

## Training needs of rural youth for agricultural development: evidence from district Sargodha, Pakistan

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**Abstract.** The Government of Pakistan is trying to make youth productive in the light of the goals for sustainable development. This study explored the needs of rural youth in Sargodha district of Punjab, Pakistan. A sample of 450 rural youth was interviewed using an interview schedule and a multistage sampling technique. Above 40% of rural youth possess 10 years of schooling and 75% of rural youth is directly associated with agriculture. Rural youth regarded services and campaigns of the private sector more valuable than the public sector. Rural youth public extension offices were rated inefficient in comparison to 'fellow farmers' (94%) and 'marketing agents' (80%). Their participation in agricultural related societies is also ignorable. A kind of thrust was found among the rural youth for training about 'crop protection' and 'capacity building'. Therefore, it is suggested that there should be a holistic training plan for rural youth to make the agriculture sector sustainable.

**Keywords:** Rural youth, information, awareness, training needs, participation.

### Introduction

Socioeconomic development and prosperity of rural areas are dependent on the type of young people living in rural areas because rural youth can have skills to assist the development process. Teenagers as 'change agents' can assist the process for distribution and adoption of modern techniques in agriculture. If the skills and abilities of rural youth are streamlined, then agriculture can achieve growth and prosperity. Information can improve rural livelihoods and empower farmers in developing countries by improving their connectivity (McLaren et al. 2009; Sylvester 2013) and increasing access to agricultural and market information (infoDev 2009). Information also contributes to social justice and equality by empowering marginalized groups (e.g. women, the elderly, and youth) in rural communities in the Global South (IDEV 2016). Information and awareness empower farmers as innovators by accumulating access to innovative information (UNCTAD 2008; Uphoff 2012). Agricultural innovation is about timely access to and use of available information to respond to opportunities and risks (Baulcombe et al. 2009). In developing countries, ICTs are widely used by extension services and advisory services to provide farmers with information and advice (i.e. weather forecasts, plant and livestock diseases, market information prices), via Short Message Service (SMS), web portals, and call centres (McNamara 2008).

Many think young people pose challenges, but some supporters claim that they could be seen as an opportunity to advance rural development. The performance of young and well-educated farmers can lead to greater use of highly advanced farm technology, commercial agricultural practices, and the expansion of non-farm businesses in rural areas (Mueller & Thurlow 2019). These could be important steps to accelerate the transformation of agriculture, and young men and women can become 'transformers' in a region that is in dire need. Aside from developing informed youth, there is a need to understand the information needs of rural youth and focus on the priority areas of rural youth, which is imperative for the growth of the agricultural sector. There is a need to break the stigma of disappointment prevailing in rural youth about agriculture as a profession.

It is evident from different studies that almost one-fifth of the population of the developing world is youth; this youth population will continue to rise in coming decades (Proctor & Lucchesi 2012). Due to this rising population of youth, migration of youth from rural areas to urban areas will become alarming and this migration will be for the sake of employment (UN 2013). Because youth are less interested in the agriculture sector for their livelihoods (Bezu & Holden 2014), it is beneficial to launch capacity development programs for youth to motivate and engage them in the agriculture and allied sectors for sustainable development, poverty reduction, and food security (Hunt et al. 2011). Moreover, rural development also relies on youth participation for sustainable improvement in livelihood and living standards. Thus the government should initiate rural youth supportive policies to activate youth in agro-based income generation activities and to generate self-employment and improve household income (Butt et al. 2011). With the help of training programs, rural youth could be engaged in a better way for agricultural development by providing them agro-based livelihoods (Yaseen et al. 2015).

