CHANGING GENDER ROLES IN AGRICULTURE: A QUALITATIVE STUDY OF HUNZA AND SUBURBAN AREAS OF LAHORE

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Abstract
The current study is a comparative analysis with an aim to explore the changing gender roles in the agricultural practices of Lahore and Hunza. The qualitative study design was used to conduct the study. Participants from Hunza and Suburban areas of Lahore were taken for the current research because Hunza is a far-off, less developed area where women are mainly responsible for agriculture and Lahore is a cosmopolitan city with all technological facilities. 12 participants, who were actively engaged with agriculture, with an equal number of men and women were taken from both geographical locations through purposive sampling. A semi-structured interview protocol was prepared keeping in view literature and personal observations, which consisted of 16 open-ended questions. Thematic analysis was the data analysis method. 7 major themes were extracted through analysis namely, Various agricultural tasks and gender roles, decision-making, marketing of crops and financial independence, Cultural Restrictions for Female Farmers, Challenges in Agricultural Activities, Technology and agriculture, and Gender-Oriented Agricultural programs. It was found that females from Hunza made independent decisions regarding crop selection, and new varieties of seed selection but females from suburban areas of Lahore did not find to be engaged at this level. Unlike the females from Lahore, Hunza women sold vegetables in their indigenous markets and had control over their income. Due to cultural restrictions, females from Lahore did not participate in different agricultural programs. Females and males from Hunza participated in agricultural programs due to their availability of time and desire. This research is a valuable contribution to fill in the existing gaps in the literature review and comparing the different roles males and females play in different agricultural activities in both geographical locations and the novel findings related to decision making etc.

Keywords: Agriculture, Crop management, Empowerment, Gender roles, Inequality, Livestock management

INTRODUCTION
A quarter or more of all people on the planet are women farmers. In developing nations, women comprise an average of 43% of the agricultural labor force, varying from 20% in Latin America to 50% in Eastern Asia and Sub-Saharan Africa. However, women have less access to resources, inputs, and services associated with agriculture as compared to men. For a variety of reasons, agriculture is underperforming in many developing nations. One of them is the reality that women don't have access to the tools and opportunities they need to use their time most effectively. Women are farmers, employees, and business owners, yet nearly everywhere they encounter more severe barriers to accessing productive resources, markets, and services than males do. Their productivity is hampered by this "gender gap," which also lessens their contributions to the agricultural industry and the accomplishment of more general goals for economic and social growth. By boosting agricultural productivity, lowering poverty and hunger, and fostering economic development, closing the gender gap in agriculture will benefit society significantly (Eagly & Wood, 2016).
Pakistan is a developing nation with a sizable, diverse rural sector and an overwhelmingly agrarian socioeconomic structure. With around 26% of Pakistan's GDP coming from agriculture, the industry is a significant one for the nation's economy (GDP) and is considered the backbone of the economy.
Agriculture supports 48% of the nation’s labor force and is directly or indirectly responsible for the majority of the population. A little over 70% of those who live in rural areas depend on agriculture either directly or indirectly. It also provides raw materials to companies, markets industrial goods, and generates roughly 53% of foreign exchange earnings. Since agriculture is the backbone of the overall economy’s stability and growth, its importance cannot be overstated (Devkota & Pyakuryal, 2017).

The importance of women’s role in agriculture cannot be denied. In every aspect of agricultural activity, women have played and continue to play a critical role. Women are responsible for chores that are less physically demanding but require more work, (Ishaq & Memon, 2016). In addition to their domestic duties and sociocultural obligations, women have a significant direct and indirect part in agriculture activities.

Women are the central figure in the enormous agricultural socioeconomic setups that make up developing economies, although their participation differs from place to region (Zaheer & Khattak, 2014). Almost all aspects of agriculture involve women actively; in emerging nations, women make up most of the labor force engaged in agricultural work. Female involvement in agriculture is a growing phenomenon, and within it, she engages in a wide range of other tasks that are essential and supportive of increasing agricultural output (Azam & Shafique, 2010).

