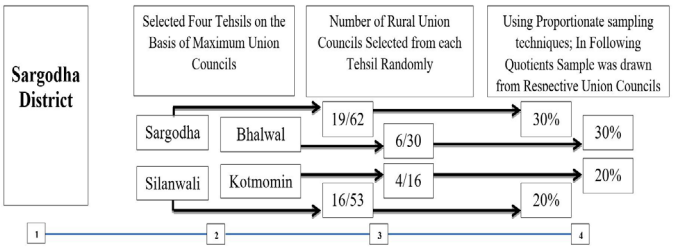

Figure 1: Demonstration of Multistage sampling technique.

Figures 2 and 3 explain the annual family income of rural youth and the sources of family income of rural youth. Data indicates the annual family income of rural youth showing that more than 70% of rural youth's families have been earning above 1 million/ year. This ascertains that they may have a stabilized economic situation at the household level. This could be a potential factor in choosing sustainable agricultural practices at their farm level. For obtaining that range of income maximum of the rural youth is already engaged in conventional farming for maximum profit generation and besides that 42% of

them are doing jobs alongside farming in addition to their household income.

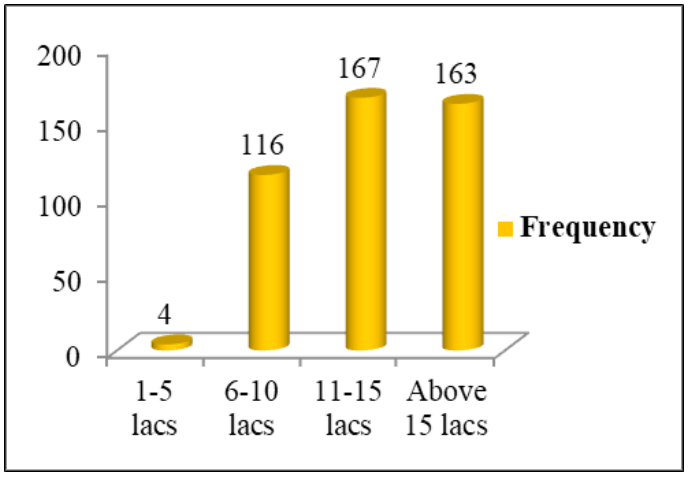

Figure 2: Annual family income of rural youth.

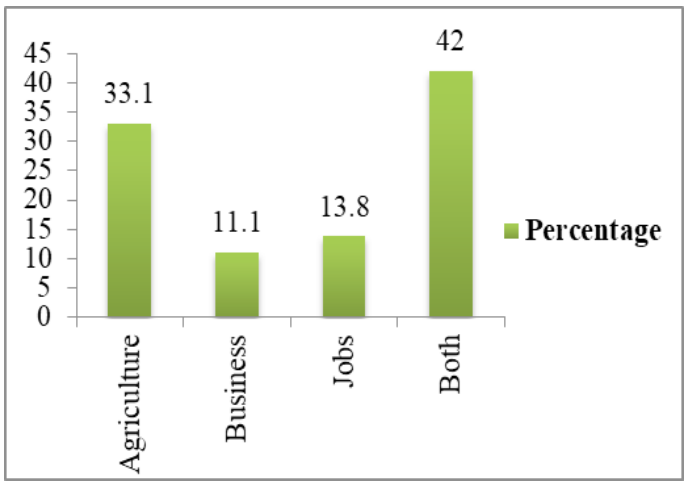

Figure 3: Family income sources of rural youth.

According to Table 4, the type of youth involvement in agricultural activities is of central attention for having a look into their interest and capability they have for utilizing it in sustainable agricultural ways. For this reason, an insight into their involvement in different agricultural activities was necessary. Among the diversified agricultural activities, maximum involvement (90%) of rural youth was seen at the "harvesting" stage followed by "land preparation" (~80%). A minimum participation of rural youth was recorded in "plant protection measures" (~70%) followed by "application of fertilizer" (~50%). This scenario has provided us the option for the diversion of rural youth towards sustainable agricultural practices is convenient through reaching them sustainable harvesting and land preparation techniques. Allen *et al*. (2018) retrieved that rural youth usually involved in the various activities in producing food, from the farm to processing, packaging transporting, storing and selling of agricultural products at a small level and commercial level as well.

Table 4: Rural youth involvement in agricultural activities.

Agriculture activities	Yes		No	
	%age	F	%age	F
Land preparation	80.2	361	19.8	89
Sowing practices	77.6	349	22.4	101
Plant protection measure	29.6	133	70.4	317
Fertilizer's application	49.8	224	50.2	226
Irrigation	79.3	357	20.7	93
Harvesting	90	405	10	45
Marketing agriculture products	66.7	300	33.3	150
Storage	75.8	341	24.2	109

Scale: Yes=1 and No=1

Table 5 indicates factors restraining rural youth from involving in agriculture as a profession could be considered as a yardstick for the reason of their deflection. Rural youth was "agree" with all the statements of this section. In this way, all of the reasons got the mean value above 4, as on the Likert scale 4 means the "agree". The highest mean value of 4.63 was obtained by "lack of basic farming knowledge and skills" followed by "lack of continuity of agricultural youth programs" (4.54). The maximum deviation of 0.61 and 0.64 was recorded in the means values of "inadequate infrastructure to support farming activities" and "lack of agricultural equipment and its use" consecutively.