The rural youth experience variety of hurdles while accessing livelihood opportunities. This includes the unavailability of proper services and networks. There is a broad need to implement strategies for rural youth to engage them in agricultural activities (Porter et al. 2008). The youth is experiencing many challenges and hindrances in adopting the profession of agriculture. One of the main constraints in Pakistan is the economical or financial condition of the country. Due to economic issues, youth prefers migration towards cities (Ghanem 2015). Empowering youth will enhance the quality of the living conditions that can be gained through different programs in this regard (Ledford et al. 2013; Zimmerman et al. 2018). It is a huge challenge for the field of agriculture to keep youngsters involved in agriculture to improve the production and profitability of the country. For agriculture to grow in a country, rural youth is important. The main reasons are that rural youth are brave, motivated, determined, and energetic and can bring new ideas that will help in agriculture (Ahmad et al. 2005). Training programs can help enhance the capability of the rural youth and improve their knowledge regarding the field of agriculture. Training helps in transferring innovative knowledge, skills, and technology to youth that help in enhancing the efficacy and productivity of agriculture (Ogundele et al. 2012). Training needs assessment is a way to find out the rural youth's interests and needs according to their situation and to provide them with a curriculum that is best suited to their situation (Lynton & Pareek 2011).

Therefore, it is imperative to assess various needs of rural youth to improve their vibrant role in the development of economic, social, and cultural conditions of rural youth in Pakistan. As the training programs for rural youth could help to cope with advanced skills and competencies in generating agro-based income sources and other income generation activities on a sustainable basis. After ensuring this, the income of rural families will increase, living conditions will become better, the societal status will flourish and food security will be accomplished. As a result, unemployment, poverty, and food insecurity risks will be reduced.

### **Methodology**

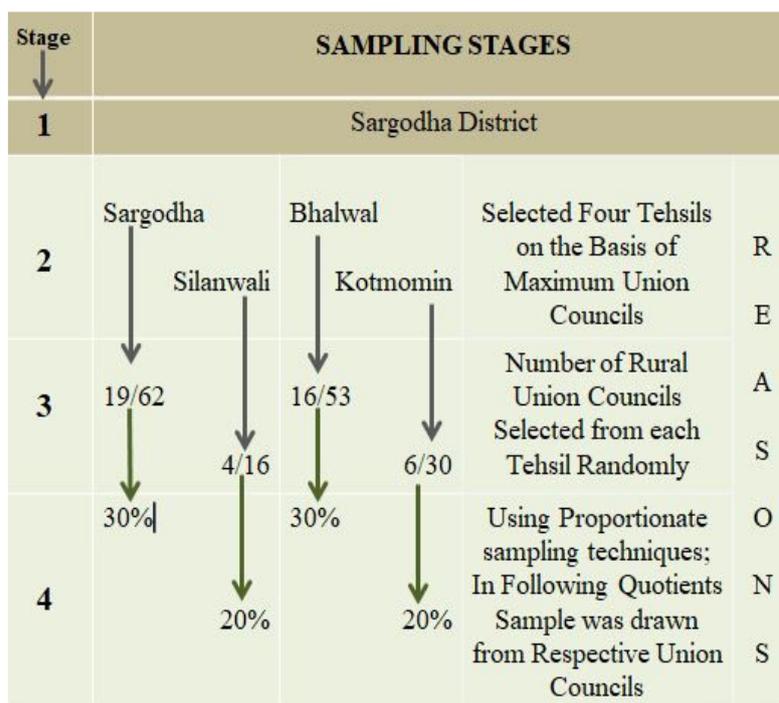
Rural Youth aged 15-24 years living in the Sargodha district were considered as the population for this study. District Sargodha has 7 tehsils (administrative unit/sub-district) including Sargodha, Silanwali, Sahiwal, Kotmomin, Bhalwal, and Shahpur. Purposive sampling technique was adopted for the selection of four tehsils having maximum Union Councils (UCs): Sargodha, Kotmomin, Silanwali, and Bhalwal. Out of 62 UCs in tehsil Sargodha 19 were selected. Tehsil Bhalwal has 53 UCs and 16 were selected. From tehsil Kotmomin six UCs were selected out of 30 UCs. In the case of Silanwali four UCs were selected from 16 UCs. All the union councils were selected through simple random sampling. The percentage of selected UCs from each tehsil is given in Figure 1. Following Bell et al. (2020), 10 respondents were selected from each Union Council using an equal distribution technique. Thus, a total of 450 respondents were finally selected for data collection from 4 tehsils of the Sargodha district. Figure 1 represents the sample selection procedure.