Males and females play different roles in agriculture. They are involved in land preparation, seed selection, making seed beds, threshing, ploughing, watering, spraying pesticides, weeding, rice planting, and cotton picking. Additionally, females are involved in livestock management and poultry management. They look after calves, goats, sheep, etc. (Begum & Yasmeen, 2011).

The women actively participate and labor side by side with the males in the agricultural sector. Rural women participate equally in almost all of the field operations involved in growing fruits, vegetables, and other crops, including planting, gathering, and storing the local harvests. They participate in all aspects of animal husbandry, including herding/grazing, feeding, cutting and transporting fodder and grasses, cleaning livestock sheds, and other activities in addition to their job in the field. Women are also active in general healthcare, milking, preparing butter and ghee, preserving milk and milk products, and marketing these products (Devkota & Pyakuryal, 2017).

Despite the fact that women make up more than 50% of the global population, their contribution to the creation and management of domestic and national economies has been undervalued and ignored. This is due to the fact that men’s activities are visible while women’s are invisible.

Objectives

- To recognize and categorize the roles of men and women farmers of Hunza and the Suburbs of Lahore.
- To explore if gender roles of farmers have changed over a span of time.
- To find out the level of financial independence of women farmers because of their agricultural output.
- To identify the role of technology in changing roles of individuals working in fields.

LITERATURE REVIEW

Agriculture is a significant growth and poverty-reduction driver, and women are a vital resource in agriculture and the rural economy. Their contribution and engagement in agricultural activities vary from crop to crop and the stage of production (along with their age and ethnic group) but research indicates that generally weeding and harvesting are activities primarily performed by women. Overall, rural women had a heavier load of work than males do, with a higher percentage of manual labor. But most of this labor consists of unpaid domestic chores. Their work in fields is substantial but again it cannot be verified. The participation of women in rural labor markets varied greatly among regions, but they were overrepresented in unpaid, seasonal, and part-time work (Adam, 2018).

Rural men and women both contribute significantly to the agriculture business, including cottage industries, animal production, and crop production. However, they do not have full access to the most recent technical knowledge and information sources, agricultural extension education programs, or other resources. The study, conducted by Khan and Khan (2009) highlighted women’s involvement in...
agriculture development and productivity and the limitations and barriers that our rural women face when trying to access agricultural extension resources. It was determined that the main social restraints encountered by rural women were social constructs, hegemony and indigenous belief systems.

In Pakistan, rural women make up around 50% of the labor force. Rural women’s involvement in agriculture is underappreciated. Gebre et al., (2019) conducted a study to ascertain the participation of rural women in agricultural operations. It was concluded that wives made a noteworthy contribution to the majority of the operations, which included harvesting, binding, and threshing wheat, preparing land for sugarcane planting, sowing, peeling, and binding sugarcane, producing gur, and sowing, weeding, and harvesting rice. However, women made a greater contribution when it came to cleaning seeds and selecting vegetables.

THEORETICAL FRAMEWORK

The theoretical framework of the study is denoted to social role theory (Eagle, 1987). The theory emphasizes that societal norms are the basis for the biased division of labor and the gendered division of labor in agriculture is no exemption. Females in our indigenous agricultural society perform a variety of tasks such as fodder cutting, feeding, watering, milking, ghee production, weeding, and harvesting. Agricultural management is primarily performed by women. Similarly, males perform tasks such as selling crops and fruits, ploughing land preparation, fertilizer application, wheat threshing, fruit packing, and so on. Gender roles are assigned to these roles. These roles, according to this theory, are social roles assigned to males and females based on their position as farmers. Gender roles are dynamic and adaptive, according to social role theory. The stance is also supported by Person (1996). If we apply this theory to agriculture, it appears that men oversee activities that lead to financial gain whereas females assist males free of cost. This results in a division of labor in agriculture and females appear as a socially marginalized group. (Zhu & Chang, 2019).

Research indicates that traditional gender roles and gender inequality are malleable and change over time because of socialization. The socialization process is conducted through family, media, role models, and technological advancement (Bandura, 1969). So, the existence of the phenomenon in agriculture would be investigated along with factors contributing to it.