This age period in an individual's life is a decision-making period. Youth set the priorities keeping in mind the goals and destination to be reached. Farming is a profession that includes multiple challenges of mind and body therefore young generation expresses little interest in carrying it as their future profession (Vieweger *et al*., 2014). Among the mentioned priorities in table 6, "government should give loans to youth for the establishment of their agricultural business" obtained the highest mean value of 4.72. "Addresses of youth issues in agriculture programs" obtained the lowest mean (4.23), even that was above 4=high priority. Zimmerman *et al*. (2018) argued that young people in rural areas do experience some problems with employment. Consideration of their priorities will enable the extension system to develop a plan which best suited to their interests. This approach will maximize the potential engagement in the directed domain.

Table 5: Factors hindering rural youth involvement in agriculture.

Factors hindering	Mean	S.D
Communication gap among researcher, youth & EFS	4.19	.47235
Low income from agriculture activities	4.51	.55126
Lack of training facilities regarding agriculture	4.52	.55092
Lack of basic farming knowledge and skills	4.63	.52176
Inadequate infrastructure to support farming activities	4.42	.60478
Lack of agricultural equipment and their use	4.40	.64363
Lack of knowledge about improved agricultural technology	4.41	.55629
Un-inspirational agriculture programs	4.30	.52742
Lack of continuity of agriculture youth program	4.54	.56177
Inability to establish a link with agriculture agencies	4.49	.59786
Absence of desirable job opportunities in the rural areas	4.52	.55061
Lack of self-interest and decision making	4.52	.55083
Lack of access to the training resources	4.44	.58396
High input costs to come up with agriculture sector	4.39	.54179
Lack of use sustainable agriculture methods	4.32	.52261
The complexity of a sustainable agriculture system	4.32	.51118
Lack of knowledge regarding sustainable agricultural practices	4.32	.50966

Scale: Strongly disagree=1, Disagree=2, Neutral=3, Agree= 4 and strongly agree=5.

Table 6: Priorities of rural youth concerning their future career.

Priorities of rural youth	Mean	S.D
Skills development training to improve future career	4.26	.46857
Independency in decision making	4.41	.52010
Developing platforms for collaborative problem-solving discussion	4.28	.57938
Addresses of youth issues in agriculture programs	4.23	.49846
Establishment of youth platforms in rural areas for opportunities	4.54	.51217
Youth agricultural program with a joint venture of relevant stakeholders	4.28	.60200
Development of market linkages for building agricultural business for rural youth	4.42	.59308
Supportive structural reforms for young entrepreneurs	4.46	.53779
Launching ICTs based initiative to harness the potential of youth	4.41	.55664
Innovative approaches and programs	4.40	.50557
Govt. should help youth(female/male) to start and expand their businesses	4.54	.53709
the public and private sector in rural areas targeting rural youth	4.42	.53346
Govt. should establish vocational training centers	4.54	.53746
Distribution of land on lease to young people for agriculture productivity	4.67	.51118
Youth clubs should be established to reduce the gap among youth, research & industries	4.56	.53524
The government should give loans to youth for the establishment of their agricultural business	4.72	.47727
Agri graduates should establish rural forums to promote sustainable agricultural practices	4.51	.52646

Scale: Low priority =1, Moderate priority=2, Neutral=3, High priority=4 and Very high priority=5

Conclusion and Recommendations

The growth of agriculture is not possible without the contribution of rural youth in it. Modern agricultural technologies are getting popularity among the farming community to facilitate farming practices and to improve farm yield and incomes of the farmers. So, the rural youth, being an educated segment of rural societies could play a progressive role in agricultural development. Based on the research findings given below are recommendations for progressive involvement of youth in agriculture:

- State departments, academia, NGOs and research institutions should launch need-oriented training and capacity building programs for rural youth to improve their role in agricultural development.
- Government should provide loans to rural youth to encourage their participation in agro-based business for the prosperity of the rural economy.
- Government should introduce radical policies for land distributions among the rural youth to improve agricultural productivity.
- Youth clubs/ platforms should be established in rural areas to streamline their participation in agricultural activities.

Novelty Statement

Promoting rural youth to participate in agricultural activities is a need of time to improve their participation in agricultural development. This will lead to sustainable livelihoods and social prestige for rural youth.

Author's Contribution

Muhammad Yaseen: Conceived the idea of research, supervised the research and prepared the initial draft.
Muhammad Adnan: Data collection from field during survey and reviewed relevant literature.
Muhammad Luqman: Designed research instrument and conducted data analysis, reviewed the draft.
Muhammad Zeeshan Majeed: Helped in data analysis and finalized the draft of manuscript.
Muhammad Umer Mehmood: Data collection from field during survey and reviewed relevant literature.

Conflict of interest

The authors have declared no conflict of interest.

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