An interview schedule was developed as the instrument of the study for collecting data from rural youth. Both close and open-ended questions were part of the interview schedule, which was designed keeping in view the objectives of the research study. Five-point Likert-type scales were also used in the instrument to record the opinions of the respondents. Content validity of the interview schedule was checked by subject experts and a preliminary survey of 50 young farmers living in Sargodha was also carried out. The respondents who participated in the preliminary survey were excluded from the final data collection procedure. The collected data were analysed using SPSS and descriptive statistics (frequency, percentage, SD and mean) were employed for data analysis and interpretation of the results.

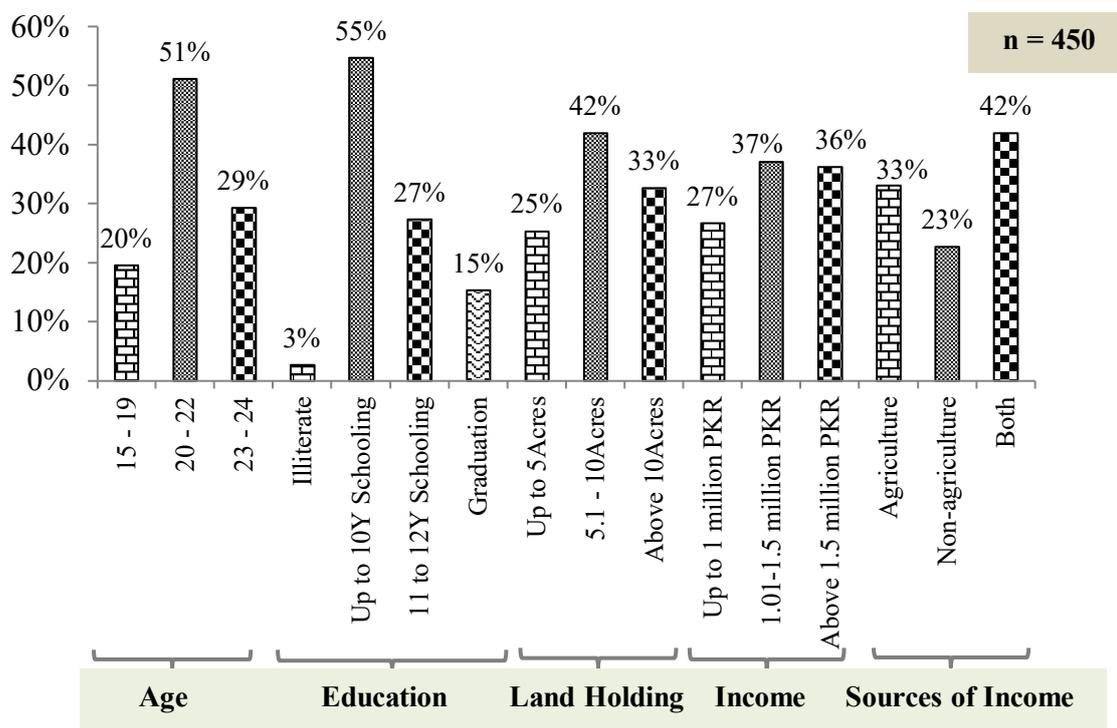
### **Results and discussion**

Figure 2 reveals the demographic attributes of the rural youth living in the rural settings of the Sargodha district. It shows that the maximum number of youth were in the age category of 20-22 years. As for as the educational level of rural youth is concerned, slightly less than half of the rural youth respondents possess education of 10 years of schooling, while only 3% of respondents were illiterate. The findings of Ahmad (2015) also correlate with these findings from the rural youth of Sargodha. Three-quarters of respondents owns more than 5.1 acres (2.1hectares) of farming land. The trend in the income generated by the rural youth of Sargodha is similar to the ownership of arable land (maximum) are earning medium to high income. In Figure 2 it could be seen that PKR1.01 million (AUD 8,400) to 1.5 million (AUD 12,400) and above PKR1.5 million per year is earned by 37% and 36% of respondents. As for as sources of income are concerned (agriculture based, non-agriculture based and both) the highest number of respondents (42%) have both; agriculture and non-agriculture-based income sources, while one-third of respondents rely solely on agricultural income.

**Figure 1. Multistage sampling technique of for sample determination**



**Figure2: Demographic attributes of the respondents**



Access to the latest advancements and the internet makes it convenient for rural youth of this era to receive information. The use of mobile phones has revolutionized the field and provided different outlets that help in creating awareness. According to Table 1, these sources are private extension services, public awareness campaigns, public extension and advisory services, electronic and print media, social media, workshops on agriculture and training sessions. The private sector is more accessed by the respondents as compared to the government sector, as 66.4% of rural youth get information and knowledge for farming activities from private extension