Rationale

Previous research conducted in Pakistan caters to gender roles in agriculture, but research in the literature on changing gender roles in agriculture was lacking. The phenomenon is important as Pakistan is largely agricultural country This qualitative study was carried out to fill the existing gap and determine whether gender roles in agriculture are changing over time. Taking the sample from Hunza and suburbs of Lahore makes the study comparative on the basis of technologically advanced vs technologically poor, male domination vs female domination and Cosmopolitan vs simple culture.

Research Questions

● What roles males and females are playing in agriculture in Hunza and Lahore?
● How do agricultural products help women in financial independence? If it does?
● How does technology help in changing gender roles in agriculture? If applicable?
● How gender roles are (if) changing in agriculture with the passage of time?

Method

This study set out to investigate how gender has changed its place in agriculture. Participants from Lahore’s Hunza and suburban areas who were actively engaged in agriculture were studied.

Research design

To identify the changing gender roles in agriculture, a qualitative approach was used to gain deeper insight of the phenomenon.

Sample

Sample size was 12 people, with 6 people (3 men and 3 women) from the Lahore suburbs and 6 people from Hunza through purposive sampling. The following are the sample’s specifications:
The individuals in the table are active farmers from the suburbs of Lahore and Hunza. In both places, men possess land, but women do not. The participants came from different castes in the suburbs of Lahore, but in Hunza, caste is not significant because they are recognized by family ancestry.

**Inclusion criteria**
- Both men and women who were taking part in agricultural activities were included in the sample.
- Both men and women who have family land were part of the sample.

**Exclusion criteria**
- Other farmers were excluded from sample.

**Interview Protocol**
Semi structured interview was the technique for data collection. Interview protocol was designed keeping in mind objectives of the research, subjective insights, findings from the literature, and professional judgements. There were 16 questions in interview protocol addressing gender roles, the promotion of farm products, and the impact of technology, decision-making, and the participation of both men and women.

**Procedure**
Prior to conducting interviews, participants' oral agreement was sought, and their confidentiality and privacy were guaranteed. The participants were then given a brief explanation of the goals and purpose. The interviews took place in their mother tongues, and they were tape-recorded with consent. Later, the interviews were transcribed and subjected to a thematic analysis.

**Analysis**
The transcribed interviews were examined using thematic analysis. Thematic analysis is a great tool for linking unrelated concepts. Finding themes is the aim of thematic analysis. The researcher looks for themes in the interview data by conducting a thematic analysis. This approach's main objective is to give the researcher the ability to draw important themes from the unprocessed data. The themes include either significant or intriguing patterns in the data and the respondents' exact words. Connecting themes can be created by grouping themes with similar meanings, experiences, or patterns. Throughout this phase, the researcher becomes acquainted with the transcribed material (Evans & Lewis, 2018).

**RESULTS**
The transcribed interviews yielded the following themes: Seven major themes extracted were various agricultural tasks and gender roles, decision-making, Marketing of Crops and Financial Independence, Cultural Restrictions for Female Farmers, Challenges in Agricultural Activities, technology and agriculture, and Gender-Oriented Agricultural Programs.

**Various agricultural tasks and gender roles**

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**Table 1**

*Demographic of participants (N=12)*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Residential area</th>
<th>Land ownership</th>
<th>Land size</th>
<th>Agricultural experience</th>
<th>Caste</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Lahore</td>
<td>Yes</td>
<td>4 acres</td>
<td>20-22 years</td>
<td>Wattoo</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahore</td>
<td>Yes</td>
<td>2 acres</td>
<td>10 years</td>
<td>Rajpoot</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahore</td>
<td>Yes</td>
<td>8 acres</td>
<td>20- 23 years</td>
<td>Arrayein</td>
<td>1</td>
</tr>
<tr>
<td>Females</td>
<td>Lahore</td>
<td>No</td>
<td>5 acres</td>
<td>20 years</td>
<td>Gujar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahore</td>
<td>No</td>
<td>5- 6 acres</td>
<td>10 years</td>
<td>Awan</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lahore</td>
<td>No</td>
<td>6 acres</td>
<td>29 years</td>
<td>Wattoo</td>
<td>1</td>
</tr>
<tr>
<td>Males</td>
<td>Hunza</td>
<td>Yes</td>
<td>30 kanal</td>
<td>30 -35 years</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hunza</td>
<td>Yes</td>
<td>15-20 kanal</td>
<td>40 years</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hunza</td>
<td>Yes</td>
<td>30 kanal</td>
<td>33 years</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td>Females</td>
<td>Hunza</td>
<td>No</td>
<td>5 kanal</td>
<td>30 years</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hunza</td>
<td>No</td>
<td>45 kanal</td>
<td>30 years</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Hunza</td>
<td>No</td>
<td>50 kanal</td>
<td>Approx.30 years</td>
<td>N/A</td>
<td>1</td>
</tr>
</tbody>
</table>
This major theme had four interconnected themes: male tasks, female tasks, mutual tasks, and hired labor. Males are involved in a variety of activities such as watering, seed sowing, plowing, and fencing, and so on. Males’ tasks were described by participants as follows:

HP2: It is customary for men to sow the seeds and plough. Anyway, cleaning the land and leveling it for growing crops is our (the men’s) job, as is extracting fertilizer from the barn.

HP4: That is a valid inquiry. We cooperate in various fields. Carrying cattle to the mountains for dash is a man’s responsibility; now-a-days tractors are used for ploughing, but in the past, oxen were used. Men level the field after they have ploughed.

LP1: Men sow seeds, prepare the land for cultivation, and plough it with a tractor.

LP2: Men prepare the land, and in order to prepare it, they first water the dry land, then plough it, and finally sow seeds; all of this is done by us, the men. Men are responsible for watering lands, plowing, and extracting fertilizer from barns.

Female chores were the second subtheme. Females were responsible for a variety of agricultural tasks. Vegetable farming and cattle management are exclusively female responsibilities in Hunza. Along with these tasks, they perform other tasks on the farm, such as irrigating, harvesting, and packing of fruits and vegetables, and so on. Males assist females in vegetable and livestock management in Lahore. Few women perform these tasks alone. Females’ tasks were described by the participants as follows:

HP1: Planting vegetables and managing cattle is my responsibility along with weeding, watering and fertilizing fields. Women decide how many cows they want to keep and then looking after them, their feeding, milking, converting milk into yogurt all are solely women tasks.

LP3: We, the women, do the planting and watering. And all cattle-related work is done by women. Women do everything from yogurt production to milking and crop harvesting. Crop cutting is done by both men and women.

The third subtheme of the mutual task was defined by the participants as follows:

HP1: My husband assists me with household tasks such as watering, picking vegetables, and packing fruits.

HP4: Men assist women with storage, and men and women collaborate in harvesting and reaping.

LP1: fodder cutting is men task whereas, women feed it to their cattle. Planting veggies and taking care of them is mutual task.

LP3: We both work together for fodder cutting and harvesting. When crops are ready, there is a lot of work to be done, such as storing and handling. We work together to speed up storing process so that rain or intense heat may not damage crops. Labor is used for a variety of tasks. The following is how the participants described the fourth theme:

HP1: we assign dung collecting and manuring to laborer.

HP2: Either males or laborer collect dung from a barn.

LP2: Ploughing is done with tractors which are operated by males and spraying crops is also solely male job (hired or home men).

LP3: We hire labor for spraying, ploughing, threshing.

Decision Making

The second major theme decision-making process contained five interconnected themes. There are five things which farmer decide about; what to grow and which seed to select (Crop and seed selection); selection and cultivation; what to do with residues of crop and financial decisions (how to arrange and utilize money before, during and after crop cultivation).

What to grow and which seed to use is decision of Hunza women, but in Lahore men decide it. Mostly the financial decisions are taking jointly at both geographical locations. The participants defined the first subtheme as follows:

HP1: We conduct most of the field labor and know which seeds are better and which are best for increasing production, so I make these judgements; if women want to alter seeds, men respect and accept this decision.
HP2: Because they have more information, women tend to make the bulk of decisions in this area. Women discuss farming, crops, and exchange knowledge and experiences with one another to become more knowledgeable.