services, whereas, 40.7% of respondents were involved in the public awareness campaigns. From public sources (Government Extension Offices) Almost 40% of rural youth get knowledge. Electronic and print media is a very easy and fast method to get knowledge about agriculture but unfortunately, only 37.3% of rural youth get knowledge from electronic and print media, whereas 34.2% receive information from social media. Rural youth have a lack of interest in agriculture and they don't get the benefit of these sources as they should be. Almost 11.6% attended workshops related to agriculture and 0.7% of rural youth attended training sessions for agricultural information. This suggests that rural youth are not receiving sufficient information related to agricultural practices.

**Table 1: Sources of agricultural information & knowledge for rural youth**

Information sources	%	Freq.
Private extension services	66.4	299
Public awareness campaigns	40.7	183
Public extension & advisory services	39.6	178
Electronic & print media	37.3	168
Social media (Facebook, Twitter, WhatsApp, LinkedIn, etc.)	34.2	54
Workshops on agriculture	11.6	52
Training sessions	0.7	3

Table 2 highlights that most rural youth use local information sources (fellow farmers, marketing agents, and extension agents), although some youth also use cosmopolite information sources (government and private organizations) for agricultural information. Alexopoulos et al. (2009) also stated that rural youth depend on the information sources from where they could obtain face-to-face information. Aside from the fellow farmers and marketing agents as the main sources of information, other sources are less able to meet the needs of rural youth; the needs which have the driving force to advance participation in agriculture.

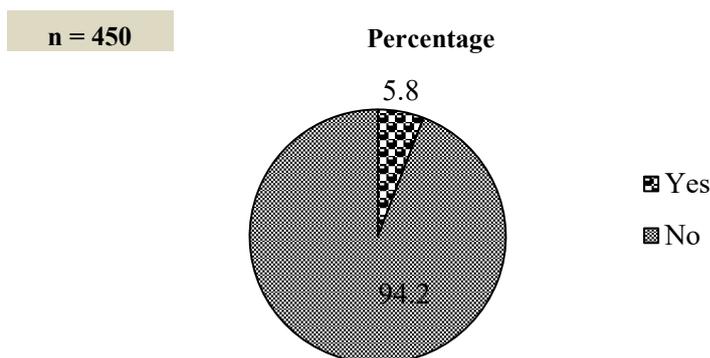
**Table 2: Typology of sources of information**

Typology		%	Freq.
Localite information sources	Fellow farmers	93.8	422
	Marketing agent	80.0	360
	Extension agent	20.2	91
Cosmopolite information sources	Private organization	48.7	219
	Government organization	35.3	159
	Research institutions	17.6	79
	NGO's	11.6	52
Mass media information sources	Electronic media	37.8	170
	Print media	34.0	153

Rural youth was asked about their membership of agriculture societies or organizations. Figure 3 illustrates that majority of the respondents (94.2%) were not members of any agricultural society or organization. Only 5.8% of the respondents were active members of different agricultural organizations or societies. Sometimes we only need a push to kick start or adopt anything. That is the role of these societies or organizations. Making youth aware of the importance of sustainable agricultural practices is a fundamental of its kind. The farming communities with appropriate and functional agricultural societies create more managed, informed, skilled, and organized farming communities (Shinde et al. 2020).