LP2: Men make the decision to sow new seeds; women can’t decide about it.
LP3: Crops are owned by men and they themselves decide about it, if we ever intervene they don’t consider our opinion. All we do is work.

Marketing of Crops and Financial Independence
The third major theme deals with male and female responsibilities in crop marketing. Crops are sold by men in both areas, but Hunza females sell vegetables and occasionally crops. The participants defined the theme as follows:

HP2: to sell vegetables etc in our vicinity is all women task, contacting fruit seller and handing over things is also done by women but if it is to send outside our area then men are involved.
LP3: It’s all men task. Collecting the crop from fields and selling it in market is done by males.

So far as financial independence is concerned the females from Hunza keep the money they gather from eggs, milk or fruit selling etc. with themselves, but they spend it on house and children. None of the women spend it on their own self. Whereas women from Lahore doesn’t possess personal money but whatever is given to them by husband.

HP1: I am in charge of the eggs, cheese, and milk. In my neighborhood, I sell these items. They come to my house and retrieve the desired items. But I use money on household things.
LP1: Husband gives money to females. Wife is keeper of money.
LP3: Financial decision is made my males. Males keeps money. Females do agricultural work along with males but not get benefits as males. Males give money according to our needs.
LP6: Revenue generated from agricultural products are used for health, education, and for household. I keep money and I don’t spend money on myself.

Cultural Restrictions for Female Farmers
The fourth major theme dealt with females’ lack of bargaining power and females’ unwillingness to sell in Hunza and Mobility restriction of women from Lahore. Hunza Female sell vegetables to indigenous merchants, but they lack bargaining ability. This theme was explained by Hunza participants:

HP2: You should be conscious of the bargaining power of women; I’m not saying that ladies can’t walk outside; I’m just speaking about my society. Our women are simple-minded; therefore, they rarely leave the house because if we sell crops far from home, they won’t be able to haggle.

Participants from Lahore mentioned societal values, which restrict female mobility because it is considered inappropriate for females to converse with strangers. The participants described the underlying reasons that prevent agricultural products from being sold by women as follows:

LP2: Because our society does not allow women to go out, women do not sell.
LP3: Our family believes that a woman's character is tarnished if she commits an act like this. Men should feel ashamed that while they are at home relaxing, their women are out socializing with other men. It is not seen as a positive deed in our family.
LP5: Hijab prevents women from selling.

Challenges in Agricultural Activities
Challenges in agricultural activities was the next major theme. It had three interconnected themes. With fewer crop residues remaining, agricultural responsibility becomes a burden/on-field issue. Females are more affected, according to all Hunza participants, because they are in charge of livestock management. Participants from Lahore stated that the entire family is affected, apart from one participant who stated that males are more affected because they are in charge of all agriculture.

HP2: Generally, it becomes a burden for women; if this is the case, we must make future decisions together. Whether to keep fewer cattle or to purchase the remaining crops from outside sources. Women are notoriously anxious.

HP3: It affects women, and we perform barn-related tasks. If something is required in the barn, it is our responsibility.
LP1: Dear, the whole house suffers.
LP2: If there is no crop surplus, men suffer, but women suffer as well because they must take loans to plant new crops, and instead of profit, they must bear loss.

The second subtheme was Agricultural responsibility as a burden on the farm. The participants discussed problems such as responsibility/burden, expensive labor and extreme weather conditions.

HP1: Agriculture is a tough job no one is ready to take responsibility of weeding, watering, looking after crops and transporting fertilizers to field. My hardest issue is men not taking interest in farming; and hiring labor is even challenging.

Technology and Agriculture

The next major theme was about the influence of technology on agriculture. It was divided into two sections: agriculture before technology and after technology. Most of the participants stated that before technology they had to do manual labor, and that animals were mostly used to lift heavy loads. However, machines have greatly aided farmers in recent years.

HP5: Yes, I recall that when I was younger, manual farming was only available option from ploughing to threshing. Animals were used for many tasks. There were numerous issues at the time.

HP6: Humans with help of animals used to do everything.

LP3: In ancient times, people used their hands and feet to soften land in order to grow crops.

LP4: It has made a significant difference; previously, animals were used, and field tasks were performed solely by men; now, we have machines. Threshing required a large number of people and ploughing required the use of oxen. Now it is much easier.

Gender-Oriented Agricultural Programs

Agriculture programs was last major theme comprising three sub-themes i.e. agricultural projects, females’ lack of knowledge about agricultural programs, and Gender oriented programs. Both men and women farmers from Hunza usually participate in these programs. Female participants from Lahore’s suburbs have no information about agricultural programs, and if agricultural programs are organized, only males participate. Participants defined the first subtheme agricultural programs as follows:

HP2: Yes, there are several such programs, such as EFAD. They provide us with plants and instruct us on how to care for them. They also provide us with tunnels for growing vegetables.

HP5: Such programs are designed for both men and women; tunnel program is women specific, yet we help them in that as well and work together.

LP1: Such programs are useless for us because we know each and everything about crops, seeds etc. we don’t need such programs.

LP5: These programs are only for men.

Gender-oriented programs was last sub theme. It only had one sub-theme. Only male Lahore participants explained this theme. Usually, programs are organized in Lahore for betterment of agricultural activities, they are gender specific, male-oriented programmers.

LP2: Training programs are for men.

LP6: Women never attend such things, and men are present.

Discussion

This research was chosen to designate women, who comprise the majority of the population in Pakistan and play an important role in all spheres of life. Agriculture is one of the major and significant sectors in Pakistan. Where women and men play diverse roles. The study explored these diverse roles in the villages of Lahore and Hunza.

‘Gender roles in various agricultural activities’ was the first major theme. It consisted of the following connecting themes i.e., male and female tasks, mutual tasks, and hired labor. The tasks males performed were sowing, ploughing, field preparation, seed spreading, fencing, grazing goats on the mountain, and watering fields, among other things in Hunza. These results were supported by a report by FAO (2010) which states that males performed different activities such as ruminating cattle in high pastures, ploughing, and digging manure from barns, transporting manure to fields, and watering fields, and making field beds. Males from Lahore’s suburbs did threshing, hoeing, irrigating, grain transport, and other tasks. These results were in line with the study conducted by Ishaq and Memon.
(2016) in Punjab, males did land preparation, fertilizer application, winnowing, watering, watering management, and irrigation.

The second subtheme female's tasks from Hunza were vegetable management, livestock management, weeding, making vegetable beds etc. Females are solely responsible for livestock. They oversee everything in the barn. These results were supported by FAO (2010) report stated that including spreading manure, collecting fodder, weeding, harvesting, vegetable, and livestock management, and milking cattle, making lassi, making ghee, bargaining calves.

Females in suburban areas of Lahore appeared to be involved in different tasks like fodder cutting, cotton picking, planting rice saplings, vegetables cultivation for household use, seed cleaning. These results were in line with the study by Ishaq and Memon (2016) stated that females from Punjab involved in different tasks some of them were weeding of vegetables beds, cutting fodder for cattle, cotton picking, making dung cakes, making ghee and lassi, storing of grains, etc.

The participants from Lahore discussed hire labor for different activities such as digging manure from barns, taking manure from barns to fields in baskets or in wheelbarrows, threshing, and sometimes ploughing by tractors if oxen were unavailable and picking and packing of fruits. While in Lahore labor was hired for fertilizer application threshing. These are new findings from our study that will serve as a foundation for future research and fill a gap in the literature.

The participants of Hunza described mutual labor was done for picking fruits, harvesting potatoes and threshing, and watering fields. while in Lahore mutual labor was done for fodder cutting, sometimes weeding of vegetables bed, and storing of grains in house. These were new findings of our study and serve as literature for further studies.