Table 3 depicts the data about the training needs of rural youth regarding agriculture activities. All the training needs gain a mean value above 4 (out of 5), so rural youth agree and strongly agree to gain various agricultural training. The training need regarding 'crop protection' was ranked at first with the mean value of 4.67 and SD of 0.536, which indicates that rural youth is eager to participate in 'crop protection training'. 'Vocational agricultural training' (mean value of 4.65 with SD of 0.529) and 'capacity building of rural youth' (mean value of 4.62 and SD of 0.529) were ranked as second and third by the rural youth. The least rated training needs are 'fisheries and aquaculture', 'marketing transportation' and 'handling of agricultural machinery', ranked as 18<sup>th</sup>, 17<sup>th</sup>, and 16<sup>th</sup> respectively.

**Figure 3: Membership of agricultural societies/organizations**



**Table 3: Training needs of rural youth**

Training needs regarding	Mean	S.D	Ranking
Crop protection	4.67	0.536	1
Vocational agricultural training	4.65	0.529	2
Capacity building of rural youth	4.62	0.549	3
High income generation by agricultural activities	4.54	0.562	4
Vegetable farming	4.52	0.608	5
Crop production	4.51	0.609	6
Kitchen gardening	4.49	0.575	7
Fruit crops	4.41	0.545	8
Decision making	4.37	0.538	9
Pre and post harvesting techniques	4.36	0.678	10
Sericulture	4.30	0.634	11
Cottage industries	4.30	0.662	12
Sustainable agricultural practices	4.29	0.562	13
Apiculture	4.26	0.631	14
Livestock	4.24	0.622	15
Handling of agricultural machinery	4.24	0.721	16
Marketing Transportation	4.20	0.743	17
Fisheries and aquaculture	4.18	0.797	18

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

Managing a small-scale fisheries operation could prove an addition to the income of young farmers. Only motivated young farmers could carry out innovative farming. Rural youth could also be motivated for apiculture, sericulture, fruit crops, kitchen gardening, and livestock as these ago-based activities could help rural youth to generate their livelihoods. Young farmers are lacking in the handling of overpriced agricultural machinery, this costs them thousands for maintenance every year. For minimizing that cost, training in this regard would be a plus. It is clear from Table 3 that each of the aspects related to agricultural activities of rural youth needs training to make them more efficient young farmers.

**Conclusion and recommendations**

The major sources of agricultural information and knowledge for rural youth are 'private extension services', 'public awareness campaigns' and 'public extension & advisory services'. Similarly, the typology of information sources for rural youth includes local information sources (fellow farmers), cosmopolite information sources (a private organization), and mass media information sources (electronic media). Moreover, the majority of rural youth don't have any affiliation to agricultural societies and organizations. As for as the training needs are concerned, 'crop protection', 'vocational agricultural training' and 'capacity building of rural youth' were the most emerging needs of the rural youth in the research area.

Below are few recommendations to streamline rural youth participation in agricultural activities:

- The rural youth should be motivated and encouraged to use multiple information sources and typology to have diversified information related to agriculture.

- There should be agricultural societies and associations to encourage memberships for rural youth for improving their participation in agricultural activities.
- Rural youth should be provided different need-based training (particularly in crop protection, vocational agricultural training, and capacity building of rural youth) to equip them with advanced techniques and skills for improving their farming activities.

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