The next major theme was decision making. It had a connecting theme, i.e., the introduction of new crop varieties and seeds, crop cultivation, land choice, and crop remains, and financial decisions. Females Hunza decides which seeds should be cultivated, including the introduction of new variety of seeds because this job was considered as female domain, and they have knowledge about better seeds. While financial decisions were made mutually, and the money spent on educational purpose, health, and household use. These finding were new to our study and provided base for literature for further study.

In suburban areas Lahore males made decisions regarding all agricultural activities like introduction of new varieties of seeds, land selection of crop cultivation, seed selection and sometimes financial decision were made jointly. The study results were supported by Pandey et al (2011) a concluded that males in Punjab were sole decision makers in cropping pattern, marking.

The next theme was Marketing of Crops and financial Independence. Buying and selling of agricultural produce in Hunza was done by both males and females and this was narrated by FAO (2010) Report i.e., females sell vegetables like cucumber, tomatoes, potatoes, cherries to local merchants. They had information about the local merchants and had the idea about the costs. Males additionally bargain agricultural produce in markets outside villages, but females did have restriction regarding selling outside village. While females in suburban areas of Lahore are not permitted to sell agricultural produce due to the cultural norms and purdah system. These finding were supported Aggarwal et al, (2013) agricultural marketing was considered male responsibility and females were not allowed to talk to external males due to purdah system.

The next theme was Cultural Restrictions for Female Farmers. Females in Hunza are usually engaged in selling of crops, milk, cheese and eggs but they are restricted to nearby vicinity only due to lack of bargaining power and self-confidence. Moreover, their males don’t like them to go to far flung places for selling crops. Female farmers of Lahore are not engaged in any such activity because it’s a social taboo for them. Moreover, mobility restrictions also play a role in this scenario. It is against cultural norms to talk to male strangers by females that’s why females were not allowed to talk to external males due to purdah system.

The next theme was challenges in agricultural activities. The participants face different problems due to different geography. Water scarcity effects Hunza and expensive labor in suburban areas of
Lahore. Females in Hunza faces problems when less crops residues left because they are responsible for barn. Extreme weather conditions effects Lahore i.e., insects attack hot weather etc.

The second last theme technology and agriculture summed up pre and post technology conditions of agriculture; people in both areas did manual labor and relied on animals to perform various agricultural tasks. It took more effort and time. Animals have recently been replaced by various machines. The development of a road network makes it easier to sell crops and vegetables.

The succeeding theme was Gender-oriented agricultural programs. It had connecting subthemes, such as agricultural projects and male, female participation. In Hunza agricultural schemes were conducted by Agha Khan Rural Support Program and International fund for Agricultural Development. Males and females participate according to their availability of time. Females are allowed to participant such programs and there is no restriction. These are novel to our study and provides base for further studies as literature. While in Lahore agricultural schemes are rarely arranged. Female don’t have information regarding such schemes, if arranged males take part in such schemes females are not allowed. These results are in line with the results of Begum and Yasmeen (2011) who found that females are not allowed to join different agricultural trainings and they receive secondhand information. The information was given by immediate family members friends. Khan & Khan (2015) further concluded that females face different challenges in agriculture due to lack of agricultural trainings, lack of financial decisions.

CONCLUSION
The goal of this study is to understand changing gender roles in agriculture. For this purpose, 6 participants from suburban areas of Lahore and 6 participants from Hunza were purposively recruited who were actively engaged with agriculture. The results indicated that males and females were involved in different tasks as vegetable management, weeding, fodder cutting, and livestock is considered a female zone. Females from Hunza sells agricultural products to the local merchants and the revenues generated are used for household expenses like educational and health purposes. Women are gaining financial independence, but they are not saving for themselves and instead spend it on others. Due to cultural restraints females from suburban areas of Lahore were not permitted to sell agricultural produce to strangers, they were not allowed to talk to strangers. Females of Hunza made their own decision regarding changing different seed varieties, seed selection and land selection for cropping but females from suburban areas of Lahore were not allowed to make such decisions, males made decisions, and females were supposed to obey males' decisions. Gender-oriented programs are not frequently arranged in Lahore and if any females are not permitted to participate but gender-neutral programs are arranged in Hunza where males and females participate according to availability of time.

REFERENCES


